



2014-2015 Facilities Assessment and
Deferred Maintenance Capital Planning Report
Phase 3 Update



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Purpose of the Study

This Facilities Assessment and Deferred Maintenance Capital Planning Study were performed to accomplish the following objectives:

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

Mission Statement

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, tolerance, 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.

Observations/Recommendations

Refer to the glossary for definitions and to page 7 for detailed information.

When averaged together, the assessed campus facilities show two distinctly different condition ratings depending on the priority of the observed issue:

The average Priority 1 Facilities Condition Index (FCI) is just under 4%, considered “good” per the APPA rating system. This time frame only looks at issues of high priority, typically very few items.

The average FCI for the combined Priority 1, 2 and 3 values – essentially the issues that are projected to become a high priority over the next five years – is significantly higher: just over 13%, putting facilities, on average, in the “poor” condition category. This jump in FCI is typical for most campuses and is the nature of building system aging.

The investment solution has two facets:

- The funds needed for immediate repair projects – repairs and/or replacements that will prevent further deterioration of the buildings and infrastructure.
- The funds required to maintain and/or improve the condition of the buildings. These funds need to be budgeted in advance to allow for repairs at the appropriate time - before items become critical or cause additional damage. We propose the following:

Short Term Recommendation

HFC should review the items that comprise the Priority 1 Deferred Maintenance Backlog of \$7.5 million and first address those affecting life/safety issues, those having the greatest potential for future damage to other building components, those that are code compliance issues, and critical mechanical and electrical issues.

Long Term Recommendation

If no further deferred maintenance repair is done, the FCI may increase to over 13% within five years. HFC should consider how to best address the cumulative \$27 million in issues through a combination of repairs, replacement and strategic renovation of select buildings to address program change and facility condition simultaneously. Even spread over 5 years, this total could require a budget plan in excess of \$5 million annually – a difficult financial challenge.

Maintenance Recommendation

Ideally, addressing long term facility maintenance means allocating adequate funds for ongoing maintenance and set-asides for high-dollar system repair/replacement at the appropriate interval. To accomplish this, allocating approximately 2%-3% of the Current Replacement Value is a desired benchmark. This report uses the lower 2% value – resulting in a facilities funding goal of approximately \$4.1 a year. While few institutions find this level of funding reachable, it is important to strive to attain as close as possible to this amount to ensure:

- Adequate funding for annual building maintenance, exclusive of catastrophic and atypical equipment failure.
- Adequate reserves for future equipment replacement and expected building system replacement (i.e. roofs, boilers, etc.)

Glossary

Following are definitions of terms used in this report.

Vital Statistics

Basic building information– building use types (i.e. housing, classroom, library, and administration), year built, building area in square feet, and number of floors.

Observation Highlights

This is a partial list of field observations highlighting major repair/replacement items and recently completed work. For a more complete list of field observations, see the individual building database sheets in the appendix.

Current Replacement Value (CRV)

The CRV is the cost to construct a replacement building in today's dollars. The figure is based on the square footage of the current structure and the estimated current construction cost for that type of structure. Since some buildings are conglomerations of different uses (i.e. classroom, library, administration) the CRV is based on estimated proportions of use types in each building. By the nature of the calculations and square foot construction costs, the current replacement value has a ±20% margin of error and will likely increase annually due to inflation.

Priority 1 Deferred Maintenance Backlog

The Priority 1 DMB represents the value of projects that have been deferred and require completion in order to maintain facilities and related infrastructure for their safe use. The Priority 1 DMB amounts shown are for items requiring immediate attention to fix critical problems. *A long-term investment strategy should also include items that require repair or replacement within 5 years, thus avoiding the collateral damage and increased repair costs resulting from deferred repairs (i.e. leaky roof damaging interior finishes).*

Facilities Condition Index (FCI)

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



The Association of Higher Education Facility Officers (APPA) – the organization whose standards were used to develop this system of facility assessment – recommends that the FCI for any given building should not exceed 5% for the building to be considered in “Good” condition. The rating of “Fair” indicates that the building requires some attention to bring it up to standard, with some problems areas potentially requiring immediate attention. The rating of “Poor” indicates that the building needs urgent attention to prevent the existing problems from affecting other building systems and compounding future repair costs.



The APPA FCI Ratings, indicating the general condition of the building, are shown here along with the corresponding “traffic signals” that give a quick visual indication of the FCI rating.

Priority 1 DMB Excess

This represents the amount the DMB exceeds the APPA benchmark of a building with a 5% FCI – essentially the dollar amount to be spent immediately to reduce the DMB to attain the APPA rating of “Good”. In situations where a building is in better than “Good” condition (FCI<5%), the Priority 1 DMB excess is shown as zero.

For example, if a building has a CRV of \$1,000,000 and an FCI of 10%, the DMB would be \$100,000. This would leave a DMB excess of \$50,000 – the amount to be spent to reduce the FCI to within the APPA 5% benchmark

Priority 1-3 Deferred Maintenance Backlog

Similar to the Priority 1 DMB, the Priority 1-3 DMB represents the total value of projects that will require attention within the next five years, including those that fall under the Priority 1 DMB. This value is included to help determine the investment required over the next five years to repair and/or replace problem items before they become critical.

Looking at the previous example, if the building condition survey indicated an additional \$250,000 in repairs from years 1-5, then the Priority 1-3 DMB would total \$350,000 (including \$100,000 from the first year).

Priority 1-3 DMB Excess

Similar to the Priority 1 DMB Excess value, this amount represents the investment to bring the DMB in line with the APPA benchmark of 5% of the Current Replacement Value. In situations where a building is in better than “Good” condition – a bit more difficult over a five year span, the Priority 1-3 DMB excess is shown as zero.

This number is a good starting point for determining budgets – it allows the facility managers to see what to spend to bring buildings into the APPA “Good” range – with the understanding that complete elimination of the Deferred Maintenance Backlog is not a likely scenario.

Important Note about DMB Excess

The correlation between the FCI and the DMB Excess (where an FCI less than 5% means no DMB Excess) is true for individual buildings, but not true when all facilities are averaged together.

Although the aggregate FCI is calculated as an average, the total DMB Excess is calculated not by averaging, but by adding each building’s DMB Excess together. This avoids the problem of a new building, in good condition, masking the high maintenance costs of another building in poor condition.

DMB Equilibrium (Annual cost to maintain current DMB)

This is the dollar amount to be invested annually to keep the FCI (and DMB) from deteriorating – regardless of the current condition of the building. Reusing the previous example, the amount required to maintain the FCI at current levels would be \$30,000 annually (3% of \$1,000,000). The number is based on a nationally accepted rule of 3% of the CRV and assumes that building components have a 50-year renewal cycle and depreciate along a straight line. The assumptions were made to simplify calculations; in reality, building components DO NOT expire according to straight-line depreciation, and most components will require replacement within 30-40 years (excluding structure and foundation).

To restate – this annual investment will only maintain the existing FCI and do little or nothing to reduce any existing backlog.

Building Use Types

The table to the right shows the building use types in this assessment and their respective current construction cost per square foot. This cost is based on the construction costs for similar projects and regionally weighted data from cost estimating services. Due to the range of construction methods, these values are assumed to have a $\pm 20\%$ margin of error.

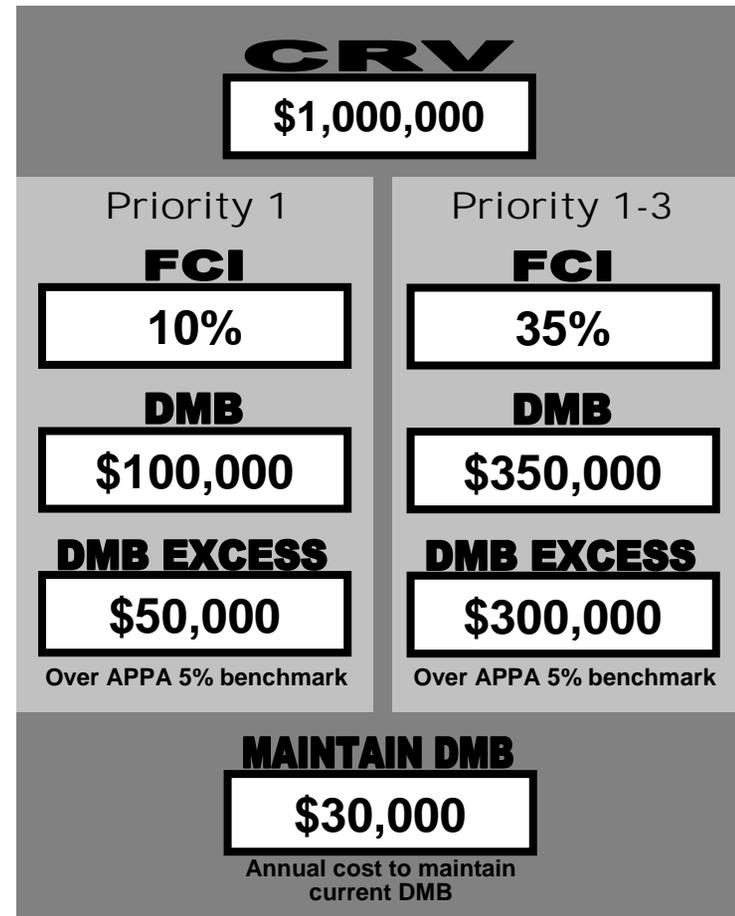
Use Type	Cost/SF
Classroom	250-295
Lab/Sci/Tech	290-300
Office/Support	250
Light Const.	220-230
Union/Food Svc.	290
Athletic	250
Library/Res. Center	250

Building Components

The table to the right shows the building components used in the report. These are the basic components having a major influence on the replacement value of a building. The buildings were evaluated during walk-throughs with facility personnel to determine the overall condition of each system and any important issues that should be addressed.

Category	Component Name
Structure	Structure
Envelope	Roof
	Exterior Materials
	Windows
	Doors
Mechanical	HVAC Equipment
	Plumbing
	Power
Electrical	Emergency Power
	Lighting/Controls
	Voice/Data
	Interiors
	Walls
	Doors
	Floors
Code	Building, Fire, ADA, Elevators
Other	Immediate Site, etc.

This data is used to determine the investment required to reduce the current and future deferred maintenance backlog.



Example of how the aforementioned data appears in this report

Deferred Maintenance Backlog

A Brief Background

The problem of deferred maintenance at colleges and universities has been studied and better understood over the last decade. From an article by Dan Hounsell, in the magazine Maintenance Solutions, discussing how universities are addressing the issue of deferred maintenance:

“Maintenance management professionals, who once seemed to be one of the few parties giving serious thought to the issue, now have been joined in the debate by growing numbers of sympathetic voters and far-sighted facility decision makers.”

The Association of Higher Education Facilities Officers (APPA) concluded in a 1995 report titled “A Foundation to Uphold: A Preliminary Report” that the national backlog of deferred maintenance at colleges and universities exceeds \$26 billion, up 27 percent from estimates made in a similar report from 1988.

\$5.7 billion of that \$26 billion backlog is classified as “urgent deferred maintenance” – projects that require immediate attention and that will cost far more if they are not completed within a year. Although spending this sum will eliminate current urgent needs, in only a few years there will be a new roster of items to replace them – if future budget planning is not undertaken. According to the APPA report, the current backlog “represents a threat to the capability of higher education facilities to support college and university missions.”

Other conclusions from the report include:

- More than 50 percent of all college types reported that deferred maintenance increased or stayed the same since 1988; only 25 percent reported decreases.

- 20 percent of the colleges in the study accounted for nearly 60 percent of the accumulated deferred maintenance.
- Public colleges typically have a greater deferred maintenance backlog than private universities, with 78 percent of the public research universities reporting an increase in deferred maintenance backlogs.
- By assuming that deferred maintenance of infrastructure – site repairs, road and parking lot maintenance, exterior lighting, etc. – was not included in the figures provided by the campuses in the study, the estimated cost to eliminate accumulated deferred maintenance increases to \$32.5 billion – with urgent needs increasing to \$7.1 billion.
- When senior school administrators made deferred maintenance a priority, the institution made progress in reducing its backlog.

The most important point to remember is that even if universities and colleges spend these amounts, this will only eliminate the existing deferred maintenance backlog. There needs to be a coordinated, funded plan put into place at colleges and universities to maintain the condition of the facilities once they have been repaired – or time will again take its toll.

Building Summary - Vital Statistics

Henry Ford College Facilities Assessment

This report was completed in three phases, with a total assessed area of nearly 750,000 square feet and a replacement value exceed 206,000,000. Assessed buildings range in size from 7,100 SF to nearly 170,000 SF, and age from 1960 to 1998 (there are newer buildings, but these were not included in the study). Many buildings are a combination of 1960 original and newer addition, leaving a few with a very complex mix of HVAC and electrical systems.

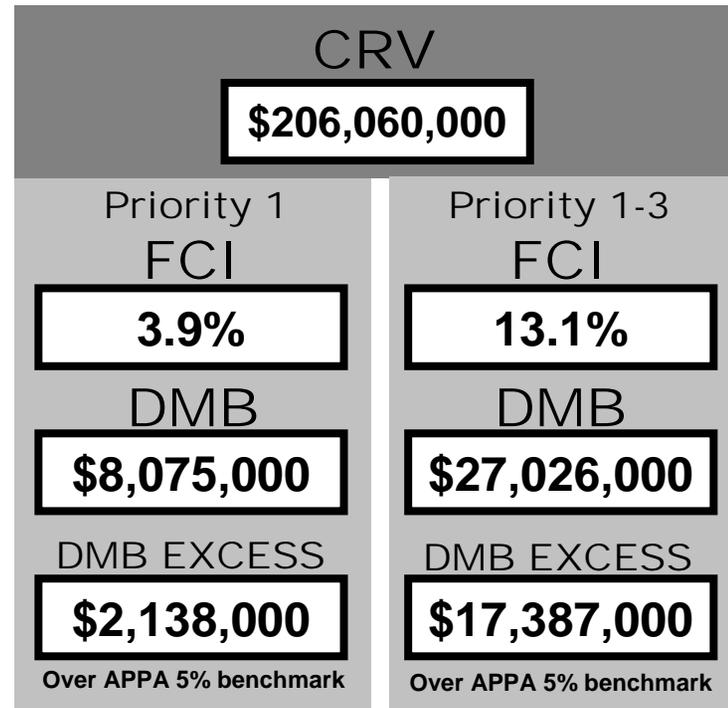
This report addressed both a snapshot of high priority issues – those that should be addressed first, and long-range issues – those that should be watched and have a repair/replacement fund budgeted.

Systems that turned up as immediate issues typically included electrical issues that pose a safety hazard, active water infiltration, roofs well past their expected life and potential tripping hazards. In particular, the Liberal Arts Building, the College Store and the Technology Building have many high-priority issues. The condition of the central chiller and the electrical equipment in the Liberal Arts Building is noted as very important to address for safety and operations. The FCI average for Priority 1 Issues is just under 4% (\$8.1 million), considered good by APPA standards, but only addressed those limited issues that must be dealt with immediately.

When looking forward over five years, the typical issues focus on systems that, while currently functioning, are at or past their lifespan, a challenge to maintain, or unable to ensure protection of the condition and integrity of the building envelope. The result is the FCI jumps to over 13% (over \$27 million in potential issues)

These items include mechanical systems in many 1960 era buildings; damaged original precast concrete exterior walls; roofs that are near end of life; original electrical panels; original, worn carpets; and problematic plumbing piping or valves. Several newer buildings have problematic HVAC systems that struggle to maintain temperature in the winter (Technology, Health Sciences, ASCC) or window systems that need regasketing or complete reconditioning (Health Sciences, ASCC).

HVAC systems are as well maintained as possible with available resources, however many are too old to keep running cost-effectively for much longer. Roofs (like the elevators), are now on a maintenance contract, ensuring leaks are found and repaired to help prolong the life of the roof. The electrical system is scheduled for an upgrade to 13,000V. Heaved, cracked and damaged concrete walks are being replaced on a regular basis.



MAINTAIN DMB

\$4,121,000
Annual cost to maintain current DMB



Priority 1



Priority 1-3

Vital Statistics

Liberal Arts Building

Use Type(s): General Classroom, Office

Built: 1960

Area: 104,046 GSF

Floors: 3 (plus basement)

Building Description:

Constructed in 1963, the Liberal Arts building is a three story building with a basement level. The building has a total gross square feet of 104,046 and it houses general classrooms and offices for the Liberal Arts Department. It is a pre-cast concrete building with a concrete column and waffle slab construction. The windows and fire alarm and emergency lighting systems were replaced in 1993. The building is connected to the Science Building at the Lower Level and connected to the Power House via a walk-thru utility tunnel.

Observation Highlights:

- Many of the building systems are original to the building and have by far exceeded their life expectancy.
- Exterior sidewalks and elevated structures are showing significant signs of wear and failure.
- The single-ply roofing system is past its useful life and the insulation below is spongy. The overall condition of the roof is poor.
- Interior finishes, such as the wall paint and ceiling tiles, are in poor condition and due for replacement.
- The exterior aluminum doors are in poor condition and have failed.
- HVAC system and electrical systems are well beyond their useful life.



CRV
\$30,173,000

Priority 1	Priority 1-3
FCI	FCI
9.3%	29.6%
DMB	DMB
\$2,819,000	\$8,932,000
DMB EXCESS	DMB EXCESS
\$872,000	\$6,415,000
Over APPA 5% benchmark	Over APPA 5% benchmark

MAINTAIN DMB
\$603,000
 Annual cost to maintain current DMB

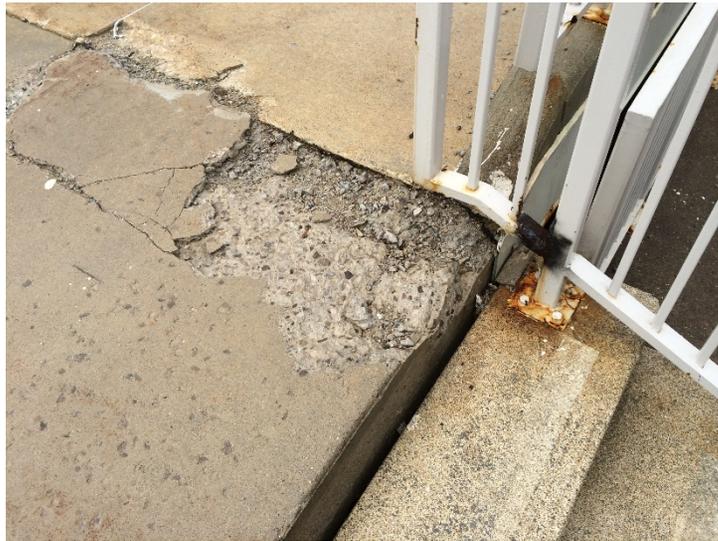


Priority 1



Priority 1-3

Liberal Arts Building
 Facility Highlights



Site steps and supporting structures are failing.



Water damage and infiltration at HVAC system louvers.



Wooden-structure cooling tower is original to the building and in extremely poor condition.



Electrical substation and power distribution equipment is severely corroded due to water infiltration.



Substation feeders and conduits are severely corroded due to water infiltration and wrapped in plastic as a temporary fix.



Air-Handling Units are original to the building and well beyond their useful life.



Wash fountains in toilet rooms are not compliant with ADA.



Site pavers surrounding building are cracked, heaving and deteriorated.

Summary:

The Liberal Arts Building, when originally constructed was constructed of appropriate durable materials. However, its age and significant deferred maintenance has created concern as to the “return on investment” of the “patching-up” of this somewhat preserved structure.

Many of the building systems have exceeded their life expectancy, in particular, much of the exterior sidewalks and elevated structures, the single ply roof system, the lay-in ceiling systems on the lower floors, exterior aluminum doors, as well as the majority of the mechanical, electrical and plumbing systems which are original to the building.

The facility has accessibility issues including non ADA-compliant toilet rooms and plumbing fixtures as well as accessibility issues in the basement auditorium space.

The elevated walkways of the surrounding site as well as the plaza require significant repairs.

The building structure has only minor superficial patching with no reported issues.

The Owner indicates that the mounting hardware of the exterior precast concrete panels may be rusting due to water infiltration and will need replacement.

The exterior windows were replaced approximately 15 to 20 years ago. With the exception of window caulk replacement, the windows are in fair condition.

The Vinyl Composite Tile (VCT) was installed over the Vinyl Asbestos Tile (VAT) throughout the building in 2012. Because the VCT was installed over the top of VAT, it is likely that the VCT will not last as long as expected and replacement will be needed within the next 10 years.

The HVAC equipment within the building – including wooden structure cooling tower on roof, constant-volume dual duct air-handling units in basement, and dual duct mixing boxes throughout – are original 1960’s vintage, well beyond their useful life and outdated, inefficient technology. While some HVAC systems have been retrofit with a modern DDC control system for energy management, the majority of the controls in the occupied spaces are still pneumatic Operating and maintaining these systems is very costly. The equipment has been well maintained and is still operational, but plans should be made for replacing this equipment as soon as possible.

Most of the plumbing fixtures and faucets are past their useful service lives.

The building’s electrical gear is well past its useful service life. Casings are corroded and pose a safety hazard.

A Fire Alarm System was installed in 1993, however there is no wet-pipe fire protection system. A standpipe with fire hose stations is located on each floor.

The bulk of the facility’s electrical power distribution equipment is original to the building and in poor condition. Equipment is well past its useful life and in some cases lacking modern safety features.

Recommendations:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$2.8 million as soon as practical to address the following Priority 1 issues:

Immediate Site, Exterior Lighting, etc.

- Repair or replace metal railings around building's exterior.
- Elevated concrete walkways are showing signs of significant water damage and must be repaired.
- Repair the concrete slab at the South entry that is negatively pitched and causing water to flood the vestibule.
- Repair or replace significantly cracked and deteriorating concrete pavers surrounding the building.
- Repair or replace concrete steps and supporting structures that have deteriorated significantly.

Roof

- Roof is past its useful service life and is in poor condition. Insulation below roof membrane is spongy. Replace entire roof.

Glazing

- Water and air infiltration is present at the windows on the Northwest side of building. Windows need to be repaired, caulked and sealed.

Doors

- Exterior doors are past their useful life and door hardware is failing. Replace all exterior doors.

HVAC

- The roof-mounted cooling tower is well beyond its useful life, is in extremely poor condition and is outdated, inefficient technology. Replace cooling tower with new.

Electrical

- Much of the building's main electrical gear and power distribution equipment is original to the building and well beyond its useful service life. Also, evidence of significant water damage is present on main gear and conduits. Replace equipment.
- Basement lighting is showing signs of significant water damage and salt build-up. Replace lighting.
- Lighting levels in mechanical and electrical rooms is inadequate and potentially unsafe. Replace lighting to increase lighting levels.

Plumbing

- Urinals don't drain well due to scale and build-up in drain piping.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$2.8 million needed for immediate repairs, the College should allocate an additional \$6.1 million to address the following over the next few years:

Structure

- Repair cracking at the southeast corner of the foundation.

Glazing

- Overall window caulking is deteriorating and is in need of repair within the next 5 years.

HVAC

- HVAC Louvers are rusted/corroded and deteriorating. Replace louvers.

- HVAC equipment – air-handling units, ductwork distribution, dual-duct mixing boxes, and controls – is original to the building and well beyond its useful service life. Replace HVAC system in its entirety.

Plumbing

- Toilet room fixtures are not compliant with ADA requirements and are high consumers of water. Replace fixtures.
- Each toilet room has its own electric water heater. Heaters are nearing the end of their useful service life. Replace with new heaters or a central domestic water heating system.

Electrical

- Electrical equipment rooms and electrical raceways are full and there is no room for additional equipment to service new loads. Space and equipment should be reconfigured to allow for spare capacity.

Walls/Cabinetry

- Interior surfaces were painted in 2012 but paint is peeling because surfaces were not properly prepped for painting. Prep and paint interior walls.

Building, Fire, ADA, Elevators

- Upgrade toilet rooms so that they are compliant with ADA requirements.
- Modify basement auditorium seating to provide an accessible area for persons bound to a wheelchair.
- The building does not have a wet-pipe fire suppression system. Consider adding in the next major renovation.

Vital Statistics

Eshleman Library Building

Use Type(s): Library, Office

Built: 1960

Area: 46,587 GSF

Floors: 2 (plus basement)

Building Description:

The Eshleman Library was constructed in 1960. It is a two story building with a basement level. It is a brick veneer building with a concrete column and waffle slab construction. The Library was expanded to the South in 1997 at the same time that the LRC was constructed to the Library's North. The building is dedicated almost entirely to library stacks, study spaces and library resources.

Observation Highlights:

- The building's elevator is past its useful life and is failing.
- Concrete slabs at East and West entrances are heaving.
- EPDM roof is past its useful life and due for replacement. The expansion joint between the Library and adjacent LRC roof has holes in it.
- The exterior brick veneer has some staining that should be cleaned and requires some minor tuck-pointing.
- Paint is peeling on waffle slabs throughout the building, likely because the surface was not properly prepped before paint was applied.
- Throughout most of the building, the carpet is significantly worn and due for replacement.
- The building's air-handling unit is original to the building and therefore well beyond its useful service life. They system is also outdated, energy inefficient technology.
- Electrical gear is past its useful service life.



Priority 1



Priority 1-3

CRV

\$11,647,000

Priority 1	Priority 1-3
FCI	FCI
4.6%	17.4%
DMB	DMB
\$536,000	\$2,027,000
DMB EXCESS	DMB EXCESS
\$ 0	\$1,445,000
Over APPA 5% benchmark	Over APPA 5% benchmark

MAINTAIN DMB

\$233,000

Annual cost to maintain current DMB



Eshleman Library Building
Facility Highlights



Concrete slabs heaving at East/West entrances.



Peeling paint on waffle slab structure.



Carpeting is worn and due for replacement.



HVAC equipment is original to building and past its useful service life.

Summary:

The Eshleman Library Building is in fair condition and has aged past the useful service life of many of its systems. While these systems are operational, they should be scheduled for replacement.

Systems which are due for replacement include, the single ply roof system and expansion joints, carpeting and ceiling paint throughout the building, as well as mechanical and electrical systems that are original to the building.

The elevator is in poor condition and must be replaced.

Each toilet rooms contains an ADA complaint stall. Main corridors and entry appear ADA compliant.

The site is comprised of concrete sidewalks and lawn area that are in good condition. However, the concrete stoops at the east and west exterior doors have heaved and must be corrected.

The building structure has no reported issues.

The masonry of the building envelope is in good condition with only minor tuckpointing necessary.

The exterior windows are a combination of original and replacement casement windows with no reported issues.

The painted exposed ceilings have peeled throughout the building and must be prepped and repainted.

The interior walls and millwork are in good condition with no reported issues.

As part of the LRC additions in 1997, some of the heating hot water equipment in the basement level was upgraded, but the air-handling systems are original to the building and well beyond their useful service life.

Much of the main electrical gear and approximately one half of the buildings electrical distribution equipment is original to the building. Equipment is well beyond its useful service life and

lacking modern safety features. Replace electrical gear and outdated distribution equipment.

Recommendations:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$536,000 as soon as practical to address the following Priority 1 issues:

Roof

- EPDM ballasted roof is past its useful service life and expansion joints have holes in them.

Ceilings

- Paint is peeling on concrete waffle slabs.

Floors

- Carpet throughout building is significantly worn and past its useful service life.

Electrical

- Electrical gear is original to the building and well beyond its useful service life.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$536,000 needed for immediate repairs, the College should allocate an additional \$1.5 million to address the following over the next few years:

HVAC

- Multi-zone air-handling unit located in basement is original to the building and well beyond its useful service life. Unit should be replaced.

Ceilings

- Some ceiling tiles are stained and water damaged and should be replaced.

Building, Fire, ADA, Elevators

- Elevator is past its useful service life and should be replaced.

Immediate Site, Exterior Lighting, etc.

- Concrete slabs at East and West exterior entrances are heaving and should be replaced.

Vital Statistics

Learning Resource Center

Use Type(s): Classroom, Office, Computer Labs

Built: 1998

Area: 53,744 GSF

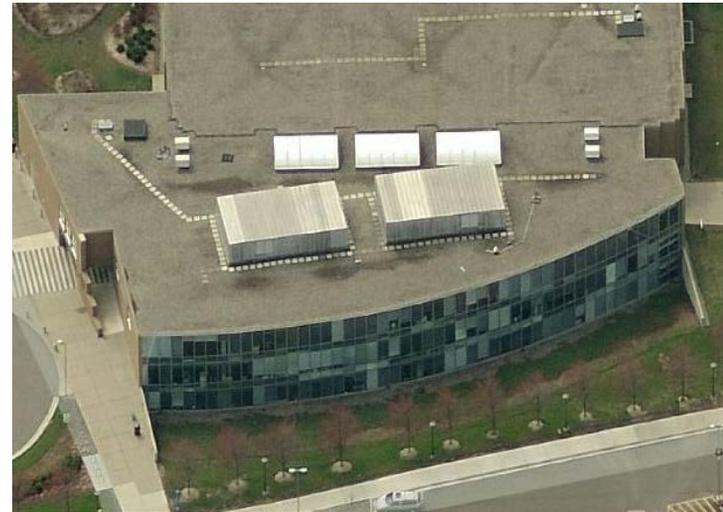
Floors: 2 (plus basement)

Building Description:

The Learning Resource Center was built adjacent to the existing Library in 1997. It is a two (2) story building with a basement level and it contains a total of 53,744 square feet. It is a concrete structure with waffle slab construction. The façade is predominately a curtain-wall system with some areas of brick veneer. The building houses the offices of the Registrar, Financial Aid, Career Services, Counseling, Enrollment as well as the Learning Lab and testing rooms. The Basement Level is currently being renovated (Summer of 2014).

Observation Highlights:

- The LRC was constructed more recently and is in good overall condition. Most building systems are in good condition with no observed or reported issues.
- The EPDM ballasted roof is past its useful service life and is showing signs of deterioration. Skylights and expansion joints are showing signs of wear and water infiltration.
- Entry door seals and sweeps are missing and need to be replaced.
- Carpeting in the first floor counseling area is worn and past its useful life.
- Mechanical, electrical and plumbing equipment is in good, operating condition and has been well maintained.
- Ventilation shafts are lacking life safety dampers.



CRV

\$13,436,000

Priority 1

FCI

1.8%

DMB

\$242,000

DMB EXCESS

\$0

Over APPA 5% benchmark

Priority 1-3

FCI

5.3%

DMB

\$716,000

DMB EXCESS

\$44,000

Over APPA 5% benchmark

MAINTAIN DMB

\$269,000

Annual cost to maintain current DMB



Priority 1



Priority 1-3

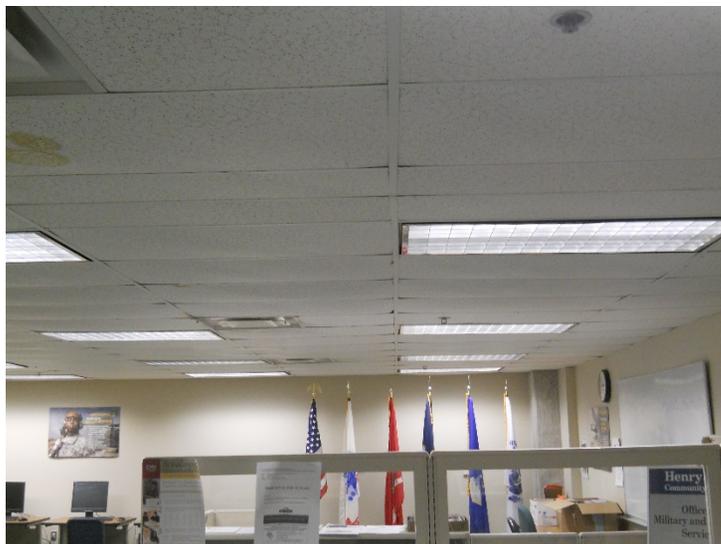
Learning Resource Center
Facility Highlights



Skylights are showing signs of wear and water infiltration.



