

Board of Trustees

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Northwestern Michigan College provides lifelong learning opportunities to our communities.

1701 East Front Street Traverse City, MI 49686 (231) 995-1010 trustees@nmc.edu

Meeting Agenda

Monday, October 25, 2021 at Hagerty Center, Room C, 715 East Front St

5:30 p.m. Regular Meeting

I. GENERAL BUSINESS

- A. Call to Order
- B. Roll Call
- C. Pledge of Allegiance
- D. Review of Agenda and Approval of Additions, Deletions, or Rearrangements

II. SPECIAL REPORTS AND PRESENTATIONS

- E. Audit Presentation—Katie Thornton and Jeff Pohler, Plante & Moran, PLLC
- F. Program Focus—Commitment Scholars—Kevin D'Alessandro, Enrollment Services
- G. Faculty Report—Experiential Learning Institute—Brandon Everest, Social Sciences Instructor, and Kristy McDonald, Business Instructor
- H. Enrollment Report—Todd Neibauer, Vice President for Student Services and Technologies
- I. Scholarship and Financial Aid Report—Linda Berlin, Director of Financial Aid
- J. Financial Report—Troy Kierczynski, Vice President of Finance and Administration
- K. PRMC Report—Diana Fairbanks, Associate Vice President of Public Relations, Marketing, and Communications
- L. Audit Committee Report—Kennard Weaver, Committee Chair
- M. Building and Site Committee Report—Rachel Johnson, Committee Chair
- N. ACCT Leadership Congress—Attending Trustees
- O. Strategic Planning Report—Vicki Cook, Special Assistant to the President, and Stephen Siciliano, Vice President for Educational Services

III. EXECUTIVE REPORTS (Provided to the Board in their materials packet, which can be accessed on the nmc.edu Board of Trustees website.)

P. Foundation Report—Rebecca Teahen, Associate Vice President for Resource Development and Executive Director of Foundation

IV. PUBLIC INPUT



Board of Trustees

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V. UPDATES

- Q. President's Update—President Nick Nissley
- R. Board Chair Update—Chris Bott, Chair

VI. DISCUSSION ITEMS

S. January 2022 Board Retreat

VII. CONSENT ITEMS (Pursuant to Policy A-105.00 Consent Agenda Items)

These items will be adopted as a group without specific discussion. When approving the meeting agenda, any Board member may request that a consent agenda item be moved to the regular agenda for discussion or questions.

Recommend that the following items be approved:

T. Minutes of the September 27, 2021 regular meeting

VIII. ACTION ITEMS

- U. Acceptance of NMC Audit (Pursuant to Policy A-106.00 Finance) Recommend acceptance of the financial audit of Northwestern Michigan College for the fiscal year ended June 30, 2021, as presented.
- V. **FY23 Five Year Capital Outlay Plan** (Pursuant to Policy A-106.00 Finance) Recommend approval of the FY 2023 Five-Year Capital Outlay Plan for submission to the Michigan Office of the State Budget as presented.
- W. Copier/Printer Replacement (Pursuant to Policy A-106.00 Finance)
 Recommend authorization for administration to enter into a contract with Applied Imaging for the replacement of 11 copier/printer systems at a cost of \$73,543.
- X. **Closed Session** (Pursuant to B-102.00 Monitoring Presidential Performance)
 Recommend that the Board adjourn the open session and consider in closed session
 (pursuant to Subsection 8(a) of the Open Meetings Act, MCL 15.268) the annual
 performance evaluation of the president, per his requests for a closed session. (**Roll Call Vote**)
- Y. **Reconvene Regular Session** (Pursuant to A-106.00 Other) Recommend the closed session adjourn and the open session of the regular meeting be reconvened. (*Roll Call Vote*)
- Z. **Presidential Performance Evaluation** (Pursuant to Policy A-106.00 Human Resources) Recommend the acceptance of the October 2021 Presidential Performance Evaluation.

IX. REVIEW OF FOLLOW-UP REQUESTS

Confirm requests made by the Board that require administrative follow-up for information to be provided to the Board at a later date.



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X. ADJOURNMENT

Upcoming Board Meeting Dates:

All board meetings are open to the public.

November 22, 2021

December 20, 2021

January 24, 2022

February 28, 2022

March 21, 2022

April 25, 2022

May 23, 2022

June 27, 2022

August 23, 2021 September 27, 2021

October 25, 2021

November 22, 2021

December 20, 2021 January 24, 2022

February 28, 2022



Plante & Moran, PLLC

Suite 100 1111 Michigan Ave. East Lansing, MI 48823 Tel: 517.332.6200 Fax: 517.332.8502 plantemoran.com

October 11, 2021

To the Board of Trustees Northwestern Michigan College

We have audited the financial statements of Northwestern Michigan College (the "College") as of and for the year ended June 30, 2021 and have issued our report thereon dated October 11, 2021. Professional standards require that we provide you with the following information related to our audit, which is divided into the following sections:

Section I - Required Communications with Those Charged with Governance

Section II - Industry Update and Other Information

Section I includes information that current auditing standards require independent auditors to communicate to those individuals charged with governance. We will report this information annually to the board of trustees of the College.

Section II contains updated legislative and informational items that we believe will be of interest to you.

We would like to take this opportunity to thank the College's staff for the cooperation and courtesy extended to us during our audit. Their assistance and professionalism are invaluable.

This report is intended solely for the use of the board of trustees and management of the College and is not intended to be and should not be used by anyone other than these specified parties.

We welcome any questions you may have regarding the following communications, and we would be willing to discuss these or any other questions that you might have at your convenience.

Very truly yours,

Plante & Moran, PLLC

Katie A. Thornton, CPA

Partner



Section I - Required Communications with Those Charged with Governance

Our Responsibility Under U.S. Generally Accepted Auditing Standards

As stated in our engagement letter dated April 21, 2021, our responsibility, as described by professional standards, is to express an opinion about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities. Our responsibility is to plan and perform the audit to obtain reasonable, but not absolute, assurance that the financial statements are free of material misstatement.

As part of our audit, we considered the internal control of the College. Such considerations were solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures specifically to identify such matters.

Our audit of the College's financial statements has also been conducted in accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States. Under *Government Auditing Standards*, we are obligated to communicate certain matters that come to our attention related to our audit to those responsible for the governance of the College, including compliance with certain provisions of laws, regulations, contracts; and grant agreements; certain instances of error or fraud; illegal acts applicable to government agencies; and significant deficiencies in internal control that we identify during our audit. Toward this end, we issued a separate letter dated October 11, 2021 regarding our consideration of the College's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our letter about planning matters dated May 3, 2021.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by the College are described in Note 1 to the financial statements.

As described in Note 1, the College implemented GASB No. 84, *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. An activity meeting the criteria should be reported in a fiduciary fund in the basic financial statements. Accordingly, the accounting standard resulted in no additional reporting within the basic financial statements.

We noted no transactions entered into by the College during the year for which there is a lack of authoritative guidance or consensus.

We noted no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

Section I - Required Communications with Those Charged with Governance (Continued)

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements are summarized below:

- Allowance for Uncollectible Receivables Management estimates fair value of tuition accounts receivable and property taxes receivable by establishing an allowance for estimated uncollectible amounts.
- Pension and OPEB Liabilities Management estimates their portion of the Michigan Public School Employees' Retirement System (MPSERS) net pension and OPEB liabilities based on the audited financial statements received from MPSERS.

We evaluated the key factors and assumptions used to develop the allowance and pension/OPEB liabilities in determining that these estimates are reasonable in relation to the financial statements taken as a whole.

The disclosures in the financial statements are neutral, consistent, and clear. Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosure affecting the financial statements was the impact of the COVID-19 pandemic on the operations of the College disclosed in Note 1 to the financial statements.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Disagreements with Management

For the purpose of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. We did not detect any misstatements as a result of audit procedures.

Significant Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, business conditions affecting the College, and business plans and strategies that may affect the risks of material misstatement, with management each year prior to our retention as the College's auditors. However, these discussions occurred in the normal course of our professional relationship, and our responses were not a condition of our retention.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 11, 2021.

Section I - Required Communications with Those Charged with Governance (Continued)

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a second opinion on certain situations. If a consultation involves application of an accounting principle to the College's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Section II - Industry Update and Other Information

Auditor Reporting Standards - In May 2019, the AICPA Auditing Standards Board (ASB) issued Statement on Auditing Standards (SAS) No. 134, *Auditor Reporting and Amendments, including Amendments Addressing Disclosures in the Audit of Financial Statements*. The update requires changes in the form and content of the auditor's report issued as a result of an audit of financial statements in order to provide financial statement users with more meaningful information about the audit process and meaning of auditor opinions.

Significant elements of the new standard include the following:

- · Revised order for elements of the opinion letter, including moving the auditor's opinion to the top of the letter
- Expansion of information to be included within a basis of opinion section, as well as notification to the user that the auditor is required to be independent of the entity and to meet other ethical responsibilities
- Explanation of how misstatements to financial statements are determined to be material
- Addition of definition of "reasonable assurance" and identifying that the risk of material misstatement due to fraud is greater than the risk due to error
- Enhanced reporting related to going concern, including a description of management's responsibilities when required by the applicable reporting framework
- Description of the auditor's responsibilities, including responsibilities relating to professional judgment and professional skepticism, internal controls, identification of risks of material misstatement to the financial statements, evaluation of accounting policies used, conclusion on the entity's ability to continue as a going concern, and the auditor's communications with those charged with governance
- Introduction of the concept of Key Audit Matters and clarification of the relationship between communication of Key Audit Matters and the use of an emphasis of matter or other matter paragraph
- Alignment of reporting requirements when the audit is conducted under both generally accepted auditing standards (GAAS) and another set of auditing standards or when the auditor's opinion is other than an unmodified opinion

Since the issuance of SAS 134, the AICPA has issued several standards, primarily to conform existing audit standards with the requirements of the new auditor reporting model. The suite of new auditor reporting standards is effective for periods ending on or after December 15, 2021 (FY 2022).

SAS 137 Annual Reports - The AICPA issued a new statement on auditing standards that addresses an auditor's responsibilities relating to other information included in annual reports. This new standard, which is first effective for your fiscal year ending June 30, 2022, may increase the scope of audit procedures and may result in some audit work being performed outside of the normal timing. To the extent that your organization issues a document meeting the AICPA's definition of an annual report under the standard, additional audit procedures will need to be performed on that separate document before it is issued. We are happy to discuss the impact of this new standard further with you.

AICPA State and Local Government Client Affiliates - The AICPA has adopted a revised auditor independence interpretation that impacts entities reporting under the GASB framework. The new rules define four types of affiliates (entities affiliated with your financial statements) that may expand the scope of our required auditor independence as it relates to your audit. The four types of affiliates defined by the AICPA include entities included in your financial statements and certain entities excluded from your financial statements and may also include certain of your investment holdings. Because auditor independence is a shared responsibility between your organization and Plante & Moran, PLLC, you should be aware of and understand these changes. In addition, we will need your help to perform an initial evaluation under these revised standards and will also likely need your continuing assistance to comply with these rules in the future. The changes are effective for years beginning after December 15, 2021, which means we must be independent of your affiliates as of the first day of the year of required adoption, or July 1, 2022.

Section II - Industry Update and Other Information (Continued)

Leases (Lessee) - GASB Statement No. 87, *Leases*, will result in identifying and reporting in the financial statements all leases that exceed 12 months in duration or that transfer ownership of the underlying asset:

- Lease liability should be measured at the present value of payments expected to be made during the lease term.
- Lease asset should be measured at the amount of the initial measurement of the lease liability.
- Amortization expense related to the lease asset (recognizing the asset amount as an expense over the term of the lease)
- Interest expense related to the lease liability

If the lease transfers ownership of the underlying asset, the institution will record the transaction as a financed purchase (asset and long-term debt). The notes to the financial statements would include a description of leasing arrangements, the amount of lease assets recognized, and a schedule of future lease payments to be made. In May 2020, the GASB issued Statement No. 95, delaying the effective date for this new standard. The delayed effective date is for reporting periods beginning after June 15, 2020 (FY 2022). The GASB also issued an extensive implementation guide in August 2019, along with lease questions and answers in the annual implementation guides for 2020 and 2021 and several helpful examples. The new lease guidance will require institutions to properly identify and analyze all lease transactions, even if the agreement does not have lease in the name, which may include embedded leases within service agreements. Depending on the volume of agreements, the College may be interested in pursuing software that assists with the analysis, calculations, and reports for recording the initial and subsequent entries for leases.

Omnibus 2020 - GASB Statement No. 92, Omnibus 2020, addresses eight unrelated practice issues and technical inconsistencies in authoritative literature with various effective dates. The standard addresses leases, intraentity transfers of assets, postemployment benefits, government acquisitions, risk financing and insurance-related activities of public entity risk pools, fair value measurements, and derivative instruments. In May 2020, the GASB issued Statement No. 95, delaying the effective date for certain components of this new standard by one year. This delayed effective date is effective for the year ending June 30, 2022.

Public-Private and Public-Public Partnerships and Availability Payment Arrangements - GASB Statement No. 94 is effective for the year ending June 30, 2023 and replaces GASB 60, *Accounting and Financial Reporting for Service Concession Arrangements*. The standard improves accounting and financial reporting for arrangements where a governmental entity contracts with an operator to provide public services by conveying control of the right to operate or use nonfinancial assets, such as infrastructure or other capital assets, for a period of time in an exchange or exchange-like transaction. It establishes the definitions of public-private and public-public partnerships (PPPs) and availability payment arrangements (APAs) and provides uniform guidance on accounting and financial reporting for transactions that meet those definitions. It requires governments to report assets and liabilities related to PPPs consistently and disclose important information about PPP transactions.

Subscription-based Information Technology Arrangements - GASB Statement No. 96 is effective for the year ending June 30, 2023. The standard provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (institutions). Under this standard, institutions in SBITAs are required to recognize a right-to-use subscription asset and a corresponding subscription liability.

Revenue and Expense Recognition (Preliminary View) - In June 2020, the GASB issued a preliminary view titled Revenue and Expense Recognition, which introduces a new methodology for categorizing transactions for recognition based on the assessment of specific characteristics, which includes identifying transactions with performance obligations. If performance obligations are identified, then revenue and expense will essentially be recognized as those obligations are satisfied. Additional guidance is being proposed for those transactions without performance obligations, such as state appropriations and property taxes. Comments from stakeholders were due by February 26, 2021.

Section II - Industry Update and Other Information (Continued)

Compensated Absences (Exposure Draft) - In February 2021, the GASB issued an exposure draft titled *Compensated Absences*, which proposes to align accounting for all compensated absences under a unified model. Under the proposal, all compensated absences that meet three criteria will be recorded based on the employee's pay rate at the reporting date. The three criteria are when the absence accumulates, the absence is attributed to services already performed, and the absence is more likely than not to be either paid or settled through other means. Comments on the exposure draft were due by June 4, 2021.

Operations Review - With increasing frequency, board members and leadership are requesting independent operational review with regard to communication, operational effectiveness, and prioritized recommendations for improvement. Personnel changes, technology investments, and changing expectations can all create opportunities to streamline or enhance the quality of many institution services. The Plante & Moran, PLLC team can assist in reviewing institutional and departmental operations based on our experience across an identified peer group and reviews performed for other institutions. Reviews identify cost-saving opportunities for the College, as well as targeted service and performance improvements.

Cybersecurity Risk and Network Security Assessment - Institutions are not exempt from cyberattacks in which systems and critical data are compromised. Institution systems store personal information of staff, students, and students' parents in addition to other confidential data. It is important that institutions protect themselves from both external and internal threats whether they are intentional or accidental threats. For example, ransomware attacks are on the rise and gain media attention with their ability to cripple an organization, including institutions of higher education. It may be the hacks of large, multimillion dollar companies that we see exposed on the evening news, but institutions can be an enticing target with the amount of data and limited budget to protect themselves.

Here are some questions to think about regarding cybersecurity issues:

- Do you receive a lot of junk email?
- Are you allowed to access risky or unsafe websites?
- Have you attended any security awareness trainings?
- In the event of an incident, are you familiar with who should be contacted?
- Is there a plan in place in the event of a breach and student records are lost?

Because of the many access points within an institution's IT environment, continued assessment of cybersecurity issues is an essential part of an institution's overall data security assessment.

Financial Report with Supplemental Information June 30, 2021

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Plante & Moran, PLLC

Suite 100 1111 Michigan Ave. East Lansing, MI 48823 Tel: 517.332.6200 Fax: 517.332.8502 plantemoran.com

Independent Auditor's Report

To the Board of Trustees Northwestern Michigan College

Report on the Financial Statements

We have audited the accompanying financial statements of Northwestern Michigan College (the "College") and its discretely presented component unit as of and for the years ended June 30, 2021 and 2020 and the related notes to the financial statements, which collectively comprise Northwestern Michigan College's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these basic financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the basic financial statements are free from material misstatement. The financial statements of the discretely presented component unit were not audited under *Government Auditing Standards*.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of Northwestern Michigan College and its discretely presented component unit as of June 30, 2021 and 2020 and the respective changes in their financial position and, where applicable, cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



To the Board of Trustees Northwestern Michigan College

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of the College's proportionate share of the net pension liability, schedule of pension contributions, schedule of the College's proportionate share of the net OPEB liability, and schedule of OPEB contributions be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise Northwestern Michigan College's basic financial statements. The listing of board of trustees, president and vice presidents, and business and finance staff and other supplemental information, as identified in the table of contents, is presented for the purpose of additional analysis and is not a required part of the basic financial statements.

The listing of board of trustees, president and vice presidents, and business and finance staff and other supplemental information, as identified in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 11, 2021 on our consideration of Northwestern Michigan College's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Northwestern Michigan College's internal control over financial reporting and compliance.

Plante & Moran, PLLC

October 11, 2021

Management's Discussion and Analysis

June 30, 2021

The discussion and analysis of Northwestern Michigan College's (the "College") financial statements provide an overview of the College's financial activities for the year ended June 30, 2021. Management has prepared the financial statements and the related footnote disclosures along with the discussion and analysis. Responsibility for the completeness and fairness of this information rests with the College's administration.

Using this Report

The College's financial report includes three financial statements: the statement of net position, the statement of revenues, expenses, and changes in net position, and the statement of cash flows. These financial statements are prepared in accordance with Governmental Accounting Standards Board (GASB) Statement No. 35, Basic Financial Statements—and Management's Discussion and Analysis—for Public Colleges and Universities and the State of Michigan Manual for Uniform Financial Reporting – Michigan Public Community Colleges, 2001.

Northwestern Michigan College Foundation (the "Foundation") is included within these statements as a discretely presented component unit of the College's reporting entity (although it is legally separate and governed by its own board of directors) because its sole purpose is to provide support for the College under GASB Statement No. 61, *The Financial Reporting Entity: Omnibus*.

This annual financial report includes the management's discussion and analysis, the report of independent auditors, the basic financial statements, notes to the financial statements, required supplementary information, and supplementary information.

Financial Highlights

The College's net position increased by \$1.0 million in fiscal year 2021 including activity recognized to comply with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The College's net position increased by \$1.9 million before the adjustments required under those standards. The increase in net position stems largely from federal relief funding allocated to the College through three major federal stimulus bills combined, along with careful expense management throughout the pandemic. The College utilized institutional Federal COVID-19 funding to reimburse itself for unexpected expenses and lost revenues incurred due to the pandemic. The College recognized \$5.9 million in Federal COVID-19 revenue this fiscal year.

Operating property taxes increased 3.6% due to a 5.3% increase in taxable values, offset by tax abatements. The College had no debt-related property tax revenue in fiscal year 2021, a decrease of \$2.5 million from last year. The College's debt millage expired in fiscal year 2020 after the underlying debt was paid off in April 2020. State appropriations for general operations were \$9.8 million in fiscal year 2021, an increase of \$1.1 million or 12.6%, and can be attributed to a large cut in appropriations during the previous fiscal year. State appropriations passed through the College for the MPSERS Unfunded Actuarial Accrued Liability ("UAAL") payments were \$2.2 million, an increase of \$251,000 from prior year. The College received an additional \$427,000 in support from the State to offset mandatory increases in MPSERS employer contribution rates in fiscal year 2021. This compares with \$458,000 in fiscal year 2020, a decrease of \$31,000. Also included in State appropriations is the State's payment in lieu of personal property taxes, which the State abolished as of December 31, 2015. This formula-based reimbursement was \$184,000 for fiscal year 2021, a \$14,000 decrease from prior year. With the above, total state appropriations increased \$1.0 million in fiscal year 2021 compared to prior year.

On March 11 2020, the World Health Organization declared a pandemic with the outbreak of a respiratory disease caused by a new coronavirus ("COVID-19"). In response to the pandemic, governments took preventative and protective actions, such as temporary closures of non-essential businesses and "shelter-at-home" guidelines for individuals. At that time, following the region's first confirmed case of COVID-19, the College closed all campuses, sending students and employees home and shifting to a fully remote online learning environment. Later that Spring, the College developed and implemented a phased COVID-19 management plan to guide campus health and safety protocols. In Summer and Fall 2020, following CDC and local health department guidance, the College offered

Management's Discussion and Analysis

June 30, 2021

flexible learning options and delivered courses in a variety of ways including face-to-face for certain programs; online, livestream, and hybrid learning options have since been offered for most courses.

On March 27, 2020, Congress enacted the Coronavirus Aid, Relief, and Economic Security Act ("CARES"), which includes formula-based federal support for Colleges and Universities through its Higher Education Emergency Relief Fund ("HEERF I"). The Department of Education allocated \$2.2 million from HEERF I to the College. Half of these funds ("the student portion") must be used to provide emergency grants to students in need while the other half ("the institutional portion") may be used to offset institutional costs directly related to changes in the delivery of instruction resulting from the COVID-19 pandemic (or to provide additional emergency grants to students). The College utilized or distributed to students \$1.7 million of HEERF I in fiscal year 2020, and the remaining \$500,000 in fiscal year 2021.

On July 31, 2020, the State passed a retroactive 11% cut to its original 2020 community college appropriation bill in response to revenue shortfalls from the pandemic. This cut in state appropriations revenue was recognized in fiscal year 2020. However, in the same bill, the State replaced the \$1.1 million cut in full with pass-through federal funding enacted under the CARES Act called the Coronavirus Relief Fund (CRF). The College incurred \$900,000 of CRF expenses in fiscal year 2020, and the remaining \$200,000 in fiscal year 2021. However, the full \$1.1 million in revenue wasn't recognized until fiscal year 2021 due to the date of the legislation.

On December 27, 2020, Congress enacted the Coronavirus Response and Relief Supplemental Appropriations Act ("CRRSAA"), which includes formula-based support for Colleges and Universities through a second round of HEERF funding ("HEERF II"). The Department of Education awarded \$4.3 million from HEERF II to the College. \$1.2 million of these funds ("the student portion") must be used to provide emergency grants to students in need while the remaining \$3.1 million ("the institutional portion") must be used to offset institutional costs or lost revenues directly resulting from the COVID-19 pandemic (or to provide additional emergency grants to students). The College utilized and distributed to students all \$4.3 million from HEERF II and recognized the same in revenue in fiscal year 2021.

On March 11, 2021, Congress enacted the American Rescue Plan Act of 2021 ("ARPA"), which includes formula-based support for Colleges and Universities through a third round of HEERF funding ("HEERF III"). The Department of Education awarded \$7.5 million from HEERF III to the College. \$3.7 million of these funds ("the student portion") must be used to provide emergency grants to students while \$3.5 million ("the institutional portion") may be used to offset institutional costs or lost revenues directly resulting from the COVID-19 pandemic (or to provide additional emergency grants to students). The College utilized or distributed to students \$3.4 of HEERF III in fiscal year 2021 and will utilize the remainder in fiscal year 2022.

The Statements of Net Position and the Statements of Revenues, Expenses, and Changes in Net Position

The statements of net position and the statements of revenues, expenses, and changes in net position report information on the College's net position and changes therein. These statements include all assets, liabilities, and deferred inflows and outflows using the accrual basis of accounting.