EPDM roof is past its useful service life and due for replacement.



First floor counseling area – ceiling tiles are sagging and stained.



Entry door sweeps/seals are missing. Thresholds are deteriorating.

Summary:

The Learning Resource Center is a newer building, constructed in 1997. It consists of the 1997 North Addition to the Eshleman Library Building.

Most of the buildings systems are in good condition and have been well maintained, however some systems are past their useful service life and showing signs of wear and deterioration. This includes the EPDM roof, interior finishes such as carpet and ceilings.

The wheelchair ADA toilet stalls are not ADA compliant.

The site is comprised of concrete sidewalks and lawn area. With the exception of minor sidewalk cracks, there are no reported issues.

The building structure has no reported issues.

The masonry of the building envelope is in good condition with no reported issues.

The exterior windows are a combination of original and replacement casement windows with no reported issues.

The interior walls and millwork are in good condition with no reported issues.

The west stair doors are rusted and should be replaced. The seals of the front entry doors need to be replaced. The remaining exterior doors are in good condition.

Mechanical and plumbing systems are in good working condition.

The existing main fire alarm control panel is nearing the end of its useful life.

Emergency strobe coverage does not meet current code.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$242,000 as soon as possible to address the following Priority 1 issues:

Roof

- EPDM ballasted roof is in poor condition and at the end of its useful life.
- Water infiltration is being experienced around skylights due to deteriorating flashings.

Doors

- Entry door hardware is failing and should be replaced.
- Door seals and sweeps should be replaced.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$242,000 needed for immediate repairs, the College should allocate an additional \$474,000 to address the following over the next few years:

HVAC

- Life safety dampers should be added to ventilation shafts.

Floors

- Carpet is showing signs of wear and is nearing the end of its useful life.

Vital Statistics

College Store Building

Use Type(s): Store, Offices

Built: 1970

Area: 7,730 GSF

Floors: 1

Building Description:

The College Store Building was built adjacent to the existing Facilities Maintenance Building in 1970. It is a one (1) story building and it contains a total of 7,730 square feet. It is of wood stud and wood truss construction. The façade is predominately a brick veneer system with limited window openings. The roof is a shingle roof.

Observation Highlights:

- The building is lacking ADA compliant toilet rooms.
- The carpeting is worn and past its useful life.
- The suspended ceiling system is worn and past its useful life.
- There is no provision for required outdoor air; therefore, airflow is inadequate to keep parts of the building warm in the winter.
- Electrical panelboards are obsolete and need to be replaced.
- The ceiling light lenses are past their useful life.



CRV

\$1,778,000

Priority 1
FCI

10.3%

DMB

\$183,000

DMB EXCESS

\$ 94,000

Over APPA 5% benchmark

Priority 1-3
FCI

16.9%

DMB

\$300,000

DMB EXCESS

\$211,000

Over APPA 5% benchmark

MAINTAIN DMB

\$36,000

Annual cost to maintain current DMB



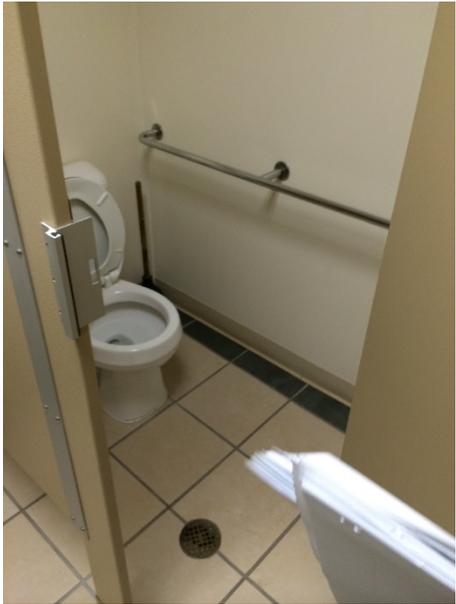
Priority 1



Priority 1-3



Ceiling and carpet are worn and need to be replaced.



Non-ADA compliant toilet rooms.



Damage at concrete loading dock.

Summary:

Several of the College Store Buildings' systems are in poor condition and have aged past their useful service life. While these systems are operational, they should be scheduled for replacement.

Systems which are due for replacement include, the carpeting and suspended ceiling throughout the building, HVAC, as well as the electrical panels, fire alarm panel and light lenses that are original to the building.

The toilet rooms, although in good condition, are not ADA compliant.

The site adjacent to the building is comprised of concrete sidewalks and lawn areas. The sidewalks and lawn are in good condition. A portion of the loading dock fence is damaged and must be replaced.

The structure is in good condition with no reported issues.

The shingle roof is in fair overall condition; however, the portion of the roof adjacent to the Facilities building has created a ponding condition and must be replaced.

Except for minor fascia damage at the front entrance, the building envelope is in good condition.

There are no reported issues with the limited amount of glazing on the building.

The west exterior door is damaged and needs to be replaced.

The existing mechanical system provides inadequate airflow to keep parts of the store warm in the winter. Correction of this condition requires converting to a commercial style AHU with a properly designed duct system and controls.

There are no reported issues with the plumbing fixtures.

Although the emergency egress lighting may have been compliant to the original code at the time the building was constructed, it is unlikely that the existing egress lighting system meets the current code standards for minimum foot-candles.

Similarly, the strobe coverage and horn coverage do not meet the current building code standards.

The site lighting panel, which was recently installed, appears to be powered from a different source than the rest of the building. This violates current NEC requirements. Further investigation is required to determine the appropriate solution.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$183,000 as soon as practical to address the following Priority 1 issues:

Site

- A portion of the loading dock fence and concrete are damaged and need to be replaced.

Roof

- Ice dams form at the joint between this building and the Facilities building. The current drainage at this point is insufficient. This portion of the roof must be replaced to provide sufficient drainage.

Ceiling

- Suspended ceiling system is worn and should be replaced.

Floor

- The carpeting is worn and should be replaced.

Doors

- The west exterior door leaf has holes and should be replaced.

HVAC

- The existing AHU should be converted to a commercial style AHU with a properly designed duct system and controls to improve air flow.

Electrical

- The existing site lighting panel must be corrected to meet current code.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$183,000 needed for immediate repairs, the College should allocate an additional \$117,000 to address the following over the next few years:

Walls and Casework

- Shelving exhibits some minor chips/worn spots and should be renovated.

HVAC

- The building contains no occupancy sensors and should be upgraded accordingly.

Power

- Electrical panelboards are past their useful life and need to be replaced.

Lighting

- Lighting lenses are worn and need to be replaced.

Vital Statistics

Athletic Memorial Building

Use Type(s): Gym, locker rooms, classrooms, offices

Built: 1964

Area: 36,460 GSF

Floors: 2

Building Description:

Located just south of the Health Careers Education Center, the Athletic Memorial Building was built in 1964. It is a (2) story building and it contains a total of 36,460 square feet. The structural system consists of concrete columns and beams. The façade is predominately a brick veneer system with ribbon windows. The roof is a built-up roof system.

Observation Highlights:

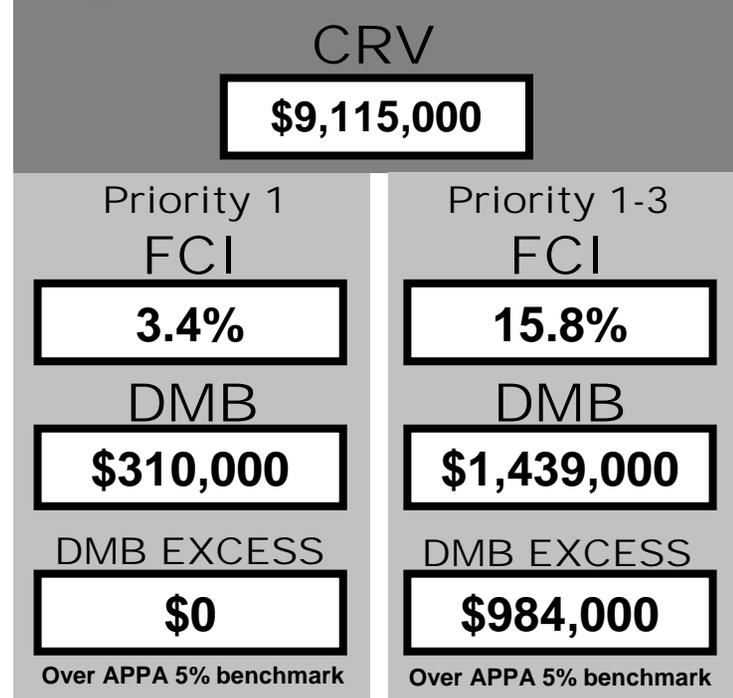
- There is some minor cracking on exterior envelope that should be repaired.
- The windows are past their useful life and need to be replaced.
- Locker ASUs are 100% outdoor air and are original equipment. These units consume excessive energy and should be replaced.
- The unit room coolers in the offices have experienced condensate pump failures causing water damage.
- Locker room plumbing fixtures are not ADA compliant.
- The electrical substation room lacks a second means of egress.
- Electrical panelboards are past their useful life and need to be replaced.



Priority 1



Priority 1-3



MAINTAIN DMB

\$182,000

Annual cost to maintain current DMB



Non ADA compliant locker room.

Panelboards in need of replacement.



Gymnasium partition must be replaced.



Summary:

The some of the Athletic Memorial Buildings' systems have aged past the useful service life of some of its systems. While these systems are operational, they should be scheduled for replacement. This includes the electrical panelboards, step down transformer, light lenses, main fire alarm control panel, exterior windows, corridor ceiling tiles, exterior door hardware, gymnasium operable partition and the gymnasium floor finish.

Although the elevator has no reported issues, the elevator contains non ADA compliant controls. The building contains an ADA compliant toilet room, however, the locker rooms within the lower level are not ADA compliant. The gymnasium bleachers and interior door hardware are not ADA compliant.

The site adjacent to the building is comprised of concrete sidewalks and lawn areas. The sidewalks and lawn are in good condition. Two of the concrete stairs to the building have cracks that should be repaired. There is one negative pitch outside the elevator lobby that should be corrected.

The building structure is in fair condition with only minor concrete patching issues observed.

The roof is in fair condition but is expected to be replaced within the next ten years.

The building envelope is in fair condition with minor tuckpointing and soffit repair needed.

The building has experienced minor water infiltration, and weather exposure issues which have damaged some systems. This includes, the ceiling in lower level shower room, a few of the exterior door leaves, exterior soffits, and minor cracking at exterior concrete stoops.

The unit cooling units for the offices have caused water damage and should be replaced with ERU's.

Other systems, while not violating the original code under which they were installed, do not meet current code. This includes,

the entrance to the substation, light illumination levels for egress corridors, lack of occupancy sensors, exhaust relief for ASU-1, and non ADA compliant plumbing fixtures.

The intake louver has been partially blocked off such that the louver is only at 25% capacity. This unnecessarily increases velocity and pressure drop across the usable portion of the louver.

The locker room ASU's consume high amounts of energy compared to modern units and should be replaced.

The automatic, electrical transfer switches do not meet the full intent of life safety code because they service multiple buildings. Any major renovations in the future would require dedicated transfer switches for this building.

Many light lenses and housings on light fixtures are showing their age and should be replaced.

The data equipment located in the mechanical tunnel may experience higher temperatures and excessive dust; heat and dust shorten equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$310,000 as soon as practical to address the following Priority 1 issues:

Ceiling

- Suspended ceiling system in the lower level shower room is damaged and should be repaired.

Walls & casework

- The basketball backboard supports are failing and need to be repaired.
- The gymnasium operable partition is worn and should be replaced.

Floor

- The threshold to the shower room is damaged and needs to be repaired.

Doors

- (1) pair of exterior door leafs has holes and need to be replaced.

HVAC

- ASU-1 has return air/outdoor air but no provision for exhaust relief. This must be corrected.
- Offices have had unit room coolers installed. These have experienced condensate pump failures causing water damage.

Electrical

- The electrical substation room has only a single entrance and does not comply with NEC 110.33. A second entrance at the opposite end of the equipment should be added. Further study will be required to determine whether a second entrance can be added between sub and mechanical room.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$310,000 needed for immediate repairs, the College should allocate an additional \$1.1 million to address the following over the next few years:

Site

- The exterior concrete stair stoops exhibit signs of cracking and should be repaired.
- A negative pitch pocket just outside of the elevator lobby should be corrected.

Structure

- There is minor spalling of exterior concrete elements at southeast corner of the building that must be repaired.
- This is minor cracking of exterior concrete elements at southwest corner of the building that must be repaired.
- The top of the mechanical areaway is cracked and must be repaired.

Cladding

- The exterior soffits are showing signs of wear and need to be repaired.
- There is water infiltration at the northwest corner of the building that must be corrected.

Glazing

- The exterior window system is past its useful lifecycle and should be replaced.

Ceiling

- The ceiling tiles and the corridors and classrooms are sagging and need to be replaced.

Walls and Casework

- The walls of the south stairwell have stains that should be corrected.

Doors

- The exterior door hardware is worn and should be replaced.

Floors

- There is localized water damage of gymnasium floor that should be repaired.
- The floor finish of the gymnasium floor is worn and needs to be refinished.

Vital Statistics

Facilities Building

Use Type(s): Mechanical spaces, workshops, offices

Built: 1960

Area: 16,093 GSF

Floors: 2

Building Description:

Located adjacent to the College Store Building, the Facilities Building was built in 1960. It is a (2) story building and it contains a total of 16,093 square feet. The structural system consists of steel columns with steel joists and beams. The façade is brick veneer system with punched openings for windows. The roof is a built-up roof system.

Observation Highlights:

- The roof is past its useful life and needs to be replaced.
- The loading dock masonry screen wall has deteriorated and must be repaired.
- The hot water converter is undersized, making the building difficult to keep warm during cold weather months.
- Pumping system is inefficient and lacking sufficient control valves.
- The substation location inside the existing boiler room is a hazardous condition for which water could potentially be near electrical equipment.
- The fire alarm control panels are near the end of their useful life and should to be replaced within 5 years.



CRV

\$4,023,000

Priority 1

FCI

<1%

DMB

\$18,000

DMB EXCESS

\$ 0

Over APPA 5% benchmark

Priority 1-3

FCI

7.3%

DMB

\$293,000

DMB EXCESS

\$91,000

Over APPA 5% benchmark

MAINTAIN DMB

\$80,000

Annual cost to maintain current DMB



Priority 1



Priority 1-3



East lawn negative pitch and erosion.



Location of substation creates potentially hazardous condition.



Deterioration at loading dock site wall.



Light level in garage area is too low for working environment.

Summary:

Some of the buildings' systems are past their useful service life and showing signs of wear and deterioration. This includes the receptacle panel, the roof system, exterior window caulking, and carpeting.

The entry doors and toilet room are ADA compliant.

The site adjacent to the building is comprised concrete walkways and partial lawn area and is in good condition. Most of the sidewalks were replaced in 2014. On the east elevation of the building there is one small area within the lawn that has a negative pitch against the building which must be corrected.

The loading dock site wall shows significant signs of deterioration that exceeds tuckpointing. It is recommended that the affected portions of the wall be rebuilt.

The building structure is in fair condition with no reported issues.

The building envelope is in good condition with only minor tuckpointing needed. The existing window system was replaced by a double-paned insulated approximately 15 – 20 years ago.

The interior ceiling systems are in overall good condition with only minor repairs needed.

While the majority of the interior partitions are in good condition, the walls of room B-210 are damaged and need to be repaired.

With the exception of the loading dock area, most of the doors are in good condition. The east main entry doors show signs of water infiltration and need to have seals replaced. The finish on the loading dock door overhead doors is worn and should be refinished. The exterior swing door and frame in the loading dock area is worn and damaged and needs to be replaced.

It is difficult to keep the building warm in winter. The hot water converter was designed for 380F EWT and is currently being operated at 300F EWT. To correct this condition, the HX system

should be upgraded. The pumping for the hot water heating system is a constant volume system that is inefficient. Some of the heating units lack localized valves. It is also recommended that the existing RTU be replaced with an Energy Recovery Unit.

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building with no reported issues.

The building does not currently utilize occupancy sensors. It is recommended that the installation of sensors be studied as a means to reduce energy costs.

Whenever a substation is not within a dedicated room, it is inherently risky and dangerous. The Power House substation is within a Boiler Room, which increases the risk level. It is understood that maintenance personnel may be operating a hose adjacent to the existing substation, creating high levels of risk for electrocution or an arc flash-related explosion. Although relocating the substation to a dedicated room elsewhere would be ideal, the college needs to take immediate action to train and inform personnel about the hazards of water near electrical gear.

Due to a lack of storage closets, items are stored adjacent to electrical panels. Codes require that 36" or more be maintained clear in front of general panelboards. Clutter in front of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.

It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average) and need to be upgraded.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$18,000 as soon as practical to address the following Priority 1 issues:

Site

- Correct negative pitch along east elevation of building.

Doors

- East entrance door seals need to be replaced.
- Loading dock door and frame need to be replaced.

Electrical

- Since the Power House substation is within a Boiler Room, it is understood that maintenance personnel may be operating a hose adjacent to the existing substation, creating high levels of risk for electrocution or an arc flash-related explosion. Although relocating the substation to a dedicated room elsewhere would be ideal, the college needs to take immediate action to train and inform personnel about the hazards of water near electrical gear.
- Due to a lack of closets, items are stored adjacent to electrical panels. Codes require that 36" or more be maintained clear in front of general panelboards. Clutter in front of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$18,000 needed for immediate repairs, the College should allocate an additional \$275,000 to address the following over the next few years:

Roof

- The roof system is past its useful lifecycle and should be replaced.

Cladding

- Site wall is spalling and needs to be renovated.

Glazing

- The exterior window caulking is past its useful lifecycle and should be replaced.

Ceiling

- Minor amount of the ceiling tiles are damaged or missing in storage room and corridors.

Walls and Casework

- The walls of room B-210A are damaged and need to be repaired.

Floors

- Carpeting in conference room and offices is worn and needs to be replaced.

HVAC

- It is difficult to keep the building warm in winter. The hot water converter was designed for 380F EWT and is currently being operated at 300F EWT. To correct this condition, the HX system should be upgraded.
- The pumping system is inefficient and lacks room control. VFDs to pumps should be installed.

- Outside air volume is indeterminate. Repair or replace RTU with Energy Recovery Unit.

Electrical

- Panelboards are past their useful life and need to be replaced.

Emergency Power

- EM Panelboards are past their useful life and need to be replaced.

Lighting

- The Users working within the Garage area state that the illumination levels are too low to work on equipment. It is recommended that higher illumination be provided to promote a safer work environment.
- The high-bay fixtures within the Boiler Room can be very difficult to re-lamp, re-ballast, and maintain. A lamp source with a longer lifespan is recommended.

Vital Statistics

Fine Arts Building

Use Type(s): classrooms, offices

Built: 1978

Area: 74,742 GSF

Floors: 3

Building Description:

The Fine Arts Building was built in 1978. It is a (3) story building and it contains a total of 74,742 square feet. The structural system consists of concrete columns and beams. The façade is brick veneer system with casement as well as ribbon windows. The roof is a built-up roof system.

Observation Highlights:

- Skylights are failing and must be replaced.
- Water infiltration at recessed windows and stair foundation must be corrected.
- Metal ceilings in corridors are damaged and should be replaced.
- Carpeting is worn and needs to be replaced.
- Hanging Unit Ventilators are difficult to maintain and should be replaced.
- Use of fire dampers in corridors is inconsistent and doesn't meet current code.
- Electrical panelboards are past their useful life and must be replaced.



CRV

\$18,940,000

Priority 1
FCI

3.5%

DMB

\$671,000

DMB EXCESS

\$ 0

Over APPA 5% benchmark

Priority 1-3
FCI

7.0%

DMB

\$1,326,000

DMB EXCESS

\$379,000

Over APPA 5% benchmark

MAINTAIN DMB

\$299,000

Annual cost to maintain
current DMB



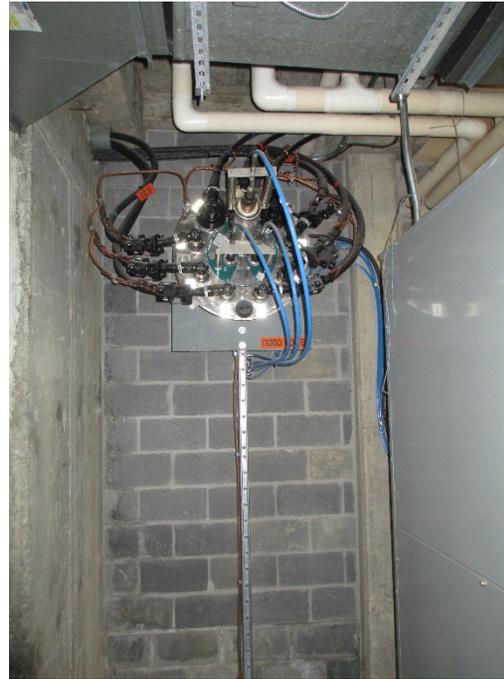
Priority 1



Priority 1-3



Water infiltration at stair.



Location of loop switch to substation creates a potentially hazardous condition.



Skylight leakage above gallery.

Summary:

Some of the systems of the Fine Arts Building have aged past the useful service life. While these systems are operational, they should be scheduled for replacement. This includes the skylights, exterior window caulking, carpeting, lay-in ceilings, auditorium seating, toilet fixtures, stepdown transformer, and electrical and emergency panelboards.

HFC reports no maintenance issues associated with the elevator except for a damaged rear door. Elevator controls are ADA compliant. The building does not contain ADA compliant toilet rooms. Interior door hardware is not ADA compliant.

The site adjacent to the building is in good condition with only a few minor recommended improvements. There are two small sidewalk locations where water is ponding.

The building structure is in good condition; however, there is evidence of water infiltration at the east stair foundation wall.

The roof is in fair condition with replacement expected within the next ten years.

Three of the building skylights as well as the masonry ledge at the exterior recessed windows show evidence of water infiltration. Only minor tuckpointing is recommended for the exterior masonry.

Except for the deterioration of the window caulking, there are no reported issues with the exterior window system.

Some of the interior finishes are damaged and should be replaced. Portions of the corridor metal ceilings are bent or damaged in many locations and need to be replaced. Within the Sisson Gallery the wall panels are warped and need to be replaced.

Most of the exterior doors are in good condition. The double door and frame outside of the glass kiln room should be replaced.

Within the art classrooms the hanging unit ventilators are very difficult to maintain and do not include any form of exhaust/relief air and have cooling coils located at discharge so that condensate spills out of the units. Replacement of the ventilators with Energy Recovery Units is recommended.

In the basement of the mechanical room, SAU's #6, #7 and #9 have no exhaust/relief duct/damper. When the RA damper closes, the OA damper opens, pressurizing the rooms served. This condition needs to be corrected.

The building does not currently utilize occupancy sensors. It is recommended that the installation of sensors be studied as a means to reduce energy costs.

The building appears to have sporadic use of fire dampers only, which does not meet current life safety code.

A comprehensive study of exhaust systems should be done to determine current needs.

The existing toilet room plumbing fixtures are older high water consumption technology and should be replaced.

The substation has only a single entrance and does not comply with NEC 110.33. Recommend adding a second entrance at the opposite end of the equipment. Need to study whether second entrance can be added between sub and mechanical room.

The wall-mounted loop switches appear to be in decent condition, but the Owner stated that they do not have a UL listing or overcurrent protection. Caution should be taken when servicing or operating this equipment. The loop switch within the substation room is in a potentially dangerous location; although it has the required 5'-0" working space clearance, it is near the substation and could easily arc to the substation enclosure. Recommend relocating loop switch; further study required.

Due to a lack of janitor closet space, many electrical closets serve as storage and janitorial space. Codes require that 36"

or more be maintained clear in front of general panelboards. Clutter in front and on top of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.

It was reported that some of the high-end computer graphic machines have been failing due to unspecified power quality issues. Re-wiring these machines to the computer power system may alleviate issues. Owner may acquire local UPSs at each station. Further study is recommended to determine the nature of the power quality issue.

It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average) and need to be upgraded. Many batteries do not operate and need replacement.

The existing downlights are mercury vapor lamp type. This lamp source has low color rendering ability and is inappropriate for a Fine Arts facility. This lamp type rarely fails, but simply emits less light every year for the same wattage. An LED replacement is recommended with high color rendering as well as instant on capability.

The fixtures in the auditorium are reportedly lamped with 500W incandescents as well as some mercury vapor lamps. The incandescents can require frequent and difficult re-lamping. Some of the fixture stems are being unscrewed during lamp replacements and are liable to fall. The mercury vapor lamps are not an appropriate lamps source for a Fine Arts facility. An LED system is recommended for long life, high color rendering, and instant on capability.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$671,000 as soon as practical to address the following Priority 1 issues:

Code

- The elevator rear door is damaged and needs to be replaced.

Structure

- Water infiltration at east stair needs to be repaired.

Roof

- Skylights are past their useful life and are leaking.

Glazing

- The caulking of the existing windows on northwest elevation of the building has failed and caused water infiltration.

Floor

- The carpet in the offices, auditoriums and Adray gallery is worn and past its useful life.

HVAC

- Hanging Unit Ventilators are difficult to maintain and should be replaced.
- Use of fire dampers in corridors is inconsistent and doesn't meet current code.

Electrical

- The electrical substation room has only a single entrance and does not comply with NEC 110.33. A second entrance at the opposite end of the equipment should be added.
- Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1982. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).
- Remove clutter in front and on top of electrical equipment to reduce the potential for a fire hazard.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$671,000 needed for immediate repairs, the College should allocate an additional \$655,000 to address the following over the next few years:

Site

- (2) Sidewalk locations are not sloped properly and pond the water. Locations: East and Southeast elevations of the building.

Cladding

- Water is infiltrating at the horizontal ledges of the recessed windows
- Minor tuckpointing is needed along all elevations of the building.

Glazing

- Approximately 50% of exterior window system caulking is past its useful lifecycle and should be replaced.

Ceiling

- The lay-in ceiling within the office suite across from the Sisson Gallery is worn and needs to be replaced.
- Portions of the corridor metal ceilings are bent or damaged in many locations and need to be replaced.

Walls and Casework

- Within the Sisson Gallery the wall panels are warped and need to be replaced.

Doors

- The exterior doors at the glass kiln room are damaged and need to be replaced.

Floors

- The seats in the auditorium space are worn and need to be replaced.

HVAC

- A comprehensive study of multiple exhaust systems should be done to determine current needs.

Plumbing

- Replace the existing high water consumption plumbing fixtures.

Electrical

- Relocate 13.2kV loop switch to a lower hazard location.
- Replace electrical panelboards
- Replace step-down transformer
- It was reported that some of the high-end computer graphic machines have been failing due to unspecified power quality issues. Re-wiring these machines to the computer power system may alleviate issues. Owner may acquire local UPSs at each station. Further study is recommended to determine nature of power quality issue.

Emergency Power

- Receptacle panel board is past its useful life and must be replaced.

Lighting

- Replace mercury vapors lamps in auditorium lobby and gallery.
- Replace Incandescent lamps in auditorium.

Vital Statistics

Technology Building

Use Type(s): classrooms, labs, offices

Built: 1964 with an addition built in 1993

Area: 169,848 GSF

Floors: 2

Building Description:

The structural system consists of concrete beam and column structure and limited areas of steel frame construction. The façade is a combination of precast concrete panels, concrete, brick, glass and metal siding. The roof of the original building is a ballasted roof which is + 20 years old. The roof of the new addition was replaced in 1995 and is reported to be in good shape.

Observation Highlights:

- The roof is past its useful life and needs to be replaced.
- Precast concrete panels, sills and tees show signs of spalling and cracking.
- Lay-in ceilings and carpet are past their useful life.
- HVAC units operate all night to keep building warm in winter.
- Dual-duct boxes and distribution equipment is original to the building and well past their useful life.
- Use of fire dampers in corridors is inconsistent and doesn't meet current code.
- Cast iron drain piping and domestic water piping are past their useful life.
- Electrical panelboards and fluorescent lamps are past their useful life.



CRV

\$50,105,000

Priority 1
FCI

6.5%

DMB

\$3,238,000

DMB EXCESS

\$ 733,000

Over APPA 5% benchmark

Priority 1-3
FCI

16.5%

DMB

\$8,273,000

DMB EXCESS

\$5,768,000

Over APPA 5% benchmark

MAINTAIN DMB

\$1,002,000

Annual cost to maintain
current DMB



Priority 1



Priority 1-3

Technology Building
Facility Highlights



Detail at loading dock indicating concrete spalling.



Socket failure at 8'-0" long fluorescent lights.



Detail of VCT deterioration at walker duct.



Electrical closet as shared storage space.

Summary:

Some of the buildings' systems are past their useful service life and showing signs of wear and deterioration. This includes the roof hatch on the original building, lay-in ceilings, VCT, carpet, some of the exterior doors, step-down transformers, electrical panelboards, metal halide light fixtures, and keyed light switches and the substation in the original building.

HFC reports no maintenance issues associated with the elevator. Elevator controls are ADA compliant. The technology building contains at least (1) instance of an ADA compliant toilet rooms. Roughly 50% of the door hardware within the original building is non-ADA compliant.

The site is in generally good condition. There is some minor repair work that is recommended at the curved site wall located on the southeast corner of the building. Likewise, there is one small section of sidewalk along the northeast corner of the building that should be adjusted for proper drainage.

There are numerous areas around the exterior of the building where concrete has deteriorated. At the loading dock, the ends of concrete tees and the tops of concrete columns have evidence of spalling. In some instances the rebar is exposed. Many concrete window sills have cracks.

Approximately 48% of the roof system is due for replacement within the next five years.

The exterior red metal panels exhibits signs of damage of failing finish system.

Window caulking has failed along many parts of the exterior and needs to be replaced.

Most of the lay-in ceilings in the addition as well as the concealed spline ceiling in the original building are either worn or sagging and should be replaced. Exposed ceilings in the stairwells are extensively peeling.

There are no reported issues associated with the walls and millwork.

With the exception of a few exterior doors, most of the interior and exterior doors are in fair condition.

The VCT flooring is failing at specific locations. In the original building, the VCT is failing over the walker ducts. In the addition, the VCT failed in the stairwells and needs to be replaced.

Within the addition, HVAC units operate all night to keep building warm in winter. It is difficult to maintain temp when exterior is below 10 degrees F. The result is an inefficient system with units that are operational but unreliable. The dual-duct boxes and distribution equipment is original to the addition and well past their useful life. The equipment is unreliable and inefficient. The addition also has poor air throw from the perforated 4-way ceiling diffusers, therefore the reheat coils are running at full capacity to maintain set points.

Within the original building the outside air dampers on AHU are non-functional and leaking badly. The AHU's are unreliable and past their useful life. The machine shop T-126 is difficult to heat.

Most of original building has fire dampers at some but not all corridor penetrations. The 1993 addition appears to have sporadic use of fire dampers only, which does not meet current life safety code.

Since the function of many classrooms has changed over time, the building needs comprehensive study of the exhaust systems to determine current needs.

Cast iron drain piping and copper with lead solder domestic water piping are original to the building and should be replaced within the next major renovation.

The room which houses the substation in the original building has only a single entrance and does not comply with NEC

110.33. It is recommended that a second entrance at the opposite end of the equipment be added.

Due to a lack of janitor closet space, many electrical closets serve as storage and janitorial space. Clutter in front and on top of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.

Some of the labs have metal halide high-bays. These sources have long strike times, offer poor color rendering, and are often located such that they are over existing lab equipment and difficult to maintain. Recommend replacing with new LED high bay source.

Original light fixtures that had 8'-0" long fluorescent lamps are "power groove" type and they are now experiencing socket failure.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$3.2 million as soon as practical to address the following Priority 1 issues:

Roof

- The portions of the roof on the original and new building must be repaired.
- The roof hatch on the original building must be replaced.

Cladding

- Exterior window sills along interior courtyard must be repaired or replaced.

Glazing

- (1) panel of glass along the north side of the addition is broken and needs replacement.