The statements of net position include the College's net pension and OPEB liabilities recognized in accordance with GASB 68 and 75, respectively. The College's total net position at June 30, 2021, 2020, and 2019 without the accounting required by GASB 68 and GASB 75 was \$85.4 million, \$83.4 million, \$72.4 million, respectively. Summaries of the College's statements of net position at June 30, 2021, 2020, and 2019 are as follows:

June 30, 2021

	Condensed Statements of Net Position as of June 30 (in thousands)							
		2021		2020		2019		
Current assets	\$	22,597	\$	21,615	\$	11,035		
Noncurrent assets:								
Capital assets, net		81,035		83,145		72,873		
Other noncurrent assets		20,560		16,903		30,221		
Total assets		124,192		121,663		114,129		
Deferred outflows of resources	-	15,382	-	19,333	_	20,030		
Current liabilities		12,681		11,028		12,958		
Noncurrent liabilities:						E. 100		
Net pension liability		56,797	9	57,892		54,493		
Net OPEB liability		8,623		12,287		14,251		
Other noncurrent liabilities	10, "	26,144		27,195		28,763		
Total liablities		104,245		108,402		110,465		
Deferred inflows of resources		13,686	7	11,968		11,200		
Net position:								
Net investment in capital assets		57,808		59,659		54,163		
Unrestricted deficit		(36,165)		(39,033)	_	(41,669)		
Total net position	\$	21,643	<u>\$</u>	20,626	\$	12,494		

Statements of Net Position

The primary changes in the assets, deferred outflows, liabilities, and deferred inflows of the College between 2021 and 2020 are as follows:

- Current assets increased \$1 million, including a \$1.5 million decrease in receivables and a \$2.1 million increase in cash. The decrease in receivables is due to the fulfillment of a \$3.8 million receivable for State capital appropriations from 2020. This was offset by a \$1.1 million increase in State appropriations receivable impacted by an 11% cut made to the 2020 community college appropriation bill in response to revenue shortfalls from the COVID-19 pandemic. The College's increase in cash is due to timing and the receipt of COVID-19 related funding.
- Capital asset additions totaled \$2.7 million, \$831,000 of which relates to the construction of the West Hall Innovation Center ("WHIC"), \$479,000 for new energy-efficient windows in East Hall, and \$446,000 for technology upgrades to the campus Wi-Fi and firewall systems. These additions were offset by current year depreciation of \$4.7 million and net disposals of \$90,000. As a result, net capital assets decreased by \$2.1 million. Other noncurrent assets increased \$3.7 primarily due to investing surplus cash during the year.
- Current liabilities increased \$1.5 million primarily due to the College deferring federal ARPA revenue at the
 end of the fiscal year of \$3.4 million. This is offset by the reduction of \$1.7 million in payables as a result of
 large construction-related payables in the prior year that were satisfied in fiscal year 2021.
- The College's net pension liability decreased \$1.1 million due to changes in actuarial assumptions and a slight decline in the College's proportionate share. The College's net OPEB liability decreased \$3.7 million

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due to a 0.50% decrease in the health care cost trends rate. Other noncurrent liabilities decreased due to current year payments on outstanding bond debt.

Deferred inflows is the acquisition of net position that applies to future reporting periods. Deferred outflows
is the consumption of net position that applies to future reporting periods. The College's deferred inflows
and outflows, and changes therein, stem primarily from the MPSERS plan and include changes in actuarial
assumptions, differences between expected and actual experience, changes in the proportionate share of
the pension and OPEB liabilities, and contributions to the plan subsequent to the measurement date.

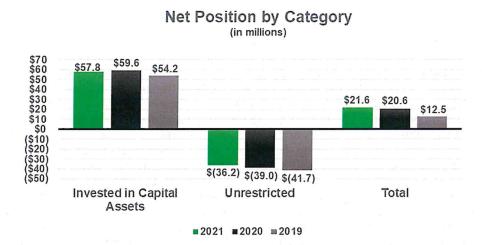
The primary changes in the assets, deferred outflows, liabilities, and deferred inflows of the College between 2020 and 2019 are as follows:

- Current assets increased \$10.6 million, including a \$5.5 million increase in receivables and a \$5.2 million increase in cash. The increase in receivables is due to the recognition of a new \$3.8 million receivable for State capital appropriations and a \$1.3 million increase in receivables from the Foundation due to increased support. The College's increase in cash is due to timing and lack of opportunity in the investment market.
- Capital asset additions totaled \$14.7 million, \$13.0 million of which relates to the construction of the WHIC.
 These additions were offset by current year depreciation of \$4.4 million and net disposals of \$91,000. As a
 result, net capital assets increased by \$10.3 million. Other noncurrent assets decreased \$13.3 due to
 spending \$8.9 million of restricted cash on WHICH and transferring (net) \$4.4 million of unrestricted
 investments to cash during the year.
- Current liabilities decreased \$1.9 million due to the College paying off its remaining \$2.9 million in
 obligations for its 2009 and 2015 bonds during the fiscal year. The payoffs were offset by an increase in
 accounts payable (\$715,000) related to increased retainage on the WHIC project completed shortly after
 year-end along with a \$195,000 increase in the College's health insurance liability due to increased claims
 lag from the College's insurance providers.
- The College's net pension liability increased \$3.3 million due primarily to a 0.25% decrease in the actuarial
 discount rate applied to the calculation, highlighting the sensitivity and impact of these assumptions on the
 net pension liability calculation. The College's net OPEB liability decreased \$2.0 million due to current year
 payments and no significant changes in actuarial assumptions. Other noncurrent liabilities decreased due
 to current year payments on outstanding debt.
- Deferred inflows is the acquisition of net position that applies to future reporting periods. Deferred outflows
 is the consumption of net position that applies to future reporting periods. The College's deferred inflows
 and outflows, and changes therein, stem primarily from the MPSERS plan and include changes in actuarial
 assumptions, differences between expected and actual experience, changes in the proportionate share of
 the pension and OPEB liabilities, and contributions to the plan subsequent to the measurement date.

Net Position

The following chart provides a graphic breakdown of net position by category as of June 30, 2021, 2020, and 2019:

June 30, 2021



The College's net position was \$21.6 million as of June 30, 2021, an increase of \$1.0 million from prior year. Net position increased by \$1.9 million in fiscal year 2021 before the effects of GASB 68 and 75. The College's net position was \$20.6 million as of June 30, 2020, an increase of \$8.2 million from prior year. Net position increased by \$11.1 million in fiscal year 2020 before the effects of GASB 68 and 75.

Statements of Revenues, Expenses and Changes in Net Position

Following is a comparison of the major components of the College's operating results for the years ended June 30, 2021, 2020, and 2019:

	Operating Results for the Years Ended June 30 (in thousands							
		2021		2020		2019		
Total operating revenues Total operating expenses	\$	22,758 57,592	\$	25,837 60,764	\$	29,987 61,388		
Operating loss		(34,834)		(34,927)		(31,401)		
Net nonoperating revenues and State capital contributions		35,851	n-	43,059	0	33,650		
Change in net position		1,017		8,132		2,249		
Net position – beginning of year		20,626		12,494	_	10,245		
Net position – end of year	\$	21,643	\$	20,626	\$	12,494		

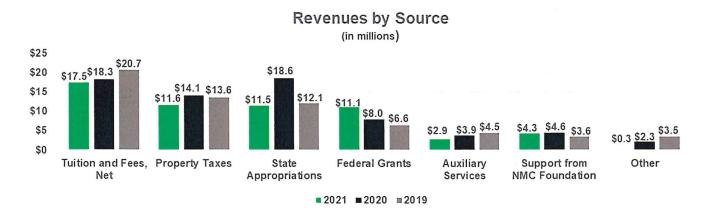
June 30, 2021

Total Revenues

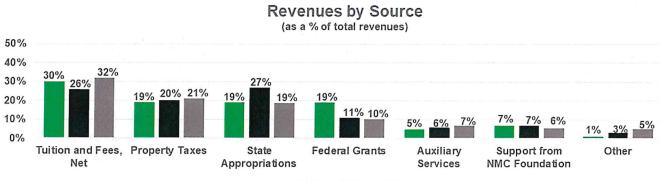
Total revenues decreased \$10.3 million in fiscal year 2021 due primarily to the College recognizing \$7.2 million in State capital appropriations in fiscal year 2020 vs. an \$900,000 reduction in revenue in fiscal year 2021 due to the building project finishing under budget. Additionally, tuition and fees decreased \$770,000 due to a 9.4% decrease in billable contact hours (\$1.6 million decrease) and the College freezing its tuition rates for fiscal year 2021. Additionally, the College lost a substantial amount of revenue due to closures or cancellations stemming from the pandemic including non-credit tuition revenue losses (\$346,000), cancellation of events held in the Hagerty Center (\$724,000), and various other revenue delays and losses, offset in part by increased aviation flight fee revenue as face-to-face aviation training returned during fiscal year 2021 (\$546,000). Operating property tax revenues increased due to increases in underlying taxable values, offset by abatements. However, debt-related property tax revenue decreased by \$2.5 million as the College made final payments on remaining debt service obligations during fiscal year 2021. Support from component unit decreased due to the timing of debt obligations payments made between fiscal year 2021 and 2020; this was partially offset by an additional \$200,000 of support provided to the College by the Foundation due to the pandemic. The Foundation also reduced scholarship support by \$171,000 to return to similar amounts provided in years prior to fiscal year 2020 (see note below). Federal grant revenue increased due to the additional rounds of HEERF (II and III) funding awarded in fiscal year 2021.

Total revenues increased \$5.3 million in fiscal year 2020 due primarily to recognizing \$7.2 million in State capital appropriations during the year (none in 2019). Tuition and fees decreased \$2.4 million. This is partially the result of a 3.8% decline in billable contact hours offset by a 3.0% increase in tuition rates (\$442,000 net decrease). Additionally, the College lost a substantial amount of revenue due to closures or cancellations stemming from the pandemic, including lost flight fees (\$850,000), international trip fees (\$243,000), non-credit tuition revenue (\$179,000), cancellation of its Yellow River cohorts in China (\$140,000), and various other revenue delays or losses (\$172,000). At the end of fiscal year 2019, the College also disbanded its Training Services program which generated \$374,000 in prior year tuition and fees. Property tax revenues increased due to increases in underlying taxable values, offset by abatements. Support from component unit increased due to new payments from the Foundation in 2020 for support of College's debt service obligations (\$1.2 million) offset by reduced support for the Dennos Museum (\$376,000 decline) as the Museum finished its expansion project in the prior year. The Foundation also provided scholarship support of \$1.7 million, a \$171,000 increase from prior year. Federal grant revenue increased due to the new HEERF (CARES) funding awarded in fiscal year 2020.

The following graphs illustrate total revenues by source, by dollars and percentages, for the years ended June 30, 2021, 2020, and 2019:



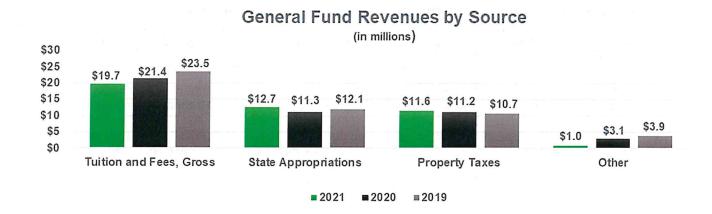
June 30, 2021

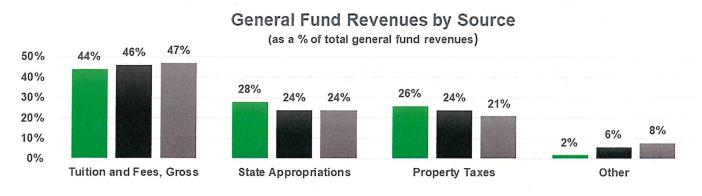


■2021 ■2020 ■2019

General Fund Revenues

The College accounts for its primary operations and programs within the General Fund. The primary General Fund revenue sources are tuition and fees, state appropriations, property taxes, and Federal grants. The following graphs illustrate total General Fund revenues by source, by dollars and percentages, for the years ended June 30, 2021, 2020, and 2019:





■ 2021 ■ 2020 ■ 2019

June 30, 2021

Operating Revenues

The College classifies as operating revenues any sales or receipts derived from primary operations of the College such as tuition, fees, housing, and other auxiliary operations. In addition, certain Federal, State, and private grants are considered operating if they are not for capital purposes and are deemed a contract for services. The following table shows the sources of operating revenues for the years ended June 30, 2021, 2020, and 2019:

		urce sands)				
	CONTROL D	2021	25100	2020	440	2019
Tuition and fees, net	\$	17,541	\$	18,311	\$	20,711
Federal grants		1,626		1,962		2,355
State grants		123		135		177
Auxiliary services		2,938		3,938		4,529
Other operating		529		1,491	j.,	2,216
Total operating revenues	\$	22,757	\$	25,837	\$	29,988

Changes in operating revenues for fiscal year 2021 were as follows:

- Tuition and fees decreased \$770,000 due to lost revenue related to limited offerings for the College's non-credit tuition program (\$346,000), and a 9.4% decline in billable contact hours associated with a tuition decrease of 10.4% (\$1.6 million) offset by an increase in aviation flight fees as training flights operated for the full fiscal year (\$546,000).
- Federal grant revenue from operations decreased \$336,000 due primarily to a decrease in the direct support from MARAD for the Great Lakes Maritime Academy of \$321,000 from the prior year.
- Auxiliary and other operating sources decreased due to the impact of COVID-19 including capacity limits
 on student housing and suspension of events at the Hagerty Center and Dennos Museum.

Changes in operating revenues for fiscal year 2020 were as follows:

- Tuition and fees decreased \$2.4 million due to lost aviation flight fees, lost international trip fees, and lost revenue related to the College's non-credit tuition program while the College closed due to the pandemic (\$1.4 million), the discontinuation of its Training Services program (\$374,000), and a 3.8% decline in billable contact hours offset by tuition increases of 3.0% (\$442,000).
- Federal grant revenue from operations decreased \$393,000 due primarily to the discontinuation of it
 Training Services program that received a \$229,000 federal grant in 2019. Direct support from MARAD for
 the Great Lakes Maritime Academy also decreased \$192,000 from prior year.
- Auxiliary and other operating sources decreased due to the impact of COVID-19 and providing refunds to students for housing and dining, and cancellation of events.

Nonoperating Revenues and Capital Contributions

Nonoperating revenues are non-exchange in nature, meaning that the College receives value without directly giving equal value in return. Nonoperating revenues include state appropriations, Federal Pell grants, property taxes, support from component unit, and investment income. Capital contributions include state capital appropriations. The following table shows the amounts of these sources of nonoperating revenues for the years ended June 30,

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2021, 2020, and 2019:

	Nonoperating Revenues and Capital Contributions by Source Years Ended June 30 (in thousands)							
	2021		2020	2019				
State appropriations Pell grants Federal COVID Funding Property taxes Support from the Foundation Investment loss (income) State capital appropriations	\$ 12,420 3,607 5,912 11,572 4,338 (338) (893)	\$	11,448 4,286 1,679 14,076 4,649 574 7,199	\$	12,063 4,246 - 13,556 3,631 1,112			
Total nonoperating revenues and capital contributions	\$ 36,618	\$	43,911	\$	34,608			

Nonoperating revenue and capital contribution changes included the following factors for fiscal year 2021:

- State appropriations for general operations increased by \$1.1 million, or 12.6%. State appropriations for the MPSERS UAAL pass-through funding did not change from the prior fiscal year. The College received additional support from the State of \$427,000, a decrease of \$31,000 to help offset mandatory increases in employer contribution rates. The State's payments in lieu of property taxes of \$185,000 decreased by \$14,000 from prior year.
- Through the CARES Act and CRRSAA the College was awarded multiple grants as follows: allocated HEERF grants of \$2.2 million and spent \$0.5 million as of June 30, 2021 (see note below from fiscal year 2020), allocated CRF grants of \$1.1 and spent \$1.1 million as of June 30, 2021, and allocated HEERF II grants of \$4.3 and spent \$4.3 million as of June 30, 2021.
- Property tax revenue decreased by \$2.5 million or 17.8%. Operational property tax revenue increased by \$405,000, or 3.6%, due to increases in taxable values of 5.3% offset by property tax abatements. Debt-related property tax revenue decreased by \$2.5 million as a result of the College's debt millage expiring after satisfying the related debt in the prior year.
- Northwestern Michigan College Foundation support included \$1.5 million for scholarships, a decrease of \$171,000. The remaining support of \$2.7 million was for debt service payments on sponsored projects, the Dennos Museum, instructional programs, board strategic initiatives, and general support.
- Investment income decreased by \$912,000 due in large to the market's response to the pandemic. The College recognized unrealized gains/(losses) of (\$525,000) and \$43,000 in fiscal years 2021 and 2020, respectively; a net reduction of \$568,000 from prior year. Low interest rates in the market resulted in interest income of \$185,000, a decrease of \$345,000 from prior year.
- The decrease in state capital appropriations revenue is due to the completion of the WHIC building project during the fiscal year.

Nonoperating revenue and capital contribution changes included the following factors for fiscal year 2020:

State appropriations for general operations decreased by \$884,000, or 9.2%. State appropriations for the

June 30, 2021

MPSERS UAAL pass-through funding decreased by \$83,000, or 4%. The College received additional support from the State of \$458,000, an increase of \$169,000 to help offset mandatory increases in employer contribution rates. The State's payments in lieu of property taxes of \$199,000 decreased by \$14,000 from prior year. Lastly, the College posted an adjustment to State appropriations at June 30, 2020 of \$83,000 to recognize deferred inflows for UAAL contributions made subsequent to the measurement date. This adjustment is reported in the pension liability fund.

- Through the CARES Act, the College was allocated HEERF grants of \$2.2 million and spent \$1.7 million as of June 30, 2020.
- Property tax revenue increased by \$478,000 or 2.6%. Operational property tax revenue increased by \$478,000, or 4.5%, due to increases in taxable values of 5.1% offset by property tax abatements. Debt-related property tax revenue increased by \$42,000, or 1.5%, due to increases in taxable values offset by a 0.02 mill reduction in the bond debt service levy as a result of decreasing principal obligations.
- Northwestern Michigan College Foundation support included \$1.7 million for scholarships, an increase of \$171,000. The remaining support of \$2.9 million was for debt service payments on sponsored projects, the Dennos Museum, instructional programs, board strategic initiatives, and general support.
- Investment income decreased by \$538,000 due in large to the market's response to the pandemic. The
 College recognized unrealized gains of \$43,000 and \$399,000 in fiscal years 2020 and 2019, respectively.
 Bond issuers called all bonds held by the College during fiscal year 2020; the College invested in new debt
 securities at lower market rates, reducing unrealized gains by \$356,000 from prior year and driving down
 interest income to \$530,000, a decrease of \$184,000 from prior year.
- The increase in state capital appropriations revenue is for the West Hall Innovation Center ("WHIC") building project that met its 50% cost share during the fiscal year.

Operating Expenses

Operating expenses include all the costs necessary to perform and conduct the programs and primary functions of the College such as wages and benefits, professional services, software and technology maintenance, utilities, staff development, and depreciation expense. In the College's external financial statements, these expenses are categorized by function in accordance with the *State of Michigan Manual for Uniform Financial Reporting—Michigan Public Community Colleges, 2001.* Total operating expenses decreased by \$3.1 million or 5.2%, for fiscal year 2021 and decreased by \$623,000 or 1.0% for fiscal year 2020. The following table summarizes operating expenses by function for the years ended June 30, 2021, 2020, and 2019 (update FY21):

June 30, 2021

	Operating Expenses by Function Years Ended June 30 (in thousands)							
	2021		2020		2019			
Instruction	\$ 17,518	\$	17,775	\$	18,536			
Public service	1,508		2,484		2,977			
Academic support	7,179		7,739		7,748			
Student services	11,753		12,417		11,130			
Institutional administration	6,316		6,889		7,445			
Operation and maintenance of plant	4,940		5,191		5,430			
Depreciation	4,672		4,435		4,588			
Information technology	3,706		3,835		3,534			
Total operating expenses	\$ 57,592	\$	60,765	\$	61,388			

Highlights of the major changes between fiscal years 2021 and 2020 by category are as follows:

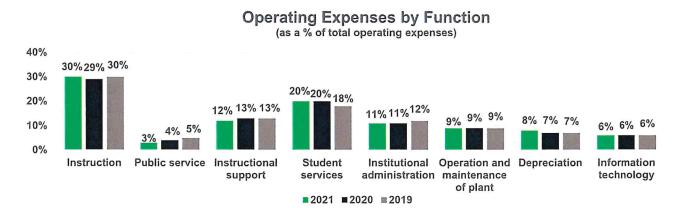
- Most functional operating expense categories decreased in fiscal year 2021 due to the impact of COVID-19 and closure of campus. Instruction costs decreased due to direct reductions in supplies stemming from the continued limitation of in-person instruction offered during the fiscal year.
- Public services decreased due primarily to closure of the Hagerty Center, the College's conferencing and
 events center, for the entire fiscal year in addition to limiting its operations for the Dennos Museum due to
 the pandemic.
- Student services decreased due primarily to a decrease in Pell grant awards of \$679,000.

Highlights of the major changes between fiscal years 2020 and 2019 by category are as follows:

- Most functional operating expense categories decreased in fiscal year 2020 due to the impact of COVID-19 and closure of campus. Instruction costs decreased due to direct reductions in supplies stemming from the campus closure and the cancellation of all international trips due to the pandemic.
- Student services increased due primarily to providing \$836,000 in emergency student grants directly to students as part of the CARES Act HEERF funding.
- Information technology increased due to \$125,000 in purchases of data and voice equipment for the WHIC and general increased costs of \$193,000 related to maintenance and increased software licenses.

For external reporting purposes, the College's funds are consolidated and internal expenses are eliminated. The following graph illustrates the composition of operating expenses for the years ended June 30, 2021, 2020, and 2019:

June 30, 2021



Statements of Cash Flows

Another way to assess the College's financial health is by analyzing the statements of cash flows. This statement's primary purpose is to provide relevant information about the cash inflows and outflows of the College during a period of time. This statement also helps users assess the following:

- The College's ability to generate future cash flows
- Its ability to meet existing obligations as they come due
- Its needs for external financing

A summary of the College's cash flows for the years ended June 30, 2021, 2020, and 2019 is as follows:

	Cash Flows Years Ended June 30 (in thousands)						
		2021		2020		2019	
Cash (used in) provided by:							
Operating activities	\$	(28,534)	\$	(26,582)	\$	(22,896)	
Noncapital financing activities		36,344		31,193		30,714	
Capital financing activities		(1,732)		(13,314)		(4,127)	
Investing activities		(5,201)		5,004	·-	7,482	
Net(decrease) increase in cash		878		(3,699)		11,173	
Cash and cash equivalents, beginning of year		12,971	_	16,670		5,497	
Cash and cash equivalents, end of year	\$	13,849	\$	12,971	\$	16,670	

Cash inflows from operating activities include receipts for tuition and fees, grants, contracts, and auxiliary activities, which include student housing, the Dennos Museum, University Center, Hagerty Center, and the bookstore. These cash inflows are offset by outflows for vendor and employee payroll payments. For fiscal year 2021, net cash used in operating activities increased primarily due to reductions in receipts for tuition, fees, and auxiliary activities. For fiscal year 2020, net cash used in operating activities increased due to increased payments to suppliers and reductions in receipts for tuition, fees, and auxiliary activities.

Cash inflows provided by noncapital financing activities include primarily receipts for the College's nonoperating revenues such as state appropriations, property taxes, Pell grants, and support from the Foundation for purposes other than capital. The increase in fiscal year 2021 is due primarily to increased receipts in federal COVID funding. The increase in fiscal year 2020 is due primarily to increased receipts for property taxes.

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Cash used in capital and related financing activities decreased in fiscal year 2021 due to the receipt of the capital funding from the State related to the WHICH construction. Cash used in capital and related financing activities increased in fiscal year 2020 due to the WHIC construction payments and receipt of the related capital funding from the State.

Cash provided by or used in investing activities fluctuates depending on the timing of purchases and sales of investments. Cash used by investing activities increased in 2021 due to less investment activity and an unfavorable investment market. Cash provided by investing activities decreased in 2020 due to less investment activity.

Capital Assets

At June 30, 2021, the College had \$171 million invested in capital assets before accumulated depreciation of \$90 million. Depreciation charges totaled \$4.7 million for the current fiscal year. Details of these assets are as follows:

	Capital Assets as of June 30 (in thousands)									
		2021		2020		2019				
Land and land improvements	\$	10,366	\$	10,374	\$	10,324				
Infrastructure		7,895		7,845		7,845				
Buildings and improvements		118,420		98,729		98,463				
Furniture, fixtures, and equipment		33,288		31,378		30,494				
Construction in progress		876	1	20,195	8	6,779				
Capital assets	\$	170,845	\$	168,521	\$	153,905				

Additional information regarding capital assets can be found in Note 6 to the financial statements.

Debt Administration

The College's most recent bond rating by Standard & Poor's was AA. The College's most recent bond rating by Moody's was A1. The College had the following outstanding debt balances at June 30, 2021, 2020, and 2019:

		Outstandin 30 (in thou		5)	
	2021	2020	2019		
\$	25,414	\$ 26,675	\$	30,801	

Bonds payable

Additional information regarding the College's debt can be found in Note 7 to the financial statements.

Economic Factors That Will Affect the Future

The economic outlook for the College is strongly tied to national and state economic conditions. Although federal and state appropriations have been determined for the upcoming fiscal year, it is important to note that in times of financial constraint, such funding can be adversely impacted. The College currently faces a volatile, uncertain economy due to the ongoing COVID-19 pandemic. In times of increasing unemployment, colleges traditionally see increases in enrollment as students forgo a weak job market to seek new skills or learn a new trade. However, that traditional cycle was counteracted by ongoing public health concerns and the unpredictability of the economy. The College anticipates enrollment may continue to decline during the lingering pandemic. There is further uncertainty

Management's Discussion and Analysis

June 30, 2021

as to whether remote learning environments will attract or deter students.

Additionally, regional, state, and national data all indicate declining trends in birth rates and numbers of high school graduates. The College combats these trends through its strategic plan, which addresses the decline in student enrollment by investing in select programs that will attract students from outside the region. The plan provides a diverse learning experience for regional students, which may lead to increases in the College's market share. The College has also responded to increased uncertainty by investing in new innovative facilities, continuing to build reserves, and expanding global opportunities for students.

In order to help address the above concerns, the College began a comprehensive strategic planning process in spring 2021. The purpose of this process is to develop objectives and goals for a new institutional strategic plan, identify key targets and assessment measures, and implement and monitor a new strategic plan for the College for fiscal years 2022 through 2025.

The College will receive a 1.0% increase in state appropriations for general operations during fiscal year 2022 based on the baseline appropriations for fiscal year 2021. The College's fiscal year 2022 budget also includes increased property tax revenue of 5.0% for expected increases in taxable values. For tuition, the College charges rates based on the primary residence of the student, including categories for in-district, in-state, out of state, or international. Further, the College uses a tiered structure to accommodate higher-cost programs such as its maritime, culinary, automotive, audio-technology, and nursing programs. In response to our students' economic challenges faced during the pandemic, The Board of Trustees approved a 3.0% increase for fiscal year 2022. The College's Fall 2022 contact hours increased 0.6% against a budgeted 3.8% decrease.

The College has separate labor agreements with its maintenance, custodial, and grounds employees, its faculty, and its academic chairs. The maintenance, custodial, and grounds agreement expires December 31, 2022. The faculty and academic chair agreements expire July 31, 2022. The 2022 fiscal year budget includes employee salary increases, however the actual allocation will be determined after Fall enrollment and other factors are known. Approximately 85% of College employees participate in the MPSERS, which mandates employer contributions to the plan. Required employer contribution rates have been on the rise in efforts to fully-fund and provide economic certainty for retiree pension and healthcare benefits. While there are various plans within the MPSERS, the contribution rate for the plan with the majority of the College's employees was set at 28.2% for fiscal year 2022. Contribution rates for future years are unknown, but are expected to continue trending upwards.

With the guidance of GASB 68 and GASB 75, the College now reports its proportionate share of the net pension and net OPEB liabilities related to the MPSERS plans on its statements of net position. While the implementation of these standards have adversely impacted the College's net position, their application has not impacted the College's bond rating, cash position, nor its ability to meet current obligations. The State is projecting that the unfunded actuarial accrued liability will be fully-funded in approximately 25 years.

Following the private sector's adoption of balance sheet accounting for leases, the Governmental Accounting Standards Board issued GASB Statement No. 87, *Leases*, in June 2017 which is effective for the College's fiscal year 2022. The statement addresses the accounting for short and long-term leases for lessors and lessees. Since the College does not currently have significant leasing arrangements, this standard is not expected to have a significant impact on its operations. The College will continue to monitor the impact of GASB 87.

The College is self-funded for its employee health benefit costs. Employees are now required to contribute to the plan with the enactment of Public Act 152 of 2011. The College's healthcare costs have stabilized in recent years. The College has reviewed its cash flow data and reserve funds. Northwestern Michigan College is financially positioned to continue normal operations.

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June 30, 2021

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Statement of Net Position

		June 30,	20	21 and 2020
		2021		2020
Assets Current assets:				
Cash and cash equivalents (Note 3) Receivables - Net (Note 5) Prepaid expenses and other assets	\$	11,660,987 9,371,057 1,564,992	\$	9,578,355 10,871,304 1,165,689
Total current assets		22,597,036		21,615,348
Noncurrent assets: Restricted cash and cash equivalents - Unspent bond proceeds (Note 3) Investments (Note 3) Capital assets - Net (Note 6)	0	2,187,806 18,372,322 81,034,451		3,392,945 13,509,912 83,144,942
Total noncurrent assets	_	101,594,579		100,047,799
Total assets		124,191,615		121,663,147
Deferred Outflows of Resources (Note 8)		15,381,909		19,332,965
Liabilities Current liabilities: Accounts payable Accrued liabilities and other: Accrued wages and benefits Accrued interest payable Unearned revenue		1,438,040 2,621,524 126,832 5,812,123		4,466,942 2,555,579 133,050 1,329,242
Long-term obligations - Current (Note 7)		2,682,274		2,543,222
Total current liabilities		12,680,793		11,028,035
Noncurrent liabilities: Net pension liability (Note 8) Net OPEB liability (Note 8) Long-term obligations - Net of current portion (Note 7) Deposits		56,797,390 8,622,821 24,478,487 1,665,120		57,892,016 12,287,488 25,768,628 1,425,478
Total noncurrent liabilities		91,563,818		97,373,610
Total liabilities		104,244,611		108,401,645
Deferred Inflows of Resources (Note 8)	_	13,685,818	_	11,968,257
Net Position Net investment in capital assets Unrestricted (Note 9)		57,808,257 (36,165,162)		59,659,246 (39,033,036)
Total net position	\$	21,643,095	\$	20,626,210

Statement of Revenue, Expenses, and Changes in Net Position

	_	2021	2020
Operating Revenue Student tuition and fees - Net of scholarship allowance of \$2,493,650 and \$3,057,180 for 2021 and 2020, respectively Federal grants and contributions State grants and contributions Private gifts, grants, and contracts Other sources Sales and services of auxiliary activities	\$	17,541,197 \$ 1,626,052 123,205 73,970 454,810 2,938,226	18,310,823 1,962,027 134,563 42,550 1,448,985 3,938,053
Total operating revenue		22,757,460	25,837,001
Operating Expenses Instruction Public service Academic support Student services Institutional administration Operation and maintenance of plant Depreciation Information technology		17,518,001 1,507,705 7,178,877 11,752,668 6,316,285 4,940,289 4,671,562 3,706,320	17,775,423 2,483,841 7,738,665 12,417,175 6,888,414 5,190,386 4,435,278 3,835,361
Total operating expenses		57,591,707	60,764,543
Operating Loss		(34,834,247)	(34,927,542)
Nonoperating Revenue (Expense) State appropriations Federal Pell grants Federal COVID-19 funding Property taxes Support from component unit Investment (loss) income Bond issuance and amortization costs Interest expense on capital-related debt		12,419,660 3,606,784 5,912,440 11,572,372 4,337,904 (338,322) 30,374 (797,171)	11,448,288 4,286,174 1,679,357 14,076,230 4,649,330 574,459 24,874 (878,437)
Total nonoperating revenue		36,744,041	35,860,275
Income - Before capital contributions - State capital appropriations		1,909,794	932,733
Capital Contributions - State capital appropriations	J	(892,909)	7,199,000
Change in Net Position		1,016,885	8,131,733
Net Position - Beginning of year		20,626,210	12,494,477
Net Position - End of year	\$	21,643,095 \$	20,626,210

Statement of Cash Flows

		2021	2020
Cash Flows from Operating Activities Tuition and fees Grants and contracts Payments to suppliers Payments to employees Auxiliary activities receipts Other Federal direct lending receipts Federal direct lending disbursements	\$	17,920,015 \$ 5,778,723 (34,456,219) (21,024,323) 2,938,226 309,808 5,489,094 (5,489,094)	17,779,663 2,429,789 (33,622,940) (18,763,876) 3,938,053 1,657,363 6,805,346 (6,805,346)
Net cash and cash equivalents used in operating activities		(28,533,770)	(26,581,948)
Cash Flows from Noncapital Financing Activities Property taxes Gifts and contributions for other than capital purposes State appropriations Pell grants Federal COVID-19 funding	7	11,569,141 3,735,009 11,551,295 3,606,784 5,881,712	11,163,672 3,350,776 12,392,204 4,286,174
Net cash and cash equivalents provided by noncapital financing activities		36,343,941	31,192,826
Cash Flows from Capital and Related Financing Activities Purchase of capital assets Proceeds from the sale of capital assets Principal paid on capital debt Interest paid on capital debt Capital property taxes Capital appropriations		(2,651,216) 57,000 (1,230,000) (803,889) 3,231 2,892,928	(14,707,000) 67,647 (4,095,000) (905,667) 2,912,558 3,413,163
Net cash and cash equivalents used in capital and related financing activities		(1,731,946)	(13,314,299)
Cash Flows from Investing Activities Proceeds from sales and maturities of investments Interest and investment (loss) gain - Net Purchase of investments - Net		36,403,237 (863,268) (40,740,701)	45,298,927 619,165 (40,913,868)
Net cash and cash equivalents (used in) provided by investing activities	_	(5,200,732)	5,004,224
Net Increase (Decrease) in Cash and Cash Equivalents		877,493	(3,699,197)
Cash and Cash Equivalents - Beginning of year	_	12,971,300	16,670,497
Cash and Cash Equivalents - End of year	\$	13,848,793	12,971,300
Classification of Cash and Cash Equivalents Cash and cash equivalents Restricted cash and cash equivalents	\$	11,660,987 \$ 2,187,806	9,578,355 3,392,945
Total cash and cash equivalents	\$	13,848,793 \$	12,971,300

Statement of Cash Flows (Continued)

	_	2021	2020
Reconciliation of Operating Loss to Net Cash and Cash Equivalents from Operating Activities			
Operating loss	\$	(34,834,247)\$	(34,927,542)
Adjustments to reconcile operating loss to net cash and cash equivalents			
from operating activities:			
Depreciation		4,671,562	4,435,278
Loss (gain) on disposal of assets		33,145	(67,646)
Changes in assets and liabilities:			
Receivables		(532,745)	191,194
Prepaid expenses and other assets		(399,303)	154,111
Deferred outflows of resources		3,951,056	697,350
Accounts payable		(3,028,902)	715,482
Accrued liabilities and other		65,945	217,760
Unearned revenue		4,722,523	(223,327)
Compensated absences		109,785	(61,941)
Net pension liability		(1,094,626)	3,399,228
Net OPEB liability		(3,664,667)	(1,963,097)
Deferred inflows of resources		1,466,704	851,202
Net cash and cash equivalents used in operating activities	\$	(28,533,770) \$	(26,581,948)

Discretely Presented Component Unit Statement of Financial Position - Northwestern Michigan College Foundation

June 30, 2021 and 2020

	 2021		2020
Assets			
Cash and cash equivalents Investments Pledges receivable - Net of allowance Cash surrender value of life insurance Prepaid expenses and other assets	\$ 7,468,832 52,589,579 3,517,372 532,949 6,106	\$	6,045,962 41,051,581 2,533,006 486,007 19,910
Total assets	\$ 64,114,838	\$	50,136,466
Liabilities Accounts payable Deferred revenue Payable to Northwestern Michigan College	\$ 24,662 100,514 2,772,812	\$	14,677 91,876 2,189,544
Split-interest agreements payable	74,082		76,683
Total liabilities	2,972,070		2,372,780
Net Assets			
Without donor restrictions With donor restrictions	 5,471,633 55,671,135	·	4,294,908 43,468,778
Total net assets	 61,142,768		47,763,686
Total liabilities and net assets	\$ 64,114,838	<u>\$</u>	50,136,466

Discretely Presented Component Unit Statement of Activities - Northwestern Michigan College Foundation

	<u></u>	2021	2020
Revenue, Gains, and Other Support Contributions	\$	5,720,591	\$ 2,729,175
Special event revenue Net realized and unrealized gains (losses) on investments Investment income		309,228 10,992,765 926,124	268,430 (468,608) 1,021,632
Change in value of split-interest agreements		38,577	(5,515)
Total revenue, gains, and other support		17,987,285	3,545,114
Expenses Program expenses - Distributions to College Management and general Fundraising	_	3,361,851 40,764 1,205,588	3,666,233 63,345 1,214,824
Total expenses		4,608,203	4,944,402
Change in Net Assets		13,379,082	(1,399,288)
Net Assets - Beginning of year		47,763,686	49,162,974
Net Assets - End of year	\$	61,142,768	47,763,686

Notes to Financial Statements

June 30, 2021 and 2020

Note 1 - Significant Accounting Policies

Reporting Entity

Northwestern Michigan College (the "College") is a Michigan community college whose financial statements have been prepared in accordance with generally accepted accounting principles, as applicable to public colleges and universities outlined in Governmental Accounting Standards Board (GASB) Statement No. 35 and the *Manual for Uniform Financial Reporting - Michigan Public Community Colleges*, 2001.

The accompanying financial statements have been prepared in accordance with criteria established by the GASB for determining the various governmental organizations to be included in the reporting entity. These criteria include significant operational or financial relationships with the College. Based on the application of the criteria, the College has one component unit. A component unit is a separate legal entity that is included in the College's reporting entity because of the significance of its operational financial relationship with the College.

Northwestern Michigan College Foundation (the "Foundation") is a separate legal entity established as a 501(c)(3) corporation to solicit, collect, hold, and invest donations made for the promotion of educational activities at the College and to augment the facilities of the College. Although the College does not necessarily control the timing or amount of receipts from the Foundation, the majority of resources, or income earned thereon, and the Foundation's holdings and investments are restricted by the donors for the activities of the College. Because these restricted resources held by the Foundation can be used only by, or for the benefit of, the College, the Foundation is considered a component unit of the College. Certain revenue recognition criteria and presentation features are different from those under the GASB. No modifications have been made to the Foundation's financial information included in the College's financial report to account for these differences. Separate financial statements of the Foundation may be obtained by contacting Northwestern Michigan College Foundation, 1701 East Front Street, Traverse City, MI 49686.

Significant accounting policies followed by Northwestern Michigan College are described below to enhance the usefulness of the financial statements to the reader:

Basis of Accounting

The financial statements of the College use the economic resources measurement focus and the accrual basis of accounting. Revenue is recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Cash and Cash Equivalents

Cash and cash equivalents consist of all highly liquid investments with an initial maturity of three months or less when acquired.

Investments

Investments are reported at fair value. Realized and unrealized gains and losses are reflected in the statement of revenue, expenses, and changes in net position as investment income. During fiscal years 2021 and 2020, there was \$(524,946) and \$44,706 of unrealized (losses) gains, respectively, on investments the College recognized.

Restricted Cash and Cash Equivalents

The proceeds of the 2016 Community College Facilities Bonds are held in cash and investments and restricted for capital projects. During fiscal year June 30, 2020, property taxes collected from the College's debt millage were restricted for the principal and interest payments on the 2009 Community College Refunding Bonds and 2015 Community College Refunding Bonds, which were paid in full as of June 30, 2020.

June 30, 2021 and 2020

Note 1 - Significant Accounting Policies (Continued)

Capital Assets

Capital assets are recorded at cost or, if donated, the acquisition value at the time of donation. Expenses for maintenance and repairs are charged to current expenses as incurred. Depreciation is computed using the straight-line method. No depreciation is recorded on land and the art collection. Expenses for major renewals and betterments that extend the useful lives of the assets are capitalized. Interest incurred during the construction of capital assets of business-type activities is expensed as incurred. Management reviews capital assets for impairment annually.

Capital assets are depreciated using the straight-line method over the following useful lives:

	Depreciable Life - Years
Buildings/Building improvements	30-40
Land improvements and infrastructure	15
Furniture, fixtures, and equipment	4-10
Docks	10

Deferred Outflows of Resources

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to future periods and will not be recognized as an outflow of resources (expense/expenditure) until then. The College reports deferred outflows of resources for certain pension-related and OPEB-related amounts, such as change in expected and actual experience, changes in assumptions, and certain contributions made to the plan subsequent to the measurement date. More detailed information can be found in Note 8.

Unearned Revenue

Revenue received prior to year end that is related to the next fiscal period is recorded as unearned revenue or deposits. It consists of approximately \$197,000 and \$152,000 for the 2021 and 2020 fall semesters, respectively; approximately \$1,064,000 and \$731,000 for the 2021 and 2020 summer semesters, respectively; and approximately \$151,000 and \$62,000 for the housing payable for the Maritime program for 2021 and 2020, respectively. Grants received prior to qualifying expenses of approximately \$4,400,000 and \$384,000 for 2021 and 2020, respectively, are also included in unearned revenue. Generally, the College first applies restricted resources when an expense is incurred for which both restricted and unrestricted resources are available.

Pension

For the purpose of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Michigan Public School Employees' Retirement System (MPSERS) and additions to/deductions from MPSERS fiduciary net position have been determined on the same basis as they are reported by MPSERS. MPSERS uses the economic resources measurement focus and the full accrual basis of accounting. Contribution revenue is recorded as contributions are due, pursuant to legal requirements. Benefit payments (including refunds of employee contributions) are recognized as expense when due and payable in accordance with the benefit terms. Related plan investments are reported at fair value.

June 30, 2021 and 2020

Note 1 - Significant Accounting Policies (Continued)

Other Postemployment Benefit Costs

For the purpose of measuring the net other postemployment benefit (OPEB) liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the MPSERS and additions to/deductions from MPSERS fiduciary net position have been determined on the same basis as they are reported by MPSERS. MPSERS uses the economic resources measurement focus and the full accrual basis of accounting. For this purpose, MPSERS recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments and participating interestearning investment contracts that have a maturity of one year or less at the time of purchase, which are reported at cost.

Deferred Inflows of Resources

In addition to liabilities, the statement of net position will report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue or expense reduction) until that time. The College reports deferred inflows of resources for certain pension-related and OPEB-related amounts, such as the difference between projected and actual earnings of the plan's investments. More detailed information can be found in Note 8.

Net Position

Net position is classified according to external donor restrictions or availability of assets for satisfaction of college obligations. Restricted net position represents amounts over which third parties have imposed restrictions that cannot be changed by the board, including amounts that the board has agreed to set aside under contractual agreements with third parties. Generally, the College first applies restricted resources when an expense is incurred for which both restricted and unrestricted resources are available. Unrestricted net position represents net position that is not subject to externally imposed constraints. Unrestricted net position may be designated for specific purposes by action of management or the board of trustees. Net investment in capital assets consists of capital assets, net of accumulated depreciation and net of related debt.

Tuition and Fees

The academic programs are offered in traditional fall and spring semesters. Revenue from tuition and student fees is recognized during the academic term. Revenue from the summer semester, which commences in May and ends in August, is split and recognized proportionally to the number of days of the semester within the fiscal year. Tuition revenue is reported at established rates net of institutional financial aid and discounts provided by the College to the students.

Scholarship Discounts and Allowances

Student tuition and fees are reported net of scholarship discounts and allowances in the statement of revenue, expenses, and changes in net position. Scholarship discounts and allowances are the difference between the stated charge for goods and services provided by the College and the amount that is paid by students and/or third parties making payments on the students' behalf. Certain governmental grants, such as Pell grants and other federal, state, or nongovernmental programs, are recorded as either operating or nonoperating revenue in the College's financial statements. To the extent that revenue from such programs is used to satisfy tuition and fees and other student charges, the College has recorded a scholarship discount and allowance.

June 30, 2021 and 2020

Note 1 - Significant Accounting Policies (Continued)

Grants and Contributions

The College is often awarded grants from the federal government, the State of Michigan, and other agencies. Revenue from grants is recognized when all eligibility requirements, including time requirements, are met. Grants may be restricted for specific operating or capital purposes. Amounts restricted to capital acquisitions are reported after nonoperating revenue and expenses.

Federal Financial Assistance Programs

The College participates in federally funded Pell grants, Federal Supplemental Educational Opportunity Grants (SEOG) grants, Federal Work-Study, Federal Direct Lending programs, Coronavirus Relief Fund (CRF), and Higher Education Emergency Relief Fund (HEERF). Federal programs are audited in accordance with Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

During the years ended June 30, 2021 and 2020, the College distributed \$5,489,094 and \$6,805,346, respectively, for direct lending through the U.S. Department of Education, which is not included as revenue and expenditures on the accompanying financial statements.

Sales and Services of Auxiliary Activities

Auxiliary activities primarily represent revenue generated from housing, dining, conferences, and various other departmental activities that provide services to the student body, faculty, staff, and general public.

Operating and Nonoperating Revenue and Expenses

Revenue and expense transactions are normally classified as operating revenue and expenses when such transactions are generated by the College's principal ongoing operations. However, revenue that is considered to be nonexchange, such as property tax revenue, state appropriations, federal COVID-19 funding, and Pell grants, is classified as nonoperating revenue.

Internal Service Activities

Revenue and expenses related to internal service activities, including conference services, postage, and telecommunications, have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

Significant Event Impacting the College

On March 11, 2020, the World Health Organization declared the outbreak of a respiratory disease caused by a new coronavirus, now known as COVID-19, a pandemic. In response to the COVID-19 pandemic, governments have taken preventive or protective actions, such as temporary closures of nonessential businesses and shelter-in-place guidelines for individuals. As a result, the global economy has been negatively affected, and the College's operations were also impacted. Due to the shelter-in-place guidelines during April and May 2020, the College shifted to a remote online learning environment and sent students home. To offset the financial impact to students and the losses incurred by the College due to the disruption caused by COVID-19, the College received grants and other relief from the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA), and the American Rescue Plan (ARP) Act.

June 30, 2021 and 2020

Note 1 - Significant Accounting Policies (Continued)

For the year ended June 30, 2020 the College was allocated Higher Education Emergency Relief Fund (HEERF) grants under the CARES Act totaling \$2,124,216, of which 50 percent was required to be given directly to students. The College also received \$104,000 of Strengthening Institutions Program (SIP) funding as part of HEERF. During the year ended June 30, 2020, the College recognized HEERF grant revenue totaling \$1,679,357. During the year ended June 30, 2020, state appropriation revenue was reduced, and, instead, the College received Coronavirus Relief Funds (CRF) of \$1.1 million, which were required to be spent by December 30, 2020 on expenditures related to COVID-19.

For the year ended June 30, 2021, the College was allocated additional HEERF grants under CRRSAA and ARP totaling \$11,330,448, as well as \$173,226 of SIP. During the year ended June 30, 2021, the College recognized HEERF grant revenue totaling \$4,840,240 and deferred revenue of \$3,432,817 due to the eligibility requirement to provide grants to students in order to recognize the institutional portion. Additionally, the College recognized CRF grant revenue totaling \$1,072,200 during the year ended June 30, 2021.

The severity of the continued impact due to COVID-19 on the College's financial condition, results of operations, or cash flows will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic and the extent and severity of the impact on the College's community, all of which are uncertain and cannot be predicted.

Adoption of New Accounting Pronouncement

During the current year, the College adopted GASB Statement No. 84, Fiduciary Activities, which establishes criteria for identifying and reporting fiduciary activities. The standard offers an exception for reporting fiduciary activities separately if those assets, upon receipt, are normally expected to be held for three months or less. As a result of implementing this standard, direct loans were identified as fiduciary activities and met the exception; therefore, the impact was to reflect the cash flows in operating activities instead of noncapital financing activities. There was no effect of this standard on the College's net position.