Ceilings

- Refinish ceilings within the stairwells of the addition.

Doors

- The hinges and closers of the north entry doors have failed and need replacement.
- The door leafs of the exterior service shed are failing and need replacement.

Floors

- Carpet in the office suite located in the addition is worn and past its useful life.
- VCT failure over the walker ducts, at the control joints in the addition, and in the addition stairwells.

HVAC

- Within the addition, the HWH system 2-way control valves have no bypass, and no VFD at pumps which is causing mechanical failure.
- Outside air dampers on AHU are non-functional and leaking badly.
- Use of fire dampers in corridors is inconsistent and doesn't meet current code.

Electrical

- The electrical substation room has only a single entrance and does not comply with NEC 110.33. A second entrance at the opposite end of the equipment should be added.
- Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1982. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).
- Remove clutter in front and on top of electrical equipment to reduce the potential for a fire hazard.
- Many of the existing keyed switches have a high failure rate.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$3.2 million needed for immediate repairs, the College should allocate an additional \$5.0 million to address the following over the next few years:

Structure

- At the loading dock, the ends of concrete tees and the tops of concrete columns have evidence of spalling. In some instances the rebar is exposed. Many concrete window sills have cracks.

Roof

- Portions of the new and original roofs must be replaced.

Cladding

- Tuckpointing needed at masonry within exterior courtyard.
- Red metal panels along portions of north and west sides of the addition have damaged/failing finish.

Glazing

- Exterior window system caulking is past its useful lifecycle and should be replaced along west and east elevations of the addition.
- The ribbon windows and back storefront vestibule of the original building are past their useful life.

Ceiling

- The classroom lay-in ceilings within the addition are sagging and should be replaced.
- The concealed spline ceiling in the original building is worn and past its useful life.

Doors

- North exterior service door and west exterior entrance doors are failing.

HVAC

- The addition has minimal FTR on exterior walls. Have to run HVAC units all night to keep building warm in winter. System is unreliable.
- The dual-duct boxes and distribution equipment is original to the addition and well past their useful life.
- The building needs comprehensive study of the exhaust systems to determine current needs.
- In the addition, there is poor air throw from the perforated 4-way ceiling diffusers.
- Machine Shop T-126 is difficult to heat.

- Perimeter HWH set point problem in addition.

Plumbing

- Replace the existing high water consumption plumbing fixtures.
- Replace cast iron drain piping and copper with lead solder domestic water piping.

Electrical

- Replace electrical panelboards.
- Replace step-down transformers.

Lighting

- Replace metal halide lights in workshops and labs.
- Replace light fixtures in corridors of original building.
- Replace 8'-0" long fluorescent lamps in original building.

Vital Statistics

Admin Services and Conference Center

Use Type(s): Administrative, Conference Center

Built: 1983 with an addition built in 1988

Area: 59,000 GSF

Floors: 4

Building Description:

This brick and glass curtainwall structure consists of a one story portion (load-bearing masonry), built in 1983, and a 4 story wing (steel frame) with auditorium space built in 1988. The College acquired this building from the UAW.

Observation Highlights:

- The curtainwall system on the 1998 wing leaks, difficult to maintain and requires reconditioning.
- Skylight drainage system not functioning in several locations, leaking and due for reconditioning.
- Carpet is at end of life and due for replacement.
- Galvanized water supply lines causing rust in water.
- HVAC system boilers and rooftop units are at the end of life and due for replacement.
- Fin-tube radiators have insufficient shut-off valves to permit easy maintenance, requiring shut-off of heat to large parts of the building when serviced.
- Toilet rooms are not ADA compliant to current standards.
- Several exterior doors are original and worn, corroded from salt.



CRV

\$14,750,000

Priority 1
FCI

<1%

DMB

\$10,000

DMB EXCESS

\$ 0

Over APPA 5% benchmark

Priority 1-3
FCI

10.0%

DMB

\$1,470,000

DMB EXCESS

\$733,000

Over APPA 5% benchmark

MAINTAIN DMB

\$295,000

Annual cost to maintain
current DMB



Priority 1



Priority 1-3

Admin. Svcs. & Conf. Center

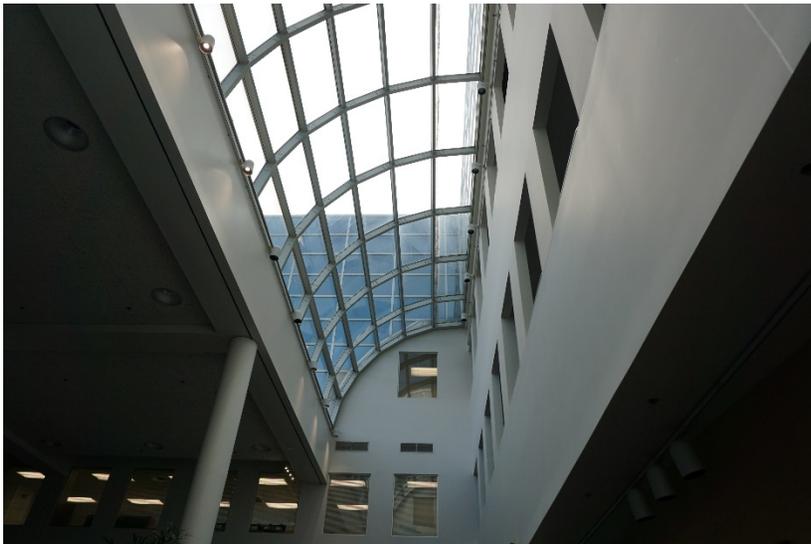
Facility Highlights



Example of door corrosion due to water and salt.



Curtainwall gasketing allowing water into building.



1998 skylight drainage system not working properly, leaking.



Skylight glazing between wings fogged and due for replacement

Summary:

Several building systems are past their useful service life and are due for significant repair or replacement. Three significant systems are the curtainwall, skylights and the HVAC system. Others include a majority of the carpet, select ceilings and exterior doors.

HFC reports no maintenance issues associated with the elevator. Elevator controls are ADA compliant. The main ASCC toilet rooms, while accessible when built, will require upgrades to meet current codes; the large ones on level 1 appear the most adaptable.

The site is in generally good condition, with a new circle drive and asphalt parking lot. Concrete walks campus-wide are being replaced as needed.

The 2003 roof system is nearing half-way through its expected life. It has recently been put on an annual maintenance program to extend its life.

Exterior brick is in good condition, with the limited areas of metal panel only showing minor damage from lawn maintenance.

The 1988 curtainwall system (especially at curved walls) has required higher than normal maintenance and is leaking. Gaskets are due for replacement, which will require partial disassembly and reconditioning of the system.

The curved skylights, part of the same system as the curtainwall, have a drainage system that is not performing well, allowing water in. The skylights should be reconditioned and possibly reengineered when the curtainwall work is done.

The angled skylights between the wings shows signs of water leakage and failure of the insulated glazing. These should be replaced.

Lay-in ceilings in the 1983 lobby are sagged, indicating a humidity problem. The gypsum ceiling in the Forfa Auditorium has a small area that has failed and is due for repair.

The drywall in the 1988 atrium has no joint, allowing it to crack as it moves.

Interior doors are generally in good condition, but several of the exterior doors, both hollow metal and aluminum show signs of corrosion and worn hardware. The operable partitions between the 3 meeting rooms function, but their finish is worn.

Flooring is generally in good condition, although the black slate floor on level 1 is challenging to keep clean in the winter. The carpet throughout the building, except for the meeting rooms, is worn and near time for replacement.

This building is not on the campus hot water or chilled water system. The HVAC system components are original and at the end of their expected service life. All rooftop units and the unit serving the auditorium are due for replacement. The pipes feeding hot water to the fin-tube radiators have few thermostat zones and insufficient shut-off valves for servicing, requiring shutting off heat to large parts of the office wing to service even small areas. Controls are original and should be upgraded to digital.

The main water service is galvanized and causing rusting of the potable water, requiring weekly flush-out of the system. The pipe should be replaced or epoxy-lined to eliminate this issue.

The electrical service (2000A, 480/277V) and distribution panels are in good condition. The building has no backup power system, using a water-based battery inverter system that is due for replacement. The facilities staff mentioned a 50kW generator would be preferred to provide power for servers and emergency lighting.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$10,000 as soon as practical to address the following Priority 1 issues:

Glazing

- As a short-term repair for the curtainwall system, caulking is recommended.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$10,000 needed for immediate repairs, the College should allocate an additional \$1.5 million to address the following over the next few years:

Window systems

- Both curved and flat skylights should be rebuilt to resolve leaking and fogged glass units.
- Rebuild/recondition the curtainwall system to improve water-tightness.

Interior walls

- Repair the cracked drywall in the atrium and add control joints to prevent future cracking.

Flooring

- The original carpet should be replaced.

Ceiling

- The 1983 lobby lay-in ceilings are sagging and should be replaced.
- Repair the damaged section of ceiling in the Forfa Auditorium

Plumbing

- Investigate replacement or epoxy lining of the galvanized main water service pipe.

HVAC

- Replace the original rooftop HVAC units (between 27 and 33 years old)
- Replace the original boilers (1988).
- Upgraded original pneumatic HVAC controls with direct digital controls are part of the system upgrade.
- Provide addition valves to improve maintenance and control of the perimeter hot water heating system.

Electrical

- Replace emergency lighting water-based battery inverter system.

Fire Alarm System

- Remount pull stations to ADA compliant height.

Doors

- Replace corroded/damaged exterior hollow metal service doors and aluminum frame entry doors.

Vital Statistics

Child Development Center

Use Type(s): Daycare center, currently unoccupied

Built: 1996

Area: 7,100 GSF

Floors: 1

Building Description:

This brick-clad, load-bearing concrete block structure was, until 2015, the college daycare center. Currently, it is undergoing investigation for a preferred future use.

Observation Highlights:

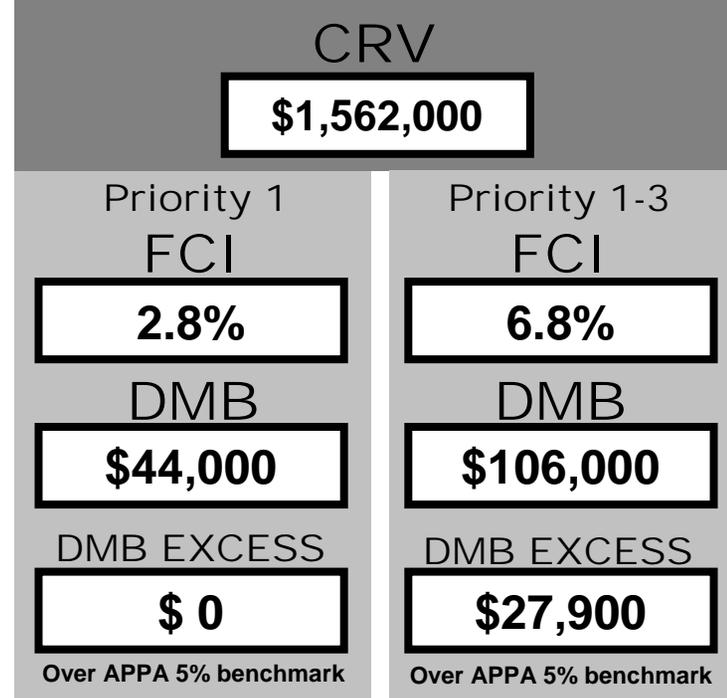
- Wood exterior doors and the windows adjacent to entry doors are sealed wood, but have deteriorated from weather exposure and are due for replacement.
- The flat roof membrane and the shingles on north face of the sloped roof are due for replacement (south face replaced).
- Original carpet is worn.
- Original resident –grade furnaces/AC units due for replacement.
- The brick cap on the site walls has failed and require repair for stability.
- Sanitary drain line has plugged in the past, but was repaired approximately 10 years ago and working. Inspection should be considered.
- Past structural movement has caused minor color cracking.



Priority 1



Priority 1-3



MAINTAIN DMB

\$31,000

Annual cost to maintain
current DMB



Loose brick wall cap, wall deterioration likely if not repaired.



Deteriorated wood window and door finish. Problematic sliding door.



Deteriorated wood door finish.



Flat and sloped roofs due for replacement.

Summary:

This building is simple in design and construction, with a few key systems past their useful service life and due for repair or replacement. Three significant systems are the roof, site wall and the HVAC system. Others include select exterior doors and windows and the original carpet.

A recent renovation provided an ADA toilet room. No other accessibility issues were noted.

The site is in generally good condition, however, the bricks making up the cap on the site walls are very loose throughout most of the length of the walls. The mortar has failed from freeze-thaw cycles and the brick should be reset with improved slope, flashing and mortar. Concrete walks campus-wide are being replaced as needed.

The flat ballasted membrane roof is at the end of life and due for replacement. The steeply sloped portion of the roof has leaked in the past and the south facing side was reshingled to address this issue. The north face is beginning to deteriorate and is due for replacement as well.

Exterior brick is in good condition.

Windows are aluminum-clad wood and in good condition, except when part of the exterior door frame. The protective coating on the stained and sealed wood window/entry door systems has failed, and the wood is water damaged. These systems should be replaced. In addition to damaged wood, the main entry door is an automatic sliding door which has been problematic and should be replaced.

Ceiling and wall finishes are in good condition throughout, including the exposed wood deck and structural timbers in the classroom spaces.

This building is not on the campus hot water or chilled water system. The HVAC system is comprised of six original

residential-grade furnace/AC units which are at the end of their expected service life.

The sanitary main clogged in the past, but was successfully repaired approximately a decade ago. A camera inspection would be beneficial to determine the current condition.

The electrical system (400A 277/480V) is in good condition.

Lighting functions well, but light levels in the classrooms are low due to the fixture type and ceiling design.

The fire alarm system would benefit from additional strobes and the emergency lighting system should be upgraded to provide new battery units and appropriate light levels.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$44,000 as soon as practical to address the following Priority 1 issues:

Roofing

- Both the flat roof and the north face of the sloped roof should be replaced.
- Replace the loose brick cap on the site wall, preferably before winter to minimize damage to the lower part of the wall.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$44,000 needed for immediate repairs, the College should allocate an additional \$62,000 to address the following over the next few years:

Window/door systems

- Replace the wood-frame entry doors and adjacent windows that are showing deterioration. Refinishing may be an option.
- Replace the automatic sliding door system with a swing door – will resolve deteriorating wood issue as well.

Flooring

- The original carpet should be replaced.

Plumbing

- Inspect the sanitary main

HVAC

- Replace the six furnace units as well as the six ground-mounted AC condensor units.

Vital Statistics

Health Sciences Education Center

Use Type(s): Classroom, Teaching Laboratory

Built: 1997

Area: 81,500 GSF

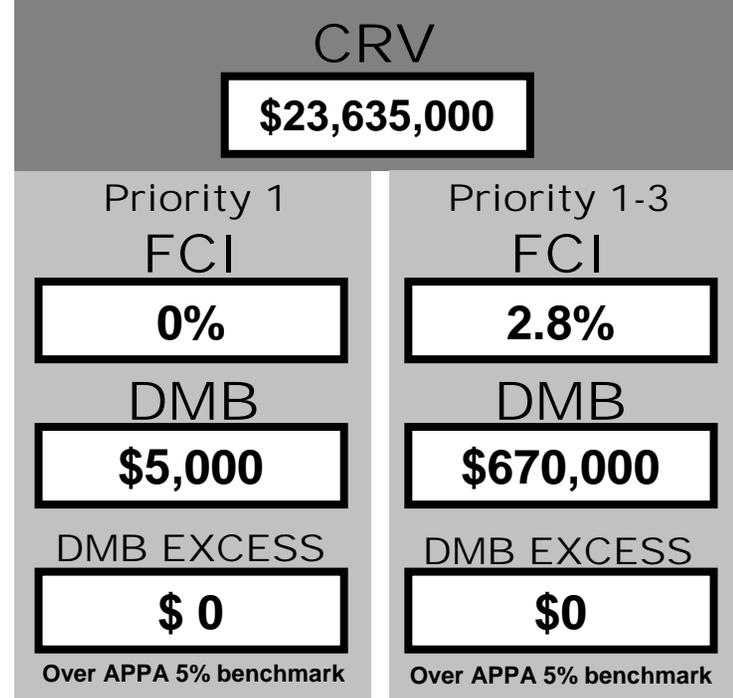
Floors: 4

Building Description:

This steel-frame building, attached to the original science building, is clad in a combination of brick, curtainwall and metal panel. The basement is an occupied floor with labs and classrooms.

Observation Highlights:

- The original brick façade was repaired, possibly in 1998, and should be inspected for continued integrity.
- Some areas of ribbon widows have loose gasketing.
- The roof is at end of life and due for replacement.
- Carpet is at end of life and due for replacement.
- The HVAC hot water heat exchanger is reported to be undersized for the building heating load.
- Perimeter offices as difficult to heat. A new fin-tube radiator has been proposed.
- Condensation reported above office ceilings at HVAC air mixing boxes in summer.
- Electrical equipment is reported in good condition.
- Elevators are on contract.
- Doors, flooring, walls and ceiling are reported in good condition.



MAINTAIN DMB

\$473,000

Annual cost to maintain current DMB



Priority 1



Priority 1-3

Health Sciences Ed. Center

Facility Highlights



Metal panels – stained/dirty, with loose gasketing on windows



Detail showing past wall repair, including caulking at flashing.



Area of past brick wall repair.

Summary:

There are few issues with the building beyond normal wear and system/finish lifespan.

It appears that a portion of the brick wall was repaired and brick replaced shortly after the building was constructed. Weeps were added and caulk was added, likely at flashing. No issues were reported with the wall, but regular caulk replacement and inspection should be performed. Metal panels are very dirty and should be cleaned after identifying the cause of the dirt.

A few rubber gaskets behind metal frames on the ribbon windows (curved wall) are loose. The entire area should be checked for the same issue elsewhere prior to replacement.

The EPDM roof is at the end of life and the adhesive was reported as failing. It is under an annual maintenance contract to prevent leaks until replaced.

No issues have been reported with the steel structure.

Interior walls, ceilings and hard flooring are in good condition. Carpet in classrooms and offices is due for replacement.

Rubber stair treads have been problematic and loose, and should be replaced.

No issues have been reported with plumbing.

The HVAC system is on the campus hot water/chilled water loop. Two heat exchangers provide lower temperature water for the four rooftop units (all in good condition). The building is difficult to heat in the winter, reportedly caused by undersized heat exchangers.

The VAV system works well, but condensation is reported on the mixing boxes in the summer, possibly caused by the shut-down of the campus boilers in the summer, which would cause the mixing box reheat units (which reduce humidity) to not function.

There are no radiators along the outside and offices are reported cold at the floor level. Shut-off valves have been installed in preparation for installing the fin tube system.

Interior and exterior doors are in good condition.

The building is served by a 100kVA transformer. This and the switchgear and distribution panels are in good condition.

Lighting is in good condition, but emergency light levels may be low, and fixtures are only found in the corridors. Batteries will need replacing soon.

The building is fully sprinklered.

The fire alarm system met code when installed and is grandfathered, but additional strobes would be needed to meet current requirements.

The site is in good condition, with concrete walks on a replacement schedule.

No accessibility issues were observed.

Recommendation:

Critical **Priority 1** deferred maintenance items listed in the appendix, including those related to code-compliance, those capable of causing collateral damage, and especially those pertaining to life safety must be dealt with by the College as soon as possible to minimize potential damage and future repair costs, as well as improve accessibility and occupant safety. The College should prioritize issues and prepare to budget up to approximately \$5,000 as soon as practical to address the following Priority 1 issues:

Flooring

- Replace loose rubber stair treads.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. In addition to the \$5,000 needed for immediate repairs, the College should allocate an additional \$665,000 to address the following over the next few years:

Exterior walls

- Inspect repaired brick wall and replace caulk as necessary.

Window systems

- Replace loose window gasketing.

Roof

- Replace EPDM roof.

Flooring

- The original carpet should be replaced.

HVAC

- Replace heating loop heat exchanger(s) to meet heating load.
- Install approx. 400 feet of fin tube radiators in perimeter spaces to provide heat at the floor level.

Vital Statistics

Science Building (original)

Use Type(s): Laboratory, Classroom

Built: 1960 with an addition built in 2011

Area: 49,000 GSF (1960 building only)

Floors: 2

Building Description:

The 1960 Science Building is a concrete structure with a predominantly precast concrete exterior wall, with the east wall being brick. Key building systems were upgraded during the 2011 renovation, with the balance of items planned for a future renovation.

Observation Highlights:

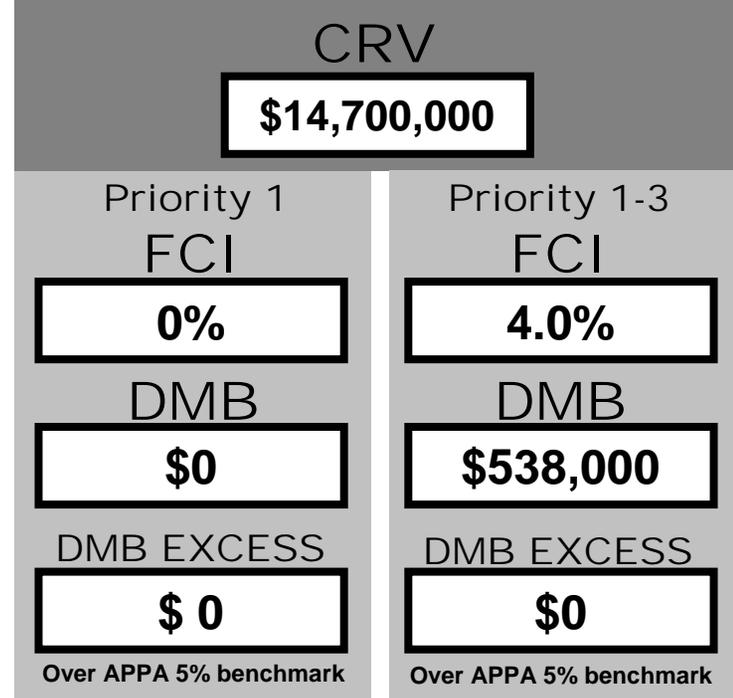
- HVAC, fume hoods, electrical, lighting, fire alarms, flooring and ceilings were replaced as part of the 2011 project.
- The precast concrete exterior is in poor condition, cracked, with failed sealant and some broken areas of panels.
- Windows are original, and while functional, should be replaced when the exterior wall is replaced.
- Plumbing fixtures and piping are original and due for replacement.
- Doors and door hardware are typically original, worn, not accessible and due for replacement.
- Concrete paving along the north side of the building is due for repair/replacement as part of the campus-wide project.
- While casework is not typically part of the assessment, it is noted that several lab have original casework and fixtures, but new fume hoods.



Priority 1



Priority 1-3



MAINTAIN DMB

\$294,000

Annual cost to maintain current DMB



Concrete slab cracking



Exposed steel reinforcing, crack precast concrete wall



Broken precast concrete endcap



Corrosion on exterior aluminum door sill

Summary:

Major infrastructure systems were replaced on this original science building when the 2011 addition was constructed. These include the roof, HVAC system, the electrical service, emergency power, lighting, flooring, ceilings, fire alarms and plumbing infrastructure.

The exterior brick wall on the east elevation is in good condition. The precast concrete walls on the north and south elevations are in poor condition. The precast is minimally insulated, dirty and damaged, with several cracked panels and some broken corners. In a few panels, the steel reinforcing is visible. Repair is possible, but the panel should be replaced for long term integrity and energy efficiency.

Windows are original single pane units in aluminum frames. While functioning, replacement should be considered as part of the precast concrete panel replacement.

Interior wall finishes are original brick and painted block and generally in good condition. Some areas that were repaired when doors were moved do not match, but can be resolved during a future renovation.

Interior casework in the labs is typically original. While not part of this assessment, this casework should be replaced as part of a renovation.

Toilet rooms are original, with original fixtures typical. These should be replaced as part of a renovation.

The elevators serving this building are part of the attached buildings, and therefore are not included here.

While the new science building has accessible toilet rooms, the toilet rooms in this building are original layout, original fixture. Most doors are original and have knob hardware.

Recommendation:

Given the work performed on this building when the new science wing was added, there are no **Priority 1** issues.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. The total of **Priority 2 and 3** issues that should be budgeted for is \$538,000. In this case of this building, it would be practical to address many of these items as part of a building renovation to complete the full science complex.

Exterior Walls

- Replace the precast concrete exterior wall system.

Windows

- As part of the exterior wall replacement, replace the windows.

Plumbing

- Replace existing toilet room piping and fixtures, including providing ADA accessibility.

Site

- Repair damaged concrete flags as part of the concrete walk replacement program.

Vital Statistics

Student and Culinary Arts Center

Use Type(s): Food service, student life, classroom
Built: 1960, addition in 1970, renovation in 2002
Area: 41,800 GSF
Floors: 1

Building Description:

The 1960 Student and Culinary Arts Center is a concrete structure with an exterior of precast concrete and brick. This building houses student life, student dining, culinary arts and the campus radio station. The renovation in 2002 significantly changed the building layout and replaced the roof structure of the dining pavilion. HVAC is a mix of systems from the 1960s, 70s, 80s, 90s and 2000s.

Observation Highlights:

- Windows are original, and functional, but past their expected lifespan.
- The built-up roof is in poor condition, with leaks, ponding water and poor drainage – and is due for replacement.
- The structure is misaligned at the 1960/1970 joint. It is reported to have stabilized, but is a tripping hazard.
- Boilers are due for replacement. Shut-off valves on domestic water pipes seize and are due for replacement.
- The HVAC/exhaust/makeup air system is out of balance, causing pressurization problems.
- The original HVAC air handling units are past their expected lifespan and due for replacement. The heat exchanger is undersize for the heating load.
- The electrical distribution panels are generally original, at capacity and past the end of life.



CRV

\$12,200,000

Priority 1
FCI

0%

DMB

\$0

DMB EXCESS

\$ 0

Over APPA 5% benchmark

Priority 1-3
FCI

7.3%

DMB

\$893,000

DMB EXCESS

\$283,000

Over APPA 5% benchmark

MAINTAIN DMB

\$244,000

Annual cost to maintain current DMB



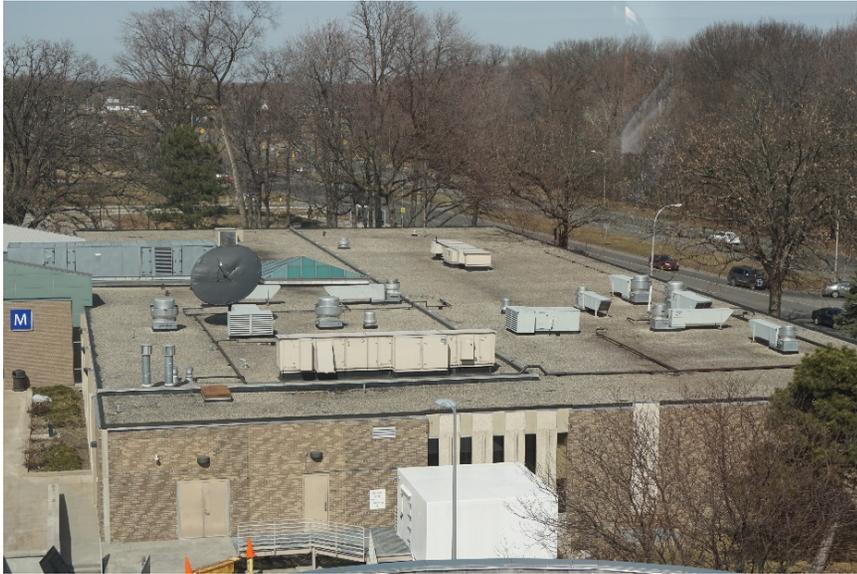
Priority 1



Priority 1-3

Student & Culinary Arts Ctr.

Facility Highlights



Roof membrane and mechanical equipment due for replacement. Rooftop unit at left edge of photo is not well aligned on its curb and has been a leaking issue for some time.



Boilers and associated storage tanks (not in image) due for replacement.

Summary:

The Student and Culinary Arts Center has undergone on addition and numerous renovations of various scope since 1960, including a large addition in 1970. Renovations to food service areas and mechanical systems occurred in the 1980s and 90s, with a major renovation to the kitchen, servery, radio station, and dining pavilion in 2002. A minor renovation was made to the kitchen lab in 2015.

The precast concrete exterior walls are generally in good condition, with only a few broken pieces. The finish, however, is dirty and due for cleaning and resealing.

Most windows are original single pane units in aluminum frames, with gasketing in some at the end of life. At some point in the next decade, these original windows should be replaced for long-term building integrity and energy efficiency.

The built-up roof is in poor condition, with numerous past leaks, saturated insulation, patches, ponding water and poor drain capacity, especially at the pavilion connector. The rooftop unit over the pavilion connector (a relocated original unit) was not installed on its curb well and has suffered from leaks into the building. The pavilion skylight roof (2002) is in good condition.

The structure is in good condition, except for the joint between the original building and the 1970 addition. It was reported that the original design of the joint allowed the new slab to slide down, creating a small tripping hazard.

Interior walls are in good condition, with cart bumpers where needed for the culinary arts. Flooring and ceilings are also generally in good condition, with only typical damage and a need for cleaning. The radio station does have a raised plywood floor that is cracked/damaged and should be replaced.

Plumbing is all copper and generally in good condition.

The building domestic hot water system is heated by two 200 gallon boilers and storage tanks – important given the size of

the kitchen operations. The controls and shut-off valves have been high-maintenance, and the boilers and storage tanks are at the end of their life.

The HVAC system is served by the high-temp hot water/chilled water campus loop, with a heat exchanger providing low-temp water for the basement and roof top air handling units.

The 1960 portion of the obsolete dual-duct HVAC system, while partially upgraded in 2002, is well past the end of its life and due for replacement. The distribution ductwork, mixer and controls would need replacement at the same time. Rooftop units are single-zone, constant volume units and are generally in fair to good condition.

The heat exchanger providing heating hot water is undersized and cannot meet demand on cold days. This unit is due for replacement or supplement.

The kitchen exhaust/make-up air system, combined with the complexity of the HVAC system has resulted in the building air being imbalanced, causing pressurization problems.

The electrical system is fed from a new 1000/1333 kVA transformer and substation in the basement; in good condition with adequate capacity. Electrical distribution panel boards are typically original, at capacity and at the end of their expected lifespan.

Door hardware is a mix of knob type and newer ADA compliant lever type. Toilet rooms were made accessible in 2002.

Exterior paving is being replaced as needed under the ongoing campus-wide concrete replacement program.

The building has fire suppression in storage areas and the kitchen only.

Exterior entry doors are aluminum frame, replaced in 2002 and in good condition. Service doors are in typical condition. Interior doors are in good condition.

Recommendation:

This building currently has no issues that rank as **Priority 1**.

Building systems and components listed in the appendix as **Priority 2 and 3** deferred maintenance items should be prioritized and budgeted for repair or replacement as soon as practical. The total of **Priority 2 and 3** issues that should be budgeted for is \$893,000:

Exterior Walls

- The precast concrete exterior wall system is due for cleaning and resealing (including caulking)

Roof

- The flat roof should be replaced and roof sump capacity should be improved.

Structure

- Inspect the joint between the original building and 1970 addition to determine support condition and potential repair.
- Repair and cover spalled concrete at column bases in pavilion.

Floor

- Replace damaged raised wood floor in radio station.

Plumbing

- Replace worn ball valves on domestic piping system.
- Replace (2) boiler, storage tanks and associated controls.

HVAC

- Rebalance exhaust/make-up air system
- Replace 1960-era dual-duct air handling unit and associated ductwork, controls.
- Replace heating water heat exchanger

Electrical

- Replace original electrical distribution panel boards, and add additional panels to resolve distribution capacity issues.
- Replace emergency power inverter system with new batteries (or install a generator to provide emergency lighting power as well as backup for coolers and freezers)

HENRY FORD COLLEGE



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				Priority 1-5 (all years) Issues			
						Project Totals	% of Total Project Costs	FCI	Rating	Project Totals	% of Total Project Costs	FCI	Rating	Project Totals	% of Total Project Costs	FCI	Rating
All Assessed Facilities:		748,650		\$206,059,900		\$8,074,900	100.0%	3.9%	Good	\$27,026,400	100.0%	13.1%	Poor	\$30,292,900	100.0%	14.7%	Poor
Main Campus - Dearborn, Michigan		748,650		\$206,059,900													
Admin Services and Conference Center	1983	59,000	7.9%	\$14,750,000	7.2%	\$10,000	0.1%	0.1%	Good	\$1,470,000	5.4%	10.0%	Fair	\$1,511,000	5.0%	10.2%	Poor
Athletic Building	1964	36,460	4.9%	\$9,115,000	4.4%	\$309,500	3.8%	3.4%	Good	\$1,439,300	5.3%	15.8%	Poor	\$1,446,800	4.8%	15.9%	Poor
Child Development Center	1996	7,100	0.9%	\$1,562,000	0.8%	\$44,000	0.5%	2.8%	Good	\$106,000	0.4%	6.8%	Fair	\$112,000	0.4%	7.2%	Fair
College Store	1970	7,730	1.0%	\$1,777,900	0.9%	\$183,200	2.3%	10.3%	Poor	\$300,200	1.1%	16.9%	Poor	\$301,200	1.0%	16.9%	Poor
Eshleman Library	1960	46,587	6.2%	\$11,646,750	5.7%	\$535,900	6.6%	4.6%	Good	\$2,026,900	7.5%	17.4%	Poor	\$2,055,900	6.8%	17.7%	Poor
Facilities Management Building	1960	16,093	2.1%	\$4,023,250	2.0%	\$17,500	0.2%	0.4%	Good	\$292,500	1.1%	7.3%	Fair	\$297,500	1.0%	7.4%	Fair
Fine Arts Building	1978	75,742	10.1%	\$18,935,500	9.2%	\$671,000	8.3%	3.5%	Good	\$1,325,900	4.9%	7.0%	Fair	\$1,713,400	5.7%	9.0%	Fair
Health Sciences Education Center	1997	81,500	10.9%	\$23,635,000	11.5%	\$5,000	0.1%	0.0%	Good	\$670,000	2.5%	2.8%	Good	\$678,000	2.2%	2.9%	Good
Learning Resource Center	1998	53,744	7.2%	\$13,436,000	6.5%	\$241,500	3.0%	1.8%	Good	\$715,600	2.6%	5.3%	Fair	\$927,600	3.1%	6.9%	Fair
Liberal Arts Building	1960	104,046	13.9%	\$30,173,340	14.6%	\$2,819,050	34.9%	9.3%	Fair	\$8,931,550	33.0%	29.6%	Poor	\$10,228,050	33.8%	33.9%	Poor
Science building - original	1960	49,000	6.5%	\$14,700,000	7.1%					\$583,000	2.2%	4.0%	Good	\$583,000	1.9%	4.0%	Good
Student and Culinary Arts Center	1960	41,800	5.6%	\$12,200,000	5.9%					\$893,000	3.3%	7.3%	Fair	\$1,067,000	3.5%	8.7%	Fair
Technology Building	1964	169,848	22.7%	\$50,105,160	24.3%	\$3,238,250	40.1%	6.5%	Fair	\$8,272,450	30.6%	16.5%	Poor	\$9,371,450	30.9%	18.7%	Poor

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Liberal Arts Building**BUILDING No.:** 1

Year Built: 1960

Floors: 3

Building Area (sf): 104,046

Notes: Constructed in 1963, the Liberal Arts building is a three story building with a basement level. The building has a total gross square feet of 94,841 and it houses general classrooms and offices for the Liberal Arts Department. It is a pre-cast concrete building with a concrete column and waffle slab construction. The windows and fire alarm and emergency lighting systems were replaced in 1993. The building is connected to the Science Building at the Lower Level and connected to the Power House via a walk-thru utility tunnel.

Major Renovations/Additions

Year	Add'n.	Reno.	Description
1993		X	Window replacement, lighting upgrades, fire alarm system upgrade.

Building Use Types

Use Type %	Use Type
100%	Classroom/Teaching Laboratory

Facility Condition Index

All priorities

FCI	33.90%	Poor	CRV	\$30,173,340	Annual Maint and Capital Renewal Budget	\$905,200 3% of CRV
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Priorities 1-3 (current year through year 5 combined)

FCI	29.60%	Poor
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Priority 1 (current year only)

BUILDING REPORT**Henry Ford College****CAMPUS Main Campus - Dearborn, Michigan****FCI**

9.34%

Fair

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$2,719,050		\$100,000		\$2,819,050
2 Potentially Critical (Year 1)	\$3,560,600	\$360,000	\$141,500		\$4,062,100
3 Not yet Critical (Year 2-5)	\$2,050,400				\$2,050,400
4 Long Term (Year 6-10)	\$9,000	\$1,287,500			\$1,296,500
5 Does not meet current codes (Grandfathe	\$50,000	\$180,000	\$1,085,000		\$1,315,000
	Subtotal	\$8,389,050	\$1,827,500	\$1,326,500	
					\$11,543,050
					Total of Projects

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$97,600**

Precast concrete panels/concrete/brick (at grade). The cladding is original to the building. Brick at first level is on good conditions with no reported issues. The penthouse screenwall is comprised of aluminum panels (some original, some replaced) with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Water infiltration at louvers on building's South elevation. Louvers need to be replaced.		Deferred Maintenance	1 \$6,600 \$6,600					DM	
3: Not yet Critical (Year 2-5)	Owner suspects that mounting hardware for precast panels may be rusting due to water infiltration.		Deferred Maintenance	1 \$84,000 \$84,000					DM	
4: Long Term (Year 6-10)	A few minor chips were observed in precast panels at walkway; however most are in good condition.		Deferred Maintenance	1 \$5,000 \$5,000					DM	
4: Long Term (Year 6-10)	Minor patching at plaster soffit (building's South elevation).		Deferred Maintenance	1 \$2,000 \$2,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 3

Subtotal: \$15,000

Exterior glazing is double pane insulated with aluminum frames. Windows were replaced 15-20 years ago. All windows are casements with spandrel panels below.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Evidence of Water/Air infiltration was observed at windows on Northwest corner of building. Windows required caulking.	Deferred Maintenance		1 \$3,000 \$3,000						BI	
2: Potentially Critical (Year 1)	Owner indicated overall caulking deterioration at windows throughout building.	Deferred Maintenance		1 \$12,000 \$12,000						BI	

Exterior: Roof

Maint. Type: Architectural

System Rating: 1

Subtotal: \$320,000

The roof is a built-up Tremco roof. The roof was installed approx. 20 years ago. Roof is routinely maintained.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Roof is in poor condition. Insulation is spongy	Deferred Maintenance		1 \$320,000 \$320,000						BI	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$538,000

The original construction had VAT in the classrooms and hallways that weren't terrazzo. Throughout the bldg VCT was installed over VAT (in 2012) to encapsulate VAT. The toilet rooms has porcelain tile with no reported problems. Main level lobby has terrazzo that is original to the bldg. The interior stairs and original terrazzo flooring with no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Terrazzo in Level 1 Lobby shows signs of numerous cracks and should be repaired/replaced.	Deferred	Maintenance	1 \$38,000						DM	
4: Long Term (Year 6-10)	Since VCT was installed over VAT, it is expected that the VCT will have limited lifespan (less than 10 years).	Planned	Maintenance (Facility Renewal or Capital Repair)	1 \$500,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 2

Subtotal: \$48,400

Basement classroom ceilings were replaced with 2x4 lay-in approx 15-20 years ago as part of above ceiling work. Remainder of basement ceiling is spline (original to the bldg). Level 1 is mix of 1x1 spline (original to the bldg) and 2x4 lay-in clngs (in lobby and some classrooms). The remaining ceilings are 1x1 spline (original to the bldg).

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Ceiling tiles in basement corridor are at end of life and should be replaced.	Deferred	Maintenance	1 \$21,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 2

Subtotal: \$48,400

Basement classroom ceilings were replaced with 2x4 lay-in approx 15-20 years ago as part of above ceiling work. Remainder of basement ceiling is spline (original to the bldg). Level 1 is mix of 1x1 spline (original to the bldg) and 2x4 lay-in clngs (in lobby and some classrooms). The remaining ceilings are 1x1 spline (original to the bldg).

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Ceiling tiles in Level 2 perimeter offices exhibit sign of water damage and should be replaced.	Deferred Maintenance		1 \$4,600 \$4,600						DM	
3: Not yet Critical (Year 2-5)	Ceiling tiles in Level 1 Lobby are sagging and should be replaced.	Deferred Maintenance		1 \$22,800 \$22,800						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,260,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some water closets that have been replaced over the years. Toilet room fixtures are not ADA compliant. Fixtures are older high water consumption technology.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Urinals in Men's toilet rooms don't drain well due to scale and build-up in drain piping and should be replaced.	Deferred Maintenance		1 \$50,000 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,260,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some water closets that have been replaced over the years. Toilet room fixtures are not ADA compliant. Fixtures are older high water consumption technology.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Each toilet room has its own local electric water heater. Units are nearing the end of their useful life.	Deferred Maintenance		1 \$10,000 \$10,000					DM	
2: Potentially Critical (Year 1)	Toilet rooms have Bradley wash fountains and water closets that are not ADA-compliant. Replace one WC per toilet room and replace wash fountains with two ADA compliant lavs per toilet room.	Facility Adaptation (Capital Renewal)		1 \$50,000 \$50,000					A	
3: Not yet Critical (Year 2-5)	Cast iron drain piping is original to the building and should be replaced in the next renovation. Much of the piping is concealed and could not be replaced without extensive remodeling.	Deferred Maintenance		1 \$500,000 \$500,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,260,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some water closets that have been replaced over the years. Toilet room fixtures are not ADA compliant. Fixtures are older high water consumption technology.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Domestic water piping is original to the building. Consists of copper and lead solder. Much of the piping is concealed and could not be replaced without extensive remodeling.	Deferred Maintenance		1 \$650,000 \$650,000						DM	

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 2

Subtotal: \$4,577,500

Mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied to the units from the campus central plant. A heat exchanger convert high-temperature heating hot water to standard temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a regional chilled water plant with a 750 ton centrifugal chiller and cooling tower located at the building. Chiller was replaced approximately 15 years ago but cooling tower is original equipment.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	No smoke control systems. Smoke duct detectors installed and interlocked to AHUs. No other interlocks. HVAC shafts penetrate each floor with no life safety dampers. Does not meet current life safety code.	Facility Adaptation (Capital Renewal)		1 \$100,000 \$100,000						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 2

Subtotal: \$4,577,500

Mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied to the units from the campus central plant. A heat exchanger convert high-temperature heating hot water to standard temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a regional chilled water plant with a 750 ton centrifugal chiller and cooling tower located at the building. Chiller was replaced approximately 15 years ago but cooling tower is original equipment.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Cooling tower is original 1960. Wood structure, very old technology, very inefficient. Some roof leaks at tower supports, basin appears to be leaking. Tower is well past its usable service life. Replace as soon as possible.	Deferred Maintenance	1	\$450,000 \$450,000						DM	
2: Potentially Critical (Year 1)	All zone level controls are pneumatic and original to the building. Replace with DDC controls.	Deferred Maintenance	1	\$540,000 \$540,000						DM	
2: Potentially Critical (Year 1)	Dual-duct boxes and distribution equipment is original to the building and well past their useful life. Equipment is unreliable and inefficient. Mixing boxes are internally insulated, hard to clean. Duct elbows insulated with asbestos.	Deferred Maintenance	1	\$900,000 \$900,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 2

Subtotal: \$4,577,500

Mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied to the units from the campus central plant. A heat exchanger convert high-temperature heating hot water to standard temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a regional chilled water plant with a 750 ton centrifugal chiller and cooling tower located at the building. Chiller was replaced approximately 15 years ago but cooling tower is original equipment.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Four Constant-Volume, Dual-Duct Air-Handling Units are original to the building. System efficiency very low. Dampers and coils are original. Units are operational but unreliable. Units are well past their useful life.	Deferred Maintenance		1 \$1,350,000 \$1,350,000						DM	
3: Not yet Critical (Year 2-5)	Heating hot water system piping mains suspected to be insulated with asbestos. Unit heaters and perimeter heating elements are past end of useful life. Replace in next renovation.	Deferred Maintenance		1 \$450,000 \$450,000						DM	
4: Long Term (Year 6-10)	Trane Centrivac 750 ton chiller appears to be in good working condition but will be reaching its end of useful life in the next 10 years.	Planned Maintenance (Facility Renewal or Capital Repair)		1 \$787,500 \$787,500						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$200,000

In general, classrooms and offices have a single switch, with no occupancy sensors or time controls. Corridors have keyed switches, with no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/	Year	R/F	Correction	Floor #	Proposed	Assessment	%
				Resolution	Res.			Room #	Renewal	Cat.	Used
				Cost							
				Budget							
5: Does not meet current codes (Grandfathered)	Many areas have only 1 light switch for illumination control. Additional light switches allow illumination flexibility to match the tasks, while further opportunity for energy savings.		Facility Adaptation (Capital Renewal)	1							BC
				\$150,000							
				\$150,000							
5: Does not meet current codes (Grandfathered)	Many unoccupied areas were observed to be fully illuminated. Current energy codes require occupancy sensors or time control devices.		Facility Adaptation (Capital Renewal)	1							BC
				\$50,000							
				\$50,000							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$180,000

A National Time & Signal control panel is located in the first floor lobby. The panel is analog type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1993.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage does not meet current codes and should be extended.		Planned Maintenance (Facility Renewal or Capital Repair)	0 \$0						LSC	
5: Does not meet current codes (Grandfathered)	The existing panel is nearing the end of its anticipated lifespan. It is analog type and cannot support strobe synchronization and some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$180,000 \$180,000						LSC	
5: Does not meet current codes (Grandfathered)	Strobe coverage does not meet current codes and should be extended to all public spaces, including classrooms and multiperson offices. Strobes do not synchronize.		Planned Maintenance (Facility Renewal or Capital Repair)	0 \$0						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$823,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but compact fluorescent downlights and circular lamps were also observed in limited quantities. Many original fixtures were retrofitted from T12 to T8 platforms. Due to spline ceilings and potentially limited ceiling plenum space, most fixtures are surface mounted type.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Some lenses on light fixtures throughout building are showing their age, even though retrofit lamps and ballasts may have been installed. Aged lenses decrease efficiency and reflect poorly on building aesthetics.	Deferred Maintenance		1 \$15,000 \$15,000						DM	
5: Does not meet current codes (Grandfathered)	Existing lighting systems appear to utilize more wattage and lighting intensity than what is required by energy codes or IESNA illumination recommendations. Modern lighting designs can easily achieve lighting power densities below 0.9 watts per square foot while maintaining decent light levels.	Facility Adaptation (Capital Renewal)		1 \$800,000 \$800,000						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$105,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to Liberal Arts distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The original panelboards throughout the building have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve.		Deferred Maintenance	1 \$20,000						DM	
5: Does not meet current codes (Grandfathered)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1993. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).		Facility Adaptation (Capital Renewal)	1 \$45,000						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$105,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to Liberal Arts distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Although the automatic transfer switches appear fairly new, they do not meet the full intent of life safety codes because they serve multiple buildings. Significant renovations within Liberal Arts would require independent automatic transfer switches to serve only that building.		Facility Adaptation (Capital Renewal)	1 \$40,000 \$40,000				S-23		BC	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Owner stated that phone is handled with voice over IP protocol. Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Data equipment may experience higher temperatures within electrical closets; heat shortens equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems.			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Owner stated that phone is handled with voice over IP protocol. Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Because the data racks are within electrical closets, they are positioned such that they are only front-accessible. This makes it more difficult to train data cables as well as access the components.			0							
:	Some data cables are untrained and are drooping onto the floor. This condition may present a tripping or life safety hazard to electrical maintenance activities.			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

Subtotal: \$1,058,100

4,800V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). An existing primary switch currently feeds both the Liberal Arts Building and the Learning Technology Center; a current project will soon shift the LTC to the 13,200V system. The Liberal Arts main substation also resides in Room S-23, and is rated 1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Liberal Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. All of the aforementioned equipment was installed in 1960.

4,800V utility power is provided to the central chiller plant substation, which is rated 500 kVA, 480Y/277V. The electrical equipment was installed approximately in 1995.

In approximately 2001, a substation (rated 500kVA, 13.2kV-480Y/277V) dedicated to computer power loads was installed in Room S-23, which supports Liberal Arts as well as the Science Building. Step-down transformers within Liberal Arts supply 208Y/120V to computer receptacle panels.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	The main 4,800V primary switch line-up is showing rust in areas, although not as extensive as the substation above. A note is observed at the switches stating "Danger, Fuses are on line side of switch, Always hot". This presents a hazard for maintenance or service shutdown activities. The Owner stated that these switches have not been exercised, so it is unknown how dependable they may be.	Deferred Maintenance		1 \$350,000 \$350,000					DM	
1: Currently Critical (Current Year)	A ceiling mounted pullbox is open, exposing it's conductors, and is a code violation. The cover should be replaced.	Deferred Maintenance		1 \$100 \$100					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	A note has been observed upon the primary fused switch stating "Interlock Not Functioning Can't Open". This condition should be immediately investigated, repaired, or replaced. It is a hazard to life safety and continued building operation.	Deferred Maintenance		1 \$2,000 \$2,000						DM	
1: Currently Critical (Current Year)	A note has been observed at the substation secondary stating "Center leg of AMI breaker is defective and needs to be replaced." Further details are required to see if this has been addressed already. If not, it may present a hazard to life safety and continued operation of AMI. Repairs and replacement parts are likely very difficult to achieve.	Deferred Maintenance		1 \$6,000 \$6,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Various substation feeders are highly corroded due to water and salt damage. Some feeders are plastic-wrapped to provide a temporary band-aid to further damage. Condition of the conductors inside is unknown, but may present a hazard to life safety and continued building operation.	Deferred	Maintenance	1 \$30,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Substation switch housing is corroded. This area is under site walkways and has suffered long-term water and salt damage. The primary fused switch of the substation is severely rusted in places and has large corrosion-induced holes. The holes may allow vermin to enter the gear and potentially shutdown the entire building. Inspection of the interior of the switch is IMMEDIATELY recommended to ascertain the condition. The primary fused switch in particular should be considered a life safety issue and should be addressed immediately. Cost is replacement, not repair.	Deferred Maintenance		1 \$50,000 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	In general, because data systems have been located in many of the electrical closets, there is no longer room within the closets to add additional electrical distribution. Adding closets would impact existing program space.	Deferred Maintenance		1 \$60,000 \$60,000						CR	
2: Potentially Critical (Year 1)	The substation has exceeded its anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve.	Deferred Maintenance		1 \$225,000 \$225,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

Subtotal: \$1,058,100

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	The ventilation openings throughout the substation are nearly completely blocked by dust. At a minimum, lack of ventilation may cause increased heat and shortened life. Depending on how extensive the dust is within the gear, it may also present an arc flash and life safety hazard. Substation shutdown and cleaning is recommended.	Deferred	Maintenance	1 \$2,500						DM	
2: Potentially Critical (Year 1)	The half-height tunnel appears to serve as a chase for a mixture of utilities. Further investigation is required, but it is suspected that there is a mixture of insulation types amongst the power and data cables, creating a potential hazard.	Deferred	Maintenance	1 \$50,000						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

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System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The original panelboards (located throughout building in various electrical closets) have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable).	Deferred	Maintenance	1 \$175,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	An old power distribution unit and integral isolation transformer power only a handful of circuits. The Owner stated that the remaining (8?) circuits should be transferred to the newer computer power system. This would free up space, streamline the power system, and save energy by eliminating an underutilized transformer.	Deferred	Maintenance	1 \$5,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The original step-down transformers (located throughout building in various electrical closets) have reached the end of their useful lifespan. The "Niagara" brand is an unusual manufacturer for this region of the country. The transformers appear undersized for today's standards, so are not likely to support additional loads downstream.		Deferred Maintenance	1 \$50,000 \$50,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	The data sub and its computer panel distribution system appear severely underutilized. Metering data is requested for analysis, but site observations suggest that the energy to magnetize the transformer coils may be the major load on this system, wasting energy. The system is nearing mid-life, but has yet to serve its untapped potential.		Deferred Maintenance	0					DM	
5: Does not meet current codes (Grandfathered)	13.2kV feeder conduits (to LRC) and 4.8kV feeder conduits to the central chiller are not enclosed within a fire-rated structure per code. Access to a pullbox behind the air handling unit does not meet code clearance requirements.		Deferred Maintenance	1 \$50,000 \$50,000					BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	The wall-mounted loop switches appear to be in decent condition, but the Owner stated that they do not have a UL listing. Caution should be taken when servicing or operating this equipment.	Deferred	Maintenance	0						DM	

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 0

Subtotal: \$91,500

In the context of ADA compliance, most components of the building are original and do not meet today's requirements for accessibility. Level 1 toilet rooms were updated for stalls and power assist doors to comply with ADA. Elevator controls are original. Stair handrails are original to the bldg and are in fair condition. Elevator controls have recently been updated to be ADA compliant. Door actuators have been installed as required.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	There are no ADA provisions for the basement level auditorium.	Facility Adaptation	(Capital Renewal)	1 \$1,500						A	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

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System Rating: 0

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Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Toilet rooms are in original configuration and do not meet current ADA code.		Facility Adaptation (Capital Renewal)	1 \$90,000 \$90,000						A	

Campus Site: Site

Maint. Type: Other

System Rating: 1

Subtotal: \$1,599,950

Site is comprised of elevated concrete walkways, concrete paved plaza and partial lawn area. Most elements are original to the 1960 construction. The west elevation stairs are not original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Plaza concrete pavers have significant cracking/settlement problems.		Deferred Maintenance	1 \$50,000 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site

Maint. Type: Other

System Rating: 1

Subtotal: \$1,599,950

Site is comprised of elevated concrete walkways, concrete paved plaza and partial lawn area. Most elements are original to the 1960 construction. The west elevation stairs are not original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	When concrete slabs were replaced at the south entries, it created a negative pitch back towards the building. This has resulted in water flooding the entry vestibules and water infiltration into basement via air duct.	Deferred Maintenance		1 \$15,000 \$15,000						DM	
1: Currently Critical (Current Year)	The metal guardrail system is rusting and is due for replacement.	Deferred Maintenance		1 \$319,950 \$319,950						DM	
1: Currently Critical (Current Year)	The original elevated conc deck was cut back which left exposed concrete edge. A metal plate was installed as part of the guardrail system that has caused corrosion and water infiltration. Exposed rebar was observed below the desk as a result of concrete spalling.	Deferred Maintenance		1 \$1,000,000 \$1,000,000						BI	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site

Maint. Type: Other

System Rating: 1

Subtotal: \$1,599,950

Site is comprised of elevated concrete walkways, concrete paved plaza and partial lawn area. Most elements are original to the 1960 construction. The west elevation stairs are not original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Site steps and supporting structures are failing. System has visible signs of deterioration and must be replaced.		Deferred Maintenance	1 \$200,000 \$200,000						DM	
3: Not yet Critical (Year 2-5)	The factory finish on the building entry canopy structures is failing and needs to be refinished.		Deferred Maintenance	1 \$15,000 \$15,000						DM	

Fire Protection: Fire Protection System

Maint. Type: Other

System Rating: 0

Subtotal: \$360,000

Building is not sprinklered. There is a fire hose station with an extinguisher at each floor and exterior Fire Department Connection. A water storage tank in the penthouse appears to have been used as a "water tower" at one time and would feed the hose stations, but it now appears to be abandoned and the FDC serves the hose stations.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Add a wet-pipe fire protection system in the next building renovation.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$360,000 \$360,000						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$65,000

Exterior doors are aluminum with full lites. Interior doors are solid core hardwood doors and are in fair condition. The majority of the interior doors have original door hardware. Almost all classrooms doors are fire rated. All rated doors are asbestos core doors.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used	
1: Currently Critical (Current Year)	Exterior doors are past their life cycle and should be replaced. The door exhibit failing hardware, rusting, corroding and require constant maintenance.	Deferred	Maintenance	1 \$65,000							DM	

End of Building Report for: **Liberal Arts Building**

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Eshleman Library**BUILDING No.:** 2

Year Built: 1960

Floors: 3

Building Area (sf): 46,587

Notes: The Eshleman Library was constructed in 1960. It is a two story building with a basement level. It is a brick veneer building with a concrete column and waffle slab construction. The Library was expanded to the South in 1997 at the same time that the LRC was constructed to the Library's North. The building is dedicated almost entirely to library stacks, study spaces and library resources.

Major Renovations/Additions

Year	Add'n.	Reno.	Description
1997	X	X	Building was expanded to the North and to the South. The North addition is now considered the Learning Resource Center while the South addition is considered part of the Eshleman Library. Some systems in the original 1960 Library building were upgraded when the additions were built in 1997.

Building Use Types

Use Type %	Use Type
100%	Library

Facility Condition Index

All priorities

FCI	17.65%	Poor	CRV	\$11,646,750	Annual Maint and Capital Renewal Budget	\$349,403
						3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI	17.40%	Poor
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BUILDING REPORT**Henry Ford College****CAMPUS Main Campus - Dearborn, Michigan****Priority 1 (current year only)****FCI**

4.60%

Good

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$533,900				\$533,900
2 Potentially Critical (Year 1)	\$802,000				\$802,000
3 Not yet Critical (Year 2-5)	\$50,000	\$386,500			\$436,500
4 Long Term (Year 6-10)	\$29,000				\$29,000
5 Does not meet current codes (Grandfathe	\$95,000		\$585,000		\$680,000
	Subtotal	\$1,509,900	\$386,500	\$585,000	\$2,481,400
					Total of Projects

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls **Maint. Type: Architectural** **System Rating: 4** **Subtotal: \$4,000**
Bldg shell is comprised of brick and exposed concrete which is original to the building. No reported issues with the cladding. No tuckpointing has been done thus far.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Minor tuckpointing necessary at Northwest entry area.		Deferred Maintenance	1 \$2,000						DM	
4: Long Term (Year 6-10)	Concrete at Southwest entry is stained and should be cleaned.		Deferred Maintenance	1 \$2,000						DM	

Exterior: Windows **Maint. Type: Architectural** **System Rating: 5** **Subtotal:**
All glazing is insulated, casement system. East elevation has been replaced. The west and south elevations are original to the building. The 2nd floor south elevation is new glazing. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof **Maint. Type: Architectural** **System Rating: 2** **Subtotal: \$237,200**

Firestone EPDM ballasted roof installed approx. 1995

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Bellows expansion joints between Library and LRC have visible holes and are compromised.		Deferred Maintenance	1 \$10,000 \$10,000						DM	

1: Currently Critical (Current Year)	Roof is in poor condition. Reported that roof is pulling.		Deferred Maintenance	1 \$227,200 \$227,200						DM	
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Superstructures: Structural Frame **Maint. Type: Architectural** **System Rating: 5** **Subtotal:**

Structure is comprised of waffle slab construction and concrete columns . The are no reported issues with the structure.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes **Maint. Type: Architectural** **System Rating: 5** **Subtotal:**

Walls are painted gypsum board. No reported issues with walls or casework.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 2

Subtotal: \$217,700

Floors are sheet carpet in most areas and tile in the toilet rooms. 2nd floor south was recently renovated.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Carpet is worn and needs to be replaced throughout building except for South side of 2nd floor.	Deferred Maintenance		1 \$216,700						DM	
4: Long Term (Year 6-10)	Minor touch up of painted stair floors is required in stair wells.	Deferred Maintenance		1 \$1,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 3

Subtotal: \$81,000

Ceiling is comprised of exposed painted waffle slabs in the library stacks and lobby, and lay-in ceiling in all other spaces. 2nd floor south lay-in ceiling is new. No reported issues with lay-in ceilings.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Waffle slabs weren't properly prepped when painted. Paint is peeling in numerous locations.	Deferred Maintenance		1 \$80,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 3

Subtotal: \$81,000

Ceiling is comprised of exposed painted waffle slabs in the library stacks and lobby, and lay-in ceiling in all other spaces. 2nd floor south lay-in ceiling is new. No reported issues with lay-in ceilings.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	3-4 ceiling tiles on South side of 2nd floor have water stains and should be replaced.		Deferred Maintenance	1 \$1,000 \$1,000						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal: \$71,500

Plumbing fixtures were upgraded in 1995 when the South addition was built.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Flush valves are not water-saving type units. Replace with modern water-saving units (17 WCs, 4 Urinals, 7 Lavs)		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$71,500 \$71,500						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$1,014,000

The original 1960 Library building is served by a Multi-Zone Air-Handling system located in the basement mechanical room. The 1995 South Addition is served by roof-mounted Air-Handling Units that were installed at that time. Chilled water is provided to the building from equipment housed in the adjacent Liberal Arts building. High Temperature Heating Hot Water is provided to the building from the central plant and converted to standard temperature heating water with shell and tube heat exchangers in the basement of the Library. Heating Hot Water equipment and piping was upgraded as part of the 1995 South Addition project.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Multi-zone Air-Handling Unit in basement is original to the building and past its useful service life.		Deferred Maintenance	1 \$705,000 \$705,000						DM	
3: Not yet Critical (Year 2-5)	Mechanical system controls are pneumatic and should be upgraded to DDC in next renovation project.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$235,000 \$235,000						DM	
3: Not yet Critical (Year 2-5)	CAV system is inefficient, would not comply with current Energy Code.		Deferred Maintenance	1 \$50,000 \$50,000						DM	
4: Long Term (Year 6-10)	Hydronic distribution consists of copper piping system with separate systems for perimeter FTR and duct mounted heating coils.		Deferred Maintenance	1 \$24,000 \$24,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$25,000

In general, offices have a dual switching, with no occupancy sensors or time controls. The library/stack lighting is controlled remotely by a central lighting control system with relays and a master switch panel.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Occupancy sensors or time control devices are required by current energy codes.		Facility Adaptation (Capital Renewal)	1 \$25,000 \$25,000						BC	

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$95,000

A National Time & Signal control panel is located in Electrical Room 147 of the Learning Resources Center. The panel is analog type. An annunciator panel is located in the first floor lobby of the Library. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	With the Learning Resources Center and the Eshleman Library being treated as separate buildings, they each should have a dedicated fire alarm panel. This strategy should be incorporated in any major renovation.			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$95,000

A National Time & Signal control panel is located in Electrical Room 147 of the Learning Resources Center. The panel is analog type. An annunciator panel is located in the first floor lobby of the Library. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Strobe coverage does not meet current codes and should be extended to multiperson offices and group study rooms. Strobes do not synchronize.			0							
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage does not meet current codes and should be extended.			0							
5: Does not meet current codes (Grandfathered)	The existing panel is nearing the end of its anticipated lifespan. It is analog type and cannot support some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate.	Deferred Maintenance		1 \$95,000 \$95,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$640,000

Most of the light fixtures within the office areas consist of 2'x4' recessed troffers with 7x15 cell louvers and (3) 32 watt fluorescent lamps. Much of the library space consists of direct/indirect pendant linear fixtures with (2) 32 watt fluorescent lamps. Other fixture varieties include T8 or compact fluorescent lamps.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Emergency lighting is served by normal light fixtures with integral emergency batteries. Without performing extensive calculations, the emergency lighting appears to mostly comply with required codes. The Owner's maintenance staff expressed that maintaining a central inverter or generator system would be preferred over individual batteries; batteries may need replacing every 5 years.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$80,000 \$80,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal: \$640,000**

Most of the light fixtures within the office areas consist of 2'x4' recessed troffers with 7x15 cell louvers and (3) 32 watt fluorescent lamps. Much of the library space consists of direct/indirect pendant linear fixtures with (2) 32 watt fluorescent lamps. Other fixture varieties include T8 or compact fluorescent lamps.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Existing lighting systems in office areas appear to utilize more wattage (over 1.2 watts per square foot) and lighting intensity than what is required by energy codes or IESNA illumination recommendations. Modern lighting designs can easily achieve lighting power densities below 0.9 watts per square foot while maintaining decent light levels. The 2'x4' troffers with 7x15 cells are not efficient.		Facility Adaptation (Capital Renewal)	1 \$560,000						BC	

Electrical System: Phone/Data Systems **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal:**

Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Because the data racks are within electrical closets, they are positioned such that they are only front-accessible. This makes it more difficult to train data cables as well as access the components.			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal:

Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
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:	Some data cables are untrained and are drooping onto the floor. This condition may present a tripping or life safety hazard to electrical maintenance activities.			0							
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:	Data equipment may experience higher temperatures within electrical closets; heat shortens equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems.			0							
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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$254,500

The library's main substation resides in the lower level mechanical room, and is rated 500 kVA, 4.8kV-480Y/277V, with a 1,200 amp main switch. The 4.8kV service is sourced from a primary fused switch within Science Building Room S-23, which is a shared primary circuit with the Patterson Building. Approximately 1/2 of the building's power distribution is fed from the library substation; the remaining 1/2 of distribution is fed from the main substation within LRC. The library substation and 1/2 of the downstream distribution was installed in 1966; the remaining 1/2 of distribution was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	A note has been observed at the substation secondary stating "Defective Switch" for Panel LP-EM; the switch appears to be in the energized position. Further details are required to see if this has been addressed already. If not, it may present a hazard to maintain or utilize.			1 \$2,000 \$2,000						DM	
2: Potentially Critical (Year 1)	The substation has exceeded its anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve.			1 \$200,000 \$200,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$254,500

The library's main substation resides in the lower level mechanical room, and is rated 500 kVA, 4.8kV-480Y/277V, with a 1,200 amp main switch. The 4.8kV service is sourced from a primary fused switch within Science Building Room S-23, which is a shared primary circuit with the Patterson Building. Approximately 1/2 of the building's power distribution is fed from the library substation; the remaining 1/2 of distribution is fed from the main substation within LRC. The library substation and 1/2 of the downstream distribution was installed in 1966; the remaining 1/2 of distribution was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	The ventilation openings throughout the substation are nearly completely blocked by dust. At a minimum, lack of ventilation may cause increased heat and shortened life. Depending on how extensive the dust is within the gear, it may also present an arc flash and life safety hazard. Substation shutdown and cleaning is recommended.			1 \$2,500 \$2,500						DM	
3: Not yet Critical (Year 2-5)	The original panelboards have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable).			1 \$50,000 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance **Maint. Type: Legal & Mandatory** **System Rating: 2** **Subtotal: \$90,000**

Toilet rooms have ADA compliant stall. Elevator is ADA compliant but failing.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Owner indicates that elevator is failing and must be replaced.		Deferred Maintenance	1 \$90,000 \$90,000						DM	

Campus Site: Site **Maint. Type: Other** **System Rating: 4** **Subtotal: \$6,000**

Site is comprised of sidewalks and lawn areas with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	The stoop slabs have heaved at the east/west exterior doors.		Deferred Maintenance	1 \$6,000 \$6,000						DM	

Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating: 4** **Subtotal:**

Building is fully sprinklered. No reported issues with system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 4

Subtotal:

Exterior doors are aluminum with full lites at entry locations, insulated hollow metal doors at stair exits.