Upcoming Accounting Pronouncement

In June 2017, the Governmental Accounting Standards Board issued Statement No. 87, Leases, which improves accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. The College is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement were originally effective for the College's financial statements for the year ended June 30, 2021 but were extended to June 30, 2022 with the issuance of GASB Statement No. 95, Postponement of the Effective Date of Certain Authoritative Guidance.

June 30, 2021 and 2020

Note 2 - Property Taxes

Property tax revenue is recognized in the year for which taxes have been levied.

Property taxes are levied on July 1 and December 1 based on taxable values as of the preceding December 31. The taxes, which are collected and remitted to the College by townships and cities within the College's taxing district, are collected through February 28. Uncollected real property taxes of the College are turned over to the county in which the district is located for subsequent collection. The College is subsequently paid 100 percent of delinquent real property taxes through the county's tax revolving funds. These payments are usually received within three to five months after the delinquency date.

During the years ended June 30, 2021 and 2020, 2.1137 mills and 2.1339 mills, respectively, of tax per \$1,000 of taxable property value in the College's taxing district were levied for general operating purposes on all property. Total operating property tax revenue was \$11,569,141 and \$11,163,672 for the years ended June 30, 2021 and 2020, respectively.

During the years ended June 30, 2021 and 2020, 0.00 mills and 0.55 mills, respectively, of tax per \$1,000 of taxable property value in the College's taxing district were levied for debt retirement purposes. Total property tax revenue was \$3,231 and \$2,912,558 for the years ended June 30, 2021 and 2020, respectively, for retirement of debt related to the 2009 and 2015 bond issues.

The College's property tax revenue is affected by tax abatements entered into by other governments. The College's property tax revenue was reduced as follows for the years ended June 30, 2021 and 2020:

		i	2021	 2020
City of Traverse City, Michigan		\$	155,221	\$ 193,022
Blair Township			7,014	4,935
East Bay Township			1,953	2,488
Fife Lake Township			743	945
Garfield Township			73,154	77,110
Green Lake Township			6,113	8,386
Acme Township			405	400
Paradise Township			679	812
Long Lake Township			2,964	3,680
Peninsula Township			1,119	1,420
	-			
Total	9	5	249,365	\$ 293,198

Note 3 - Deposits and Investments

Deposits and investments are reported in the financial statements as follows:

	 2021		2020
Cash and cash equivalents	\$ 11,660,987	\$	9,578,355
Investments	18,372,322		13,509,912
Restricted cash and cash equivalents	 2,187,806	_	3,392,945
Restricted investment securities	\$ 32,221,115	\$	26,481,212

State statutes and the College's investment policy authorize the College to make deposits in the accounts of federally insured banks, credit unions, and savings and loan associations that have offices in Michigan. The College is allowed to invest in U.S. Treasury or agency obligations, U.S. government repurchase agreements, bankers' acceptances, state obligations, commercial paper of corporations located in this state rated prime at the time of purchase, mutual funds, and investment pools that are composed of authorized investment vehicles. The College's deposits are in accordance with statutory authority.

June 30, 2021 and 2020

Note 3 - Deposits and Investments (Continued)

The College has designated Fifth Third Bank, Huntington Bank, and Chase Bank for the deposit of its funds.

The College's cash and investments are subject to several types of risk, which are examined in more detail below:

Custodial Credit Risk of Bank Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the College's deposits may not be returned to it. The College's investment policy requires that financial institutions be evaluated, and only those with an acceptable risk level for custodial credit risk are used for the College's deposits. The College thoroughly examines the banks with which it chooses to deposit funds for the following qualifications: federally chartered, State of Michigan qualified depository, Federal Reserve System, FDIC member, compliance with Community Reinvestment Act, Bauer bank rating of adequate to good, and Bankrate rating of sound to performing. As of June 30, 2021, the College's operations and debt deposit balances of \$6,666,837 had \$3,119,110 of bank deposits (checking and savings accounts) that were uninsured and uncollateralized. As of June 30, 2020, the College's operations and debt deposit balances of \$4,129,550 had \$285,752 of bank deposits (checking and savings accounts) that were uninsured and uncollateralized. The College believes that, due to the dollar amount of cash deposits and the limits of FDIC insurance, it is impractical to insure all deposits.

Custodial Credit Risk of Investments

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the College will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The College's policy for custodial credit risk states that custodial credit risk will be minimized by limiting investments to the types of securities allowed by state law and by prequalifying the financial institutions, broker/dealers, intermediaries, and advisors with which the College will do business using the criteria established in the investment policy. All investment securities that are uninsured and unregistered are held by counterparties.

Interest Rate Risk

Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The College's policy minimizes interest rate risk by structuring the investment portfolio so that securities mature to meet cash requirements for ongoing operations, thereby avoiding the need to sell securities in the open market.

Credit Risk

State law limits investments in commercial paper to prime ratings issued by nationally recognized statistical rating organizations. The College's investment policy does not further limit its investment choices.

Concentration of Credit Risk

The College's policy minimizes concentration of credit risk by requiring diversification of the investment portfolio so that the impact of the potential losses from any one type of security or issuer will be minimized. Furthering the College's safety in investments is the federal government's guarantee of the Federal Home Loan Bank, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation's bond debt. Standard & Poor's credit ratings for these investments are AA+.

June 30, 2021 and 2020

Note 3 - Deposits and Investments (Continued)

At year end, the College had the following investments and maturities, which include debt securities (other than the U.S. government) held by counterparties that possess Moody's quality ratings of Aaa:

			2021		
Description	Carrying Value	Less Than 1 Year	1-5 Years	5-10 Years	More Than 10 Years
Federal National Mortgage Association Federal National Mortgage Association Federal National Mortgage Association Federal Home Loan Mortgage Corporation	\$ 4,860,950 4,943,600 4,825,800 3,741,972	\$ - - - -	\$ - 4,943,600 - 3,741,972	\$ 4,860,950 - 4,825,800	\$ - - - -
Total investments in debt securities	\$18,372,322	\$ -	\$ 8,685,572	\$ 9,686,750	\$
			2020		
	Carrying	Less Than 1			More Than
Description	Value	Year	1-5 Years	5-10 Years	10 Years
Federal Farm Credit Banks Bond Federal Farm Credit Banks Bond Federal Home Loan Mortgage Corporation	\$ 4,995,000 5,000,250 3,002,760	\$ -	\$ 4,995,000 5,000,250 3,002,760	\$ -	\$ - - -
Total investments in debt securities	\$12,998,010	\$ -	\$12,998,010	\$ -	\$ -

Note 4 - Fair Value Measurements

The College categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets, Level 2 inputs are significant other observable inputs, and Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy below.

In instances where inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The College's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset.

June 30, 2021 and 2020

Note 4 - Fair Value Measurements (Continued)

U.S. government obligations totaling \$18,372,322 and \$12,998,010 for June 30, 2021 and 2020, respectively, are valued on a recurring basis using quoted market prices (Level 1 inputs). Money market accounts totaling \$6,545,657 and \$9,643,552 and certificates of deposit accounts totaling \$0 and \$511,902 for June 30, 2021 and 2020, respectively, are valued at amortized cost and are not subject to fair value measurements.

The following tables present information about the Foundation's assets measured at fair value on a recurring basis at June 30, 2021 and 2020:

	Assets Measured at Fair Value on a Recurring Basis at June 30, 2021								
	Quoted Prices in			Significant Oth Observable Inputs (Level 2)	Unobs	ficant ervable uts el 3)	Balance at June 30, 2021		
Assets									
Mutual funds:								1	
Domestic equity	\$	36,842,352	\$	-		\$	-	\$	36,842,352
Fixed income		3,881,522		-			-		3,881,522
Money market mutual funds		188,340	_		_				188,340
Total mutual funds		40,912,214		-			=		40,912,214
Fixed income:									
U.S. Treasury securities		3,792,717		_			-		3,792,717
Corporate bonds				3,486,08	32	11			3,486,082
Total fixed income	,	3,792,717	_	3,486,08	32		-		7,278,799
Total	\$	44,704,931	\$	3,486,08	32	\$			48,191,013
Investments measured at NAV:									
Private equity									2,569,851
Real estate									771,468
									1,057,247
Multistrategy								_	1,007,247
Total investments									
measured at NAV									4,398,566
Total assets								\$	52,589,579
10101 00000								т	

June 30, 2021 and 2020

Note 4 - Fair Value Measurements (Continued)

	Assets Measured at Fair Value on a Recurring Basis at June 30, 2020								
	Qu	oted Prices in							
	A	ctive Markets	,	Significant Other		Significant			
		for Identical		Observable		Unobservable			
		Assets		Inputs	Inputs		Balance at		
		(Level 1)		(Level 2)	_	(Level 3)		lune 30, 2020	
Assets									
Mutual funds:									
Domestic equity	\$	16,239,137	q		\$	_	\$	16,239,137	
International equity	Ψ	9,058,369	4	-	Ψ	_	Ψ	9,058,369	
Alternative strategies		5,665,270		_		-		5,665,270	
Money market mutual funds		39,097		-		=		39,097	
•			-		_		_		
Total mutual funds		31,001,873		\ <u>-</u>		-		31,001,873	
Fixed income:									
U.S. Treasury securities		3,901,201		_		_		3,901,201	
Corporate bonds		-		6,148,507		_		6,148,507	
			-	-11.	_	-	_		
Total fixed income		3,901,201		6,148,507				10,049,708	
Total	\$	34,903,074	\$	6,148,507	\$	_		41,051,581	
			=		=				
Investments measured at NAV									
Total assets							\$	41,051,581	

Note 5 - Accounts Receivable

The following is the detail of accounts receivable:

	2021		2020
Student Grants and contracts State appropriations Foundation Third-party and other	\$ 2,267,802 2,302,308 2,264,013 2,738,929 492,366	\$	1,932,964 2,211,197 4,930,628 2,136,034 418,210
Gross accounts receivable	10,065,418		11,629,033
Allowance for doubtful accounts	 (694,361)	_	(757,729)
Total accounts receivable - Net	\$ 9,371,057	\$	10,871,304

Notes to Financial Statements

June 30, 2021 and 2020

Note 6 - Capital Assets

Capital asset activity for the years ended June 30, 2021 and 2020 was as follows:

	Balance July 1, 2020	Additions	Disposals	Transfers	Balance June 30, 2021
Capital assets not being depreciated:					
Land	\$ 4,626,042	\$ -	\$ -	\$ -	\$ 4,626,042
Construction in progress	20,194,920	1,400,823	-	(20,719,597)	
Art collection	1,648,881	55,498	-		1,704,379
Subtotal	26,469,843	1,456,321	-	(20,719,597)	7,206,567
Capital assets being depreciated:					
Infrastructure	7.845.246	37,485	_	12.048	7,894,779
Buildings and improvements	98,728,526	111,802	(117,144)		118,419,647
Docks	2,359,401	-	-	=	2,359,401
Furniture, fixtures, and	_,,				
equipment	27,370,122	1,045,608	(202,454)	1,011,086	29,224,362
Land improvements	5,748,392	-	(8,810)	-	5,739,582
Subtotal	142,051,687	1,194,895	(328,408)	20,719,597	163,637,771
Accumulated depreciation:					
Infrastructure	6,981,053	157,576	_	_	7,138,629
Buildings and improvements	48,312,118	2,857,028	-	-	51,169,146
Docks	1,896,613	65,001	-	_	1,961,614
Furniture, fixtures, and	,	,			
eguipment	23,059,968	1,513,503	(238,263)	_	24,335,208
Land improvements	5,126,836	78,454	-	, -	5,205,290
Subtotal	85,376,588	4,671,562	(238,263)	_	89,809,887
Net capital assets being	· · · · · · · · · · · · · · · · · · ·				
depreciated	56,675,099	(3,476,667)	(90,145)	20,719,597	73,827,884
depreciated		(3,470,007)	(30,143)	20,119,091	10,021,004
Capital assets - Net	\$ 83,144,942	\$ (2,020,346)	\$ (90,145)	\$ -	\$ 81,034,451

Notes to Financial Statements

June 30, 2021 and 2020

Note 6 - Capital Assets (Continued)

	_	Balance July 1, 2019		Additions	 Disposals		Transfers		Balance June 30, 2020
Capital assets not being depreciated: Land Construction in progress Art collection	\$	4,626,042 6,778,645 1,581,685	\$	- 13,416,275 67,196	\$ -	\$		\$	4,626,042 20,194,920 1,648,881
Subtotal		12,986,372		13,483,471	-		-		26,469,843
Capital assets being depreciated: Infrastructure Buildings and improvements Docks Furniture, fixtures, and equipment Land improvements		7,845,246 98,463,069 2,359,401 26,553,108 5,697,892		265,457 - 907,571 50,500	- - - (90,557) -		- - - -		7,845,246 98,728,526 2,359,401 27,370,122 5,748,392
Subtotal		140,918,716		1,223,528	(90,557)		-		142,051,687
Accumulated depreciation: Infrastructure Buildings and improvements Docks Furniture, fixtures, and equipment		6,806,295 45,659,004 1,831,612 21,696,573		174,758 2,653,114 65,001 1,453,952	- - - (90,557)		, , , , , , , , , , , , , , , , , , ,		6,981,053 48,312,118 1,896,613 23,059,968
Land improvements	-	5,038,383	_	88,453	 -	_	(; 	_	5,126,836
Subtotal Net capital assets being depreciated		81,031,867 59,886,849	_	4,435,278 (3,211,750)	(90,557)		-	_	85,376,588 56,675,099
Capital assets - Net	\$	72,873,221	\$	10,271,721	\$ 	\$	_	\$	83,144,942

June 30, 2021 and 2020

Note 7 - Long-term Obligations

Long-term debt activity for the years ended June 30, 2021 and 2020 can be summarized as follows:

			2021		
	Beginning Balance	Additions	Reductions	Ending Balance	Due within One Year
Bonds payable: 2012 Community College Refunding Bonds 2016 Community College Facilities Bonds 2018 Community College Facilities	\$ 355,000 19,005,000	\$ -	\$ (175,000) \$ (780,000)	18,225,000	810,000
Bonds	6,775,000		(275,000)	6,500,000	285,000
Total principal outstanding	26,135,000	-	(1,230,000)	24,905,000	1,275,000
Unamortized bond premiums	539,874		(30,874)	509,000	30,874
Total bonds payable	26,674,874	,;? -	(1,260,874)	25,414,000	1,305,874
Accrued vacation and sick leave Voluntary separation plan	1,439,228 197,748	1,216,223	(1,023,090) (83,348)	1,632,361 114,400	1,314,000 62,400
Total long-term obligations	\$ 28,311,850	\$ 1,216,223	\$ (2,367,312)	27,160,761	\$ 2,682,274
			2020		
	Beginning Balance	Additions	Reductions	Ending Balance	Due within One Year
Bonds payable: 2009 Community College Refunding Bonds 2012 Community College Refunding	\$ 420,000	\$ -	\$ (420,000)	ş -	\$ -
Bonds	525,000	-	(170,000)	355,000	175,000
2015 Community College Refunding Bonds	2,485,000	-	(2,485,000)	-	-
2016 Community College Facilities Bonds 2018 Community College Facilities	19,760,000	-	(755,000)	19,005,000	780,000
Bonds	7,040,000		(265,000)	6,775,000	275,000
Total direct borrowings and direct placements principal outstanding	30,230,000	-	(4,095,000)	26,135,000	1,230,000
Unamortized bond discounts	570,747		(30,873)	539,874	30,874
Total bonds payable	30,800,747	=	(4,125,873)	26,674,874	1,260,874
Accrued vacation and sick leave Voluntary separation plan	1,384,570 314,347	1,134,530 -	(1,079,872) (116,599)	1,439,228 197,748	1,199,000 83,348
Total governmental activities long-term debt	\$ 32,499,664	\$ 1,134,530	\$ (5,322,344)	\$ 28,311,850	\$ 2,543,222

Principal and interest on the 2015 Community College Refunding Bonds and 2009 Community College Refunding Bonds were payable from the proceeds of ad valorem taxes levied on all taxable properties in the College's taxing district without limitation as to rate or amount. Both bonds were fully paid as of June 30, 2020.

June 30, 2021 and 2020

Note 7 - Long-term Obligations (Continued)

Community College Refunding Bonds, 2009

The College issued \$3,645,000 in Unlimited Tax General Obligation Refunding Bonds with an interest rate of 2.5 percent to 4.25 percent to refund \$3.795 million of outstanding 1999 Series Bonds with an interest rate of 4.92 to 5.75 percent, maturing in 2020. The bonds are payable from tax revenue of the College in installments ranging from \$380,000 to \$420,000, are callable at a premium, and matured at varying amounts through 2020. As of June 30, 2021 and 2020, the 1999 Series Bonds are considered defeased, and the liability has been removed from the statement of net position. At June 30, 2021 and 2020, no amounts remain in escrow, and the defeased bonds have been paid in full. The bonds were paid off during the fiscal year ended June 30, 2020.

Community College Refunding Bonds, 2012

The College issued \$1,620,000 in General Obligation - Limited Tax Refunding Bonds with an interest rate of 2.05 percent to refund \$1.635 million of outstanding 2002 Series Bonds with an interest rate of 4.625 to 5.15 percent, maturing in 2022. The 2012 bonds are payable from operating revenue of the College in installments ranging from \$165,000 to \$180,000, are callable at a premium, and mature at varying amounts through 2022. As of June 30, 2021 and 2020, the 2002 Series Bonds are considered defeased, and the liability has been removed from the statement of net position. At June 30, 2021 and 2020, no amounts remain in escrow, and the defeased bonds have been paid in full.

Community College Refunding Bonds, 2015

The College issued \$12,200,000 in Unlimited Tax General Obligation Refunding Bonds with an interest rate of 0.7 percent to 1.80 percent to refund \$12.1 million of outstanding 2005 Series Bonds with an interest rate of 5.00 percent, maturing in 2020. The bonds are payable from tax revenue of the College in installments ranging from \$2,445,000 to \$2,485,000, are callable at a premium, and mature at varying amounts through 2020. As of June 30, 2021 and 2020, the 2005 Series Bonds are considered defeased, and the liability has been removed from the statement of net position. At June 30, 2021 and 2020, no amounts remain in escrow, and the defeased bonds have been paid in full. The bonds were paid off during the fiscal year ended June 30, 2020.

Community College Facilities Bonds, 2016

The College issued \$20,890,000 in Limited Tax General Obligation Bonds with an interest rate of 2.78 percent. The 2016 bonds are payable from operating revenue of the College in installments ranging from \$405,000 to \$1,405,000 and mature at varying amounts through 2038. The net proceeds of \$20,788,154 (after payment of \$101,846 in underwriting fees and other issuance cost) were used to construct residence housing, renovations to the museum, a new library, and various other campus infrastructure projects.

Community College Facilities Bonds, 2018

The College issued \$7,300,000 in Limited Tax General Obligation Bonds with an interest rate of 3.25 percent to 3.50 percent. The 2018 bonds are payable from operating revenue of the College in installments ranging from \$260,000 to \$495,000 and mature at varying amounts through 2038. The net proceeds of \$7,130,750 (after payment of \$169,250 in underwriting fees and other issuance cost) were used to finance the West Hall Innovation Center renovation.

Accrued Vacation and Sick Leave

The College provides vacation benefits to employees, as defined by each respective labor contract and administrative policy. The liability has been recorded based on the number of days available for each employee. Additionally, the College accrues unused sick days for those union employees who have met the conditions of the plan at year end.

June 30, 2021 and 2020

Note 7 - Long-term Obligations (Continued)

Voluntary Separation Plan

During 2018, the College offered a voluntary separation plan to certain employees. The liability and expense was recognized when the employee accepts the offer and the amounts can be estimated.

Debt Service Requirements to Maturity

Annual debt service requirements to maturity for the above bonds and note obligations are as follows:

Years Ending June 30	_	Principal	Interest	 Total
2022	\$	1,275,000	\$ 767,465	\$ 2,042,465
2023		1,135,000	730,213	1,865,213
2024		1,175,000	695,425	1,870,425
2025		1,215,000	659,413	1,874,413
2026		1,265,000	622,175	1,887,175
2027-2031		7,055,000	2,500,213	9,555,213
2032-2036		8,465,000	1,331,775	9,796,775
2037-2038		3,320,000	150,000	3,470,000
Total	\$	24,905,000	\$ 7,456,679	\$ 32,361,679

Note 8 - Retirement Plans

Plan Description

The College participates in the Michigan Public School Employees' Retirement System (the "System"), a statewide, cost-sharing, multiple-employer defined benefit public employee retirement system governed by the State of Michigan that covers substantially all employees of the College. Certain college employees also receive defined contribution retirement and health care benefits through the System. The System provides retirement, survivor, and disability benefits to plan members and their beneficiaries. The System also provides postemployment health care benefits to retirees and beneficiaries who elect to receive those benefits.

The System, and all assumptions therein, is administered by the Office of Retirement Services (ORS). The Michigan Public School Employees' Retirement System issues a publicly available financial report that includes financial statements and required supplemental information for the pension and postemployment health care plans. That report is available on the web at http://www.michigan.gov/orsschools.

Benefits Provided

Benefit provisions of the defined benefit (DB) pension plan and the postemployment health care plan are established by state statute, which may be amended. Public Act 300 of 1980, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan and the postemployment health care plan.

Depending on the plan option selected, member retirement benefits are calculated as final average compensation times years of services times a pension factor ranging from 1.25 percent to 1.50 percent. The requirements to retire range from attaining the age of 46 to 60 with years of service ranging from 5 to 30 years, depending on when the employee became a member. Early retirement is computed in the same manner as a regular pension but is permanently reduced to 0.50 percent for each full and partial month between the pension effective date and the date the member will attain age 60. There is no mandatory retirement age.

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

Depending on the member's date of hire, MPSERS offers the option of participating in the defined contribution (DC) plan that provides a 50 percent employer match (up to 3 percent of salary) on employee contributions.

Members are eligible for nonduty disability benefits after 10 years of service and for duty-related disability benefits upon hire. Disability retirement benefits are determined in the same manner as retirement benefits but are payable immediately without an actuarial reduction. The disability benefits plus authorized outside earnings are limited to 100 percent of the participant's final average compensation, with an increase of 2 percent each year thereafter.

Benefits may transfer to a beneficiary upon death and are determined in the same manner as retirement benefits but with an actuarial reduction.

Benefit terms provide for annual cost of living adjustments to each employee's retirement allowance subsequent to the employee's retirement date. The annual adjustment, if applicable, is 3 percent. Some members who do not receive an annual increase are eligible to receive a supplemental payment in those years in which investment earnings exceed actuarial assumptions.

MPSERS provides medical, prescription drug, dental, and vision coverage for retirees and beneficiaries. A subsidized portion of the premium is paid by MPSERS, with the balance deducted from the monthly pension of each retiree health care recipient. Depending on the member's date of hire, this subsidized portion ranges from 80 percent to the maximum allowed by the statute.

Contributions

Public Act 300 of 1980, as amended, required the College to contribute amounts necessary to finance the coverage of pension benefits of active and retired members. Contribution provisions are specified by state statute and may be amended only by action of the state Legislature. Under these provisions, each school district's contribution is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance a portion of the unfunded accrued liability.

Under the OPEB plan, retirees electing this coverage contribute an amount equivalent to the monthly cost for Part B Medicare and 10 percent, or 20 percent for those not Medicare eligible, of the monthly premium amount for the health, dental, and vision coverage at the time of receiving the benefits. The MPSERS board of trustees annually sets the employer contribution rate to fund the benefits. Participating employers are required to contribute at that rate.

Under Public Act 300 of 2012, members were given the choice between continuing the 3 percent contribution to the retiree health care and keeping the premium subsidy benefit described above or choosing not to pay the 3 percent contribution and, instead, opting out of the subsidy benefit and becoming a participant in the Personal Healthcare Fund (PHF), a portable tax-deferred fund that can be used to pay health care expenses in retirement. Participants in the PHF are automatically enrolled in a 2 percent employee contribution into their 457 account as of their transition date, earning them a 2 percent employer match into a 401(k) account. Members who selected this option stopped paying the 3 percent contribution to retiree health care as of the day before their transition date, and their prior contributions were deposited into their 401(k) accounts.