For interior doors, wood doors with hm frames. No reported issues with interior or exterior doors. Lower level doors are currently being replaced.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

End of Building Report for: **Eshleman Library**

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Learning Resource Center**BUILDING No.:****3**

Year Built: 1998

Floors: 3

Building Area (sf): 53,744

Notes: The Learning Resource Center was built adjacent to the existing Library in 1997. It is a two (2) story building with a basement level and it contains a total of 53,744 square feet. It is a concrete structure with waffle slab construction. The façade is predominately a curtain-wall system with some areas of brick veneer. The building houses the offices of the Registrar, Financial Aid, Career Services, Counseling, Enrollment as well as the Learning Lab and testing rooms. The Basement Level is currently being renovated (Summer of 2014).

Building Use Types

Use Type % Use Type

100% Classroom/Teaching Laboratory

Facility Condition Index

All priorities

FCI	6.90%	Fair	CRV	\$13,436,000	Annual Maint and Capital Renewal Budget	\$403,080
						3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI	5.33%	Fair
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Priority 1 (current year only)

FCI	1.80%	Good
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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$241,500				\$241,500
2 Potentially Critical (Year 1)	\$45,600				\$45,600
3 Not yet Critical (Year 2-5)	\$203,500	\$120,000	\$105,000		\$428,500
4 Long Term (Year 6-10)	\$212,000				\$212,000
5 Does not meet current codes (Grandfathe		\$140,000	\$680,000		\$820,000
Subtotal	\$702,600	\$260,000	\$785,000		\$1,747,600
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 5

Subtotal:

Bldg shell is comprised of brick which is original to the building. No reported issues with the cladding. No tuckpointing has been done thus far.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0						

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 4

Subtotal:

All glazing is insulated, casement system. East elevation has been replaced. The west and south elevations are original to the building. The 2nd floor south elevation is new glazing. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Exterior: Roof

Maint. Type: Architectural

System Rating: 2

Subtotal: \$235,000

Firestone EPDM ballasted roof installed approx. 1995

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Roof is in poor condition. Reported that roof is pulling.	Deferred Maintenance		1 \$215,000 \$215,000						DM	
1: Currently Critical (Current Year)	Bellows expansion joints have visible holes and are compromised.	Deferred Maintenance		1 \$10,000 \$10,000						DM	
1: Currently Critical (Current Year)	Water infiltration at skylights due to failing skylight joints and flashing at skylights.	Deferred Maintenance		1 \$10,000 \$10,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame				Maint. Type: Architectural			System Rating: 5			Subtotal:	
<i>Structure is comprised of waffle slab construction and concrete columns with no reported issues.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes				Maint. Type: Architectural			System Rating: 4			Subtotal:	
<i>Gypsum board and metal stud walls for office partitions. CMU walls at stairs and toilet rooms. Limited amount of wood casework. No reported issues.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Floors				Maint. Type: Architectural			System Rating: 3			Subtotal: \$45,600	
<i>Lobby area is tile. Remaining areas are carpet tile. Lower level is currently being replaced. Approx 50% of first floor office area will be renovated spring 2014. Approx 25% of first floor office area was replaced within the last 6 months. Approx 25% of first floor office area is original to the building and in good shape. Toilet rooms were recently renovated</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Carpet in first floor counseling area is worn and needs to be replaced.		Deferred Maintenance	1 \$45,600						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 3

Subtotal: \$60,000

Ceiling is comprised of exposed painted waffle slabs in the lobby, and lay-in ceiling in all other spaces. 2nd level ceiling of Learning Lab suite is new. Lower level ceiling is being replaced as part of current renovation project. Toilet rooms have gyp bd ceilings. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Lay-in ceiling system (first floor counseling and career services area) is sagging and stained and should be replaced.		Deferred Maintenance	1 \$60,000						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$105,000

Fixtures are mostly original to 1995 south addition. Flush valves are not low water usage type.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Flush valves are not water-saving type units and lav sinks are Bradley wash fountains, which are not ADA compliant. Replace with modern water-saving units (25 WCs, 6 Urinals, 10 Lavs)		Facility Adaptation (Capital Renewal)	1 \$105,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 4

Subtotal: \$261,500

Roof-Mounted, variable air volume air-handling units units were installed as part of the 1995 construction project. Units are in very good condition. VAV terminal units are located throughout the building. Chilled water and High Temperature Heating Hot Water are provided to the building from the central plant. High Temperature Heating Hot Water is converted to standard temperature heating water with Shell and Tube Heat Exchangers in the basement of the Eshleman Library building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Make-Up Air Unit in basement mechanical room has a broken damper actuator. Outdoor air damper is stuck open allowing outdoor air to enter the building/system when not needed.	Deferred Maintenance		1 \$1,500 \$1,500						DM	
4: Long Term (Year 6-10)	Zone level HVAC controls are pneumatic.	Deferred Maintenance		1 \$210,000 \$210,000						DM	
5: Does not meet current codes (Grandfathered)	Ventilation shafts are not properly protected with fire/smoke dampers.	Planned Maintenance (Facility Renewal or Capital Repair)		1 \$50,000 \$50,000						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$30,000

In general, classrooms and offices have a dual switching, with no occupancy sensors or time controls. The atrium lighting is controlled remotely by a central lighting control system with relays and a master switch panel.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Aside from the on-going Learning Program renovation, occupancy sensors or time control devices are required by current energy codes.	Early	Facility Adaptation (Capital Renewal)	1 \$30,000 \$30,000						BC	

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$140,000

A National Time & Signal control panel is located in Electrical Room 147 of the Learning Resources Center. The panel is analog type. An annunciator panel is located in the first floor lobby of the Library. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The existing panel is nearing the end of its anticipated lifespan. It is analog type and cannot support some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate.		Deferred Maintenance	1 \$140,000 \$140,000				LRC 147		LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$140,000

A National Time & Signal control panel is located in Electrical Room 147 of the Learning Resources Center. The panel is analog type. An annunciator panel is located in the first floor lobby of the Library. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1998.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	With the Learning Resources Center and the Eshleman Library being treated as separate buildings, they each should have a dedicated fire alarm panel. This strategy should be incorporated in any major renovation.		Facility Adaptation (Capital Renewal)	0				LRC 147		LSC	
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage does not meet current codes and should be extended.		Facility Adaptation (Capital Renewal)	0						LSC	
5: Does not meet current codes (Grandfathered)	Strobe coverage does not meet current codes and should be extended to multiperson offices and group study rooms. Strobes do not synchronize.		Facility Adaptation (Capital Renewal)	0						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$860,000

Most of the light fixtures within the building consist of 2'x4' recessed troffers with 7x15 cell louvers and (3) 32 watt fluorescent lamps. In much fewer quantities are other fixture varieties with T8 and compact fluorescent lamps. The center atrium has a mixture of fluorescent sources and large metal halide lamps.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Emergency lighting is served by normal light fixtures with integral emergency batteries. Without performing extensive calculations, the emergency lighting appears to still comply with required codes. The Owner's maintenance staff expressed that maintaining a central inverter or generator system would be preferred over individual batteries; batteries may need replacing every 5 years.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$120,000 \$120,000						CR	
5: Does not meet current codes (Grandfather ed)	The large metal halide fixtures in the Atrium were originally intended to uplight the skylight. The Owner stated that they do not energize these fixtures due to the loud buzz of the ballasts. If utilized, these fixtures likely consume more energy than necessary, while mainly illuminating the night sky. Cost represents an LED replacement project.		Planned Maintenance (Facility Renewal or Capital Repair)	1 \$90,000 \$90,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal: \$860,000**

Most of the light fixtures within the building consist of 2'x4' recessed troffers with 7x15 cell louvers and (3) 32 watt fluorescent lamps. In much fewer quantities are other fixture varieties with T8 and compact fluorescent lamps. The center atrium has a mixture of fluorescent sources and large metal halide lamps.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Aside from the on-going Early Learning Program renovation, existing lighting systems appear to utilize more wattage (over 1.2 watts per square foot) and lighting intensity than what is required by energy codes or IESNA illumination recommendations. Modern lighting designs can easily achieve lighting power densities below 0.9 watts per square foot while maintaining decent light levels.		Facility Adaptation (Capital Renewal)	1 \$650,000						BC	

Electrical System: Phone/Data Systems **Maint. Type: Plumbing & Electrical** **System Rating:** **Subtotal:**

Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Some data cables are untraced and are drooping onto the floor. This condition may present a tripping or life safety hazard to electrical maintenance activities.			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
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:	Because the data racks are within electrical closets, they are positioned such that they are only front-accessible. This makes it more difficult to train data cables as well as access the components.			0							
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:	Data equipment may experience higher temperatures within electrical closets; heat shortens equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems.			0							
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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

The LRC main substation resides in Electrical Room 147, and is rated 750/1000 kVA, 13.2kV-480Y/277V, with a 1,200 amp secondary bus and six service disconnects. The six service disconnects have a key interlock scheme with the primary fused switch. The 13.2kV service is sourced from a primary fused switch within the campus high voltage yard. Approximately 11 step-down transformers provide 208Y/120V throughout the building. A maximum demand reading of 172.7 kVA was recorded on March 4, 2014.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Electrical Room 147: Possibly due to a lack of janitor closet space, trash containers and other materials are stored in front of the substation. Codes require that 60" or more be maintained clear in front of the substation. Clutter in front of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.	Deferred	Maintenance	0						DM	
5: Does not meet current codes (Grandfathered)	Overall system spaces, spares, and capacity appears to be decent. However, future projects must be wary that some of the electrical distribution has odd sizes (i.e. panelboards rated for 90 amps) that could become design choke points.	Planned	Maintenance (Facility Renewal or Capital Repair)	0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 4

Subtotal: \$3,000

Toilet rooms are ADA compliant. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	The ADA stalls are not ADA compliant		Deferred Maintenance	1 \$3,000 \$3,000						DM	

Campus Site: Site

Maint. Type: Other

System Rating: 4

Subtotal: \$2,000

Site is comprised of sidewalks and lawn areas with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	A few minor cracks at sidewalk pavers		Deferred Maintenance	1 \$2,000 \$2,000						DM	

Fire Protection: Fire Protection System

Maint. Type: Other

System Rating: 4

Subtotal:

Building is fully sprinklered. No reported issues with system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 4

Subtotal: \$5,500

Exterior doors are aluminum with full lites at entry locations, insulated hollow metal doors at stair exits. For interior doors, wood doors with HM frames. No reported issues with interior or exterior doors.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	West entry doors - portions of door seal/sweep missing. Door threshold is deteriorated and must be replaced. Hinges appear worn.	Deferred Maintenance		1 \$2,000 \$2,000						DM	
3: Not yet Critical (Year 2-5)	HM door leafs on West stair exterior doors indicate areas of rust/corrosion	Deferred Maintenance		1 \$3,500 \$3,500						DM	

End of Building Report for: **Learning Resource Center**

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

BUILDING: Technology Building**BUILDING No.: 4**

Year Built: 1964

Floors: 2

Building Area (sf): 169,848

Notes:

Major Renovations/Additions

Year	Add'n.	Reno.	Description
1993	X		

Building Use Types

Use Type %	Use Type
100%	Classroom/Teaching Laboratory

Facility Condition Index

All priorities

FCI	18.70%	Poor	CRV	\$50,105,160	Annual Maint and Capital Renewal Budget	\$1,503,155	3% of CRV
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Priorities 1-3 (current year through year 5 combined)

FCI	16.51%	Poor
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Priority 1 (current year only)

BUILDING REPORT**Henry Ford College****CAMPUS Main Campus - Dearborn, Michigan****FCI**

6.46%

Fair

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$3,238,250				\$3,238,250
2 Potentially Critical (Year 1)	\$3,393,200				\$3,393,200
3 Not yet Critical (Year 2-5)	\$1,641,000				\$1,641,000
4 Long Term (Year 6-10)	\$1,099,000				\$1,099,000
5 Does not meet current codes (Grandfathe	\$1,980,000				\$1,980,000
	Subtotal	\$11,351,450			
					\$11,351,450
					Total of Projects

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 3

Subtotal: \$125,000

Original bldg - windows are original single pane storefront windows. Addition has combination of punched casement windows and curtainwall. Addition windows are original to the addition (1993)

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	North side of addition: (1) pane of glass is cracked		Deferred Maintenance	1 \$2,000 \$2,000					DM	
2: Potentially Critical (Year 1)	Addition- unit B: Windows leak - replace caulking		Deferred Maintenance	1 \$5,000 \$5,000					DM	
2: Potentially Critical (Year 1)	Original bldg.: Ribbon windows and back storefront are original single pane and need replacement.		Deferred Maintenance	1 \$100,000 \$100,000					DM	
3: Not yet Critical (Year 2-5)	Curved wall - addition, east side & west side: Caulking has failed		Deferred Maintenance	1 \$15,000 \$15,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 3

Subtotal: \$125,000

Original bldg - windows are original single pane storefront windows. Addition has combination of punched casement windows and curtainwall. Addition windows are original to the addition (1993)

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	North entrance to addition: Finish on aluminum has an applied finish that is peeling		Deferred Maintenance	1 \$3,000 \$3,000						DM	

Exterior: Roof

Maint. Type: Architectural

System Rating: 4

Subtotal: \$1,206,750

The original bldg is a ballasted roof which is + 20 years old. Patching for the original bldg is ongoing but the roof system needs to be replaced. The roof of the new addition was replaced in 1995 and is reported to be in good shape.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Original & new addition: Portion of roof is in poor condition and needs to be repaired.		Deferred Maintenance	1 \$42,750 \$42,750						DM	
1: Currently Critical (Current Year)	Original bldg.: Roof hatch is in poor condition		Deferred Maintenance	1 \$5,000 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 4

Subtotal: \$1,206,750

The original bldg is a ballasted roof which is + 20 years old. Patching for the original bldg is ongoing but the roof system needs to be replaced. The roof of the new addition was replaced in 1995 and is reported to be in good shape.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Original & new addition: Portion of roof is in poor condition and needs to be replaced.		Deferred Maintenance	1 \$558,000 \$558,000						DM	
4: Long Term (Year 6-10)	Original & new addition: Portion of roof is in fair condition but will need to be replaced in 5-10 years		Deferred Maintenance	1 \$601,000 \$601,000						DM	

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating:

Subtotal: \$120,000

Concrete beam and column structure and limited areas of steel frame construction, built in 1960. The structure is in good condition with no settlement problems nor water infiltration reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Courtyard: Top of concrete column supporting concrete tees has spalled - needs to be cleaned, repaired and covered		Deferred Maintenance	1 \$50,000 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating:

Subtotal: \$120,000

Concrete beam and column structure and limited areas of steel frame construction, built in 1960. The structure is in good condition with no settlement problems nor water infiltration reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Loading Dock: Top of concrete column supporting concrete tees has spalled - needs to be cleaned, repaired and covered	Deferred Maintenance		1 \$50,000						DM	

3: Not yet Critical (Year 2-5)	Loading Dock: Ends of concrete tees have spalled and exposed rebar.	Deferred Maintenance		1 \$20,000						DM	
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Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal:

Walls are a combination of plaster walls, and exposed cmu walls in the original bldg while the new addition has a combination of gyp bd and cmu walls. The plaster is in good condition. The cmu is in good condition. There are no reported issues for the walls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$140,000

Original building - Corridors are VCT. New building - Corridors are predominantly VCT with tile at main entries.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Offices - addition: Carpet has failed and must be replaced	Deferred Maintenance		1 \$40,000 \$40,000					DM	
1: Currently Critical (Current Year)	Expansion joints - addition: Joints have chipped/cracked VCT tiles	Deferred Maintenance		1 \$10,000 \$10,000					DM	
1: Currently Critical (Current Year)	Stairs - addition: VCT has failed due to humidity issues and has already been removed.	Deferred Maintenance		1 \$30,000 \$30,000					DM	
1: Currently Critical (Current Year)	Corridors - original bldg.: VCT has failed over the walker ducts and must be replaced	Deferred Maintenance		1 \$30,000 \$30,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$140,000

Original building - Corridors are VCT. New building - Corridors are predominantly VCT with tile at main entries.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Corridors - addition: mid gray color VCT is failing	Deferred	Maintenance	1 \$30,000 \$30,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 2

Subtotal: \$764,000

Original bldg - ceilings in corridor are concealed spline, while ceilings in labs/classrooms are exposed. Addition - ceilings in corridor are floating gyp bd ceilings while classrooms are lay-in ceilings. The labs in the new addition are exposed.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Addition - stairs and labs: Exposed ceilings in stairwells and lab spaces are peeling	Deferred	Maintenance	1 \$12,000 \$12,000						DM	
2: Potentially Critical (Year 1)	Original bldg. - corridors: Concealed spline ceiling must be replaced.	Deferred	Maintenance	1 \$150,000 \$150,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 2

Subtotal: \$764,000

Original bldg - ceilings in corridor are concealed spline, while ceilings in labs/classrooms are exposed. Addition - ceilings in corridor are floating gyp bd ceilings while classrooms are lay-in ceilings. The labs in the new addition are exposed.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Addition - classrooms: Lay-in ceilings are sagging and must be replaced. (incl. necessary M/E modifications)		Deferred Maintenance	1 \$600,000 \$600,000						DM	
4: Long Term (Year 6-10)	First floor toilet room (addition):		Deferred Maintenance	1 \$2,000 \$2,000						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,200,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some fixtures that have been repaired/replaced over the years. Original building toilet room fixtures are not ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	All levels: Domestic water piping is original to the building. Consists of copper and lead solder. Much of the piping is concealed and could not be replaced without extensive remodeling.		Deferred Maintenance	1 \$650,000 \$650,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,200,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some fixtures that have been repaired/replaced over the years. Original building toilet room fixtures are not ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	All levels: Cast iron drain piping is original to the building and should be replaced in the next renovation. Much of the piping is concealed and could not be replaced without extensive remodeling.	Deferred Maintenance	1	\$500,000 \$500,000						DM	
5: Does not meet current codes (Grandfathered)	Original building: Toilet rooms have water closets that are not ADA-compliant. One unisex toilet room available with ADA compliant fixtures. 20 fixtures. Fixtures are also older high water consumption technology.	Deferred Maintenance	1	\$50,000 \$50,000						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$2,210,000

Original building mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a central chilled water plant. Labs use stand-alone RTUs with gas heat/DX cooling. New addition (1993) consists of 6 rooftop variable volume HVAC units with gas heat and DX cooling and 3 rooftop AC units with chilled water coils only. All heating for areas served by these units is local to the spaces with terminal unit heating coils. Hot water is supplied via HX on the 2nd floor mechanical room with high temp water supplied from central boiler. Welding lab has 4 rooftop MAUs with gas heat only. Hydronic heating is used for individual convector units with very minimal use of FTR.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	1993 Addition: HWH system 2-way control valves with no bypass, no VFD at pumps. Very inefficient system causing mechanical breakage and control issues at pumps.	Deferred Maintenance		1 \$10,000 \$10,000					DM	
1: Currently Critical (Current Year)	No corridor smoke isolation. Most of original building has fire dampers at some but not all corridor penetrations. 1993 Addition appears to have sporadic use of fire dampers only. Does not meet current life safety code.	Deferred Maintenance		1 \$300,000 \$300,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$2,210,000

Original building mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a central chilled water plant. Labs use stand-alone RTUs with gas heat/DX cooling. New addition (1993) consists of 6 rooftop variable volume HVAC units with gas heat and DX cooling and 3 rooftop AC units with chilled water coils only. All heating for areas served by these units is local to the spaces with terminal unit heating coils. Hot water is supplied via HX on the 2nd floor mechanical room with high temp water supplied from central boiler. Welding lab has 4 rooftop MAUs with gas heat only. Hydronic heating is used for individual convector units with very minimal use of FTR.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Original building: Outside air dampers on AHU are non-functional and leaking badly. System efficiency very low. Dampers and coils are original. AHUs are operational but unreliable. Units are well past their useful life.	Deferred Maintenance		1 \$200,000 \$200,000					DM	
2: Potentially Critical (Year 1)	1993 Addition: Dual-duct boxes and distribution equipment is original to the building and well past their useful life. Equipment is unreliable and inefficient.	Deferred Maintenance		1 \$1,000,000 \$1,000,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$2,210,000

Original building mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a central chilled water plant. Labs use stand-alone RTUs with gas heat/DX cooling. New addition (1993) consists of 6 rooftop variable volume HVAC units with gas heat and DX cooling and 3 rooftop AC units with chilled water coils only. All heating for areas served by these units is local to the spaces with terminal unit heating coils. Hot water is supplied via HX on the 2nd floor mechanical room with high temp water supplied from central boiler. Welding lab has 4 rooftop MAUs with gas heat only. Hydronic heating is used for individual convector units with very minimal use of FTR.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	No comprehensive study of exhaust systems to determine current needs. Many classrooms are being used differently from original design. This requires further study.		Deferred Maintenance	0					DM	
2: Potentially Critical (Year 1)	1993 Addition: Reheat coils at terminals are running full capacity to maintain room heating set points.		Deferred Maintenance	0					DM	
2: Potentially Critical (Year 1)	Original building: Machine Shop T-126 difficult to heat. Tall ceiling, high exhaust rate, diffusers with horizontal throw and windows full length on exterior wall with no FTR all conspire to make heating the room marginal.		Deferred Maintenance	1 \$100,000 \$100,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$2,210,000

Original building mechanical system consists of constant-volume dual-duct air-handling units that supply pneumatically controlled dual-duct mixing boxes at the zone level. Air-handling system equipment is original to the building. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. Chilled water is supplied to the air-handling units by a central chilled water plant. Labs use stand-alone RTUs with gas heat/DX cooling. New addition (1993) consists of 6 rooftop variable volume HVAC units with gas heat and DX cooling and 3 rooftop AC units with chilled water coils only. All heating for areas served by these units is local to the spaces with terminal unit heating coils. Hot water is supplied via HX on the 2nd floor mechanical room with high temp water supplied from central boiler. Welding lab has 4 rooftop MAUs with gas heat only. Hydronic heating is used for individual convector units with very minimal use of FTR.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	1993 Addition: Perimeter HWH set point 120F. Contributing to heating problem.		Deferred Maintenance	0					DM	
2: Potentially Critical (Year 1)	1993 Addition: Minimal FTR on exterior walls. Have to run HVAC units all night to keep building warm in winter. Very difficult to maintain temp below 10 degrees F.		Deferred Maintenance	1 \$600,000 \$600,000					DM	
5: Does not meet current codes (Grandfathered)	No occupancy sensors in use. This requires further study		Deferred Maintenance	0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$95,000

In general, offices have a single switch, with no occupancy sensors or time controls. Corridors have keyed switches, with no occupancy sensors or time controls. Classrooms and labs may have multiple switching zones, with no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Corridors: Many of the existing keyed switches have a high failure rate. Replace with new.	Deferred Maintenance		1 \$5,000 \$5,000						DM	
5: Does not meet current codes (Grandfathered)	Classrooms, offices, corridors, closets, toilet rooms, etc.: Many unoccupied areas were observed to be fully illuminated. Current energy codes require occupancy sensors or time control devices. Note that hazardous areas, such as labs or workshops are exempt from automated lighting controls.	Deferred Maintenance		1 \$90,000 \$90,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal: \$240,000

A National Time & Signal control panel (902 series) is located in a first floor lobby on the north side. The panel is addressable type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. The system was installed in 1993 and included updating the original building devices.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Corridors and labs in the 1993 addition: Audible (horn) coverage does not meet current codes and should be extended.	Deferred Maintenance		0					DM	
5: Does not meet current codes (Grandfathered)	First floor lobby: The existing panel is nearing the end of its anticipated lifespan. The Owner may want to consider a mass notification system as many campuses now incorporate.	Deferred Maintenance		1 \$240,000 \$240,000					DM	
5: Does not meet current codes (Grandfathered)	Corridors and labs in the 1993 addition: Strobe coverage does not meet current codes and should be extended to all public spaces, including classrooms and multiperson offices. Strobes do not synchronize.	Deferred Maintenance		0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,907,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but compact fluorescent downlights and metal halide fixtures were also observed in limited quantities.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Original Building - various, including Auto Service Lab, Micro Computer Lab, offices: Original fixtures that had 8'-0" long fluorescent lamps were "power groove" type and they are now experiencing socket failure. The associated costs represents an order-of-magnitude value as more study is required to determine a fixture count.		Deferred Maintenance	1 \$250,000 \$250,000						DM	
2: Potentially Critical (Year 1)	Original Building - corridors: The clips holding the lenses in place are poorly designed and failing. The associated cost represents new fixtures in corridors.		Deferred Maintenance	1 \$16,000 \$16,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,907,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but compact fluorescent downlights and metal halide fixtures were also observed in limited quantities.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Original Building - corridors: Maintenance stated that twin-tube compact fluorescent lamps have been incompatible with efficient electronic ballasts, possibly heat causing ballast failure. Inefficient magnetic ballasts withstand heat and are not failing.	Deferred Maintenance		1 \$6,000					DM	
3: Not yet Critical (Year 2-5)	Workshops and labs: Some of the labs have metal halide high-bays. These sources have long strike times, offer poor color rendering, and are often located such that they are over existing lab equipment and difficult to maintain. Recommend replacing with new LED high bay source.	Deferred Maintenance		1 \$35,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$1,907,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but compact fluorescent downlights and metal halide fixtures were also observed in limited quantities.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Classrooms, offices, corridors, labs, storage, utility rooms: Existing lighting systems appear to utilize more wattage and lighting intensity than what is required by energy codes or IESNA illumination recommendations. Modern lighting designs can easily achieve lighting power densities below 0.9 watts per square foot while maintaining decent light levels. The associated cost represents new lighting throughout the facility, although it is acknowledged that select spaces have recently upgraded lighting and would not need to update.	Deferred Maintenance		1 \$1,600,000 \$1,600,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$430,000

The Technology Building does not have a connection to the existing on-site regional generator back-up power. In the 1993 addition and partial renovation of the original building, central battery inverters feed corridor emergency lighting and exit signs.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1993. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity). Emergency lighting should also be installed in hazardous spaces, such as the various work shops.		Deferred Maintenance	1 \$80,000 \$80,000							DM
4: Long Term (Year 6-10)	The Owner expressed a desire for a new generator and an emergency distribution system to pick up emergency lighting, fire alarm loads, and select standby loads. Although a complete analysis and study is recommended, the cost given here is for order-of-magnitude comparisons (500kW system).		Deferred Maintenance	1 \$350,000 \$350,000							DM

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Phone/Data Systems				Maint. Type: Plumbing & Electrical			System Rating:		Subtotal:		
<i>data equipment in unconditioned spaces</i>											
Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Various, including East Receiving: Data equipment may experience higher temperatures within unconditioned spaces; heat shortens equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems.	Deferred	Maintenance	0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$2,789,500

The Technology Building has two main substations, one for the 1963 original building and one for the 1993 addition. The original substation is 1,000 kVA, 4,800V-480Y/277V and is slated for an upcoming 13,200V replacement project. The 1993 substation is 2,000/2,667 kVA, 480Y/277V. In both original and addition portions of the building, 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The new addition does have some 120/240V distribution in labs to simulate residential voltages. Most distribution equipment is original to either 1963 or 1993.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Various locations: Due to a lack of janitor closet space, many electrical closets serve as storage and janitorial space. Codes require that 36" or more be maintained clear in front of general panelboards. Clutter in front of or on top of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.	Deferred Maintenance		0						DM	
1: Currently Critical (Current Year)	1st level electrical room - original building: The space has only a single entrance and does not comply with NEC 110.33. Recommend adding a second entrance at the opposite end of the equipment. Need to study whether second entrance can be added.	Deferred Maintenance		1 \$15,000 \$15,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$2,789,500

The Technology Building has two main substations, one for the 1963 original building and one for the 1993 addition. The original substation is 1,000 kVA, 4,800V-480Y/277V and is slated for an upcoming 13,200V replacement project. The 1993 substation is 2,000/2,667 kVA, 480Y/277V. In both original and addition portions of the building, 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The new addition does have some 120/240V distribution in labs to simulate residential voltages. Most distribution equipment is original to either 1963 or 1993.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Various labs: Many of the emergency power off (EPO) buttons in labs and workshops do not have labels. Add identification signage to enhance safety.		Deferred Maintenance	1 \$2,000 \$2,000							DM
1: Currently Critical (Current Year)	1st level electrical room - original building: The old 4,800V substation is slated to be updated to the newer 13,200V loop in the near future. Repairs and replacement parts are likely very difficult to achieve.		Deferred Maintenance	1 \$2,400,000 \$2,400,000							DM
3: Not yet Critical (Year 2-5)	Various locations: The original step-down transformers have reached the end of their useful lifespan.		Deferred Maintenance	1 \$40,000 \$40,000							DM

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$2,789,500

The Technology Building has two main substations, one for the 1963 original building and one for the 1993 addition. The original substation is 1,000 kVA, 4,800V-480Y/277V and is slated for an upcoming 13,200V replacement project. The 1993 substation is 2,000/2,667 kVA, 480Y/277V. In both original and addition portions of the building, 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The new addition does have some 120/240V distribution in labs to simulate residential voltages. Most distribution equipment is original to either 1963 or 1993.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Various locations: The original panelboards have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable).	Deferred Maintenance		1 \$250,000 \$250,000						DM	
4: Long Term (Year 6-10)	1st level electrical room - new addition: The substation is about the midpoint of its anticipated useful lifespan. There is some minor dust build-up at the ventilation openings. Regular maintenance and cleaning is recommended to keep the substation in good condition.	Deferred Maintenance		1 \$2,500 \$2,500						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$2,789,500

The Technology Building has two main substations, one for the 1963 original building and one for the 1993 addition. The original substation is 1,000 kVA, 4,800V-480Y/277V and is slated for an upcoming 13,200V replacement project. The 1993 substation is 2,000/2,667 kVA, 480Y/277V. In both original and addition portions of the building, 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The new addition does have some 120/240V distribution in labs to simulate residential voltages. Most distribution equipment is original to either 1963 or 1993.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Various locations: Many panelboards are full, with little or no room for new circuits to be added. It would be desirable to have more connection points available. Further study is needed, but associated cost is to add ten panelboards and related distribution throughout.		Deferred Maintenance	1 \$80,000						DM	

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$17,500

In the context of ADA compliance, most of the components of the old building are original and do not meet today's requirements for accessibility. In the addition, most of the components of the building meet today's requirements for accessibility. The hydraulic elevators in the addition have no reported issues and are regularly maintained by Schindler. Elevator controls are original. Stair handrails are original to the bldg and are in fair condition. Elevator controls are ADA compliant. Main entrance doors in the addition are ADA compliant. A unisex toilet room was later added to the original bldg and is ADA compliant

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Approx. 50% of doors in original bldg. are not ADA compliant		Deferred Maintenance	1 \$17,500						A	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site **Maint. Type: Other** **System Rating: 4** **Subtotal: \$13,000**

Site is comprised flat walkways, limited landscaping and planters and a lawn area. The adjacent parking lot was repaired and newly striped in the summer of 2014. Portions of adjacent sidewalks have been repaired in the summer of 2014.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Curved site wall brick caps need to be replaced. Site wall needs to be tuck-pointed.		Deferred Maintenance	1 \$10,000 \$10,000						BI	
4: Long Term (Year 6-10)	(1) section of sidewalk is not properly shedding water		Deferred Maintenance	1 \$3,000 \$3,000						DM	

Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating: 4** **Subtotal:**

Building is partially sprinklered.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 1

Subtotal: \$13,700

Public exterior doors are aluminum with full lites. Exterior service doors are hollow metal doors. Interior doors are solid core hardwood doors and are in fair condition. The majority of the interior doors have original door hardware.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Door at exterior service shed: Door leafs are failing and need to be replaced	Deferred Maintenance		1 \$3,000 \$3,000						DM	
1: Currently Critical (Current Year)	North entry doors: The door hinges and closers exhibit failing hardware, rusting, corroding and require constant maintenance.	Deferred Maintenance		1 \$1,500 \$1,500						DM	
2: Potentially Critical (Year 1)	North service door at metal panels: Door frame is corroded along sidewalk and must be replaced.	Deferred Maintenance		1 \$2,000 \$2,000						DM	
2: Potentially Critical (Year 1)	Entrance doors - west side: Doors are failing and past end of life	Deferred Maintenance		1 \$7,200 \$7,200						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

BUILDING: College Store

BUILDING No.: 5

Year Built: 1970

Floors: 1

Building Area (sf): 7,730

Notes:

Building Use Types

Use Type % Use Type

100% Auxiliary Other

Facility Condition Index

All priorities

FCI

16.94%

Poor

CRV

\$1,777,900

Annual Maint
and Capital
Renewal Budget

\$53,337

3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI

16.89%

Poor

Priority 1 (current year only)

FCI

10.30%

Poor

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$183,200				\$183,200
2 Potentially Critical (Year 1)	\$27,000				\$27,000
3 Not yet Critical (Year 2-5)	\$90,000				\$90,000
4 Long Term (Year 6-10)	\$1,000				\$1,000
5 Does not meet current codes (Grandfathe	\$57,000		\$15,000		\$72,000
Subtotal	\$358,200		\$15,000		\$373,200
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 4

Subtotal: \$3,000

The cladding is predominantly brick with a small amount of metal panel. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Minor fascia damage at front entrance	Deferred Maintenance		1 \$2,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 4

Subtotal: \$3,000

The cladding is predominantly brick with a small amount of metal panel. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Minor tuckpointing - all elevations	Deferred	Maintenance	1 \$1,000						DM	

Exterior: Windows

Maint. Type: Architectural

System Rating: 4

Subtotal:

Exterior glazing is primarily limited to the front entry vestibule. It is double pane insulated with aluminum frames. Original? The Owner has no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Exterior: Roof

Maint. Type: Architectural

System Rating: 2

Subtotal: \$10,000

The roof is a single roof. Owner indicates that the roof is less than 10 years old.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Owner indicates ice dams that form at joint between this bldg. and the facilities building. The current drainage at this point is insufficient	Deferred	Maintenance	1 \$10,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame				Maint. Type: Architectural			System Rating: 5			Subtotal:	
<i>The building is a wood framed structure with wood trusses. Owner has no reported issues</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes				Maint. Type: Architectural			System Rating: 4			Subtotal:	
<i>Interior partition are stud wall construction. Owner reports no issues with partitions.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Floors				Maint. Type: Architectural			System Rating: 1			Subtotal: \$41,000	
<i>The flooring in the bookstore and office is rolled carpet. The toilet rooms have 12x12 tile. The loading dock area is sealed concrete.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Carpet is worn and failing and must be replaced	Deferred	Maintenance	1 \$41,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 1

Subtotal: \$54,000

Most of the office spaces within the building utilize a lay-in system that is original to the building. The corridor utilizes a metal fin ceiling system. The loading dock area is a gyp bd ceiling.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Ceiling tiles are sagging and should be replaced.		Deferred Maintenance	1 \$54,000						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Domestic water supply system and sanitary drainage are original to the building. Fixtures were recently updated (date unknown). There are no observed issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$80,000

Building mechanical system consists of three residential style high efficiency furnaces with split system DX cooling, outdoor mounted condensing units.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Airflow is inadequate to keep parts of the store warm in the winter. Would require converting to a commercial style AHU with a properly designed duct system and controls.	Deferred Maintenance		0						DM	
1: Currently Critical (Current Year)	There is no hard ceiling as indicated on construction drawings. Attic insulation is laid on top of suspended ceiling. Maintenance of duct is difficult. Keeping warm air from infiltrating the attic is impossible, causing ice dams and roof leaks. No attic ventilation	Deferred Maintenance		1 \$50,000 \$50,000						DM	
3: Not yet Critical (Year 2-5)	No occupancy sensors in use.	Deferred Maintenance		0			Requires further study			DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$80,000

Building mechanical system consists of three residential style high efficiency furnaces with split system DX cooling, outdoor mounted condensing units.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	There is no provision for required outdoor air, combustion air only. Would require converting to a commercial style AHU with a properly designed duct system and controls.	Deferred	Maintenance	1 \$30,000						DM	

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$6,000

The offices have a single switch, the retail area has keyed switches, and storage has multiple-switched zones. There are no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Current energy codes require occupancy sensors or time control devices. Locations: Retail area, offices, corridors, closets, toilet rooms, storage, etc.	Deferred	Maintenance	1 \$6,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$16,000

An ESL fire alarm control panel is located in the storage room and appears to be operational, while National Time & Signal strobe and horn devices are utilized in the facility. The panel is analog type. The devices likely were installed in the early 1990s, like the rest of the campus, but further documentation is required to confirm.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Although the current strobes are 'grandfathered' for code compliance, the strobe coverage does not meet current codes and should be extended to all public spaces. Strobes do not synchronize. Locations: Retail, storage, corridor.	Deferred	Maintenance	0 \$0						BC	
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage may not meet current codes and should be extended. Locations: Retail, storage, corridor.	Deferred	Maintenance	0						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$16,000

An ESL fire alarm control panel is located in the storage room and appears to be operational, while National Time & Signal strobe and horn devices are utilized in the facility. The panel is analog type. The devices likely were installed in the early 1990s, like the rest of the campus, but further documentation is required to confirm.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	The existing panel is nearing the end of its anticipated lifespan. It is analog type and cannot support strobe synchronization and some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate. Location: storage		Deferred Maintenance	1 \$16,000						BC	

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$90,000

Existing lighting systems consist mainly of fluorescent lighting systems with 2'x4' recessed troffers in the retail area and surface mounted wrap-arounds illuminating storage. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Some lenses on light fixtures are showing their age, even though retrofit lamps and ballasts may have been installed. Aged lenses decrease efficiency.		Deferred Maintenance	1 \$90,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$5,000

The College Store does not appear to have any connections to the campus generator system. Instead, it relies on local batteries for emergency lighting, exit signs, and fire alarm.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1982. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).	Deferred Maintenance		1 \$5,000 \$5,000						BC	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Owner stated that phone is handled with voice over IP protocol. The main data rack is located within a single-person office. CAT 5E noted as a common cable type.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Dedicated telecommunication closets are recommended along with appropriate cooling systems. Location: office.	Deferred Maintenance		0						DM	
1: Currently Critical (Current Year)	Data cables are untrained and are drooping onto the floor. This condition may present a tripping hazard. Location: office	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

Subtotal: \$45,000

The College Store is fed from a 400 amp feeder that originates at the Eshleman Library substation and a 112.5kVA step-down transformer. The College Store has a 400 amp, 208Y/120V main panel located at the exterior. The main panel supplies general receptacle panels, air conditioning, and furnace loads. Documentation is limited for this facility, but it appears that the main panel pre-dates 1982.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Site Lighting panels. Panels have very recently been added within the north storage area to feed power to north site lighting. The power for these panels originates from the Facilities Management substation, which is a different and separate source than the College Store. This appears to violate a number of NEC requirements regarding 1) number of services (230.2, 230.3) and 2) grouping service disconnects at a single location (230.40). Further investigation required to determine a proper Code-compliant solution.	Deferred Maintenance		1 \$20,000 \$20,000						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 2

Subtotal: \$45,000

The College Store is fed from a 400 amp feeder that originates at the Eshleman Library substation and a 112.5kVA step-down transformer. The College Store has a 400 amp, 208Y/120V main panel located at the exterior. The main panel supplies general receptacle panels, air conditioning, and furnace loads. Documentation is limited for this facility, but it appears that the main panel pre-dates 1982.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Panelboards in north storage area - general age issue. The original panelboards (1982 and earlier) have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable).	Deferred Maintenance		1 \$25,000 \$25,000						DM	

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 0

Subtotal: \$15,000

Main entry doors are ADA compliant. Toilet rooms are original to the building and are not ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Non ADA compliant toilet rooms	Facility Adaptation	(Capital Renewal)	1 \$15,000 \$15,000						A	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site **Maint. Type: Other** **System Rating: 3** **Subtotal: \$7,000**

Site is comprised of concrete walkways and partial lawn area. Most of the sidewalks were replaced in 2014.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Concrete pavement at loading dock site drain is damaged and needs to be replaced		Deferred Maintenance	1 \$4,000						DM	

1: Currently Critical (Current Year)	Portion of loading dock fence is damaged and needs to be replaced		Deferred Maintenance	1 \$3,000						DM	
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Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating:** **Subtotal:**

Building is not sprinklered.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT**Henry Ford College****CAMPUS Main Campus - Dearborn, Michigan****Entrances: Doors****Maint. Type: Architectural****System Rating: 3****Subtotal: \$1,200**

The main entry has sliding glass doors in aluminum frames. The remainder of the exterior doors are hollow metal doors. The interior doors are laminate doors.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	West exterior door leaf has holes on the inside face and must be replaced.	Deferred	Maintenance	1 \$1,200 \$1,200					DM	

End of Building Report for: **College Store**

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Athletic Building**BUILDING No.:** 6

Year Built: 1964

Floors: 2

Building Area (sf): 36,460

Notes:

Building Use Types

Use Type % Use Type

100% Recreation/Gym

Facility Condition Index**All priorities****FCI**

15.87%

Poor

CRV

\$9,115,000

Annual Maint
and Capital
Renewal Budget

\$273,450

3% of CRV

Priorities 1-3 (current year through year 5 combined)**FCI**

15.79%

Poor

Priority 1 (current year only)**FCI**

3.40%

Good

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$269,500				\$269,500
2 Potentially Critical (Year 1)	\$614,800				\$614,800
3 Not yet Critical (Year 2-5)	\$515,000				\$515,000
4 Long Term (Year 6-10)	\$7,500				\$7,500
5 Does not meet current codes (Grandfathered)	\$232,000				\$232,000
Subtotal		\$1,638,800			
					\$1,638,800 Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$20,000

The cladding is brick and block composite walls. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Entrance soffits are damaged and need to be renovated.	Deferred Maintenance		1 \$10,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$20,000

The cladding is brick and block composite walls. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Water infiltration at northwest corner of building	Deferred Maintenance		1 \$5,000 \$5,000						DM	
4: Long Term (Year 6-10)	Minor tuckpointing needed.	Deferred Maintenance		1 \$5,000 \$5,000						DM	

Exterior: Windows

Maint. Type: Architectural

System Rating: 2

Subtotal: \$150,000

Exterior glazing is single pane insulated with steel frames.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Exterior windows are past end of life and need to be replaced	Deferred Maintenance		1 \$150,000 \$150,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 4

Subtotal: \$215,000

The roof is a built-up roof. The roof was installed approx. 20 years ago. Roof is routinely maintained.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Roof is past end of life and needs to be replaced.	Deferred	Maintenance	1 \$215,000						DM	

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 3

Subtotal: \$13,000

Concrete beam and column structure, built in 1960. The structure is in good condition with no settlement problems nor water infiltration reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Spalling at corner of vertical concrete element. Location: southeast corner of bldg.	Deferred	Maintenance	1 \$3,000						DM	
2: Potentially Critical (Year 1)	Top of mechanical areaway is deteriorated.	Deferred	Maintenance	1 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 3

Subtotal: \$13,000

Concrete beam and column structure, built in 1960. The structure is in good condition with no settlement problems nor water infiltration reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Spalling at corner of horizontal concrete element. Location: southwest corner of bldg.	Deferred Maintenance		1 \$2,000 \$2,000						DM	

3: Not yet Critical (Year 2-5)	Minor pitch pocket at concrete stoop. Location: southwest corner of bldg.	Deferred Maintenance		1 \$3,000 \$3,000						DM	
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Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 3

Subtotal: \$15,000

Walls are cmu with no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Gymnasium: Backboard supports are failing and need to be repaired	Deferred Maintenance		1 \$5,000 \$5,000						DM	

3: Not yet Critical (Year 2-5)	South stair well: dark stains on walls. Further study will be required.	Deferred Maintenance		1 \$10,000 \$10,000						DM	
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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$18,500

Corridors and classrooms have VCT while gymnasium is wood floor, locker rooms are tile. Stairs are terrazzo.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Threshold to shower room is damaged and must be repaired. Location: lower level shower room.		Deferred Maintenance	1 \$1,500 \$1,500					DM	
2: Potentially Critical (Year 1)	Gym floor finish is worn and needs to be refinished.		Deferred Maintenance	1 \$15,000 \$15,000					DM	
2: Potentially Critical (Year 1)	Gym floor at sink must be repaired.		Deferred Maintenance	1 \$2,000 \$2,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings **Maint. Type: Architectural** **System Rating: 2** **Subtotal: \$26,000**

Corridors and classrooms have 2x2 lay-in ceilings while locker rooms and gym are exposed clngs

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Shower ceiling damaged due to water infiltration. Location: lower level locker room.		Deferred Maintenance	1 \$6,000						DM	

3: Not yet Critical (Year 2-5)	Tiles are sagging and should be replaced. Location: corridors and classrooms		Deferred Maintenance	1 \$20,000						DM	
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Plumbing System: Plumbing Fixtures **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal: \$100,000**

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some fixtures that have been repaired/replaced over the years. Fixtures are not ADA compliant. What is condition of fixtures?

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	(35)Fixtures are older high water consumption technology.		Deferred Maintenance	1 \$100,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$100,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some fixtures that have been repaired/replaced over the years. Fixtures are not ADA compliant. What is condition of fixtures?

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	(35) Non-ADA compliant toilets and lavs.		Deferred Maintenance	1 \$0 \$0						DM	

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$435,000

Mechanical systems include 5 indoor Air Supply Units, single and multi-zone constant volume. Locker room units are 100% outdoor air. All units are heating only with HWH coils except ASU-1 which supplies classroom 50 and has a CHW coil. Air-handling system equipment is original to the building. HWH Converter recently had a new HX bundle installed. HWH and FTR pumps are in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	ASU-1 has return air/outdoor air but no provision for exhaust relief. New face and bypass dampers have been installed but problem is not fixed. Code required OA supply is unknown.		Deferred Maintenance	1 \$15,000 \$15,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$435,000

Mechanical systems include 5 indoor Air Supply Units, single and multi-zone constant volume. Locker room units are 100% outdoor air. All units are heating only with HWH coils except ASU-1 which supplies classroom 50 and has a CHW coil. Air-handling system equipment is original to the building. HWH Converter recently had a new HX bundle installed. HWH and FTR pumps are in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Offices have had unit room coolers installed. These have experienced condensate pump failures causing water damage. It appears these unit coolers have replaced ceiling hung fan coil units from original design. Suggest replace with ERUs	Deferred Maintenance		1 \$200,000 \$200,000					DM	
2: Potentially Critical (Year 1)	Locker ASUs are 100% outdoor air, original equipment. Extreme energy users. Need to replace with 100% OA Energy Recovery Units. Payback less than five years. Location: fan room 49	Deferred Maintenance		1 \$200,000 \$200,000					DM	
3: Not yet Critical (Year 2-5)	Gym roof exhaust capability is nearly double the supply capacity. Potential for substantial imbalance in the building.	Deferred Maintenance		0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$435,000

Mechanical systems include 5 indoor Air Supply Units, single and multi-zone constant volume. Locker room units are 100% outdoor air. All units are heating only with HWH coils except ASU-1 which supplies classroom 50 and has a CHW coil. Air-handling system equipment is original to the building. HWH Converter recently had a new HX bundle installed. HWH and FTR pumps are in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Intake louver has been partially blocked. New louver and fittings in 1992. The intake louver is currently using only about 25%, unnecessarily increasing velocity and PD across usable portion.	Deferred Maintenance		1 \$20,000 \$20,000						DM	
4: Long Term (Year 6-10)	No occupancy sensors in use. This requires further study.	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$30,000

In general, classrooms and offices have a single switch, with no occupancy sensors or time controls. Corridors have keyed switches, with no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Many unoccupied areas were observed to be fully illuminated. Current energy codes require occupancy sensors or time control devices. Location: Classrooms, offices, corridors, closets, toilet rooms, locker rooms, etc.	Deferred Maintenance		1 \$30,000 \$30,000						DM	

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$80,000

A National Time & Signal control panel is located in the northwest first floor lobby. The panel is analog type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1992.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	The existing panel is nearing the end of its anticipated lifespan. It is analog type and cannot support strobe synchronization and some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate. Location: first floor lobby, northwest	Deferred Maintenance		1 \$80,000 \$80,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$80,000

A National Time & Signal control panel is located in the northwest first floor lobby. The panel is analog type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1992.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage does not meet current codes and should be extended.		Deferred Maintenance	0					DM	
5: Does not meet current codes (Grandfathered)	Strobe coverage does not meet current codes and should be extended to all public spaces, including locker rooms, classrooms, and multiperson offices. Strobes do not synchronize.		Deferred Maintenance	0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$160,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting. Many original fixtures were retrofitted from T12 to T8 platforms. The gymnasium was recently updated with energy-efficient T5HO lamps.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Many lenses and housings on light fixtures are showing their age. Aged lenses decrease light output. Location: most areas except for the gymnasium.		Deferred Maintenance	1 \$160,000 \$160,000						DM	

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$85,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to the Athletic Building distribution. The building distribution is original to 1964, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1992. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).		Deferred Maintenance	1 \$25,000 \$25,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$85,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to the Athletic Building distribution. The building distribution is original to 1964, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The original panelboards have reached the end of their anticipated useful lifespan.	Deferred Maintenance		1 \$20,000 \$20,000					DM	
5: Does not meet current codes (Grandfathered)	Although the automatic transfer switches appear fairly new, they do not meet the full intent of life safety codes because they serve multiple buildings. Significant renovations within the Athletic Building would require independent automatic transfer switches to serve only that building. Location: Science Building Room S-23	Deferred Maintenance		1 \$40,000 \$40,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Owner stated that phone is handled with voice over IP protocol. Data racks are located within electrical closets. CAT 5E noted as a common cable type. Wireless access points noted within corridors. Primex wireless clock system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Data equipment may experience higher temperatures and excessive dust; heat and dust shorten equipment life. Dedicated telecommunication closets are recommended along with appropriate cooling systems. Location: basement corridor		Deferred Maintenance	0					DM	
2: Potentially Critical (Year 1)	Some data cables are untraced and may snag a passerby.		Deferred Maintenance	0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$152,500

An existing primary loop switch is reported to be in a nearby manhole. The main substation resides in the Lower Level, and is rated 500/667 kVA, 480Y/277V. The loop switch and substation were installed in 1995. 480Y/277V is distributed to the Athletic Memorial Building motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. All of the power distribution equipment was installed in 1964.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	The space has only a single entrance and does not comply with NEC 110.33. Recommend adding a second entrance at the opposite end of the equipment. Need to study whether second entrance can be added between sub and mechanical room.	Deferred Maintenance		1 \$15,000 \$15,000						DM	
3: Not yet Critical (Year 2-5)	The original 75kVA step-down transformer has reached the end of its useful lifespan.	Deferred Maintenance		1 \$5,000 \$5,000						DM	
3: Not yet Critical (Year 2-5)	The original panelboards have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable). A number of "twin breakers" are utilized for branch circuits, which are not Code compliant.	Deferred Maintenance		1 \$130,000 \$130,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$152,500

An existing primary loop switch is reported to be in a nearby manhole. The main substation resides in the Lower Level, and is rated 500/667 kVA, 480Y/277V. The loop switch and substation were installed in 1995. 480Y/277V is distributed to the Athletic Memorial Building motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. All of the power distribution equipment was installed in 1964.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	The substation is reaching the midpoint of its anticipated useful lifespan. There is some minor dust build-up at the ventilation openings. Regular maintenance and cleaning is recommended to keep the substation in good condition.		Deferred Maintenance	1 \$2,500 \$2,500						DM	

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$82,000

In the context of ADA compliance, the building contains ADA complaint toilet rooms, entrances and elevator. The Owner has no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfather ed)	(2) Interior stairs lack ADA handrail extensions. The stairs handrails are grandfathered in but should be replaced to meet current code		Deferred Maintenance	1 \$30,000 \$30,000						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$82,000

In the context of ADA compliance, the building contains ADA complaint toilet rooms, entrances and elevator. The Owner has no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Bradley sink does not meet current code. Location: lower level locker room	Deferred Maintenance		1 \$4,000 \$4,000					BC	
5: Does not meet current codes (Grandfathered)	The path to the shower room is not ADA compliant. There are no fixtures in the shower room that are ADA compliant. Location: lower level locker room	Deferred Maintenance		1 \$10,000 \$10,000					BC	
5: Does not meet current codes (Grandfathered)	There are no ADA compliant toilet stalls. Location: lower level locker room	Deferred Maintenance		1 \$8,000 \$8,000					BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$82,000

In the context of ADA compliance, the building contains ADA complaint toilet rooms, entrances and elevator. The Owner has no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Fold out bleachers are not ADA compliant and should be replaced. Location: gymnasium	Deferred	Maintenance	1 \$25,000 \$25,000						BC	

5: Does not meet current codes (Grandfathered)	Approx. 50% of the interior doors have knob hardware that should be replaced	Deferred	Maintenance	1 \$5,000 \$5,000						BC	
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Campus Site: Site

Maint. Type: Other

System Rating: 3

Subtotal: \$35,000

Site is comprised of concrete walkways and partial lawn area.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Negative pitch in lawn area outside elevator lobby.	Deferred	Maintenance	1 \$5,000 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site **Maint. Type: Other** **System Rating: 3** **Subtotal: \$35,000**

Site is comprised of concrete walkways and partial lawn area.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Concrete stoop is cracked and needs repair. Location: south & north entrances	Deferred	Maintenance	1 \$30,000 \$30,000						DM	

Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating:** **Subtotal:**

Building is not sprinklered.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Entrances: Doors **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$61,800**

Exterior main entry doors are aluminum with full lites. Most of the interior doors are wood doors and are in fair condition. The interior stair doors are hollow metal doors. The majority of the interior doors have original door hardware.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	(1) pair of gym exterior door leafs is rusting and needs to be replaced.	Deferred	Maintenance	1 \$2,000 \$2,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$61,800

Exterior main entry doors are aluminum with full lites. Most of the interior doors are wood doors and are in fair condition. The interior stair doors are hollow metal doors. The majority of the interior doors have original door hardware.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Gymnasium: Operable partition must be replaced.			1 \$40,000 \$40,000						DM	
2: Potentially Critical (Year 1)	Exterior door hardware is worn and needs to be replaced. Location: exterior doors	Deferred Maintenance		1 \$19,800 \$19,800						DM	

End of Building Report for: **Athletic Building**

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

BUILDING: Facilities Management Building

BUILDING No.: 7

Year Built: 1960

Floors: 2

Building Area (sf): 16,093

Notes:

Building Use Types

Use Type % Use Type

100% Physical Plant/Utility

Facility Condition Index

All priorities

FCI

7.39%

Fair

CRV

\$4,023,250

Annual Maint
and Capital
Renewal Budget

\$120,698

3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI

7.27%

Fair

Priority 1 (current year only)

FCI

0.43%

Good

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$17,500				\$17,500
2 Potentially Critical (Year 1)	\$209,000				\$209,000
3 Not yet Critical (Year 2-5)	\$66,000				\$66,000
4 Long Term (Year 6-10)	\$5,000				\$5,000
5 Does not meet current codes (Grandfathered)	\$95,000				\$95,000
Subtotal		\$392,500			\$392,500
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$22,000

The cladding is brick and block composite walls. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Loading dock site wall is spalling and needs to be renovated	Deferred Maintenance		1 \$20,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$22,000

The cladding is brick and block composite walls. The cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Minor tuckpointing needed on the exterior walls.		Deferred Maintenance	1 \$2,000 \$2,000						DM	

Exterior: Windows

Maint. Type: Architectural

System Rating: 4

Subtotal: \$1,000

Exterior glazing is double pane insulated with aluminum frames. Windows were replaced 15-20 years ago. Owner has no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Window caulking needs to be replaced.		Deferred Maintenance	1 \$1,000 \$1,000						DM	

Exterior: Roof

Maint. Type: Architectural

System Rating: 2

Subtotal: \$125,000

The roof is a built-up roof. The roof is over 20 years old.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Roof is in poor condition and must be replaced.		Deferred Maintenance	1 \$125,000 \$125,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame			Maint. Type: Architectural			System Rating: 5			Subtotal:		
<i>The structure is steel columns with steel joists and beams. The structure is in good condition with no settlement problems nor water infiltration reported.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes			Maint. Type: Architectural			System Rating: 4			Subtotal: \$2,000		
<i>Walls are a combination of gyp bd and cmu walls with no reported issues.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Walls of B-210A are damaged	Deferred Maintenance		1 \$2,000 \$2,000						DM	

Interior: Floors			Maint. Type: Architectural			System Rating: 3			Subtotal: \$10,000		
<i>Corridors are VCT in good condition. Offices and conference rooms are carpet.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Conference room carpet is worn and needs to be replaced.	Deferred Maintenance		1 \$10,000 \$10,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings **Maint. Type: Architectural** **System Rating: 4** **Subtotal: \$2,000**

Corridor ceilings are a combination of metal slats and lay-in with no reported issues. Offices and conference rooms are lay-in in fair condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Storage room tiles are damaged and some are missing		Deferred Maintenance	1 \$1,000 \$1,000					DM	

4: Long Term (Year 6-10)	Minor tile replacement needed in corridors.		Deferred Maintenance	1 \$1,000 \$1,000					DM	
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Plumbing System: Plumbing Fixtures **Maint. Type: Plumbing & Electrical** **System Rating: 4** **Subtotal:**

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building. Original building toilet room fixtures are ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	Fixtures are older high water consumption technology.			0						

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$20,000

Building mechanical system consists of a roof top DX cooling only unit with variable volume terminal units. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. A separate supply fan with heating coil is installed above the vehicle bays. Equipment is original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Outside air volume indeterminate. Measure and fix or replace RTU with Energy Recovery Unit.	Deferred Maintenance		1 \$10,000 \$10,000						DM	
2: Potentially Critical (Year 1)	Pumping is constant volume. Not every heating unit has a control valve but the valve that are used are 2-way. Very inefficient pumping system and lack of room control. Suggest adding VFDs to pumps.	Deferred Maintenance		1 \$5,000 \$5,000						DM	
2: Potentially Critical (Year 1)	RTU does not have heating capability. Only source of heat is FTR and unit heaters. Difficult to maintain building temp in winter. See item HVAC 1 above.	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$20,000

Building mechanical system consists of a roof top DX cooling only unit with variable volume terminal units. High-Temperature heating hot water is supplied from the campus central plant. A heat exchanger converts high-temperature heating hot water to low temp for perimeter heating elements and unit heaters. A separate supply fan with heating coil is installed above the vehicle bays. Equipment is original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Hot water converter appears to be undersized for current operating conditions. Building is hard to keep warm in winter. Hot water converter was designed for 380F EWT and is currently being operated at 300F EWT. Need to upgrade HX.		Deferred Maintenance	1 \$5,000 \$5,000						DM	
3: Not yet Critical (Year 2-5)	No occupancy sensors in use. This requires further study.		Deferred Maintenance	0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$5,000

In general, offices have a single switch, with no occupancy sensors or time controls. Corridors have switches, with no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Many unoccupied areas were observed to be fully illuminated. Current energy codes require occupancy sensors or time control devices. Note that hazardous spaces, such as the boiler room, are exempt from automated controls. Location: Offices, corridors, conference rooms, and storage.	Deferred	Maintenance	1 \$5,000 \$5,000						BC	

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$25,000

A National Time & Signal control panel is located in the first floor garage and serves the northern office complex. The panel is analog type. Strobes and horns are primarily located in corridors. It is believed the system may have been installed in the early 1990s, similar to the rest of the campus. The original 1960 National Time & Signal control panel is located in the lower level and still serves the southern boiler plant. This system does not have strobes, but only a few bells and pull stations.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Strobe coverage does not meet current codes and should be extended to all public spaces, including conference rooms, multiperson offices, and the southern boiler plant. Strobes do not synchronize. Location: Northern corridors and garage only	Deferred	Maintenance	0						LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$25,000