The College's contributions are determined based on employee elections. There are multiple pension and health care benefit options included in the plan available to employees based on date of hire and the elections available at that time. Contribution rates are adjusted annually by the ORS.

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

The ranges of rates are as follows:

	Pension	OPEB
October 1, 2018 - September 30, 2019	13.39% - 19.59%	7.57% - 7.93%
October 1, 2019 - September 30, 2020	13.39% - 19.41%	7.57% - 8.09%
October 1, 2020 - September 30, 2021	13.39% - 19.78%	7.57% - 8.43%

Depending on the plan selected, member pension contributions range from 0 percent up to 7.0 percent of gross wages. For certain plan members, a 4 percent employer contribution to the defined contribution pension plan is required. In addition, for certain plan members, a 3 percent employer match is provided to the defined contribution pension plan.

The College's required and actual pension contributions to the plan for the years ended June 30, 2021 and 2020 were \$5,001,913 and \$4,742,602, respectively, which include the College's contributions required for those members with a defined contribution benefit. The College's required and actual pension contributions include an allocation of \$2,215,137 and \$1,964,280 in revenue received from the State of Michigan and remitted to the System to fund the MPSERS unfunded actuarial accrued liability (UAAL) stabilization rate for the years ended June 30, 2021 and 2020, respectively.

The College's required and actual OPEB contributions to the plan for the years ended June 30, 2021 and 2020 were \$1,282,734 and \$1,258,330, respectively, which include the College's contributions required for those members with a defined contribution benefit.

Net Pension Liability

At June 30, 2021 and 2020, the College reported a liability of \$56,797,390 and \$57,892,016, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of September 30, 2020 and 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2019 and 2018, which used update procedures to roll forward the estimated liability to September 30, 2020 and 2019. The College's proportion of the net pension liability was based on a projection of its long-term share of contributions to the pension plan relative to the projected contributions of all participating reporting units, actuarially determined. At September 30, 2020, 2019, and 2018, the College's proportion was 0.165344 percent, 0.174810 percent, and 0.181270 percent, respectively, representing a change of (5.415142) and (3.563745) percent, respectively.

Net OPEB Liability

At June 30, 2021 and 2020, the College reported a liability of \$8,622,821 and \$12,287,488, respectively, for its proportionate share of the net OPEB liability. The net OPEB liability was measured as of September 30, 2020 and 2019, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of September 30, 2019 and 2018, which used update procedures to roll forward the estimated liability to September 30, 2020 and 2019. The College's proportion of the net OPEB liability was based on a projection of its long-term share of contributions to the OPEB plan relative to the projected contributions of all participating reporting units, actuarially determined. At September 30, 2020, 2019, and 2018, the College's proportion was 0.160956 percent, 0.171189 percent, and 0.179276 percent, respectively, representing a change of (5.978392) and (4.511283) percent, respectively.

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the years ended 2021 and 2020, the College recognized pension expense of \$7,192,027 and \$8,572,592, respectively, inclusive of payments to fund the MPSERS UAAL stabilization rate. At June 30, 2021 and 2020, the College reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

		20	21		2020			
		Deferred		Deferred	Deferred		Deferred	
		Outflows of		Inflows of	Outflows of		Inflows of	
		Resources		Resources	Resources		Resources	
Difference between expected and actual experience	\$	867,818	\$	(121,226) \$	259,490	\$	(241,404)	
Changes in assumptions		6,293,698		(,, +	11,335,297		-	
Net difference between projected and actual earnings on pension plan investments		238,637		-	-		(1,855,341)	
Changes in proportion and differences between the College's contributions and proportionate share of contributions				(3,420,670)	262,191		(2,146,629)	
The College's contributions to the plan subsequent to the measurement date		4,175,573		_	3,945,524		_	
	_	.,	_		0,010,021	_		
Total	\$	11,575,726	\$	(3,541,896)	15,802,502	\$	(4,243,374)	

The \$2,215,137 and \$1,964,280 reported as deferred inflows of resources resulting from the pension portion of state aid payments received pursuant to the UAAL payment will be recognized as state appropriations revenue for the years ended June 30, 2021 and 2020, respectively. Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Years Ending	Amount				
2022 2023 2024 2025	\$	2,051,369 1,253,354 458,367 95,167			
Total	\$	3,858,257			

In addition, the contributions subsequent to the measurement date will be included as a reduction of the net pension liability in the next year.

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2021 the College recognized OPEB recovery of \$66,740. For the year ended June 30, 2020 the College recognized OPEB expense of \$66,740.

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

At June 30, 2021 and 2020, the College reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

		20	21		2020			
		Deferred Deferred Outflows of Inflows of			Deferred Outflows of		Deferred Inflows of	
	_	Resources		Resources	Resources	_	Resources	
Difference between expected and actual experience Changes in assumptions	\$	- 2,843,115	\$	(6,424,807) \$	- 2,662,450	\$	(4,508,627) -	
Net difference between projected and actual earnings on OPEB plan investments Changes in proportionate share or		71,967		-	-		(213,685)	
difference between amount contributed and proportionate share of contributions Employer contributions to the plan subsequent to the measurement		10,777		(1,503,978)	2,825		(1,038,291)	
date		880,324	_	-	865,188	_	-	
Total	\$	3,806,183	\$	(7,928,785)	3,530,463	\$	(5,760,603)	

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows (note that employer contributions subsequent to the measurement date will reduce the net OPEB liability and, therefore, will not be included in future pension expense):

Years Ending	 Amount
2022 2023 2024 2025 2026	\$ (1,341,865) (1,242,111) (1,039,090) (789,627) (590,233)
Total	\$ (5,002,926)

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

Actuarial Assumptions

The total pension and OPEB liabilities as of September 30, 2020 and 2019 are based on the results of an actuarial valuation as of September 30, 2019 and 2018, respectively, and rolled forward. The total liabilities were determined using the following actuarial assumptions:

	2021	2020	<u>.</u>
Actuarial cost method Investment rate of return - Pension	6.00% - 6.80%	6.00% - 6.80%	Entry age normal Net of investment expenses based on the groups
Investment rate of return - OPEB	6.95%	6.95%	Net of investment expenses based on the groups
Salary increases	2.75% - 11.55%	2.75% - 11.55%	Including wage inflation of 2.75%
Health care cost trend rate - OPEB	7.00% (Year 1 graded to 3.5% year 15, 3.0% to Year 12)	7.50% (Year 1 graded to 3.5% year 12)	
Mortality basis	RP-2014 Male and Female Employee Annuitant Mortality tables, scaled 100% (retirees: 82% for males and 78% for females) and adjusted for mortality improvements using projection scale MP-2017 from 2006	RP-2014 Male and Female Employee Annuitant Mortality tables, scaled 100% (retirees: 82% for males and 78% for females) and adjusted for mortality improvements using projection scale MP-2017 from 2006	
Cost of living pension adjustments	3.00%	3.00%	Annual noncompounded for MIP members

Assumption changes as a result of an experience study for the periods from 2012 to 2017 have been adopted by the System for use in the annual pension and OPEB valuations beginning with the September 30, 2017 valuation.

Significant assumption changes since the prior measurement date, September 30, 2019, for the OPEB plan include a reduction in the health care cost trend rate of 0.50 percentage points, and the actual per person health benefit costs were lower than projected. There were no significant changes in assumptions for the pension actuarial valuation. There were no significant benefit terms changes for the pension or OPEB plans since the prior measurement date of September 30, 2019.

Discount Rate

The discount rate used to measure the total pension liability was 6.00 to 6.80 percent as of September 30, 2020 and 2019, depending on the plan option. The discount rate used to measure the total OPEB liability was 6.95 percent as of September 30, 2020 and 2019. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that district contributions will be made at statutorily required rates.

Based on those assumptions, the pension plan's fiduciary net position and the OPEB plan's fiduciary net position were projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan and OPEB plan investments was applied to all periods of projected benefit payments to determine the total pension liability and total OPEB liability.

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

The long-term expected rate of return on pension plan and OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

*	202	21	2020			
		Long-term Expected Real		Long-term Expected Real		
Asset Class	Target Allocation	Rate of Return	Target Allocation	Rate of Return		
Domestic equity pools Private equity pools International equity pools Fixed-income pools Real estate and infrastructure pools Absolute return pools Real return/Opportunistic pools Short-term investment pools	25.00 % 16.00 15.00 10.50 10.00 9.00 12.50 2.00	5.60 % 9.30 7.40 0.50 4.90 3.20 6.60 (0.10)	28.00 % 18.00 16.00 10.50 10.00 15.50 - 2.00	5.50 % 8.60 7.30 1.20 4.20 5.40 - 0.80		
Total	100.00 %		100.00 %			

Long-term rates of return are net of administrative expense and inflation of 2.1 percent.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the College, calculated using the discount rate depending on the plan option. The following also reflects what the College's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	2021						
	1	Percentage	1 Percentage				
	Po	int Decrease	Discount Rate	Point Increase			
	_(5	(7.00 - 7.80%)					
Net pension liability of the College	\$	73,514,587	\$ 56,797,390	\$ 42,942,561			
			2020				
	1	Percentage	Current	1 Percentage			
	Po	int Decrease	Discount Rate	Point Increase			
	_(5	5.00 - 5.80%)	(6.00 - 6.80%)	(7.00 - 7.80%)			
Net pension liability of the College	\$	75,263,324	\$ 57,892,016	\$ 43,490,603			

June 30, 2021 and 2020

Note 8 - Retirement Plans (Continued)

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the College, calculated using the current discount rate. It also reflects what the College's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	2021
	1 Percentage Current 1 Percentage Point Decrease Discount Rate Point Increase (5.95%) (6.95%) (7.95%)
Net OPEB liability of the College	\$ 11,076,993 \$ 8,622,821 \$ 6,556,613
	2020 1 Percentage Current 1 Percentage Point Decrease Discount Rate Point Increase (5.95%) (6.95%) (7.95%)
Net OPEB liability of the College	\$ 15,072,450 \$ 12,287,488 \$ 9,948,893

Sensitivity of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate

The following presents the net OPEB liability of the College, calculated using the current health care cost trend rate. It also reflects what the College's net OPEB liability would be if it were calculated using a health care cost trend rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	2021
	1 Percentage 1 Percentage
	Point Decrease Current Rate Point Increase (6.00%) (7.00%) (8.00%)
Net OPEB liability of the College	\$ 6,477,502 \$ 8,622,821 \$ 11,062,856
	2020
	1 Percentage Point Decrease Current Rate Point Increase (6.50%) (7.50%) (8.50%)
Net OPEB liability of the College	\$ 9,849,747 \$ 12,287,488 \$ 15,072,120

Pension Plan and OPEB Plan Fiduciary Net Position

Detailed information about the plan's fiduciary net position is available in the separately issued MPSERS financial report.

Payable to the Pension Plan and OPEB Plan

At June 30, 2021, the College reported a payable of \$579,391 and \$79,317 for the outstanding amount of contributions to the pension plan and OPEB plan, respectively, required for the year ended June 30, 2021. At June 30, 2020, the College reported a payable of \$518,011 and \$70,250 for the outstanding amount of contributions to the pension plan and OPEB plan, respectively, required for the year ended June 30, 2020.

At June 30, 2020, the College reported a payable of \$518,011 and \$1 for the outstanding amount of contributions to the pension plan and OPEB plan, respectively, required for the year ended June 30, 2020.

June 30, 2021 and 2020

Note 9 - Unrestricted Net Deficit

The College, through application of the board-approved resources guidelines, reserved the use of unrestricted net deficit as follows at June 30:

	2021	 2020
Reserved for General Fund state appropriations Reserved for General Fund medical insurance Reserved for General Fund working capital Reserved for maintenance and replacement after bond commitments Reserved for auxiliary expenses Reserved for unemployment insurance Reserved for GLMA equipment and vessel Reserved for energy contingency	\$ 2,460,775 470,000 4,614,835 5,398,088 9,567,395 108,082 512,401 200,000	\$ 2,453,450 470,000 5,705,731 4,865,653 6,269,460 108,082 - 200,000
Reserved for MPSERS Reserved for transformation Reserved for strategic projects Reserved for insurance liability Reserved for wellness initiatives	832,800 1,704,584 1,256,884 69,000 364,114	 832,800 1,596,084 847,386 69,000 364,114
Total reserves before pension and OPEB liabilities	27,558,958	23,781,760
Reserved for OPEB liability fund deficit Reserved for pension liability fund deficit	(12,745,423) (50,978,697)	(14,517,628) (48,297,168)
Total	\$ (36,165,162)	\$ (39,033,036)

Note 10 - Risk Management

The College is exposed to various risks of loss related to property loss, torts, errors, omissions, employee injuries (workers' compensation), and medical benefits provided to employees. The College participates in risk management pools for claims relating to auto, property, workers' compensation, errors, omissions, and liability.

Risk-sharing Programs

The College participates in the Michigan Community College Risk Management Authority (MCCRMA) risk management pool for auto, property, and liability claims and in the SET-SEG risk management pool for workers' compensation claims, errors, and omissions coverage. Both programs operate as claims servicing pools for amounts up to member retention limits and operate as common risk-sharing management programs for losses in excess of member retention amounts. Although premiums are paid annually to the pools, which the pools use to pay claims up to the retention limits, the ultimate liability for those claims remains with the College.

June 30, 2021 and 2020

Note 10 - Risk Management (Continued)

Self-insurance

The College is self-insured for unemployment compensation and health benefits. The College estimates the liability for self-insured claims that have been incurred through the end of the fiscal year, including both those claims that have been reported and those that have not yet been reported. The estimated liabilities for unemployment compensation for the fiscal years ended June 30, 2021 and 2020 were insignificant. Changes in the estimated liability for the fiscal years ended June 30, 2021 and 2020 for health benefits were as follows:

	Medical Claims						
		2021		2020	_	2019	
Unpaid claims - Beginning of year Incurred claims, including claims incurred but not	\$	332,800	\$	139,304	\$	120,767	
reported Claim payments		3,209,461 (3,301,448)		3,109,973 (2,916,477)		3,454,217 (3,435,680)	
Unpaid claims - End of year	\$	240,813	\$	332,800	\$	139,304	

Note 11 - Contingent Liabilities

The College is subject to various legal proceedings and claims that arise in the ordinary course of its activities. The College believes that the amount, if any, of ultimate liability with respect to legal actions will be insignificant or will be covered by insurance.

Note 12 - Dennos Museum Center

Dennos Museum Center operates as an auxiliary function of the College. Revenue and expenses for Dennos Museum Center for the years ended June 30 were as follows:

	2021		2020
Revenue Sales and services Federal grants and contracts State grants and contracts Support from component unit Other sources	\$ 190,295 5,298 22,200 453,208 11,043	\$	334,898 5,000 24,000 489,744 41,401
Total revenue	682,044		895,043
Operating and Capital Expenses Public service Operations and maintenance of plant	721,971 91,156	J "	886,527 152,365
Total operating and capital expenses	 813,127		1,038,892
Change in Net Position before Transfers	(131,083)		(143,849)
Transfers In (Out)	328,206		(129,179)
Change in Net Position	197,123		(273,028)
Net Position (Deficit) - Beginning of year	(264,106)		8,922
Net Position (Deficit) - End of year	\$ (66,983)	\$	(264,106)

June 30, 2021 and 2020

Note 13 - Northwestern Michigan College Foundation

Contributions Receivable

Foundation contributions receivable consist of several unconditional promises to give generated from a capital campaign. They include the following:

	 2021	 2020
Gross promises to give before unamortized discount Less allowance for uncollectible contributions Less allowance for net present value discount	\$ 3,764,252 (25,000) (221,880)	\$ 2,703,710 (15,000) (155,704)
Total	\$ 3,517,372	\$ 2,533,006

Amounts due in less than one year and amounts due between one and five years total \$1,163,712 and \$2,353,660, respectively.

Investments

Investments at the Foundation are as follows:

	_	2021	-	2020
Mutual funds U.S. Treasury securities Corporate bonds Alternative investments	\$	40,912,214 3,792,717 3,486,082 4,398,566	\$	31,001,873 3,901,201 6,148,507
Total	<u>\$</u>	52,589,579	\$	41,051,581

Net realized gains from security transactions for the Foundation for the years ended June 30, 2021 and 2020 were \$1,747,505 and \$376,109, respectively. Net unrealized gains (losses) from security transactions for the Foundation for the years ended June 30, 2021 and 2020 were \$9,245,260 and \$(844,717), respectively. The mutual funds and U.S. Treasury securities are valued using Level 1 inputs, while the corporate bonds are valued using Level 2 inputs.

Net Assets

Net assets without donor restrictions consist of the following as of June 30:

	 2021	 2020
Quasi endowment Undesignated net assets	\$ 1,503,480 3,968,153	\$ 1,250,411 3,044,497
Total	\$ 5,471,633	\$ 4,294,908

June 30, 2021 and 2020

Note 13 - Northwestern Michigan College Foundation (Continued)

Net assets with donor restrictions as of June 30 are available for the following purposes:

	_	2021		2020
Subject to expenditure for a specified purpose or the passage of time: University Center Programs and scholarships Dennos Museum Center Great Lakes Campus Not subject to appropriation or expenditure:	\$	2,117,453 28,877,869 8,264,830 1,035	\$	1,683,130 20,625,041 6,478,732 1,035
Endowment - Programs and scholarships Endowment - Dennos Museum Center Total	<u> </u>	12,173,825 4,236,123 55,671,135	<u> </u>	10,472,915 4,207,925 43,468,778

Required Supplemental Information

Required Supplemental Information Schedule of the College's Proportionate Share of the Net Pension Liability Michigan Public School Employees' Retirement System

Last Seven Plan Years Plan Years Ended September 30

	20)20	2019	2018	2017	2016	2015	2014
College's proportion of the net pension liability	0.1	16534 %	0.17481 %	0.18127 %	0.18535 %	0.18849 %	0.18036 %	0.17962 %
College's proportionate share of the net pension liability		797,390 \$	57,892,016	\$ 54,492,788 \$	\$ 48,031,699 \$	47,027,079 \$	44,052,461 \$	39,564,005
College's covered payroll	\$ 14,4	116,413 \$	15,079,019		5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			15,420,406
College's proportionate share of the net pension liability as a percentage of its covered payroll		93.98 %	383.92 %	354.91 %	310.68 %	292.50 %	285.19 %	256.57 %
Plan fiduciary net position as a percentage of total pension liability		59.49 %	60.08 %	62.12 %	63.96 %	63.01 %	63.17 %	66.20 %

Note: GASB Statement No. 68 was implemented in fiscal year 2015. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

Benefit changes - There were no changes of benefit terms for the plan years ended September 30.

Changes in assumptions - There were no significant changes of assumptions for each of the reported plan years ended September 30 except for the following:

- 2019 The discount rate used in the September 30, 2018 actuarial valuation decreased by 0.25 percentage points.
- 2018 The discount rate used in the September 30, 2017 actuarial valuation decreased by 0.45 percentage points. The valuation also includes the impact of an updated experience study for the periods from 2012 to 2017.
- 2017 The discount rate used in the September 30, 2016 actuarial valuation decreased by 0.50 percentage points.

Required Supplemental Information Schedule of Pension Contributions Michigan Public School Employees' Retirement System

										Last Seven Fiscal Years Years Ended June 30				
		2021	W.	2020		2019	10	2018	_	2017		2016		2015
Contractually required contribution	\$	4,818,835	\$	4,571,582	\$	4,688,968	\$	4,683,462	\$	4,397,619	\$	4,112,085 \$;	4,726,013
Contributions in relation to the contractually required contribution	_	4,818,835	i, 	4,571,582	_	4,688,968		4,683,462		4,397,619		4,112,085		4,726,013
Contribution Excess	\$		\$		\$		\$	-	\$	-	<u>\$</u>	- \$	<u> </u>	-
College's Covered Payroll	\$	14,250,782	\$	14,429,193	\$	15,279,724	\$	15,376,191	\$	15,454,034	\$	15,593,732 \$;	15,479,214
Contributions as a Percentage of Covered Payroll		33.81 %		31.68 %		30.69 %		30.46 %		28.46 %		26.37 %		30.53 %

Note: GASB Statement No. 68 was implemented in fiscal year 2015. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

Required Supplemental Information Schedule of the College's Proportionate Share of the Net OPEB Liability Michigan Public School Employees' Retirement System

Last Four Plan Years Plan Years Ended September 30

	2	2020	2019	2018	2017
College's proportion of the net OPEB liability		0.16096 %	0.17119 %	0.17928 %	0.18655 %
College's proportionate share of the net OPEB liability	\$	8,622,821 \$	12,287,488 \$	14,250,585 \$	16,520,072
College's covered payroll	\$	14,416,413 \$	15,079,019 \$	15,354,013 \$	15,460,385
College's proportionate share of the net OPEB liability as a percentage of its covered payroll		59.81 %	81.49 %	92.81 %	106.85 %
Plan fiduciary net position as a percentage of total OPEB liability		59.76 %	48.67 %	43.10 %	36.53 %

Note: GASB 75 was implemented in fiscal year 2018. This schedule is being built prospectively. Ultimately, 10 years of data will be presented. There were no changes of benefit terms for the plan years ended September 30.

Changes in assumptions - There were no significant changes of assumptions for each of the reported plan years ended September 30 except for the following:

- 2020 The health care cost trend rate used in the September 30, 2019 actuarial valuation decreased by 0.50 percentage points, and actual per person health benefit costs were lower than projected. This reduced the plan's total OPEB liability by \$1.8 billion in 2020.
- 2019 The discount rate used in the September 30, 2018 actuarial valuation decreased by 0.20 percentage points. The valuation also includes the impact of an updated experience study for the periods from 2012 to 2017. This resulted in lower than projected per person health benefit costs to reduce the plan's total OPEB liability by an additional \$1.4 billion in 2019.
- 2018 The discount rate used in the September 30, 2017 actuarial valuation decreased by 0.35 percentage points. The valuation also includes the impact of an updated experience study for the periods from 2012 to 2017. This resulted in lower than projected per person health benefit costs to reduce the plan's total OPEB liability by \$1.4 billion in 2018.

Required Supplemental Information Schedule of the College's OPEB Contributions Michigan Public School Employees' Retirement System

	Last Four Fiscal Yea								
				Years Ended June 30					
		2021	2020		2019		2018		
Statutorily required contribution Contributions in relation to the statutorily	\$	1,164,378 \$	1,148,856	\$	1,192,398	\$	1,109,834		
required contribution	, S	1,164,378	1,148,856		1,192,398		1,109,834		
Contribution Deficiency	\$	- \$	-	\$	-	\$	-		
•				=					
College's Covered Payroll	\$	14,250,782 \$	14,429,193	\$	15,279,724	\$	15,376,191		
Contributions as a Percentage of Covered Payroll		8.17 %	7.96 %	(7.80 %		7.22 %		

GASB Statement No. 75 was implemented in fiscal year 2018. This schedule is being built prospectively. Ultimately, 10 years of data will be present.