A National Time & Signal control panel is located in the first floor garage and serves the northern office complex. The panel is analog type. Strobes and horns are primarily located in corridors. It is believed the system may have been installed in the early 1990s, similar to the rest of the campus. The original 1960 National Time & Signal control panel is located in the lower level and still serves the southern boiler plant. This system does not have strobes, but only a few bells and pull stations.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Audible (horn) coverage does not meet current codes and should be extended. Location: Corridors and boiler plant only	Deferred	Maintenance	0					LSC	
5: Does not meet current codes (Grandfathered)	The existing panels are nearing the end of their anticipated lifespans. They are analog type and cannot support strobe synchronization and some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate. Location: Garage (1990s) and boiler plant panels (1960)	Deferred	Maintenance	1 \$25,000 \$25,000					LSC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$62,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but pulse start metal halides were also observed in the Boiler Room and Garage.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	The Users working within the Garage area state that the illumination levels are too low to work on equipment. Higher illumination may be needed to promote a safer work environment.		Deferred Maintenance	1 \$32,000 \$32,000					BC	
3: Not yet Critical (Year 2-5)	Due to equipment below, the high-bay fixtures within the Boiler Room can be very difficult to re-lamp, re-ballast, and maintain. A lamp source with a longer lifespan is recommended.		Deferred Maintenance	1 \$30,000 \$30,000					DM	
4: Long Term (Year 6-10)	Due to the blade ceiling and it's delicacy, it very difficult to re-lamp, re-ballast, and maintain the strip fluorescents above the ceiling. Maintenance personnel would prefer a new ceiling and light fixture configuration. Location: east lobby		Deferred Maintenance	0					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$52,500

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to Power House distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in the 1990s. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity).	Deferred	Maintenance	1 \$7,500					LSC	
3: Not yet Critical (Year 2-5)	The original panel board has reached the end of its anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. Location: Lower level boiler room	Deferred	Maintenance	1 \$5,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$52,500

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to Power House distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Although the automatic transfer switches appear fairly new, they do not meet the full intent of life safety codes because they serve multiple buildings. Significant renovations within the Power House would require independent automatic transfer switches to serve only that building. Location: Science Building Room S-23.		Deferred Maintenance	1 \$40,000 \$40,000						LSC	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$55,000

The Power House main substation also resides in the lower level of the Boiler Room. The substation is rated 300 kVA, 13,200V-480Y/277V. 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The substation was installed approximately in 2004, while the balance of the power distribution equipment was installed in 1960. The maximum demand on the substation meter reads 103kW, suggesting ample capacity. The northern office portion of the Power House electrically operates as a separate building and is fed from the Library substation.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Lower level boiler room: Whenever a substation is not within a dedicated room, it is inherently risky and dangerous. The Power House substation is within a Boiler Room, which increases the risk level. It is understood that maintenance personnel may be operating a hose adjacent to the existing substation, creating high levels of risk for electrocution or an arc flash-related explosion. Although relocating the substation to a dedicated room elsewhere would be ideal, the college needs to take immediate action to train and inform personnel about the hazards of water near electrical gear.		Deferred Maintenance	\$0						BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$55,000

The Power House main substation also resides in the lower level of the Boiler Room. The substation is rated 300 kVA, 13,200V-480Y/277V. 480Y/277V is distributed to the motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. The substation was installed approximately in 2004, while the balance of the power distribution equipment was installed in 1960. The maximum demand on the substation meter reads 103kW, suggesting ample capacity. The northern office portion of the Power House electrically operates as a separate building and is fed from the Library substation.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Lower level boiler room: Due to a lack of closets, items are stored adjacent to electrical panels. Codes require that 36" or more be maintained clear in front of general panelboards. Clutter in front of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.	Deferred Maintenance		0					BC	
3: Not yet Critical (Year 2-5)	Lower level boiler room: The original panelboards have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker or fused switch were obtainable).	Deferred Maintenance		1 \$30,000 \$30,000					BC	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site **Maint. Type: Other** **System Rating:** **Subtotal: \$7,000**

Site is comprised concrete walkways and partial lawn area. Most of the sidewalks were replaced in 2014. There are no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Site has negative pitch which as caused erosion. Location: east elevation		Deferred Maintenance	1 \$7,000 \$7,000						DM	

Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating:** **Subtotal:**

Building is not sprinklered.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Entrances: Doors **Maint. Type: Architectural** **System Rating: 4** **Subtotal: \$4,000**

Exterior doors are aluminum with full lites at main entries and hollow metal at service doors. Interior doors are hollow metal and are in fair condition. The majority of the interior doors have original door hardware.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Loading dock door and frame need to be replaced		Deferred Maintenance	1 \$2,000 \$2,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 4

Subtotal: \$4,000

Exterior doors are aluminum with full lites at main entries and hollow metal at service doors. Interior doors are hollow metal and are in fair condition. The majority of the interior doors have original door hardware.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	East entrance door seals need to be replaced.		Deferred Maintenance	1 \$1,000 \$1,000						DM	
4: Long Term (Year 6-10)	Garage doors need to be repainted		Deferred Maintenance	1 \$1,000 \$1,000						DM	

End of Building Report for: **Facilities Management Building**

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

BUILDING: Fine Arts Building

BUILDING No.: 8

Year Built: 1978

Floors: 3

Building Area (sf): 75,742

Notes:

Building Use Types

Use Type % Use Type

80% Classroom/Teaching Laboratory

20% Administrative

Facility Condition Index

All priorities

FCI	9.05%	Fair	CRV	\$18,935,500	Annual Maint and Capital Renewal Budget	\$568,065
						3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI	7.00%	Fair
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Priority 1 (current year only)

FCI	3.54%	Good
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BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$671,000				\$671,000
2 Potentially Critical (Year 1)	\$174,000				\$174,000
3 Not yet Critical (Year 2-5)	\$480,900				\$480,900
4 Long Term (Year 6-10)	\$387,500				\$387,500
5 Does not meet current codes (Grandfathered)	\$1,000,000				\$1,000,000
Subtotal		\$2,713,400			
					\$2,713,400 Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$42,000

The brick cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Water is infiltrating at ledges of recessed windows		Deferred Maintenance	1 \$40,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$42,000**

The brick cladding is original to the building. Brick is in good conditions with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Minor tuckpointing needed		Deferred Maintenance	1 \$2,000 \$2,000						DM	

Exterior: Windows **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$6,000**

Aluminum framed glazing system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Northwest side of bldg.: caulking at windows have failed.		Deferred Maintenance	1 \$1,000 \$1,000						DM	
2: Potentially Critical (Year 1)	Owner indicated overall caulking deterioration that will be due for replacement.		Deferred Maintenance	1 \$5,000 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof **Maint. Type: Architectural** **System Rating: 2** **Subtotal: \$421,000**

The roof is a built-up Tremco roof. The roof was installed approx. 20 years ago. Roof is routinely maintained.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Seals have failed/missing - skylights must be replaced. Location: Over (3) classrooms and (1) gallery		Deferred Maintenance	1 \$100,000 \$100,000						DM	
3: Not yet Critical (Year 2-5)	Inside corners of parapet need to be patched.		Deferred Maintenance	1 \$1,000 \$1,000						DM	
4: Long Term (Year 6-10)	Roof is in fair condition but is anticipated to be replaced within the next 10 years		Deferred Maintenance	1 \$320,000 \$320,000						DM	

Superstructures: Structural Frame **Maint. Type: Architectural** **System Rating: 4** **Subtotal: \$5,000**

Concrete beam and column structure, built in 1978. The structure is in good condition with no settlement problems. Water infiltrations were noted in the stairwells.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Water is infiltrating through the foundation walls. Location: east stair foundation wall		Deferred Maintenance	1 \$5,000 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal: \$16,000

The majority of the corridors and rooms are composed of exposed cmu. The auditoriums are composed of acoustic block. A limited amount of gyp bd walls exists within the office suite.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Sisson Gallery: Wall cladding has bowed and needs to be replaced.		Deferred Maintenance	1 \$16,000 \$16,000						DM	

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$330,500

The corridors are tile on the first floor and VCT on the second floor, office spaces are carpet, Toilet rooms are tiled. Corridor tile is in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Offices/auditoriums/Adray gallery: The carpeting is past its end of life and needs to be replaced.		Deferred Maintenance	1 \$208,000 \$208,000						DM	
3: Not yet Critical (Year 2-5)	Auditorium space: Seats are past end of life and need to be replaced		Deferred Maintenance	1 \$122,500 \$122,500						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Ceilings

Maint. Type: Architectural

System Rating: 2

Subtotal: \$104,400

Corridors have a combination of metal slat ceilings and gyp bd. The offices spaces and 2x4 lay-in ceilings. Owner reports no issues with the ceilings. The auditoriums have recessed troffers with no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Offices suite across from Sisson Gallery: Lay-in ceiling is worn and should be replaced.	Deferred Maintenance		1 \$14,400						DM	
3: Not yet Critical (Year 2-5)	Metal slat ceilings in corridors: The metal ceilings are bent/damaged in many locations and need to be replaced.	Deferred Maintenance		1 \$90,000						DM	

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$55,000

Domestic water supply system, sanitary drainage, and toilet room fixtures are original to the building except for some fixtures that have been repaired/replaced over the years. Each toilet room has an ADA toilet stall. What is general condition of fixtures?

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	21 Fixtures are older high water consumption technology and also non ADA compliant.	Deferred Maintenance		1 \$55,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$315,000

Building mechanical systems consist of constant-volume single and multi-zone air-handling units and several single room unit ventilators. All AHUs and UVs use hot water heating coils and chilled water cooling coils. Central plant high temperature water is supplied to a converter to provide low temp for heating coils and unit heaters. Chilled water is supplied to the air-handling units by the central chilled water plant. Air-handling system equipment is original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	No corridor smoke isolation. Most of original building has fire dampers at corridor penetrations. 1993 Addition appears to have sporadic use of fire dampers only. Does not meet current life safety code.	Deferred Maintenance		1	\$100,000				DM	
					\$100,000					
1: Currently Critical (Current Year)	Hanging unit ventilators are very difficult to maintain, do not include any form of exhaust/relief air and have cooling coils located at discharge so that condensate spits out of the units. Recommend replacement with Energy Recovery Units.	Deferred Maintenance		1	\$150,000				DM	
					\$150,000					
1: Currently Critical (Current Year)	Mechanical B-10: RA damper closes, OA damper opens, pressurizing the rooms served. No control.	Deferred Maintenance		1	\$50,000				DM	
					\$50,000					

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 1

Subtotal: \$315,000

Building mechanical systems consist of constant-volume single and multi-zone air-handling units and several single room unit ventilators. All AHUs and UVs use hot water heating coils and chilled water cooling coils. Central plant high temperature water is supplied to a converter to provide low temp for heating coils and unit heaters. Chilled water is supplied to the air-handling units by the central chilled water plant. Air-handling system equipment is original to the building.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	A comprehensive study of exhaust systems should be done to determine current needs.		Deferred Maintenance	0						DM	
4: Long Term (Year 6-10)	Mechanical B-5: HWH pumps and converters are in good condition. Separate pump sets for coils and FTR/UH. Recommend upgrade to VFDs		Deferred Maintenance	1 \$15,000 \$15,000						DM	
5: Does not meet current codes (Grandfathered)	No occupancy sensors in use.		Deferred Maintenance	0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$160,000

In general, classrooms and offices have a single switch, with no occupancy sensors or time controls. Corridors generally have keyed switches, with no occupancy sensors or time controls.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Classrooms, offices: Many areas have only 1 light switch for illumination control. Additional light switches allow illumination flexibility to match the tasks, while further opportunity for energy savings.	Deferred Maintenance		1 \$120,000 \$120,000						DM	
5: Does not meet current codes (Grandfathered)	Classrooms, offices, corridors, closets, toilet rooms, etc.: Many unoccupied areas were observed to be fully illuminated. Current energy codes require occupancy sensors or time control devices.	Deferred Maintenance		1 \$40,000 \$40,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$130,000

A National Time & Signal control panel is located near the first floor reception desk. The panel is analog type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1992.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	The existing main fire alarm control panel is nearing the end of its anticipated lifespan. It is analog type and cannot support strobe synchronization and some of the demands of current codes. It is recommended to replace with a digital system in the future; the Owner may want to consider a mass notification system as many campuses now incorporate.	Deferred Maintenance		1 \$130,000 \$130,000						DM	
5: Does not meet current codes (Grandfathered)	Corridors only: Audible (horn) coverage does not meet current codes and should be extended.	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$130,000

A National Time & Signal control panel is located near the first floor reception desk. The panel is analog type. Strobes and horns are primarily located in corridors. Duct smoke detectors are indicated on the air handling units. There are a few spot smoke detectors. The system was installed in 1992.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Corridors only: Strobe coverage does not meet current codes and should be extended to all public spaces, including classrooms and multiperson offices. Strobes do not synchronize.	Deferred	Maintenance	0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$730,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but mercury vapor downlights and U-lamps were also observed in limited quantities. Many original fixtures were retrofitted from T12 to T8 platforms.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Auditorium: The fixtures in the auditorium are reportedly lamped with 500W incandescents as well as some mercury vapor lamps. The incandescents can require frequent and difficult re-lamping. Some of the fixture stems are being unscrewed during lamp replacements and are liable to fall. The mercury vapor lamps are not an appropriate lamps source for a Fine Arts facility. Propose an LED system for long life, high color rendering, and instant on capability.	Deferred Maintenance		1 \$70,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$730,000

Existing lighting systems consist of mainly fluorescent lighting systems. T8 fluorescent lamps with electronic ballasts comprise the majority of building lighting, but mercury vapor downlights and U-lamps were also observed in limited quantities. Many original fixtures were retrofitted from T12 to T8 platforms.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Auditorium Lobby and Gallery: The existing downlights are mercury vapor lamp type. This lamp source has low color rendering ability and is inappropriate for a Fine Arts facility. This lamp type rarely fails, but simply emits less light every year for the same wattage. Propose an LED replacement with high color rendering as well as instant on capability.	Deferred Maintenance		1 \$10,000 \$10,000					DM	
5: Does not meet current codes (Grandfathered)	Classrooms, offices, corridors: Existing lighting systems appear to utilize more wattage and lighting intensity than what is required by energy codes or IESNA illumination recommendations. Modern lighting designs can easily achieve lighting power densities below 0.9 watts per square foot while maintaining decent light levels.	Deferred Maintenance		1 \$650,000 \$650,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 1

Subtotal: \$145,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to the Fine Arts distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Emergency lighting consists mainly of "bug-eye" style fixtures, installed in 1992. It's unlikely that the egress paths are illuminated in accordance with the latest codes (1.0 foot-candle average, 40:1 max-to-min uniformity). Many batteries do not operate and need replacement.	Deferred	Maintenance	1 \$35,000						DM	
3: Not yet Critical (Year 2-5)	The original panelboards have reached the end of their anticipated useful lifespan.	Deferred	Maintenance	1 \$20,000						DM	
4: Long Term (Year 6-10)	The Owner expressed a desire for a new generator and an emergency distribution system to pick up emergency lighting and fire alarm loads. Although a complete analysis and study is recommended, the cost given here is for order-of-magnitude comparisons (20kW system).	Deferred	Maintenance	1 \$50,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 1

Subtotal: \$145,000

The 13.2kV high voltage yard sources utility power, while an on-site regional generator sources back-up power, to a 400 amp, 480Y/277V automatic transfer switch in Science Building Room S-23, which in turn feeds emergency power distribution panel "EDS". EDS feeds this backup power to a number of regional buildings, including 125 amps to the Fine Arts distribution. The building distribution is original to 1960, while the transfer switch is fairly modern.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Science Building Room S-23: Although the automatic transfer switches appear fairly new, they do not meet the full intent of life safety codes because they serve multiple buildings. Significant renovations within Fine Arts would require independent automatic transfer switches to serve only that building.	Deferred Maintenance		1 \$40,000 \$40,000						DM	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$219,500

13,200V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). Existing primary loop switches currently feed the Fine Arts Building (one at the Science Building vault and one in the Fine Arts substation). The Fine Arts main substation was replaced in 2001 and resides in the basement; it is rated 750/1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Fine Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. Much of the power distribution equipment was installed in 1978.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	The substation space has only a single entrance and does not comply with NEC 110.33. Recommend adding a second entrance at the opposite end of the equipment. Need to study whether second entrance can be added between sub and mechanical room.	Deferred Maintenance		1 \$15,000 \$15,000						DM	
1: Currently Critical (Current Year)	Due to a lack of janitor closet space, many electrical closets serve as storage and janitorial space. Codes require that 36" or more be maintained clear in front of general panelboards. Clutter in front and on top of electrical equipment may represent a fire hazard or even a life safety hazard for electrical maintenance.	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$219,500

13,200V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). Existing primary loop switches currently feed the Fine Arts Building (one at the Science Building vault and one in the Fine Arts substation). The Fine Arts main substation was replaced in 2001 and resides in the basement; it is rated 750/1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Fine Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. Much of the power distribution equipment was installed in 1978.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Fine Arts Basement and Science Building Room S-23: The wall-mounted loop switches appear to be in decent condition, but the Owner stated that they do not have a UL listing or overcurrent protection. Caution should be taken when servicing or operating this equipment. The loop switch within the substation room is in a potentially dangerous location; although it has the required 5'-0" working space clearance, it is near the substation and could easily arc to the substation enclosure. Recommend relocating loop switch; further study required.	Deferred	Maintenance	1 \$15,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$219,500

13,200V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). Existing primary loop switches currently feed the Fine Arts Building (one at the Science Building vault and one in the Fine Arts substation). The Fine Arts main substation was replaced in 2001 and resides in the basement; it is rated 750/1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Fine Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. Much of the power distribution equipment was installed in 1978.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	First floor: It was reported that some of the high-end computer graphic machines have been failing due to unspecified power quality issues. Re-wiring these machines to the computer power system may alleviate issues. Owner may acquire local UPSs at each station. Further study recommended to determine nature of power quality issue.	Deferred Maintenance		1 \$15,000 \$15,000						DM	
3: Not yet Critical (Year 2-5)	The original step-down transformer has reached the end of its useful lifespan.	Deferred Maintenance		1 \$12,000 \$12,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$219,500

13,200V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). Existing primary loop switches currently feed the Fine Arts Building (one at the Science Building vault and one in the Fine Arts substation). The Fine Arts main substation was replaced in 2001 and resides in the basement; it is rated 750/1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Fine Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. Much of the power distribution equipment was installed in 1978.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	The original panelboards have reached the end of their anticipated useful lifespan. Repairs and replacement parts are likely very difficult to achieve. There are very little spare positions available (if a vintage breaker were obtainable).	Deferred Maintenance		1 \$160,000 \$160,000						DM	
4: Long Term (Year 6-10)	The computer panel distribution system appears severely underutilized. Metering data is requested for analysis, but site observations suggest that the energy to magnetize the transformer coils may be the major load on this system, wasting energy. The system is nearing mid-life, but has yet to serve its untapped potential.	Deferred Maintenance		0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$219,500

13,200V utility power originates within a lower level room, adjacent to the Liberal Arts Building (Science Building Room S-23). Existing primary loop switches currently feed the Fine Arts Building (one at the Science Building vault and one in the Fine Arts substation). The Fine Arts main substation was replaced in 2001 and resides in the basement; it is rated 750/1,000 kVA, 480Y/277V. 480Y/277V is distributed to the Fine Arts motors, lighting, and step-down 208Y/120V transformers, which in turn supply general receptacle panels. Much of the power distribution equipment was installed in 1978.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	The substation is reaching the midpoint of its anticipated useful lifespan. The maximum demand read 251kW, suggesting healthy capacity. There is some minor dust build-up at the ventilation openings. Regular maintenance and cleaning is recommended to keep the substation in good condition.		Deferred Maintenance	1 \$2,500 \$2,500						DM	

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$27,000

In the context of ADA compliance, the toilet rooms do not have an ADA compliant stall. The elevator controls comply with ADA requirements. The elevator was renovated in 2014 however Owner reports that elevator is over utilized and tends to breakdown regularly. The front entry doors are ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Elevator rear door is damaged and needs to be replaced		Deferred Maintenance	1 \$7,000 \$7,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$27,000

In the context of ADA compliance, the toilet rooms do not have an ADA compliant stall. The elevator controls comply with ADA requirements. The elevator was renovated in 2014 however Owner reports that elevator is over utilized and tends to breakdown regularly. The front entry doors are ADA compliant.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Handles of corridors doors are non ADA compliant		Deferred Maintenance	1 \$5,000 \$5,000						DM	

5: Does not meet current codes (Grandfathered)	Each toilet room lacks an ADA stall		Deferred Maintenance	1 \$15,000 \$15,000						DM	
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Campus Site: Site

Maint. Type: Other

System Rating: 2

Subtotal: \$4,000

Site is comprised of concrete walkways, concrete paved plaza and partial lawn area. Most of the sidewalks were replaced in 2014. There are no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Negative pitch at sidewalk that must be corrected. Location: East and southeast elevations		Deferred Maintenance	1 \$4,000 \$4,000						DM	

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Admin Services and Conference Center**BUILDING No.:** 10

Year Built: 1983

Floors: 4

Building Area (sf): 59,000

Notes: Originally built in 1983 as a training center for the UAW. Addition in 1988. Purchased by HFC in 1999. Levels 2-4 renovated in 1999

Major Renovations/Additions

Year	Add'n.	Reno.	Description
1999		X	Levels 2-4 renovated
1988	X		Conference Center and Office Suite wing added

Building Use Types

Use Type %	Use Type
30%	Conference Center
70%	Administrative

Facility Condition Index

All priorities

FCI	10.24%	Poor	CRV	\$14,750,000	Annual Maint and Capital Renewal Budget	\$442,500
						3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI	9.97%	Fair
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Priority 1 (current year only)

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

FCI

0.07%

Good

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$10,000				\$10,000
2 Potentially Critical (Year 1)	\$394,000				\$394,000
3 Not yet Critical (Year 2-5)	\$1,061,000		\$5,000		\$1,066,000
4 Long Term (Year 6-10)			\$41,000		\$41,000
5 Does not meet current codes (Grandfathe	\$40,000				\$40,000
	Subtotal	\$1,505,000	\$46,000		
					\$1,551,000
					Total of Projects

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls		Maint. Type: Architectural			System Rating: 4			Subtotal:		
<i>Brick with minimal areas of metal panel. No problems reported, only typical minor surface damage on panels from lawn equipment.</i>										

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Exterior: Windows		Maint. Type: Architectural			System Rating: 2			Subtotal: \$365,000		
<i>1983 wing - insulated windows in punched openings, no reported problems. 1988 wing - insulated windows in aluminum framed curtain wall system. No operable windows. Angled skylights on 1983 wing, curved aluminum frame skylights over atrium and boardroom.</i>										

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Curtain wall system leaking, caulk showing cracking from movement. Issue is minor at flat walls, but more significant at curved stairwell walls. Vertical mullion gaps very wide, potentially allowing water into framing. Entire system requires caulking	Deferred Maintenance		1 \$10,000 \$10,000						BI	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 2

Subtotal: \$365,000

*1983 wing - insulated windows in punched openings, no reported problems.
 1988 wing - insulated windows in aluminum framed curtain wall system. No operable windows.
 Angled skylights on 1983 wing, curved aluminum frame skylights over atrium and boardroom.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Skylight framing not watertight in several locations (level 1 corridor, atrium, boardroom), drainage system not functioning, units leaking. System requires annual caulking. Resolving leaking and poor drainage will require reconditioning and regasketing of skylights	Deferred Maintenance		1 \$50,000 \$50,000						BI	
2: Potentially Critical (Year 1)	sloped skylights on level 1 roof with fogged glass units need to be replaced when skylights reconditioned.	Deferred Maintenance		1 \$5,000 \$5,000						BI	
2: Potentially Critical (Year 1)	Curtain wall system on 1988 wing is leaking, requires high maintenance and due for restoration. Resolving issues will require curtain wall disassembly, regasketing and restoration	Deferred Maintenance		1 \$300,000 \$300,000						BI	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 4

Subtotal:

Modified Asphalt Built up roof with stone aggregate.

South room replaced in 2003, north roof replaced in 2013. Currently on annual maintenance program, past leaking issues resolved.

No problems reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 5

Subtotal:

Load-bearing masonry in 1983 wing, steel structure in 1988 addition. Light gauge steel roof joists. No problems reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal: \$1,000

Painted gypsum board typical throughout. Levels 1 and 2 due for repaint and minor repair.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	In atrium, gypsum board wall cracking at openings from level 2 corridor into atrium due to lack of control joints at openings. Wall due for repair.	Deferred Maintenance		1 \$1,000 \$1,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$160,000

Slate tile in main lobby, carpet typical throughout balance of building, rubber treads in stairwells. All flooring in good condition except for carpet, which is typically worn and due for replacement

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Carpet in building at end of life and due for replacement, except for Rosenau rooms.		Deferred Maintenance	1 \$160,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 4

Subtotal: \$10,000

Mix of 2x2 and 2x4 lay-in ceilings typical throughout, in good condition except for south lobby, which is showing signs of sagging. 1x1 acoustic tiles and plaster ceiling in atrium, in good condition. Gypsum board ceilings in select corridors, offices, stairwells and auditoriums, in good condition except for small areas of damage.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	gypsum board ceilings in northwest stairwell and Forfa auditorium have some minor damage in select areas, likely from past roof leaks. Gypsum ceiling due for repair and repaint		Deferred Maintenance	1 \$2,500						DM	
2: Potentially Critical (Year 1)	Lay-in ceiling in south lobby sagging from age and humidity, a few tiles damaged. Ceiling due for replacement.		Deferred Maintenance	1 \$7,500						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$10,000

Galvanized plumbing mains, copper branch lines. Deterioration of mains causing rusting of water, requiring weekly flush of system. Restroom fixtures are in good condition, although some countertops are due for refinishing/replacement

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Galvanized supply mains due for relining to stop deterioration and eliminate rusting of water		Deferred Maintenance	1 \$10,000 \$10,000						DM	

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$860,000

Office area AC provided by 3 rooftop units (one from 1983, two from 1988), all reported to be in working condition but past their expected life cycle. Auditorium is served by one Rooftop chiller and internal AHU, reported to be in working condition but past its expected life cycle. 3 boilers serve HHW to building, one rebuilt in 2014. Both in working condition but past their expected life cycle and due for replacement. Fin tube radiation delivers supplemental heating to perimeter spaces, but has insufficient shut-off valves for easy maintenance. 2 rooftop split system AC units for Computer Lab, no reported problems. VAV boxes deliver zone HVAC control. VAV boxes have no reheats and utilize original pneumatic controls. No reported issues outside of typical maintenance repairs.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Boilers are past end of life and due for replacement		Deferred Maintenance	1 \$220,000 \$220,000						DM	
3: Not yet Critical (Year 2-5)	Rezone perimeter heat system, update controls to DDC to improve operation and add additional shut-off valves.		Deferred Maintenance	1 \$40,000 \$40,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$860,000

Office area AC provided by 3 rooftop units (one from 1983, two from 1988), all reported to be in working condition but past their expected life cycle. Auditorium is served by one Rooftop chiller and internal AHU, reported to be in working condition but past its expected life cycle. 3 boilers serve HHW to building, one rebuilt in 2014. Both in working condition but past their expected life cycle and due for replacement. Fin tube radiation delivers supplemental heating to perimeter spaces, but has insufficient shut-off valves for easy maintenance. 2 rooftop split system AC units for Computer Lab, no reported problems. VAV boxes deliver zone HVAC control. VAV boxes have no reheats and utilize original pneumatic controls. No reported issues outside of typical maintenance repairs.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Auditorium rooftop chiller unit and interior air handling unit are past end of life and due for replacement		Deferred Maintenance	1 \$150,000						DM	
3: Not yet Critical (Year 2-5)	3 RTUs are past end of life and due for replacement		Deferred Maintenance	1 \$450,000						DM	

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Lighting controls are handled thru local switching.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$25,000

Fire alarm is a National Time non-addressable system, centrally monitored, no reported problems. Alarm system is grandfathered, but does not meet current standards for alarm devices.

Pull stations are mounted in some areas around 5'6", not per ADA requirements.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Pull stations mounted above 48", do not meet ADA, should be lowered to 48"		Facility Adaptation (Capital Renewal)	1 \$5,000 \$5,000						A	
4: Long Term (Year 6-10)	Building fire alarm system met code when built. Additional strobes should be installed to meet current requirements.		Facility Adaptation (Capital Renewal)	1 \$20,000 \$20,000						LSC	

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal: \$11,000

Lighting is typically upgraded T8 fluorescent lay-in fixtures.

There are some metal halide downlights in the Atrium.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Replace Atrium metal halide downlights with LED		Facility Adaptation (Capital Renewal)	1 \$11,000 \$11,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

The building has a 2000A 480/277V incoming service. The main switchboard is a Square D brand and is in good shape with no issues. Fusible switches. Panel boards are in good shape from the 1980s

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$40,000

The building met applicable codes when constructed and no code compliance or egress issues were observed. Toilet rooms do not meet current ADA requirements, but are grandfathered. Elevators are accessible and functioning.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Toilet rooms not currently ADA compliant, all floors. Toilet rooms do not have a full ADA stall. In future renovation, issue should be corrected.	Deferred	Maintenance	1 \$40,000						A	

Campus Site: Site

Maint. Type: Other

System Rating: 4

Subtotal:

Concrete walks to building, newer concrete/brick pavers at main entry drive. Concrete in fair condition for age with typical salt deterioration and replaced as necessary. Asphalt parking lots recently repaved/replaced and in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Fire Protection: Fire Protection System

Maint. Type: Other

System Rating: 5

Subtotal:

Building is wet-pipe sprinklered except for UAW office suite and Rosenau conference rooms. No reported issues. Fire alarm system is National Time, recently repaired, no reported problems

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Entrances: Doors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$50,000

Exterior doors: entrance doors - aluminum full lite typical; service doors - painted hollow metal. All exterior doors showing rusting and allow air infiltration.

Interior doors: laminate doors typical throughout, minimal damage. Service doors - painted metal, in good condition.

Operable partitions in Rosenau Conference Rooms work well, but finish is worn.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Exterior hollow metal service doors are past end of life, showing rusting and are not sealing properly, causing air infiltration.		Deferred Maintenance	1 \$10,000						DM	
3: Not yet Critical (Year 2-5)	Operable partitions in meeting rooms - functional, but surface finish is in poor condition.		Deferred Maintenance	1 \$15,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$50,000

Exterior doors: entrance doors - aluminum full lite typical; service doors - painted hollow metal. All exterior doors showing rusting and allow air infiltration.

Interior doors: laminate doors typical throughout, minimal damage. Service doors - painted metal, in good condition.

Operable partitions in Rosenau Conference Rooms work well, but finish is worn.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Exterior aluminum full-lite doors are past end of life, showing signs of corrosion and require regular hardware maintenance; lack ADA operators at all locations.	Deferred Maintenance		1 \$25,000						DM	

End of Building Report for: **Admin Services and Conference Center**

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Child Development Center**BUILDING No.:** 11

Year Built: 1996

Floors: 1

Building Area (sf): 7,100

Notes: Building originally designed as Child Development/Daycare Center. Currently unoccupied. Renovated in 2004 to provide wheelchair accessible toilet rooms.

Building Use Types

Use Type % Use Type

100% Auxiliary Other

Facility Condition Index**All priorities****FCI**

7.17%

Fair

CRV

\$1,562,000

Annual Maint
and Capital
Renewal Budget

\$46,860

3% of CRV

Priorities 1-3 (current year through year 5 combined)**FCI**

6.79%

Fair

Priority 1 (current year only)**FCI**

2.82%

Good

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$44,000				\$44,000
2 Potentially Critical (Year 1)	\$54,000				\$54,000
3 Not yet Critical (Year 2-5)	\$8,000				\$8,000
4 Long Term (Year 6-10)			\$6,000		\$6,000
5 Does not meet current codes (Grandfathe	\$8,000		\$6,000		\$14,000
Subtotal	\$114,000		\$12,000		\$126,000
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 5

Subtotal:

*Brick veneer exterior wall on concrete block. Brick in good condition.
No reported issues.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Windows

Maint. Type: Architectural

System Rating: 3

Subtotal: \$2,000

Operable awning-type wood frame windows, with aluminum exterior cladding. Hardware in good condition, exterior painted aluminum finish is fair condition for age. Hardware typically in good condition.

Window frames adjacent to entry doors are varnished wood, exterior finish in poor condition (see door section for information)

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Windows adjacent to main and secondary entries are wood exterior and in poor condition. Windows recommended to be replaced as part of door systems. (see door info for costs)	Deferred Maintenance		1 \$2,000 \$2,000						DM	

Exterior: Roof

Maint. Type: Architectural

System Rating: 1

Subtotal: \$40,000

Flat roof: ballasted membrane roof, at end of life and due for replacement.