Other Supplemental Information

Other Supplemental Information Combining Statement of Net Position

June 30, 2021 (with comparative totals for 2020)

Current Funds				
Board-designated Pension and OPEB General Fund Fund Auxiliary Fund Liability Fund Restricted Fund	Plant Fund	Agency Fund	2021	2020
Assets Current assets: Cash and cash equivalents \$ 11,656,762 \$ - \$ 3,950 \$ - \$ 200	\$ -	\$ 75	\$ 11,660,987	\$ 9,578,355
Receivables - Net 6,419,361 297,126 86,141 - 2,266,422 Prepaid expenses and other assets 707,379 20,000 419,392 - 6,250 Due (to) from other funds (20,993,961) 4,775,326 9,435,026 - (364,651)	411,971 5,280,062	2,525 2,167,680	9,371,057 1,564,992 -	10,871,304 1,165,689
Total current assets (2,210,459) 5,092,452 9,944,509 - 1,908,221	5,692,033	2,170,280	22,597,036	21,615,348
Noncurrent assets: Restricted cash and cash equivalents Investments Capital assets - Net Restricted cash and cash equivalents	2,187,806 - 81,034,451	-	2,187,806 18,372,322 81,034,451	3,392,945 13,509,912 83,144,942
Total noncurrent assets 18,372,322	83,222,257	-	101,594,579	100,047,799
Total assets 16,161,863 5,092,452 9,944,509 - 1,908,221	88,914,290	2,170,280	124,191,615	121,663,147
Deferred Outflows of Resources 15,381,909 -	-	-	15,381,909	19,332,965
Liabilities Current liabilities: Accounts payable 1,013,307 44,587 134,855 - 52,717	167,113	25,461	1,438,040	4,466,942
Accrued liabilities and other:	- 126,832 - 1,305,874	1,715,507 - 30	2,621,524 126,832 5,812,123 2,682,274	2,555,579 133,050 1,329,242 2,543,222
Long-term obligations - Current T.376,400	1,599,819	1,740,998		11,028,035
Noncurrent liabilities: Net pension liability 56,797,390 - 8,622,821 -	:	-	56,797,390 8,622,821	57,892,016 12,287,488
Long-term obligations - Net of current portion 370,361 - - - - - 888,291 Deposits 185,439 - 162,108 - 888,291	24,108,126	429,282	24,478,487 1,665,120	25,768,628 1,425,478
Total noncurrent liabilities 555,800 - 162,108 65,420,211 888,291	24,108,126	429,282	91,563,818	97,373,610
Total liabilities 5,183,437 44,587 377,114 65,420,211 5,341,037	25,707,945	2,170,280	104,244,611	108,401,645
Deferred Inflows of Resources			13,685,818	11,968,257
Net Position (Deficit) Net investment in capital assets	57,808,257 5,398,088		57,808,257 (36,165,162)	59,659,246 (39,033,036)
Unrestricted 10,476,426 3,047,000 9,507,000 (60,724,120) (61,402,610)				

Other Supplemental Information Combining Statement of Revenue, Expenses, and Changes in Net Position

Year Ended June 30, 2021 (with comparative totals for 2020)

			Current Funds							
	General Fund	Board-designated Fund	Auxiliary Fund	Pension and OPEB Liability Fund	Restricted Fund	Plant Fund	Loan Fund	Eliminations	2021	2020
Operating Revenue								·		
Student tuition and fees Federal grants and contributions State grants and contributions	\$ 19,730,147 8,500 7,206	\$ 297,126 -	\$ 4,385 5,298 22,200	\$ - -	\$ 3,189 \$ 1,612,254 93,799	\$ - \$ -	-	\$ (2,493,650) \$	17,541,197 \$ 1,626,052	18,310,823 1,962,027
Private gifts, grants, and contracts Expended for plant facilities Sales and services of auxiliary activities	37,254 10,000	-	11,050 - 2,928,226	-	25,666	21,969,989	-	- - (21,969,989)	123,205 73,970 -	134,563 42,550
Other sources	313,305		138,505			3,000	:= :=		2,938,226 454,810	3,938,053 1,448,985
Total operating revenue	20,106,412	297,126	3,109,664	-	1,734,908	21,972,989	% =	(24,463,639)	22,757,460	25,837,001
Operating Expenses Instruction Public service	15,997,998 191,879	54,921 18	(13,114)	297,680	1,331,669	312,600	-	(463,753)	17,518,001	17,775.423
Academic support Student services	6,881,989 4,561,888		1,190,030 129,719 2,387,461	23,637 106,021 90,728	105,166 30,948 7,245,459	52,472 30,200 5,885	-	(55,497) - (2,538,753)	1,507,705 7,178,877 11,752,668	2,483,841 7,738,665 12,417,175
Institutional administration Operation and maintenance of plant Depreciation	5,577,572 4,350,838	513,180 - -	47,770 187,437	53,347 53,454	86,947 84,221	37,469 21,269,035 4,671,562	-	(21,004,696)	6,316,285 4,940,289	6,888,414 5,190,386
Information technology	3,448,724		41	33,600	421,390	203,505		(400,940)	4,671,562 3,706,320	4,435,278 3,835,361
Total operating expenses	41,010,888	568,119	3,929,344	658,467	9,305,800	26,582,728		(24,463,639)	57,591,707	60,764,543
Operating Loss	(20,904,476)	(270,993)	(819,680)	(658,467)	(7,570,892)	(4,609,739)	-	-	(34,834,247)	(34,927,542)
Nonoperating Revenue (Expense) State appropriations Federal Pell grants	12,670,517	,	-	(250,857)	•	_			12,419,660	11,448,288
Federal COVID-19 funding Property taxes	- 11,569,141	-	-	-	3,606,784 5,912,440	- - 3,231	-	-	3,606,784 5,912,440	4,286,174 1,679,357
Support from component unit Investment (loss) income Bond issuance and amortization costs	969,348 (341,701)	188,991 -	531,770 -	-	1,640,025 -	1,007,770 3,379			11,572,372 4,337,904 (338,322)	14,076,230 4,649,330 574,459
Interest expense on capital-related debt						30,374 (797,171)			30,374 (797,171)	24,874 (878,437)
Total nonoperating revenue (expense)	24,867,305	188,991	531,770	(250,857)	11,159,249	247,583	-	-	36,744,041	35,860,275
Capital Contributions	-	*		-	-	(892,909)		=	(892,909)	7,199,000
Transfers (Out) In	(2,518,845)	1,112,401	3,585,845	<u> </u>	(6,115,913)	3,936,512	-			
Change in Net Position	1,443,984	1,030,399	3,297,935	(909,324)	(2,527,556)	(1,318,553)	-	-	1,016,885	8,131,733
Net Position (Deficit) - Beginning of year	9,534,442	4,017,466	6,269,460	(62,814,796)	(905,260)	64,524,898			20,626,210	12,494,477
Net Position (Deficit) - End of year	\$ 10,978,426	\$ 5,047,865	9,567,395	\$ (63,724,120)	\$ (3,432,816)	63,206,345	· .	\$ <u>-</u> \$	21,643,095 \$	20,626,210

Board of Trustees

End of Audit Presentation

October 25, 2021





Presentation to Board of Trustees

- Summary of Presentation to Board of Trustees:
 - Audited Financial Statements and Schedule of Expenditures of Federal Awards
 - Audits required for accreditation by the Higher Learning Commission and to receive federal grants and aid for students
 - Clean, unmodified opinion highest level of assurance
 - No significant deficiencies or material weaknesses in internal controls were identified in the financial statement audit
 - Federal awards tested this year Coronavirus Relief Fund (CRF) and Higher Education Emergency Relief Fund (HEERF) funding
 - Testing is substantially completed
 - Issuance of single audit report to follow reviews

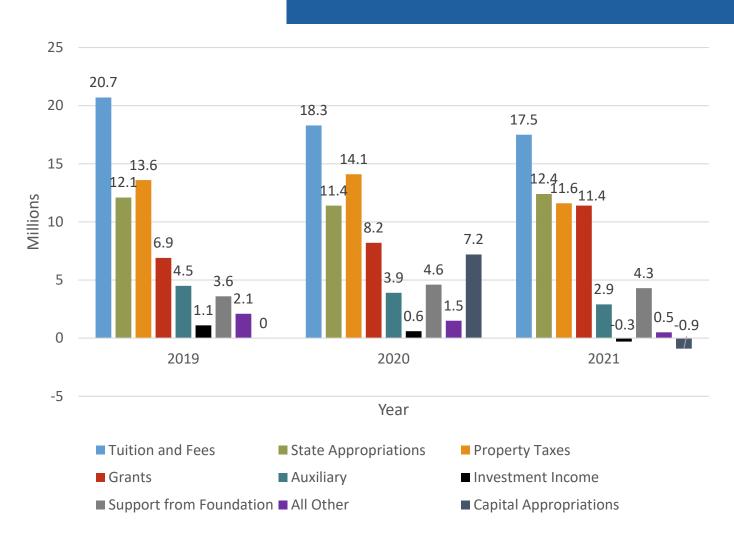


Presentation to Board of Trustees

- Other Required Communications
 - Our Responsibility Under Generally Accepted Auditing Standards
 - Qualitative Aspects of Accounting
 - ✓ Significant Estimates
 - ✓ Allowance for uncollectible accounts.
 - ✓ Proportionate share of the Michigan Public School Employees Retirement System (MPSERS) net pension and net OPEB liabilities
 - No material adjustments required
 - ✓ Implemented Government Auditing Standards Board GASB Statement No. 84, Fiduciary Activities minimal impact
 - ✓ Upcoming Accounting Standard GASB Statement No. 87, Leases

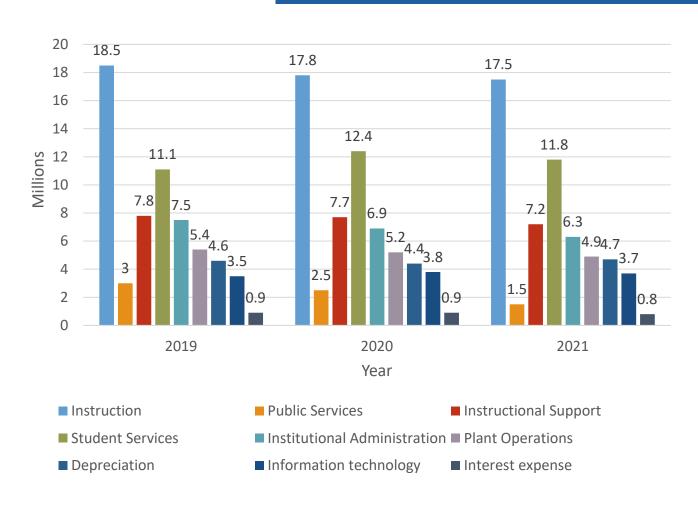


Revenues (all funds)



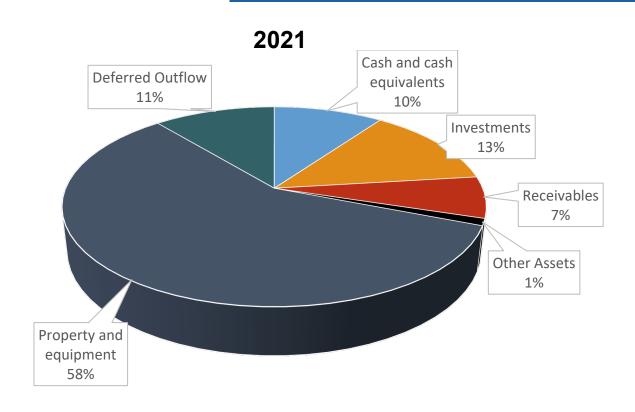
Revenues were \$64.6, \$69.8, and \$59.4 million for 2019, 2020, and 2021, respectively.

Expenditures (all funds)



Expenditures were \$62.3, \$61.6, and \$58.4 million for 2019, 2020, and 2021, respectively.

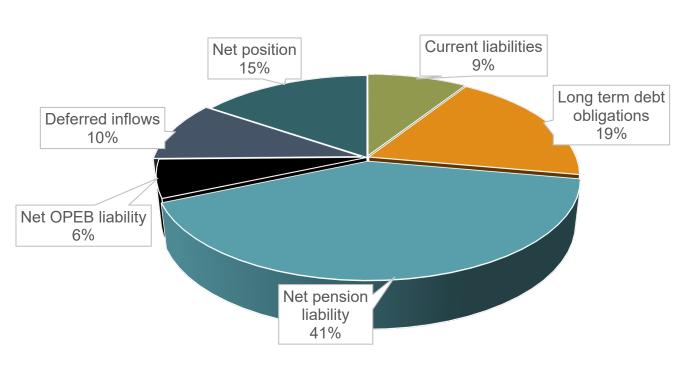
Assets (All Funds)



Assets = \$124,191,615 Deferred Outflow of Resources = \$15,381,909

Liabilities and Net Position (All Funds)





Liabilities = \$104,244,611 Deferred Inflows of Resources = \$13,685,818 Net Position = \$21,643,095

{Thank you}

We appreciate the opportunity to serve Northwestern Michigan College.

Katie Thornton, Partner Jeff Pohler, Manager





Commitment Scholarship Program

Northwestern Michigan College

The Commitment Scholarship Program

- What is it?
 - Tuition & Fees
 - The Commitment Scholarship covers the costs associated with tuition and fees at NMC.
 - o 60 credit hours / 3 years
 - With Commitment, students have 60 credit hours and/or 3 years with which to use the Scholarship.
- Who's eligible?
 - Academic promise and potential
 - High School students who have demonstrated academic promise and potential, and have been recommended by their guidance counselor.
 - Financial Need
 - Students who have a demonstrated financial need or hardship that might otherwise preclude them from attending college.
 - First-generation student
 - Students who are first in their family to attend and complete college.

The Commitment Scholarship Program

- Requirements High School
 - Graduate high school with at least a 2.50 GPA.
 - Participate in Commitment Program events and activities.
 - Attended a participating high school for all four years.
 - Meet high school attendance guidelines.
 - Model good citizenship and not use alcohol and/or drugs, etc.
- Requirements NMC
 - o Maintain at least a 2.00 GPA.
 - Attend Program meetings held by Coordinator.
 - o Participate in Program related events, on- and off-campus.
 - Meet NMC's Satisfactory Academic Progress.

The Commitment Scholarship Program

- Program Events, i.e.:
 - <u>"Ready or Not?!" series</u> -- Preparing students, and parents/guardians, for the transition from high school to college.
 - Your First Steps to NMC! -- Planning for Fall 2022
 - Financial Literacy & the Costs of College
 - I'm First! -- Navigating College
 - A Parent's 101 Guide -- After High School
 - <u>"Fall Kickoff event"</u> -- Complete your senior-year checklist by reviewing financial aid, scholarships, textbook info., how to read your class schedule, walking tour of campus, etc.



By the Numbers:

- 1993
 - Since 1993, the Commitment Scholarship has given high school students access to post-secondary education at NMC.
- 1,500+
 - For nearly 30-years, the Commitment Scholarship has served more than 1,500 students throughout northwest Michigan.
- 18
 - 18 high schools -- from Frankfort to Alba, and from Northport to Manton -- participate in the Commitment Scholarship Program.

By the Numbers:

- 250+
 - Currently, there are more than 250 students in the Commitment Program -- which includes students in high school and NMC.
- \$6,420.00
 - The potential value of the Commitment Scholarship for an in-district student who completes 60 credit hours and/or two years of coursework at NMC.
- \$13,620.00
 - The potential value of the Commitment Scholarship for an out-of-district student who completes 60 credit hours and/or two years of coursework at NMC.

Poignant Reminders:

Dear Kevin.

Thank you so much for everything you do at NMC and for the Program. The Commitment Program has honestly changed my life in such a positive way. Without this Scholarship, I don't think I would've been able to attend college. Thank you so much for everything you do to make the Program work. I'm so excited to attend NMC next year!

Sincerely,

(Leland HS, 2017)

Poignant Reminders:

To Whom This May Concern,

Thank you so much for the Scholarship given to me from NMC. It makes a huge impact in my college life and enables me to be successful and fulfill dreams that in the past seemed bleak. Thank you again and God bless you and your kind heart.

Sincerely,

(Kingsley HS, 2017)

Poignant Reminders:

Dear Kevin,

Thank you for all that you have done for me through high school. The Commitment Scholarship has been a wonderful opportunity for me. I am so glad that you have been helping us all (Commitment Scholars) get to know each other and preparing us for what is to come at NMC and the world ahead. I look forward to my time and experiences at NMC. This opportunity helps me fulfill or at least work towards my goal of graduating college/university with minimal or no debt. Thank you.

(Leland HS, 2020)

Other Success Stories:

- Students who personify the "academic promise and potential" motto:
 - o One salutatorian -- Northport HS
 - Two valedictorians -- Alba HS

Commitment Scholarship Program

•	Comm	nitment Cohort 2021 (42):	
	0	Total number of inductees admitted to NMC:	42
	0	Total number of inductees enrolled at NMC:	28
		■ 67% of admitted students	
		5 attending another institution	
		• 79% of original cohort went on to post-secondary education	on
		2 joined the armed forces	
		2 moved out-of-state	
		■ 5 ineligible, no contact, "gap" year, etc.	
	0	Average contact hours of those enrolled:	<u>11.96</u>
	0	Average high school GPA of those enrolled:	<u>3.45</u>
•	Comm	nitment Cohort 2020 (100):	
	0	Total number of inductees admitted to NMC:	78
	0	Total number of inductees enrolled at NMC	
		■ Fall 2020:	50
		• 64% of admitted students	
		■ Spring 2021:	38
		• 76% retention from fall	
		■ Summer 2021:	9
		• 24% took at least one summer course	
		■ Fall 2021:	37
		• 97% retention from spring semester	
	0	Average contact hours of those enrolled:	<u>11.68</u>
	0	Average GPA of those enrolled:	<u>2.82</u>
•	Comm	nitment Cohort 2019 (100):	
	0	Total number of inductees admitted to NMC:	70
	0	Total number of inductees enrolled at NMC	
		■ Fall 2019:	58
		• 83% of admitted students	
		■ Spring 2020:	46
		• 79% retention from fall	
		■ Summer 2020:	14
		• 30% took at least one summer course	

	■ Fall 2020:	35
	• 76% retention from spring	
	■ Spring 2021:	23
	• 66% retention from fall	
	■ Summer 2021	11
	• 48% took at least one summer course	
	■ Fall 2021	28
	• 120% retention/increase from spring semester	
0	Average contact hours of those enrolled:	<u>10.39</u>
0	Average GPA of those enrolled:	<u>2.73</u>

Graduation Info.:

> Commitment 2017 cohort:

o 26 graduates

> Commitment 2018 cohort:

- o 19 graduates
- o 4 pending in 2022

> Commitment 2019 cohort:

- o 3 graduated
- o 11 pending in 2021/2022

> Commitment 2020 cohort:

- o 11 pending graduates in 2022
 - 74 'graduates' / 'pending graduates' over the past four-years.
 - In the previous 2-years (2015-2016), only 9 graduates.

NMC BOT Faculty Presentation Form

This form will be shared with the BOT before the meeting so they know what you will be presenting and a little bit about you. Thank you for sharing your time and expertise with the BOT so they continue to be informed about the high quality educators and programs we have here at NMC.

Name *
Brandon Everest / Kristy McDonald
Your Title *
Social Science Faculty / Business Faculty
Presentation Title *
NMC ELI: Supporting Experiential Education through COVID and Beyond

Please provide a description of what you will be presenting to the BOT. *

Our presentation will provide a *faculty focus* in what the ELI has done to support teachers in planning, implementing and expanding experiential learning opportunities (ELOs) in the last 16 months. The presentation will also focus on what is planned for this academic year.

Who are you? Please upload or type a bio here. If you do not have one, just tell The BOT a bit about yourself. This info will be given to them before the meeting. *

Brandon Everest has been a NMC social science professor for over 20 years. He has used experiential learning techniques in classrooms and professional environments during that time. He is dedicated to 'whole person education' that seeks deep connections between people and what they are learning in order to increase effectiveness and make for lasting impact. Brandon came to teaching after a career in social work. He specializes in poverty, social mobility and inequality in his field, and has a background in research and community service. As a teacher, he promotes civic and democratic education, connecting learners to their communities and promoting personal and professional development and lifelong learning.

Kristy McDonald is a business professor at Northwestern Michigan College whose passion is helping people discover their full potential for innovation, communication and happiness. She joined the college in 2006 after teaching at Eastern Michigan University in the communications department for five years. Kristy started her career at NMC as a career counselor, and moved to faculty in 2011. Her areas of expertise are: interpersonal and professional communication, marketing, conscious communication, positive psychology, customer service and mindfulness. In 2012 she received NMC's Imogene Wise Faculty Excellence Award.

This form was created inside of Northwestern Michigan College.

Google Forms







ELI Is the Future of What Is Possible at NMC

The future of education needs to:

- 1. Promote engagement and impact
- 2. Enhance humanity
- 3. Prepare for an interconnected world
- 4. Help learners to be life and work ready
- 5. Include reflective practice to promote critical thinking



ELI Is the Future of What Is Possible at NMC

- For these reasons and others related to COVID, ELI has focused on teacher development in the last 18 months.
- This is a report of examples of faculty work during this period, which were supported by ELI.



ELI vs. COVID

- COVID has presented opportunities and challenges for the institute.
 - (+) Supporting online and livestream formats and development
 - o (+) Incorporation of reflecting as a primary tool of critical thinking
 - (+) Reinforcing the importance of feedback for better connections in this environment



ELI vs. COVID

- COVID has presented opportunities and challenges for the institute.
 - (-) Few people are on campus for richer experiences
 - (-) Creative community partnerships have not been safe and have been harder to find and create (until recently)
 - (-) Teachers and staff are still 'pivoting' with fewer staff across the college to support the work



Professional Development

- Workshops (on various topics including reflection, feedback, planning, development)
- EL101 (online and livestream)
 - Comprehensive boot camp training for beginners and advanced faculty.
- EL Learning Community
 - Upon completion of EL101, take next steps and share with a committed community of practice.
- ELI Fellowship
 - Intensive 5-week course with graduate level training
 - 10 Fellows graduated with roughly 30 course sections attached.
 LEARNING



John Velis CIT

Brian Sweeney

Technical



Tammy Coleman Science



Sarah Montgomery-Richards Humanities/Communications



Lisa Blackford Social Science



Caroline Schaefer-Hills Visual Communications

2020 ELI Fellows

2021 ELI Fellows



Becca Richardson Mathematics



Constanza Hazelwood Water Studies



Betsy Boris, Nursing



Cathy Warner Communications



Cheryl Bloomquist Early Childhood Education





Enrollment Services

To: Dr. Nick Nissley, President

From: Todd Neibauer, VP for Student Services & Technologies

Date: October 19, 2021

Subject: Enrollment Report – October 2021

Spring 2022

Though the Spring enrollment cycle is the shortest, it is still early in that cycle and registration does not open until October 20, 2021. Below is the year over year comparison for applications and admits. The difference last year in the overall trend reflects the beginning of Future for Frontliners. While there are large differences in the percentages from last year, it is important to note that that these differences were not reflected in the final numbers. While we had more applications and admits last year than the previous year, we ended up with fewer admits registered than the previous year.

Current Statistics

(Source: October 13, 2021 -Digital Dashboard – Same Date Comparison, SP2019-2022)

	2019	2020	2021	2022
Applications	531	503	756	515
Admits	268	309	512	276

The final numbers from last year are included below to illustrate how the cycle matured through January 2021. The differences that were evident in October did not change much in actual numbers. While Frontliners can no longer enroll under that program, we have maintained contact with students and those eligible for Reconnect to assist them should they decide to attend.

Last Year Final Statistics

(Source: Digital Dashboard – Same Date Comparison, January SP2019-2021)

	2019	2020	2021
Applications	1,794	1,636	1,853
Admits	1,213	1,283	1,362
Admits Registered	794	836	824



MEMOEnrollment Services

TO: Nick Nissley, President

Todd Neibauer, Vice President for Student Services & Technologies

FROM: Linda Berlin, Director of Financial Aid

DATE: October 15, 2021

SUBJECT: NMC Scholarship and Financial Aid Report for Aid Year 2020-2021

Northwestern Michigan College (NMC) Enrollment Services provides students and families with a variety of opportunities to learn about the availability of federal, state, and institutional financial aid. From financial aid, scholarship and FAFSA (Free Application for Federal Student Aid) workshops, to individualized assistance, we strive to promote college affordability and payment options to students. We encourage students and families to actively engage in their financial aid process and to take advantage of our services, from before they make a college decision to long after they graduate from NMC.

During the 2020-2021 aid year, the Financial Aid Office partnered with Student Success to implement targeted coaching to students who had appealed and were placed on an academic plan for financial aid. Success coaches made sure they understood the terms of their plan and that they were accessing all available supports.

In addition to our usual sources of financial aid, during the 2020-2021 aid year, some additional forms of assistance were available to students:

- NMC disbursed \$1.7 million in Higher Education Emergency Relief Funds to our students.
- The federal government provided relief through existing financial aid programs.
 - Return of aid was waived for students who withdrew due to COVID-19 related issues. They were
 not required to repay loans for the semester, and the Pell Grant usage did not count toward their
 lifetime limit.
 - More flexibility was allowed in deciding appeals for students who failed to meet federal Satisfactory Academic Progress and lost aid.
- The State of Michigan implemented the Futures for Frontliners and Michigan Reconnect aid programs. Nearly 300 NMC students recieived funds from these programs.

Cost of Attendance and Student Need

Financial need is the difference between cost of attendance and expected family contribution. Fifty-five percent of NMC students completed a FAFSA this year. Fifty percent received aid (difference is ineligible students).

Cost of attendance (COA) refers to the total amount of education expense: tuition, fees, books and supplies, housing and dining, personal expenses, and transportation expenses. NMC's annual full time cost of attendance ranged from \$15,400 for an in-district student in a general program living with family to \$51,300 for an out-of-state Aviation student living off campus. The average COA was \$15,700.

Expected Family Contribution (EFC) is the result of the FAFSA calculation, which determines the amount the student/family could contribute toward the COA. The average EFC was \$4,400.

ELI Fellowship Focus

Some highlights of recent graduates:

- Becca Richardson
 - Revamp of MTH231 Calculus
 - Developmental MTH amp with Brie Mills (ELI101 grad)
- Cheryl Bloomquist
 - ECE developments with Discovery Center
 - Oleson Center ideas brewing
- Betsy Boris
 - NUR supporting program intake and honors program
 - Starting a 'Belonging' learning community



Directors as Teachers

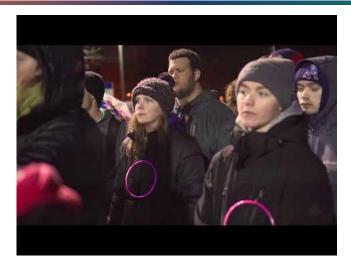
- BUS231
 - Food for Thought Thanks-for-Giving
 - Project management and event planning
 - Communications is key
- SOC101 (and SWK170, ENG111)
 - Poverty focus
 - Walk for Health and Housing
 - Place-based research







EL at NMC





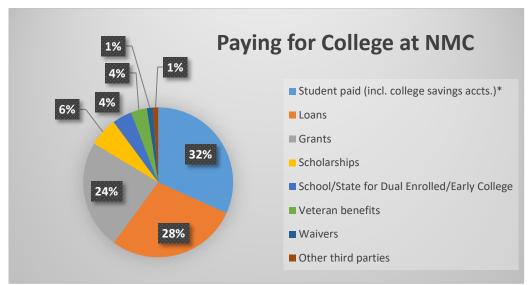
The average gross need for NMC students this year was \$11,300.

Gross Need \$11,300 – Average Aid* \$5,800 = Average Unmet Need \$5,500

*Aid is defined here as federal, state, and institutional scholarships, grants, loans, and work-study.

Paying for College

While NMC students and their families pay the biggest share of their college expenses, financial aid is critical to covering the cost of attendance.



^{*} Does not reflect amounts students paid for costs not billed by NMC (off campus housing, transportation, etc), while grants loans, and scholarship amounts may include funds refunded to students for these costs.

Financial Aid Sources

NMC's financial aid includes funding from federal, state, institutional and other outside resources. Of the \$14 million in financial aid disbursed to students in 2020-2021:

- \$9.7 million or 70% from Title IV Federal Student Aid programs: Pell Grant, Supplemental Educational Opportunity Grant, Direct Student and Parent Loans, Work-Study funds, and Futures for Frontliners.
- \$1.5 million or 11% from the State of Michigan: Tuition Incentive Program, Michigan Competitive Scholarships, Fostering Futures Scholarship, and Michigan Reconnect.
- \$1.5 million or 11% from external sources: scholarships and private loans (most commonly used by Aviation students to cover flight fees).
- A record \$1.2 million or 8% from NMC scholarships.

Thanks to increases in State and Federal Grants, in combination with reduced borrowing, for the first time in recent history, grants and scholarships made up a higher percentage of total aid than loans.

	2019-2020		2020-2021	
Grants and Scholarships	\$ 7,847,621	48% \$	7,134,742	51%
Loans	\$ 8,354,169	52% \$	6,785,182	49%
Total Aid	\$ 16,201,790	\$	13,919,924	

NMC Foundation Scholarships

Thirty percent of NMC students received scholarships, up again from 25% in 2019-2020. The most recent National Postsecondary Student Aid Study (NCES NPSAS:16) states that only 6% of public 2-year college students receive institutional aid. Several factors make it possible for NMC to continue increasing the number of students receiving scholarships:

- Efforts by staff and faculty to encourage application. Forty-one percent of enrolled students (1,711) completed the scholarship application
- Public Relations and NMC Foundation provide personal stories to help students understand that every student has the potential to receive a scholarship
- Continued donor support

Scholarships	2019-2020	2020-2021
Available	\$ 1,520,819	\$ 1,427,087
Disbursed	\$ 1,355,491	\$ 1,167,252
Percent Disbursed	89%	82%
# of NMC Scholarship Recipients	1,149	1,259
% of Unduplicated Headcount	25%	30%
Average Amount per Recipient	\$ 1,180	\$ 927
External Scholarships Disbursed	\$ 370,095	\$ 320,468
# of External Scholarship Recipients	202	169
Average Amount	\$ 1,832	\$ 1,896
CARES Act Higher Education Emergency Grants	\$ 835,590	\$ 1,746,320
# of CARES Recipients	479	1881
Average Amount	\$ 1,744	\$ 928

Unduplicated Headcount for the year is the actual number of individual students enrolled for the year. Students may be enrolled in one or more classes, but they are counted only once. *Percentages are based on the total number of <u>unduplicated students for the year</u>.

2019-2020 4.546 2020-2021 4.152

While NMC has awarding control over donor/institutional scholarships, not all funds can be awarded and disbursed in an award year. The majority of scholarships are awarded for the entire year with the award being split 50% to fall and 50% to spring. Funds are also saved to assist with student needs for the summer semester. In 2020-2021, 82% of available funds were disbursed.

Student Loan Debt

The Financial Aid Office provides loan counseling and monitors student debt and default rates:

- 31% of NMC's full-time, first-time undergraduate students borrowed federal loans
- \$9,574-\$23,853 is the median total debt after graduation (dependent on field of study)
- \$91-\$228/mo. is the typical monthly loan payment

(Source: U.S. Dept. of Education College Scorecard)

NMC's 2018 Cohort Default Rate (CDR) of 10.2% compares favorably to other similar colleges. The 2018 CDR measures the percentage of borrowers who entered repayment between Oct. 1, 2017 and Sept. 30, 2018 and subsequently defaulted prior to Sept. 30, 2020.

Northwestern Michigan College Cohort Default Rates Compared to State and National Rates										
	FY2018	FY2017	FY2016	FY2015	FY2014					
NMC	10.6%	13.2%	16.1%	15.4%	15.3%					
Michigan 2-year public schools	12.1%	16.1%	16.7%	18.2%	19.9%					
National 2-year public	11.5%	15.1%	15.9%	16.7%	18.3%					
Michigan all schools	na	na	11.5%	12.2%	12.9%					
National all schools	7.3%	9.7%	10.1%	10.8%	11.5%					
NMC	NMC									
# in Default	99	131	186	185	213					
# in Repayment	929	990	1151	1195	1,392					

Source: NSLDS.ed.gov





To: Dr. Nick Nissley, President

From: Troy Kierczynski, Vice President of Finance and Administration

Date: October 18, 2021

Subject: Summary Report for the General Fund as of September 30, 2021

The attached reports summarize the financial results for the General Fund as of September 30, 2021. The third month represents 25% of the year.

Month End Results

The month end reports are interim and not a reflection of actual year-end results.

The timing of revenue and expenses fluctuates throughout the year and will affect year end results.

The general fund ended the month with revenue over expenses of \$1,288,324. Revenue increased by 1% when comparing September 2021 to September 2020. The increase is primarily due to timing of property tax receipts. Operating expenses through September 2021 were comparable to the same period last year.

Revenue (letters refer to the attached General Fund summary)

- A. Tuition and fees decreased \$202,000 (-4%) compared to September 2020 largely due to the College eliminating its flexible learning online course fee. For Fall 2021, the budget was set at 33,823 for a total budgeted revenue of \$6,523,277. Actual fall billing hours are 34,805 with actual fall revenue of \$6,729,814. Fall revenue is over budget by \$206,537.
- B. Property Taxes: Tax revenue is recorded as payments are received. The overall increase for the fiscal year is expected to be 3% over the previous fiscal year.
- C. State Sources include budget appropriations, personal property tax payments and MPSERS retirement offset payments. State appropriations payments will begin in October.
- D. Federal Sources consist primarily of direct payments from MARAD restricted for academy operations and fuel.
- E. Actual year-to-date investment income recorded for fiscal year 2021 reflects interest income only. Interest income is comparable to prior year due to a lingering low interest rate environment.
- F. Both Private Sources and Other Sources are timing and event dependent.

Expenses

- G. Salaries and benefits are under budget due to open unfilled positions.
- H. Overall expenses are under budget at this time.
- I. Capital Outlay reflects expenditures budgeted through the allocation of COAT dollars.

Northwestern Michigan College Unaudited



Summary Report for General Fund Accounts

Month end reports are interim and not a reflection of year end results.

Fiscal Year 2022, Period 03

Funds		Accounts		2021-2022 Adjusted Budget	YTD Activity	% of Annual Budget	
TOTAL GENERAL FUND							
	50	Revenues					
			Tuition and Fees	19,916,110	5,515,881	27.70%	Α
			Property Taxes	12,030,623	3,982,361	33.10%	В
			Other Local	<u>0</u>	<u>0</u>	*	
			Local Sources	31,946,733	9,498,242	29.73%	
			State Sources	10,730,000	1,376	0.01%	С
			Federal Sources	1,075,000	0	0.00%	D
			Private Sources	868,897	110,185	12.68%	F
			Investment Income	172,000	40,877	23.77%	Ε
			Other Sources	392,600	92,557	23.58%	F
			Total Revenues	45,185,230	9,743,237	21.56%	
	60	Labor					
			Salaries & Wages	22,282,506	4,423,221	19.85%	g
			Benefits	9,332,244	1,945,734	20.85%	g
			Total Labor	31,614,750	6,368,955	20.15%	
	70	Expenses					
			Purchased Services	2,311,193	519,479	22.48%	Н
			Supplies & Materials	3,318,742	443,129	13.35%	Н
			Internal Services	99,220	-11,709	-11.80%	Н
			Other Expenses	1,670,689	281,761	16.86%	Н
			Institutional Expenses	1,737,924	247,486	14.24%	Н
			Maintenance & Renovation	1,828,864	369,196	20.19%	Н
			Prof Develop, Travel & Events	362,070	65,163	18.00%	Н
			Capital Outlay	<u>177,852</u>	<u>6,760</u>	3.80%	I
			Total Expenses	11,506,554	1,921,266	16.70%	
			Total Expenditures	43,121,304	8,290,220	19.23%	
	80	Transfers					
			Transfers	2,063,926	164,693	7.98%	
			Total Transfers	2,063,926	<u>164,693</u>	7.98%	
			otal Expenditures and Transfers	45,185,230	8,454,913	18.71%	
2 0 O 5 1 0 0001 1		Net Rever	nues over (under) Expenditures	0	1,288,324		
3_Summ Gen Fund_Sep_2021.xls			10/14/2021 11:28 444			Π-	aa 1

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Northwestern Michigan College Comparison - Fiscal Year to Date General Fund Sep 2021 vs. Sep 2020

INTERIM This statement does not

reflect year-end results.

	YTD 9/30/2021	YTD <u>9/30/2020</u>	\$ Diff	% Diff	Comments
Revenue Local Sources:	<u>5/55/2521</u>	<u>0/00/2020</u>	<u> </u>	<u> 70 Diii</u>	
Tuition & Fees	\$ 5,515,881	\$ 5,717,951	\$ (202,070)	-4%	Primarily due to lower academic course fees in FY22 and timing of fall tuition allocations; partially offset by higher summer tuition in FY22
Property Taxes	3,982,361	3,667,421	314,940	9%	Timing of property tax payments received from townships and overall increases in taxable values
Total Local Sources	9,498,242	9,385,372	112,870	1%	
State Sources	1,376	1,882	(506)	-27%	Changes in values for Ren Zone payment
State PPT Reimbursement	-	- 0.077	- (0.077)	0%	Consistent with prior year
Federal Sources	-	9,677	(9,677)	-100%	Timing of MARAD payments
Private Sources	110,185	122,014	(11,829)	-10%	Timing of Foundation gifts
Investment Income	40,877	41,794	(917)	-2%	Consistent with prior year
Other Sources	92,557	66,998	25,559	38%	Primarily due to higher write off reversals for students in FY22
Total Revenue	9,743,237	9,627,737	115,500	1%	
<u>Expenses</u>					
Salaries and Wages	4,423,221	4,656,779	(233,558)	-5%	Due to open, unfilled positions
Benefits	1,945,734	1,949,404	(3,670)	0%	Consistent with prior year
Purchased Services	519,479	371,748	147,731	40%	Primarily due to food services for GLMA cruises (higher cruise activity in summer 2021 than summer 2020) and timing of Sodexo invoices
Supplies & Materials	443,129	464,056	(20,927)	-5%	Primarily driven by lower general supplies and printing expenses; partially offset by timing of software license purchases
Internal Services	(11,709)	(4,657)	(7,052)	151%	Timing of internal events/charges including fall fitness fee transfers and internal bookstore charges in FY22
Other Expenses	281,761	298,572	(16,811)	-6%	Primarily related to higher recruiting/promotional expenses and non-professional development travel expenses in FY22; partially offset by timing of equipment rental expenses from the GLMA tugboat lease
Institutional Expenses	247,486	222,314	25,172	11%	Primarily due to the timing of invoices/payments and slight increases in insurance expenses
Maintenance & Renovation	369,196	341,246	27,950	8%	Primarily due to higher facility maintenance expenses in FY22
Professional Development	65,163	52,106	13,057	25%	Increase in professional development expenses as professional development has been added back into the budget in FY22
Capital Outlay	6,760	5,816	944	16%	Timing of COAT purchases
Total Expenses	8,290,220	8,357,384	(67,164)	-1%	
Transfers	164,693	115,190	49,503	43%	Aviation flight hours transfer
Total Expenses & Transfers	8,454,913	8,472,574	(17,661)	0%	_
Net Revenue Over (Under) Expenses	\$ 1,288,324	\$ 1,155,163	\$ 133,161	12%	_



Northwestern Michigan College Comparison - Month Over Month General Fund Sep 2021 vs. Aug 2021

INTERIM

This statement does not reflect year-end results.

	YTD 9/30/2021	YTD 8/31/2021	Sep 21 Activity	Aug 21 Activity	Comments
Revenue	<u> </u>	0/0 1/2021	<u>r tourtey</u>	<u> </u>	- Commonto
Local Sources:					
Tuition & Fees	\$ 5,515,881	\$ 3,207,711	\$ 2,308,170	\$ 926,539	September had 4.5 weeks of fall tuition allocated; August had 1 week of summer & 0.5 weeks of fall tuition
Property Taxes	3,982,361	1,325,995	2,656,366	1,067,806	Timing of tax collections received
Total Local Sources	9,498,242	4,533,706	4,964,536	1,994,345	
State Sources	1,376	-	1,376	-	Annual Ren Zone payment received in September
State PPT Reimbursement	- ·	-		-	Consistent with prior month
Federal Sources		-	-	-	Consistent with prior month
Private Sources	110,185	-	110,185	-	Quarterly Foundation invoicing recognized in September
Investment Income	40,877	42,521	(1,644)	28,560	Primarily due to corrections made to accrued interest recognition made in September
Other Sources	92,557	58,037	34,520	33,334	Consistent with prior month
Total Revenue	9,743,237	4,634,264	5,108,973	2,056,239	
<u>Expenses</u>					
Salaries and Wages	4,423,221	2,653,880	1,769,341	, ,	Increased hours for adjuncts, supplementals, and students in Sept as Fall semester commenced
Benefits	1,945,734	1,189,782	755,952	,	Increased hours for adjuncts, supplementals, and students in Sept as Fall semester commenced
Purchased Services	519,479	359,292	160,187	,	Primarily due to timing of food services for the GLMA cruises
Supplies & Materials	443,129	277,181	165,948	167,401	Consistent with prior month
Internal Services	(11,709)	219	(11,928)	659	Primarily due to internal transfer occurring in September to general fund from halls auxiliary fund for fitness fee revenue
Other Expenses	281,761	165,274	116,487	107,197	Consistent with prior month
Institutional Expenses	247,486	132,750	114,736	106,736	Consistent with prior month
Maintenance & Renovation	369,196	205,476	163,720	142,582	Primarily due to timing of software and equipment maintenance expenses in September
Professional Development	65,163	40,984	24,179	31,193	Primarily driven by timing of professional development expenses
Capital Outlay	6,760	-	6,760	-	\$6,760 Fireboy Suppression System for GLMA
Total Expenses	8,290,220	5,024,838	3,265,382	3,111,389	
Transfers	164,693	-	164,693	-	Aviation flight hours transfer
Total Expenses & Transfers	8,454,913	5,024,838	3,430,075	3,111,389	-
Net Revenue Over (Under) Expenses	\$ 1,288,324	\$ (390,574)	\$ 1,678,898	\$ (1,055,150)	- - -

Northwestern Michigan College Statement of Net Postion General Fund September 30, 2021



	As of September 30,				
Assets		2022		2021	
Current assets					
Cash and cash equivalents	\$	3,839,462	\$	5,404,576	Α
Accounts receivable, net		5,895,731		5,902,715	
Prepaid expenses and other current assets		1,026,587		520,607	В
Total current assets		10,761,780		11,827,898	
Noncurrent assets					
Long-term investments		22,985,122		21,040,873	A
Due to other funds		(14,274,010)		(15,325,945)	
Total noncurrent assets		8,711,112		5,714,928	
Total assets	\$	19,472,892	\$	17,542,826	
Liabilities					
Current liabilities					
Accounts payable	\$	90,761	\$	257,173	
Accrued payroll		2,024,123		1,828,322	
Unearned revenue		4,977,903		4,569,978	
Total current liabilities		7,092,787		6,655,473	
Noncurrent liabilities					
Voluntary separation plan	\$	114,400	\$	197,748	
Total noncurrent liabilities		114,400		197,748	
Total liabilities	\$	7,207,187	\$	6,853,221	
Net position					
Net position, beginning of year	\$	10,978,421	\$	9,534,442	
Change in net position		1,287,284		1,155,163	
Total net position		12,265,705		10,689,605	
Total liabilities and net position	\$	19,472,892	\$	17,542,826	

Notes:

- A Cash and investments balances fluctuate due to timing of investment purchases, sales, and payroll. Larger balance in long-term investments offsets the lower balance in cash and cash equivalents.
- **B** Timing of prepaid expenses



MEMO
Public Relations, Marketing,
and Communications

To: Nick Nissley, President

From: Diana Fairbanks, Associate Vice President of PR, Marketing and Communications

Date: 10-18-21

Subject: September 2021 Monthly Report

September is a busy month for PRMC as the new academic year is in full swing. This also leads to an increase across all media categories. Highlights include strong earned and owned media with many positive news stories including distribution of COVID relief to students, alumni in the news, and efforts to help our veterans. PRMC has also been working with Human Resources on the new positions in the re-imagined PRMC effort supported by the Board earlier this year. The job openings were posted with applications accepted until mid-October followed by material review and interviews. The following is an overview of the work of PRMC for September 2021.

Paid Media

- Google search, display, remarketing
- Paid Facebook
- Paid Instagram
- Spotify
- Programmatic digital
- Ticker
- TCBN
- Northern Express

September highlights for our digital marketing efforts include campaigns for gaming audiences and adult learners. Conversions to the "apply" page were also up. September was a more competitive month so cost per click was higher and we saw a dip in performance in some areas. We continue to refine our digital campaigns to better respond to the algorithms and increases conversions. Our identified conversion goals include visiting the Ellucian page to apply or log-in, the admissions page and mail/telephone link.

Outcomes:

Conversions

Campaigns	September '21	МОМ
NMC General-	183	+72

remarketing (adult learner MI)		
NMC General (traditional learners MI)	141.4	+141
NMC General- display (adult learners MI)	97.1	+97
NMC General- display (traditional learners local)	145.23	-85↓
NMC General display (adult learners local)	136.17	-45 👃

- Paid social
 - One FB/IG campaign (8/1-8/31)
 - 423 clicks to landing page
- Ticker
 - 5 headliner ads
 - clicks to landing page
- Programmatic
 - o Gamer campaign
 - clicks to landing page
- Web traffic (8/1-8/31)
 - o Affordable degrees landing page for paid campaigns
 - 11,010 visits/pageviews
 - 4% of all site traffic
 - It's driven:
 - 334 visits to apply page
 - 239 NMC homepage
 - Adult learners landing page
 - 9,602 visits/pageviews
 - 3% of all site traffic
 - It's driven:
 - 412 visits to the apply page
 - 63 NMC homepage
 - 53 visits to the admissions page

Earned Media

Monthly recap of media coverage and sentiment

NMC was featured in 79 media mentions with an estimated publicity value of \$60,500 based on the Cision media monitoring system. Media stories that had high attention include:

- Indigenous boarding school experience, art showcased at Dennos Museum Center
 Record-Eagle, September 10 (picked up by U.S. News and World Report)
- 23 of the Best Winter Getaways to Start Planning Now Oprah Daily, September 17
- NMC students to receive fourth round of federal COVID funds TV 9 & 10 News, September 15
- Great Lakes Maritime Academy To Accept Military Service For Credits The Ticker, September 29

Media sentiment ranking for September (based on a Cision algorithm that ranks pre-assigned tone of keywords) shows 97.5% positive or neutral coverage. This is basically flat MOM (August, 97.9%) and YOY (2020, 97.4%).

Owned Media

Monthly published owned media

PRMC published three NMC Now e-newsletters to 866 supporters and community members. The average open rate was 46.2%. The <u>feature article</u> highlighting NMC alum Edris Fana and his family in Afghanistan was the most read story. Other popular links include:

- NMC distributes \$5.2 million to students over 18 months 9-29-21
- NMC set to kick off first esports season TV 9&10, Sept. 20
- Free College? Read Between The Lines Northern Express, Sep 4, 2021
- 2021-2022 State Budget Helps People Get Higher Education or Skills Training 9&10
 News, September 29

Work continues strategic planning communications and COVID-19 communications. Planning is underway for the January Nexus magazine which will highlight the college's strategic planning and DEI efforts.

Shared Media

Monthly progress report on NMC's Main social media channels

September is traditionally a strong month for shared media performance as activity picks up on campus early in the fall semester. We saw a lot of organic growth that was further boosted by an increase in paid content. Highest performing organic posts this month include the first class of learners 70 years ago, Lobdell's opening, GLMA alumni and nursing students.

Platform	Followers	Impressions	Engagement	Gender	Age	Region
Facebook	11,881 Up 1% YOY	160% Up*	62% Up YOY 1	Fans 68% F 31% M	#1 25-34 (26.8%) #2 35-44	GT Region & Grand Rapids

	Up 0.1% MOM	118% Up* MOM 1	25% Down MOM ↓	Reach 49%F 50%M	(20%) #3 45-54 (19.9%)	
Instagram	2,746 up 10% YOY) 1.7% Up	50% Up YOY 1 25% Up MOM 1	35% Down YOY ↓ 34% Up MOM	58% F 36% M 6% NB	#1 18-24 (28.6%) #2 25-34 (29.7%) #3 35-44 (18.2%)	GT Region & Grand Rapids

^{*} This was boosted by an increase in paid social media content.

Northwestern Michigan College Board of Trustees

Audit Committee Minutes

October 4, 2021 Osterlin Building 203 1701 E. Front Street, Traverse City, MI 49686

Committee Chair Kennard Weaver called the meeting to order at 10:01 a.m.

Members Present: Kennard Weaver, Ken Warner, Laura Oblinger

Others Present: Nick Nissley, Troy Kierczynski, Lindsey Lipke, Lynne Moritz, Jeff Pohler

Katie Thornton

Review and Draft Audited Financial Statements

Katie Thornton and Jeff Pohler of Plante & Moran, PLLC, presented an overview of the draft required communications and financial report for the year ended June 30, 2021, to the group.

Thornton noted overall a great audit was conducted through a hybrid of in-person and virtual communication and stated no deficiencies need to be reported. The impact of the COVID-19 pandemic on the operations of the college is included again for this year as a sensitive disclosure affecting the financial statements. Thornton also thanked Troy Kierczynski, Lindsey Lipke, and college staff for their cooperation and courtesy. Jeff Pohler then reviewed the fincancial report, stating a clean unmodified opinion was received.