Sloped roof: Asphalt shingles, extensive leaking in the past, now repaired. South facing roof replaced to resolve leaking. North facing roof past end of life and due for replacement.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Flat roof due for replacement - approx. 3,000 SF	Deferred Maintenance		1 \$25,000 \$25,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 1

Subtotal: \$40,000

Flat roof: ballasted membrane roof, at end of life and due for replacement.

Sloped roof: Asphalt shingles, extensive leaking in the past, now repaired. South facing roof replaced to resolve leaking. North facing roof past end of life and due for replacement.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Shingled pitched roof due for replacement on north face - approx. 2,500 SF		Deferred Maintenance	1 \$15,000						DM	

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 4

Subtotal:

Wood timber roof framing on load bearing CMU walls on poured concrete foundation. Small area of settlement/heaving at east wall of east classroom. No reports of worsening issues - movement appears stabilized

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal:

Painted block walls typical, in good condition. Expansion joints due for recaulking

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$15,000**

VCT typical, with limited areas of carpeting (offices, part of classrooms)

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Approx. 2,100 SF of carpet in classrooms past end of life, wrinkled, worn and due for replacement.		Deferred Maintenance	1 \$15,000						DM	

Interior: Ceilings **Maint. Type: Architectural** **System Rating: 5** **Subtotal:**

Open to tongue-and-groove decking in classroom spaces. Ceiling in good condition. Painted gypsum board ceiling elsewhere, in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Plumbing System: Plumbing Fixtures **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal: \$2,000**

Plumbing is in good working order with copper piping throughout. Original flush valves are in place and functional.

Main sewer line has plugged at footing in past. Drain resleeved approximately 10 years ago and problem has not returned. Inspection is recommended.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Sanitary drain due for inspection		Deferred Maintenance	1 \$2,000						BI	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$35,000

Heating & cooling for the building is delivered from 6 furnaces. All reported to be functional, but are past their expected life and due for replacement.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	6 furnaces and accompanying AC condensor units at end of life and due for replacement.	Deferred	Maintenance	1 \$35,000 \$35,000						DM	

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal: \$6,000

local switching throughout, no motion sensors. No reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Installation of motion sensor light switches recommended	Facility Adaptation	(Capital Renewal)	1 \$6,000 \$6,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$6,000

Fire alarm system is by National Time. Pull stations, horns and strobes. Insufficient strobe coverage. Smoke detectors observed - no reported issues

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Installation of additional strobes recommended		Facility Adaptation (Capital Renewal)	1 \$6,000						LSC	

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Indirect fluorescent lights in classroom areas. Lights are functioning but light levels are low due to ceiling color and fixture design. No issues reported. Battery packs in individual lights which also act as night lights. Recessed fluorescent fixtures in other areas, no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 4

Subtotal:

*Building renovated in 2004 to provide wheelchair accessible toilet rooms.
No code compliance issues reported.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Campus Site: Site

Maint. Type: Other

System Rating: 3

Subtotal: \$4,000

*Concrete walks in good condition.
Asphalt parking lot replaced in 2014, in good condition.
Brick site walls around playground and exterior mechanical equipment are deteriorating due to water infiltration and freeze/thaw cycle. Brick cap course no longer securely attached to wall - some areas are quite loose.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Brick cap on brick site wall has failed and is no longer securely mortared to the wall. Approx. 400 LF of cap should be removed and replaced with sloped concrete or stone cap, properly flashed. Wall should be repaired as needed where damaged from water infiltration.	Deferred Maintenance		1 \$4,000 \$4,000						DM	

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Health Sciences Education Center**BUILDING No.:****12**

Year Built: 1997

Floors: 4

Building Area (sf): 81,500

Notes: Includes occupied level below grade
 Levels 0 and 1 connected to adjacent science building through intermediate space and elevator

Building Use Types

Use Type % Use Type

100% Classroom/Teaching Laboratory

Facility Condition Index**All priorities****FCI**

2.87%

Good

CRV

\$23,635,000

Annual Maint
and Capital
Renewal Budget

\$709,050

3% of CRV

Priorities 1-3 (current year through year 5 combined)**FCI**

2.83%

Good

Priority 1 (current year only)**FCI**

0.02%

Good

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
1 Currently Critical (Current Year)	\$5,000				\$5,000
2 Potentially Critical (Year 1)	\$320,000				\$320,000
3 Not yet Critical (Year 2-5)	\$325,000		\$20,000		\$345,000
4 Long Term (Year 6-10)	\$8,000				\$8,000
5 Does not meet current codes (Grandfathered)			\$35,000		\$35,000
Subtotal		\$658,000	\$55,000		\$713,000
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 4

Subtotal: \$10,000

Brick on combination of metal stud and block backup. Brick is generally in good condition. Brick repair and replacement performed (possibly in 1998), including addition of weeps, especially on north elevation. Problem appears to be resolved, but sealants should be inspected and maintained. Metal panel system on curved portion of levels 2 and 3. Panels are dirty due to runoff from window frames.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	brick should be regularly inspected and maintained, including replacement of caulk	Deferred Maintenance		1 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 4

Subtotal: \$10,000

Brick on combination of metal stud and block backup. Brick is generally in good condition. Brick repair and replacement performed (possibly in 1998), including addition of weeps, especially on north elevation. Problem appears to be resolved, but sealants should be inspected and maintained Metal panel system on curved portion of levels 2 and 3. Panels are dirty due to runoff from window frames.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	clean metal panels		Deferred Maintenance	1 \$5,000						DM	

Exterior: Windows

Maint. Type: Architectural

System Rating: 4

Subtotal: \$5,000

Insulated glazing in aluminum frames. Small number of operable windows. Ribbon windows on curved wall. Gasketing on horizontal aluminum noted to be loose in areas. Punched openings in masonry, no reported problems. Curtain wall on atrium, no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Inspect and replace loose gasketing on ribbon windows.		Deferred Maintenance	1 \$5,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 2

Subtotal: \$320,000

Original fully adhered EPDM roof membrane, at end of life. Adhesive reported to be failing. While no leaks were noted at the time, the roof transition between the HSEC and the science building has been problematic. Leaks noted in southwest stairwell roof hatch. Roof is due for replacement.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Roof is at end of life and due for replacement - approximately 29,000 SF		Deferred Maintenance	1 \$320,000 \$320,000						DM	

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 5

Subtotal:

Steel structure, concrete foundation. No structural issues reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal:

Interior partitions are gypsum board on metal stud. Gypsum board noted as poor quality material, but currently repaired. No problems reported.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 3

Subtotal: \$225,000

Ceramic Tile - atrium, toilet rooms, no reported problems

Vinyl composition tile - corridors, labs - no reported problems

Carpet - office suites, offices, classrooms. Reported to be original, worn and at end of life. Carpet is due for replacement.

rubber flooring - in stairwells, is peeling loose at landings and due for replacement.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
1: Currently Critical (Current Year)	Loose rubber stair treads and flooring in stairwells due for replacement.		Deferred Maintenance	1 \$5,000						DM	
3: Not yet Critical (Year 2-5)	Carpet in office areas and classrooms due for replacement, approximately 40,000 SF		Deferred Maintenance	1 \$220,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 4

Subtotal:

Mix of 2x4 and 2x2 suspended acoustic ceiling, no reported problems.

Open to deck in atrium, no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

*Plumbing lines copper throughout building. No reported problems;
Plumbing fixtures original, in good condition*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

HVAC System: HVAC

Maint. Type: HVAC

System Rating:

Subtotal: \$110,000

Heating hot water provided by 2 heat exchangers connected to campus hot water loop (fed from science building). Heat exchangers reported to be under-capacity for building load. Larger capacity heat exchangers proposed in past to improve heating water temperature. Chilled water provided by campus loop, no reported problems.

HVAC system fed from four rooftop units with hot water preheat: (3) VAV units and (1) lab Makeup Air Handler on atrium roof (serves level 0 labs). Lab fume hoods (Phoenix) and ventilation provided by roof-top exhaust. Rooftop units reported in good condition, no reported problems.

Air mixing boxes and VAV boxes with hot water reheats. Condensation reported above office ceilings at mixing boxes in summer, cause not determined (may be related to hot water system for reheats being turned off in summer).

Perimeter spaces are reported to be cold at floor level. 400 LF of fin-tube radiators proposed to be added in office areas in past to improve temperature (with increased capacity exchangers). Valving already in place for new fin-tube.

(2) min-split AC units serve data closets - in good condition, no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Heat exchanger insufficient capacity for building needs, should be replaced with larger unit or supplemented.	Deferred Maintenance		1 \$90,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating:

Subtotal: \$110,000

Heating hot water provided by 2 heat exchangers connected to campus hot water loop (fed from science building). Heat exchangers reported to be under-capacity for building load. Larger capacity heat exchangers proposed in past to improve heating water temperature. Chilled water provided by campus loop, no reported problems.

HVAC system fed from four rooftop units with hot water preheat: (3) VAV units and (1) lab Makeup Air Handler on atrium roof (serves level 0 labs). Lab fume hoods (Phoenix) and ventilation provided by roof-top exhaust. Rooftop units reported in good condition, no reported problems.

Air mixing boxes and VAV boxes with hot water reheats. Condensation reported above office ceilings at mixing boxes in summer, cause not determined (may be related to hot water system for reheats being turned off in summer).

Perimeter spaces are reported to be cold at floor level. 400 LF of fin-tube radiators proposed to be added in office areas in past to improve temperature (with increased capacity exchangers). Valving already in place for new fin-tube.

(2) min-split AC units serve data closets - in good condition, no reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Additional fin-tube radiators desired at perimeter walls in office area to improve heating. Valves have been installed to serve proposed additional fin-tube (approx. 400 LF)		Facility Adaptation (Capital Renewal)	1 \$20,000 \$20,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$20,000

Fire alarm is a National Time non-addressable system, centrally monitored, no reported problems. Alarm system is grandfathered, but does not meet current standards for alarm devices.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Building fire alarm system met code when built. Additional strobes should be installed in classrooms and other required spaces.		Facility Adaptation (Capital Renewal)	1 \$20,000						LSC	

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Lighting is primarily fluorescent T8 with some metal halide fixtures in the main atrium.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$23,000

Emergency/egress lighting in corridors only - powered by battery packs. Levels and locations are grandfathered, but do not meet current standards.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Emergency and egress lighting batteries will need to be replaced in next 5-10 years.		Deferred Maintenance	1 \$8,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$23,000

Emergency/egress lighting in corridors only - powered by battery packs. Levels and locations are grandfathered, but do not meet current standards.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Verification of egress lighting levels needs to be made for 1 fc maintained. Building emergency lighting met code when built. Emergency lighting should be provided in classrooms and other required spaces.		Facility Adaptation (Capital Renewal)	1 \$15,000 \$15,000						BC	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating: 5

Subtotal:

Primex clock system, no reported problems. No reported problems with voice/data system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Building served by 1,000 kVA transformer. Switchgear, electrical equipment and distribution panels are in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance				Maint. Type: Legal & Mandatory			System Rating: 4			Subtotal:	
<i>No overserved or reported code related issues.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Campus Site: Site				Maint. Type: Other			System Rating: 5			Subtotal:	
<i>Exterior concrete and site in good condition, with typical wear and deterioration. Concrete slab repairs ongoing as needed (a campus-wide program)</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Fire Protection: Fire Protection System				Maint. Type: Other			System Rating: 4			Subtotal:	
<i>Building fully sprinklered. No reported problems.</i>											

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Entrances: Doors

Maint. Type: Architectural

System Rating: 4

Subtotal:

*Exterior Doors: aluminum frame full-lite doors typical, in good condition.
Hollow metal door and frame at receiving room, no reported problems.*

Interior Doors: Plastic laminate finish wood core doors in hollow metal frames typical, no reported problems beyond minor chipping common with plastic laminate doors.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

End of Building Report for: **Health Sciences Education Center**

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Science building - original**BUILDING No.:** 13

Year Built: 1960

Floors: 2

Building Area (sf): 49,000

Notes: Building partially renovated as part of science building addition in 2011

Major Renovations/Additions

Year	Add'n.	Reno.	Description
2011	X	X	Renovated as part of new science building addition

Building Use Types

Use Type %	Use Type
100%	Laboratory/Research

Facility Condition Index

All priorities

FCI	3.97%	Good	CRV	\$14,700,000	Annual Maint and Capital Renewal Budget	\$441,000
						3% of CRV

Priorities 1-3 (current year through year 5 combined)

FCI	3.97%	Good
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Priority 1 (current year only)

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
2 Potentially Critical (Year 1)	\$20,000				\$20,000
3 Not yet Critical (Year 2-5)	\$263,000		\$300,000		\$563,000
5 Does not meet current codes (Grandfathe			\$30,000		\$30,000
Subtotal	\$283,000		\$330,000		\$613,000
					Total of Projects

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$320,000

Precast concrete panels on north and south elevations, brick on east elevation.

Brick in fair condition for age, no reported problems.

Precast concrete panels are in fair/poor condition, but are discolored, cracking, spalling and showing potential signs of corroding reinforcing steel.

exterior sealant has failed and is due for replacement

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Panel sealant has failed and is due for replacement.		Deferred Maintenance	1 \$20,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls

Maint. Type: Architectural

System Rating: 3

Subtotal: \$320,000

Precast concrete panels on north and south elevations, brick on east elevation.

Brick in fair condition for age, no reported problems.

Precast concrete panels are in fair/poor condition, but are discolored, cracking, spalling and showing potential signs of corroding reinforcing steel. exterior sealant has failed and is due for replacement

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Precast concrete exterior cladding is deteriorated and at the end of its life. Replace with new exterior cladding to resolve integrity, improve insulation and maintain a secure exterior enclosure (including glazing)		Facility Adaptation (Capital Renewal)	1 \$300,000						CR	

Exterior: Windows

Maint. Type: Architectural

System Rating: 3

Subtotal: \$

Windows are original aluminum frame units and functioning, but at the end of expected lifespan and should be replaced when building is renovated.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Windows should be replaced as part of cladding replacement - incorporated in cladding replacement cost.		Deferred Maintenance	0 \$0						DM	

BUILDING REPORT**Henry Ford College****CAMPUS Main Campus - Dearborn, Michigan****Exterior: Roof****Maint. Type: Architectural****System Rating: 5****Subtotal:***Roof is white single-ply membrane roof, replaced in 2011 as part of renovation/addition. No reported problems*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Superstructures: Structural Frame**Maint. Type: Architectural****System Rating: 5****Subtotal:***Reinforced concrete columns and slab structure. No reported problems.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Interior Wall Finishes**Maint. Type: Architectural****System Rating: 3****Subtotal:***Interior walls are a mix of brick (corridor) and painted concrete block (classrooms). Interior face of exterior walls are plaster. Walls are in fair/good condition for age.**Remaining original casework in most labs is functional but planned for replacement as part of completion of renovation.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors **Maint. Type: Architectural** **System Rating: 4** **Subtotal:**

*Classroom and lab floors replaced as part of 2011 renovation. No reported issues.
Corridor floors on main level are terrazzo, in good condition for age, with some typical cracking.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Interior: Ceilings **Maint. Type: Architectural** **System Rating: 5** **Subtotal:**

Ceilings are new from 2011 renovation/addition - typically 2x2 suspended acoustic tiles. No reported problems

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Plumbing System: Plumbing Fixtures **Maint. Type: Plumbing & Electrical** **System Rating: 3** **Subtotal: \$80,000**

One vertical condensing hot water heater serves building, installed in 2011. No reported problems.

Plumbing fixtures in toilet rooms are original and in operating order, but due for replacement.

Majority of plumbing piping replaced as part of renovation, no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Plumbing fixtures in toilet rooms are original and due for replacement - as part of building renovation.	Deferred	Maintenance	1 \$80,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 5

Subtotal:

HVAC system for building upgraded as part of 2011 renovation/addition. System is a single multi-zone roof top unit fed from campus hot water and chilled water loops. No reported problems.

One make-up air handling unit serves labs. Unit seems to be in excellent working condition, installed in 2011. No reported problems.

Dual exhaust fans serve lab fume hoods, installed in 2011. No reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating:

Subtotal:

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:				0							

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 5

Subtotal:

Full fire alarm coverage. System has been upgraded with proper strobe coverage.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Lighting **Maint. Type: Plumbing & Electrical** **System Rating: 5** **Subtotal:**
Lighting replaced as part of 2011 renovation project - fluorescent T8 light fixtures typical. No reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Emergency Power **Maint. Type: Plumbing & Electrical** **System Rating: 5** **Subtotal:**
New emergency generator adjacent to building, part of renovation/addition project. No reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Phone/Data Systems **Maint. Type: Plumbing & Electrical** **System Rating: 5** **Subtotal:**
Primex Clocks - no reported problems.
Telecom/data system - no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Electrical **Maint. Type: Plumbing & Electrical** **System Rating: 5** **Subtotal:**
Buildings electrical system was upgraded as part of 2011 renovation. Switchboard and panel boards are in excellent condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/ Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal: \$30,000

ADA compliance - building lacks ADA hardware on doors, toilet rooms are not ADA compliant. New addition provides ADA compliant toilet rooms. Elevator connecting to HSEC Building is operational and on contract.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Door hardware should be replaced with ADA-compliant levers when building is renovated.		Facility Adaptation (Capital Renewal)	1 \$30,000 \$30,000						A	

Campus Site: Site

Maint. Type: Other

System Rating: 3

Subtotal:

Paving between science building and liberal arts building a mix of original and replaced areas, some cracks and heaving noted. Concrete paving is under repair as part of campus-wide program.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Concrete paving is due for repair/replacement, being repaired under existing campus-wide paving program.		Planned Maintenance (Facility Renewal or Capital Repair)	0						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Fire Protection: Fire Protection System **Maint. Type: Other** **System Rating: 0** **Subtotal:**

The existing building is not sprinklered. Resolving issue should be investigated as part of future renovation.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Entrances: Doors **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$183,000**

Exterior doors: North doors are newer aluminum full-lite units with full-length hinges place on existing aluminum sill. Sills are corroded from salt and should be replaced.

Interior doors: Original solid-core wood doors in hollow metal frames. Finish is in fair condition, with some damage and wear. Hardware is typically original and not ADA compliant. Doors are at the end of their expected life.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Original interior doors are at or near end of expected life and due for replacement - as part of future building renovation.	Deferred Maintenance		1 \$180,000 \$180,000						DM	
3: Not yet Critical (Year 2-5)	Exterior door sill should be replaced at north entry.	Deferred Maintenance		1 \$3,000 \$3,000						DM	

BUILDING REPORT**Henry Ford College****CAMPUS** Main Campus - Dearborn, Michigan**BUILDING:** Student and Culinary Arts Center**BUILDING No.:** 9

Year Built: 1960

Floors: 1

Building Area (sf): 41,800

Notes: Building has mechanical crawspace
 East addition in 1970
 Heating system improvements in 1989, Electrical system updated in 2001, Significant renovation in 2002

Major Renovations/Additions

Year	Add'n.	Reno.	Description
2002		X	significant renovation
1970	X		addition of east wing

Building Use Types

Use Type %	Use Type
60%	Food Service
40%	Student Life

Facility Condition Index

All priorities

FCI	8.75%	Fair	CRV	\$12,200,000	Annual Maint and Capital Renewal Budget	\$366,000 3% of CRV
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Priorities 1-3 (current year through year 5 combined)

FCI	7.32%	Fair
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Priority 1 (current year only)

Project Classification/Priority Subtotals

Project Priority	Project Classification				Subtotal
	Deferred Maintenance	Planned Maint/ Capital Renewal	Facility Adaptation	Critical Deferred Maintenance	
2 Potentially Critical (Year 1)	\$370,000				\$370,000
3 Not yet Critical (Year 2-5)	\$523,000				\$523,000
4 Long Term (Year 6-10)	\$150,000		\$24,000		\$174,000
5 Does not meet current codes (Grandfathe			\$25,000		\$25,000
Subtotal	\$1,043,000		\$49,000		\$1,092,000
					Total of Projects

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Exterior Walls **Maint. Type: Architectural** **System Rating: 3** **Subtotal: \$10,000**

Exterior envelope of main building is approximately 50% uninsulated precast concrete panels on exposed concrete, 50% brick. The brick is in good condition. The precast is generally in good condition, but has several areas of chipped concrete and is due for cleaning and resealing.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Precast concrete is due for cleaning and resealing, approximately 5,200 SF of panel		Deferred Maintenance	1 \$10,000 \$10,000						DM	

Exterior: Windows **Maint. Type: Architectural** **System Rating: 4** **Subtotal: \$150,000**

*Windows are aluminum frame, original to building.
New windows installed at pavilion when renovated in 2002. No reported issues.*

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Original windows should be replaced to improve energy efficiency as part of future renovation.		Deferred Maintenance	1 \$150,000 \$150,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Exterior: Roof

Maint. Type: Architectural

System Rating: 2

Subtotal: \$350,000

Coal tar pitch built up roof in poor condition, leaks at penetrations. Has areas of ponding and saturated insulation. Core samples scheduled to be taken in 2015. Roof sump at north side of connector between pavilion and main building reported as undersized and cannot handle water quantity. Skylight and metal roof over pavilion is in good condition, no reported leaks.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Flat roof is in poor condition. Water ponding, saturated insulation, leaks at penetrations, insufficient flow through pavilion connector roof sump, allowing water to enter building. RTU over pavilion connector roof poorly installed, poorly flashed, leaks. Approximately 32,000 SF of built up roof is due for replacement, including sump capacity improvements.	Deferred Maintenance		1 \$350,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Superstructures: Structural Frame

Maint. Type: Architectural

System Rating: 3

Subtotal: \$15,000

Reinforced concrete structure.

Concrete floor does not align at joint between 1960 building and 1970 addition, has been problem since addition was built.

Exposed reinforced concrete at column bases at the pavilion spalled

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	concrete slab misaligned at joint between original building and 1970s addition, potential tripping hazard. Analysis should be performed and solution should be developed for future renovation.	Deferred Maintenance		1 \$10,000						DM	

3: Not yet Critical (Year 2-5)	exposed concrete column bases at pavilion are spalled and should be repaired.	Deferred Maintenance		1 \$5,000						DM	
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Interior: Interior Wall Finishes

Maint. Type: Architectural

System Rating: 4

Subtotal:

Interior partitions typically gypsum board on metal stud, with limited areas of special finishes and other wall types. Walls are in good condition, with no reported issues.

Areas with cart traffic have bumper rails - in good condition.

Kitchen walls include areas of glazed block and other high-wear, easy-clean finishes- in good condition.

Interior face of many exterior walls a mix of painted CMU and ceramic tile - in good condition

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Interior: Floors

Maint. Type: Architectural

System Rating: 4

Subtotal: \$2,000

*Multiple flooring types throughout - in good condition.
 Porcelain/quarry tile floors in kitchens, Seryery, main atrium space - in good condition.
 Carpet in restaurant - replaced in 2015
 VCT floors in corridors, storage rooms, receiving rooms, etc. - much is dirty and due for cleaning.*

Raised floor in radio station is damaged, due for repair

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	repair damaged raised wood floor in radio station		Deferred Maintenance	1 \$2,000 \$2,000						DM	

Interior: Ceilings

Maint. Type: Architectural

System Rating: 4

Subtotal:

Ceiling a mix of 2x4 lay-in, 2x2 lay-in, gypsum board and open to deck (in pavilion). No issues reported, ceilings in good condition.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Plumbing System: Plumbing Fixtures

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$65,000

Copper lines throughout, all fixtures and controls in good condition (replaced during 2003 renovation).

Domestic hot water provided by two copper fin horizontal 1260 MBH, 200-gallon gas fired boilers with storage tanks. Water heater controls and shut-off valves problematic, units are high maintenance.

Grease traps functioning and in good condition.

No check valves on kitchen spray heads, causing backflow.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year R/F Res.	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Ball valves on domestic piping system seize up and must be periodically exercised. Valves due for replacement.		Deferred Maintenance	1 \$5,000					DM	
3: Not yet Critical (Year 2-5)	Per Facilities team, domestic boilers have experienced numerous control board failures, have been high-maintenance. Replacement of existing (2) 200 gallon boilers and storage tanks expected within 5 years.		Deferred Maintenance	1 \$60,000					DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$355,000

HVAC system: (4) single-zone, constant volume rooftop units and (1) dual-duct multi-zone system (original to building, updated in 2002). (2) make-up air units supply the kitchen exhaust systems. The system has been expanded/modified in 1970, 1989, 1995 and significantly in 2002. Heating hot water and chilled water fed from campus loop.

Original 1962 dual duct air handling unit is operational, but well past its expected life cycle and due for replacement.

RTUs operate as designed, but rooftop Unit #1 has flashing issues at curb, allowing water into building. Heat exchanger serving rooftop units is undersized and struggles to meet heating requirements under load.

Building has pressurization problems due to complexity of HVAC system and extensive kitchen equipment and exhaust requirements. Make-up air unit in C-145 oversized, air velocities are too high for current use.

Exhaust fans installed during renovation in 2002. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
2: Potentially Critical (Year 1)	Exhaust/make up air system due for rebalancing	Deferred Maintenance		1 \$15,000						DM	
3: Not yet Critical (Year 2-5)	Original dual duct system AHU is past end of expected life and due for replacement. Distribution system due for upgrade, heat exchanger to be added.	Deferred Maintenance		1 \$250,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

HVAC System: HVAC

Maint. Type: HVAC

System Rating: 3

Subtotal: \$355,000

HVAC system: (4) single-zone, constant volume rooftop units and (1) dual-duct multi-zone system (original to building, updated in 2002). (2) make-up air units supply the kitchen exhaust systems. The system has been expanded/modified in 1970, 1989, 1995 and significantly in 2002. Heating hot water and chilled water fed from campus loop.

Original 1962 dual duct air handling unit is operational, but well past its expected life cycle and due for replacement.

RTUs operate as designed, but rooftop Unit #1 has flashing issues at curb, allowing water into building. Heat exchanger serving rooftop units is undersized and struggles to meet heating requirements under load.

Building has pressurization problems due to complexity of HVAC system and extensive kitchen equipment and exhaust requirements. Make-up air unit in C-145 oversized, air velocities are too high for current use.

Exhaust fans installed during renovation in 2002. No reported issues.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Heating hot water heat exchanger for rooftop units is undersized and due for replacement.		Deferred Maintenance	1 \$90,000 \$90,000						DM	

Electrical System: Lighting Controls

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$24,000

There is a lighting control system for the Pavilion, complicated to maintain, but operational.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
4: Long Term (Year 6-10)	Replace lighting control system to improve operation and maintenance.		Facility Adaptation (Capital Renewal)	1 \$24,000 \$24,000						CR	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Fire Alarm Systems

Maint. Type: Plumbing & Electrical

System Rating: 5

Subtotal:

National Time addressable fire alarm system, with horns and strobes, no reported problems.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Lighting

Maint. Type: Plumbing & Electrical

System Rating: 4

Subtotal:

Lighting upgraded to fluorescent T8 lamps in fixtures in most areas.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 0

Subtotal: \$50,000

Currently no emergency power system. Backup generator is desired for refrigerators, freezers, radio station, data rooms, emergency lighting. Emergency lighting is by remote heads with liquid batteries and battery packs - high costs and high maintenance.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Provide a new invertor system for emergency lighting (or tie system to a generator)		Deferred Maintenance	1 \$25,000 \$25,000						DM	

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Emergency Power

Maint. Type: Plumbing & Electrical

System Rating: 0

Subtotal: \$50,000

Currently no emergency power system. Backup generator is desired for refrigerators, freezers, radio station, data rooms, emergency lighting. Emergency lighting is by remote heads with liquid batteries and battery packs - high costs and high maintenance.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
5: Does not meet current codes (Grandfathered)	Install generator to provide backup power to critical systems, including coolers, freezers.		Facility Adaptation (Capital Renewal)	1 \$25,000 \$25,000						CR	

Electrical System: Phone/Data Systems

Maint. Type: Plumbing & Electrical

System Rating: 5

Subtotal:

Primex clock system, no reported problems. No reported problems with voice/data system.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Electrical System: Electrical

Maint. Type: Plumbing & Electrical

System Rating: 3

Subtotal: \$71,000

Newer 1000/1333 KVA dry type transformer and substation in basement. Primary loop switch and operator located in basement level. Equipment is in good shape and meets code requirements.

Panel boards are nearing end of life and breakers lack needed exercise.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
3: Not yet Critical (Year 2-5)	Panel boards are nearing end of life, breakers have not been exercised on a regular basis. Replace panel boards in place with new circuit breakers.		Deferred Maintenance	1 \$36,000						DM	

3: Not yet Critical (Year 2-5)	Lack of spare breakers in panel boards. The building seems to have capacity but not breakers. Add additional 120/208 panel boards to add breaker positions.		Deferred Maintenance	1 \$35,000						DM	
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Accessibility: Code Compliance

Maint. Type: Legal & Mandatory

System Rating: 3

Subtotal:

Limited areas of older door hardware is knob type, not ADA compliant. ADA operators installed on exterior doors to improve access.

Toilet rooms were upgraded in 2002 renovation.

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

BUILDING REPORT

Henry Ford College

CAMPUS Main Campus - Dearborn, Michigan

Campus Site: Site	Maint. Type: Other	System Rating: 4	Subtotal:
<i>Exterior concrete repairs are ongoing to resolve cracked slabs, heaving, deterioration, etc.</i>			

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Fire Protection: Fire Protection System	Maint. Type: Other	System Rating: 4	Subtotal:
<i>Fire suppression sprinklered provided in storage areas only. Kitchen fire suppression in good condition, no reported problems.</i>			

Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

Entrances: Doors	Maint. Type: Architectural	System Rating: 4	Subtotal:
<i>Exterior doors: Aluminum frame, full lite at entries, in good condition, replaced in 2003. Hollow metal doors and frames at service entries, in fair condition, minimal damage. Some hinges replaced with full length hinges. Doors due for repaint.</i>			

<i>Interior doors: Mix of original and newer, hollow metal, aluminum frame, solid core. hardware and finishes in good condition, but much hardware is older knob-style</i>											
Priority	Observed Issue	CSI	Project Classification	Unit Qty/Cost Resolution Budget	Year Res.	R/F	Correction	Floor # Room #	Proposed Renewal	Assessment Cat.	% Used
:	No reported issues			0							

GLOSSARY OF RATINGS TERMS

System Ratings

System Rating	Description	Notes
0	Missing and Needed / ADA-not compliant	System missing, but required in facility. For ADA compliance, DOES NOT comply.
1	Unreliable	System needs to be fixed.
2	Poor	System barely operating. Repair/replace in next renovation.
3	Adequate / ADA-compliant when built	System functioning, but review for repair/replacement in next renovation. For ADA accessibility, was compliant when constructed, review compliance for next renovation
4	Functional / ADA-currently compliant	System functioning well and maintained as intended, no major reported issues. For ADA compliance, item complies with current codes.
5	Excellent	System in excellent operating condition. No reported issues.
NA	Not Needed	System not required for this facility.

Assessment Priorities

Assessment Priority	Assessment Priority Description
1	Currently Critical (Current Year)
2	Potentially Critical (Year 1)
3	Not yet Critical (Year 2-5)
4	Long Term (Year 6-10)
5	Does not meet current codes (Grandfathered)

Project Classifications

Project Classification	Project Classification Description
Planned Maintenance (Facility Renewal or Capital)	A subset of regular or normal facility maintenance which refers to major repairs or the replacement / rebuild of major facility components (e.g., roof replacement at the end of its normal useful life is capital repair; roof replacement several years after its normal useful life is deferred maintenance).
Deferred Maintenance	Refers to expenditures for repairs which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes even if such compliance requires expenditures beyond those essential to effect the needed repairs. Deferred maintenance projects represent catch up expenses.
Facility Adaptation (Capital Renewal)	Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing codes or standards. These are expenditures beyond normal maintenance. Examples include compliance with changing codes (e.g. accessibility), facility alterations required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology.
Critical Deferred Maintenance	