The committee recommended bringing the audit to the full Board for review and auditors shared they will present the audited financial statements to the full Board at their meeting on October 25, 2021.

Public Comment—There was no public comment offered.

The meeting was adjourned at 10:58 a.m.

Recorded by Lynne Moritz, Executive Director of the President's Office and Board Operations

Northwestern Michigan College Board of Trustees

Building and Site Committee Minutes

October 18, 2021 Gray Conference Room 202 University Center 2200 Dendrinos, Traverse City, MI 49686

Committee Chair Rachel Johnson called the meeting to order at 3:35 p.m.

Members Present: Rachel Johnson, Doug Bishop

Members Absent: Laura Oblinger

Others Present: Nick Nissley, Vicki Cook, Troy Kierczynski, Lynne Moritz

Signage for the Timothy J. Nelson Innovation Center

The committee reviewed options for placement of signage for the renaming of the previously referred to West Hall Innovation Center. At the regular Board of Trustees meeting on July 26, 2021, the Board approved renaming the building the Timothy J. Nelson Innovation Center, in honor of the former president of NMC who was instrumental in obtaining state funding for the project. The committee unanimously agreed on placing the building name on the southwestern facade, as seen in attached rendering.

There was discussion regarding lighting for the signage, to which the committee expressed desire for the lighting to be placed not on the building, but either backlighting the lettering or originating from the ground. The plaque inside the building will also be updated.

The next step for the project is to move forward to the bidding process.

There was also discussion to refer to the new, full name of the building in documents such as meeting appointments, minutes, and agendas, although the complete update of campus wayfinding signs is still in progress.

Public Comment—There was no public comment offered.

The meeting was adjourned at 3:45 p.m.

Recorded by Lynne Moritz, Executive Director of the President's Office and Board Operations





MEMOAdministrative

To: Dr. Nick Nissley, President

From: Stephen Siciliano, Vice President for Educational Services

Vicki Cook, Special Assistant to the President

Date: October 14, 2021

Subject: Monthly Strategic Planning Update

Attachments: Timeline, Process Map

The Strategic Planning process is progressing as agreed upon by the Board of Trustees and the Strategic Planning Steering Committee (SPSC). CampusWorks was able to facilitate meetings with the SPSC to finalize the draft Mission, Vision, Values and Strategic Directions. Once reviewed by the Board of Trustees, a survey to all constituent groups that participated in the SWOT analysis and previous focus groups will be conducted.

The SPSC reviewed the feedback from the September Board of Trustees meeting. They have revised both the Mission and Vision statements based on that feedback. The revised statements are on page 2 of this memo. The Committee also completed the values statements.

The Strategic Directions and the descriptions were completed by the SPSC at the October 8, 2021 meeting. These Strategic Directions establish the ends for the college and thus will require Board approval as all ends policies do. Objectives set the course, or means, to reach the established directions. The SPSC and Work Team will write three to five objectives for each of the Strategic Direction statements. These are what will differentiate us from our peers. Objectives are a means to the end statements, or strategies, and will be the responsibility of the administration to lead and implement with our faculty and staff.

Public Relations continues to provide monthly updates to employees and students. Community members and NMC stakeholders can access the Strategic Planning website to stay informed. The website is nmc.edu/strategic-planning

Upcoming October and November activities include:

- October 22 Objective workshop #1
- October 25 BOT to review draft strategy statements to be included in survey
- October 26-31 Survey and Focus groups
- November 5 Objective workshop #2
- November 8 BOT policy committee to review Mission, Vision and Values
- November 9 Implementation workshop
- November 11 SPSC to approve objectives
- November 19 Action planning meeting

Mission: We deliver lifelong learning opportunities to transform lives and enrich our communities.

Vision: We aspire to be a global community where all learners unlock their full potential.

Values:

- **Integrity:** We act with the highest degree of ethics, personal responsibility, fairness, and openness ensuring that we match our actions with our words.
- Collaboration: We co-create solutions and celebrate the joy of working together, empowering each other and nurturing community partnerships for the benefit of our learners.
- Respect: We demonstrate mutual regard and appreciation for one another to assure a culture of trust.
- Inclusion: We foster belonging and build organizational capacity that celebrates diversity and promotes equity.
- Innovation: We are agile, imaginative, and forward-thinking, taking risks to meet future needs of the college and our communities.
- **Learning:** We are life-long learners; learning is foundational to a thriving community and is at the center of all we do.
- Stewardship: We practice stewardship by investing responsibly in the human, physical, financial, and environmental resources entrusted to our care.
- **Excellence:** We commit to the highest standards of quality and service, and to exceeding the expectations of our learners and communities through continuous improvement.

Strategic Directions and Strategy Statements: (The destination or ends for the institution)

- Future-Focused Education: Enhance offerings through flexible academic pathways, innovative instructional delivery models, and relevant, hands-on educational experiences to empower global learners for the future.
- Student Engagement and Success: Develop and deliver comprehensive support services, robust engagement opportunities, and a vibrant collegiate experience to foster learner success, goal completion, and employability.
- Diversity, Equity, and Inclusion: Cultivate an inclusive environment that fosters a
 sense of belonging and delivers equitable opportunities so all are able to thrive and
 succeed.
- Community Partnerships and Engagement: Expand collaborations that advance community engagement, economic and workforce development, and innovative opportunities for lifelong learning.

 Institutional Distinction and Sustainability: Leverage distinctive programs that strengthen institutional sustainability and expand global connections for our learners and communities.

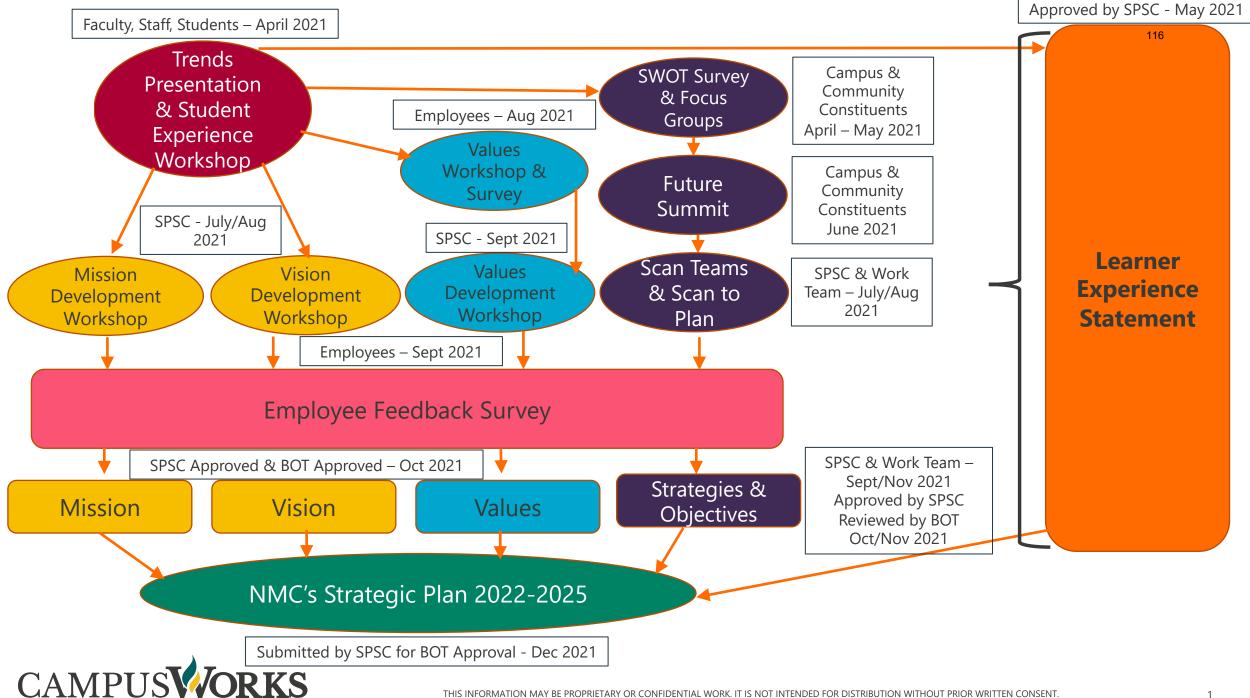
Northwestern Michigan College Strategic Planning Process

Month	Activity	Purpose	Participants	
April	Trend in Higher Education workshop			
		community	Strategic Planning committee (SPSC);employees	
	Student Experience workshop	Guiding principles when	Students; employees; SPSC and	
		drafting implementation	Work Team	
	SWOT survey	plans Inform planning process	BOT; SPSC, Work team;	
	Sire r surrey	mjerm prammig process	employees	
	Internal focus groups	Inform plan	Specific groups	
May	External Focus groups	Inform plan	Specific groups	
	SWOT analysis	Inform plan	SPSC/Work team	
	Data review workshop (internal data)	Inform plan	SPSC/Work team	
	Future summit topics	Inform plan	SPSC/Work team	
	Mission workshop	Input into statement	BOT	
June	Mission/Vision/Values	Inform SPC	BOT	
Julie	Future Summit;	Inform plan themes for	BOT; SPSC; employees;Work	
	rature summit,	objectives	team	
July 7	Meet to review timeline and roles and	Update on process and	SCPSC	
3:00-4:00	responsibilities	future meetings		
July 14	Future Summit impact statements and	Inform plan and scenario	SPSC, work team	
2:00-4:00	scan team assignments	building		
	Scan team research	Inform objectives	SPSC, work team, other experts	
August 10	Mission/Vision Workshop	Recommend Mission	SPSC committee	
August 10 2:00-5:00	Wission Vision Workshop	statements to BOT	SPSC committee	
August 17	Scan teams to present findings	Inform plan	SPSC/Work Team	
3:00-5:00		, ,		
August 23	Opening Conference values workshop	Input into values	All Employees	
_		statements		
August 24	Scan to plan workshop #1 Strategy	Start to draft Strategies	SPSC/Work team	
9:00-12:00	workshop	for plan	A.U	
August 30	Value survey	rvey Inform SPSC on value All emplo statements		
		Statements		
Sept. 8	Vision & Values workshop	Finalize Vision & values	SPSC	
2:00-5:00		statement to send to BOT		
• • • •		for employee survey	coco I I I	
Sept. 15	Advancing strategies workshop #2	Finalize strategies	SPSC and work team	
2:00-5:00	Values workshop	Statements to define	SDSC	
Sept 17	values workshop	values	SPSC	
Sept 22	Approve statement to be sent to BOT	Mission, vision, values to	SPSC	
9:00-11:00	for inclusion in survey to constituents	finalize		
Sept 27	BOT presentation:	Provide input on	BOT	
	Mission/Vision/Values statement survey	statements		

Northwestern Michigan College Strategic Planning Process

Month	Activity	Purpose	Participants
October 8 1:00-3:00	Finalize Excellence value statement Revise Mission & Vision statement Finalize Strategic Directions statements	Finalize for survey	SPSC
October 22 11:00-2:00	Objective workshop #1	Draft objectives for each of the strategies	SPSC, work team, other college management
October 27 9:30-11:30	Implementation workshop	Design implementation process	SPSC
October 25	BOT Mission/Vision/Values & Strategy statements	Input before survey & focus groups	ВОТ
Week of Oct 25	Survey and focus groups	Feedback on mission, vision, values and strategies	BOT, Employees, Students & Community
		1. 1	
Nov 2 or 4 TBD	Finalize Mission, Vision, Values and strategies	Finalize based on feedback of survey & focus groups	SPSC
Nov. 5 11:00-2:00	Objective workshop #2	Draft objectives for each of the strategies	SPSC, work team, other college management
Nov. 8 11:00	Submit to BOT policy council finalized statements – to submit for first reading	Review for BOT first reading	BOT Policy committee
Nov 9 3-5	Implementation workshop	Draft implementation of strategic plan	SPSC
Nov 11 10-12:00	Approve objectives	Approve objectives and assign leads	SPSC
Nov 19 12:00-3:00	Action Planning workshop #1	nop #1 Draft implementation Strategy Own plan and assign leads leads; manage	
Nov 22	Submit objectives to BOT	Inform BOT	ВОТ
Dec 3 12:00-3:00	Action planning workshop #2	Draft implementation plan and assign leads	Strategy Owners; leads; management team
Dec 8 1:00-4:00	Finalize strategic plan	Recommend final plan for BOT approval	SPSC
Dec 20	Strategic Plan submitted to BOT	BOT to set time for approval after review	ВОТ

Note: The timeline is not inclusive of all activities but is intended to provide major milestones in the process.





MEMO: Resource Development

To: The Board of Trustees

President Nick Nissley, Ed.D.

From: Rebecca Teahen, CFRE

Assoc. Vice President, Resource Development

Executive Director, NMC Foundation

Date: October 18, 2021

Subj: Foundation Update

Fund Raising - a "check" on FY22 goals

 The foundation continues its active fundraising efforts to support NMC students, programs, and the Fund for NMC. We continue to ask you and our community to make gifts of all sizes to help students because every gift makes a difference for a student in need and to advance critical NMC programs.

To date, donors have given:

\$513,315 Total received (including Annual Fund, pledges, and *documented*

planned gift intentions) raised toward goal

+ \$71,792 Gross event revenue

\$585,107 Total of gifts + events (Goal: \$3,550,000)

Note: We have also received \$400,000 from a previously

documented planned gift.

Foundation Initiatives

- Fall direct mail and email campaigns are underway.
- Staff are hosting donors and potential donors for regular lunches at Lobdell's A Teaching Restaurant. This is a great way to connect donors directly with students and the impacts of philanthropy at NMC.
- Giving Tuesday is Tuesday Nov 30, 2021. The Foundation will have an active communications and fundraising campaign around this date.
- The Foundation is eager to learn more about the NMC strategic plan, and begin a complementary strategic planning process to determine how to best support the college and our students in the future.

148 E. Front Street, Suite 203 Traverse City, MI 49685 Phone: (517) 449-6453 www.northernstrategies360.com

MEMO

To: Northwestern Michigan College Board of Trustees

Cc: Dr. Nick Nissley, Ed.D.

From: Gabe Schneider, Founder/Principal, Northern Strategies 360

Date: Monday, October 18, 2021

Re: State/Federal Legislative Update

State

Supplemental Funding Requests

As you may know, the state has on hand approximately \$10 billion in a combination of additional general funds and one time federal COVID funding. As a result, the Legislature will be considering supplemental appropriations bills that would allocate some or all of this funding. We understand that the legislature is in the process of compiling information about potential projects/proposal to be considered for funding. However, we also understand that the legislature may be waiting until Congress decides on the future of federal infrastructure bill, which might determine what projects the state decides to fund vs. those funded in an infrastructure bill.

Ask

We ask that as the Legislature looks to allocate additional supplemental funding, they consider three transformational projects on our campuses that, if funded, would create lasting impacts on our learners and our community.

- Integrated Student Services Hub (\$2.8 million requested)
- Central Campus Geothermal Project (\$12 million requested)
- Aviation Program Hanger Improvements (\$1.5 million requested)

We are also supporting the Michigan Community College Association's request for \$250 million to establish the one-time Community College Equipment Fund. The fund would provide funding or community colleges to aquire the latest technology or equipment needed for workforce training and development

Actions

- In early October, Gabe met with legislators in Lansing to press the importance of these projects
- Also in early October, we sent a letter to Rep. Roth and Sen. Schmidt outlining these project requests

Capital Outlay

In addition to the request to fund our capital outlay request via one-time supplemental funds, we are also encouraging the legislature to fund all community college capital outlay projects as a way to invest state funds in community college infrastructure. We are also in the process of preparing our FY23 Capital Outlay request for funding for the Integrated Student Services Hub.

Ask

Support funding all community college capital outlay projects this year

Actions

• Gabe has communicated the need to support funding for capital outlay projects to Joint Capital Outlay Committee Chairs Sen. Horn and Rep. Maddock

Community College BSN Legislation

Rep. Roth and Rep. Damoose (Emmet County) are gathering co-sponsors for legislation that they are sponsoring that would allow community colleges to confer Bachelor of Science in nursing degrees. We understand that the goal is to gather 60 co-sponsors before introducing the bill. We also understand that the goal is to introduce the bill before the next recess period in mid-November. Both offices are working closely with the MCCA and Michigan Legislative Consultants on this strategy.

Even though "poison pill" legislation (<u>HB 5362</u>) has once again been introduced (by Rep. VanSingel and Rep. Steckloff) we believe that the community college BSN legislation has some traction. This includes support from the Senate Majority Leader and Speaker of the House. We also understand that the Michigan Hospital Association has made this legislation a priority knowing that it would help to address the critical staffing issues facing hospitals around the state.

Actions

• We will be working closely with Rep. Roth and Rep. Damoose on a strategy to support this legislation including offering to provide testimony in support of the bill once it is introduced and assigned to committee.

Federal

USDA Rural Development

Longtime regional manager for U.S. Senator Debbie Stabenow, Brandon Fewins, was recently appointed by President Biden to serve as the State Director for USDA Rural Development. Replacing Brandon in Senator Stabenow's Traverse City Office is Melissa Fruge, who had served alongside Brandon for the last few years.

From the USDA Press Release:

Brandon Fewins has served as Northern Michigan Regional Manager for U.S. Senator Debbie Stabenow for over 20 years. He has extensive experience working with elected officials, community leaders, USDA and agencies at all levels of government on local economic development and rural development initiatives. He has been an advisor to the Senator and staff of the U.S Senate Committee on Agriculture, Nutrition and Forestry on issues related to Michigan agriculture, forestry, rural development, the Great Lakes, and conservation. Brandon is a lifelong resident of the Grand Traverse region, grew up on a centennial farm and owns a small business.



MEMOOffice of the President

To: Chris Bott, Chair, Board of Trustees

Nick Nissley, President

From: Lynne Moritz, Executive Director of the President's Office and Board Operations

Date: October 20, 2021

Subject: January 2022 Board Retreat Considerations

Based on best practices discussed at the Association of Community College Trustees' Leadership Congress session on "Why hold a Board Retreat?" I recommend the NMC Board of Trustees consider the criteria listed below as planning begins for a retreat early in 2022.

- Multiple days and an off-campus location increases trustee engagement
 - Consider a Thursday afternoon/Friday daytime or Friday afternoon/Saturday daytime option in early January 2022
 - Select an in-area location minimizing travel
- Determine an external facilitator to prepare agenda and objectives (along with Board Chair and President), and facilitate discussion
- Issue a statement of accomplishment and identify next steps at conclusion of retreat

While the NMC Board of Trustees has held numerous half-day and day-long study sessions in the past few years, there has not been an off-campus Board Retreat in some time, and most certainly, not with the current members. The Board's current budget for professional development conferences could be utilized to cover the expenses of an offsite retreat, especially given that not all trustees were able to participate in the 2021 ACCT Leadership Congress.

For further context, ACCT's list of purposes for a retreat, include the following:

- Self-review and Presidential Review
- Frequency is outlined in Board policy
- Review of Board policies
- Onboarding
- Build relationships
- Strategic Planning
- Accreditation

NORTHWESTERN MICHIGAN COLLEGE BOARD OF TRUSTEES MINUTES

Monday, September 27, 2021 Timothy J. Nelson Innovation Center, Room 106/107

CALL TO ORDER—Chair Chris M. Bott called the regular meeting to order at 5:30 p.m.

ROLL CALL

Trustees present: Rachel A. Johnson, Laura J. Oblinger, Kenneth E. Warner, Douglas S. Bishop

attending remotely from Bonita Springs County, FL; Michael Estes (until

7:01p.m.), Kennard R. Weaver, Chris M. Bott

Trustees absent: None

Also present: President Nick Nissley, Sally Smarsty, Lisa Blackford, Glenn Blackford, Patti

Burgess, Vicki Cook, Marguerite Cotto, Diana Fairbanks, Madison Ford, Craig Hadley, Troy Kierczynski, Mark Liebling, Lindsey Lipke, Janet Lively, Lynne Moritz, Kyle Morrison, Todd Neibauer, Stephen Siciliano, Jason Slade, Rebecca

Teahen

REVIEW OF AGENDA—The agenda was accepted as presented.

SPECIAL REPORTS AND PRESENTATIONS

Program Focus—Sally Smarsty, Coordinator for Student Success, presented on the services provided by the Student Success Center (SSC). The SSC seeks to understand students' lives and needs and connect them to the resources they need. Smarsty explained how the Success Center collects and uses a data informed approach to build a holistic view of every student, providing early alerts to support staff when students demonstrate signs of veering off track or of facing an obstacle they need to continue their education.

Faculty Report—Lisa Blackford, Social Work Instructor, explained how she engages students in psychology courses and the social work program.

Enrollment Report—Todd Neibauer, Vice President for Student Services and Technology, provided the enrollment report for the Fall 2021 semester. Fall semester enrollment is up 20 students and 162 contact hours over last year. The .5% increase is a positive variance over budget projections, which anticipated a 3.8% decline in contact hours for the fall. Neibauer also noted residence halls are at a 73% occupancy rate and spring 2022 enrollment begins on October 20, 2021.

Financial Report—Board Chair Chris Bott congratulated Troy Kierczynski on formally becoming the Vice President of Finance and Administration after serving as interim vice president of this area since March 2021 when Vicki Cook announced she would be reducing her workload ahead of her retirement at the end of December. Kierczynski reviewed the financial report for the period ending August 31, 2021. There was discussion regarding the state budget process.

Presidential Performance and Compensation Committee—Committee Chair Rachel Johnson reviewed the evaluation timeline and process included in the written report in the packet. Johnson noted the committee is asking President Nissley to include a 360 review in his plans for 2022.

EXECUTIVE REPORTS—The following written reports were provided in the packet of materials: Foundation Report, PRMC Report, Executive Committee Report, and Legislative Issues Report.

PUBLIC INPUT—There was no public input offered.

UPDATES

President's Update—President Nick Nissley began his update by reviewing state budget developments as they pertain to community college funding.

In regards to COVID-19, Nissley noted 7 students and 2 employees with positive on-campus exposure this semester. The recent vaccination clinics held on campus have been minimally attended. However, 899 students registered for the lottery open to those providing proof of COVID-19 vaccination. Prizes for vaccination include free housing for the spring semester, \$500 gift certificates to the NMC bookstore, and \$100 Amazon gift cards.

Nissley noted several recent events on his calendar, as well as student events on campus such as the upcoming first meeting of the student chapter of Rotaract. The NMC Diversity, Equity, Inclusion (DEI) Committee held virtual campus presentations over the past few weeks regarding their assessment report. Nissley noted area business leaders have expressed their workplace needs for diverse demographics.

Lastly, Nissley reviewed a memo included in the packet which provides an overview how the college is reimagining facilities use and welcoming students to campus for fall semester.

Board Chair Update—Chair Chris Bott noted his recent visits with NMC Aviation and the GLMA. Bott encouraged trustees to review the facilities overview provided in this month's packet.

DISCUSSION ITEMS

Strategic Planning Report—President Nissley thanked the Board for their courage and support for strategic planning during a pandemic and their broad and deep engagement with internal and external stakeholders throughout the process. Nissley reminded everyone this is a process the college has not undertaken in a decade and thanked Stephen Siciliano and Vicki Cook as co-chairs of the process.

Stephen Siciliano, VP for Educational Services, noted recent adjustments to the process timeline, which include final approval of the plan in early 2022 rather than December 2021. Siciliano emphasized the committee's desire to gather feedback from the Board of Trustees on the draft mission, vision, and values statements, as they have been developed by the Strategic Planning Steering Committee through numerous input sessions and methods with all stakeholder groups.

Each member of the full Board of Trustees then provided their input on the draft mission, vision, and values statements. There was consensus to find a more actionable alternative to the word "promise" in the mission statement and to develop the vision statement into a full sentence.

Vicki Cook, Special Assistant to the President, noted the feedback from the Board will be taken to the Steering Committee. Cook noted that while strategic directions are broad and similar to other institutions' strategic plans, objectives and tactics will be what sets NMC apart. Strategy statements will be included in the October report to the Board, as the Steering Committee will be working on

the statements at a workshop on October 8. Cook also noted additional faculty and staff have been added to the SPSC to ensure representation from both employee groups.

FY23 Capital Outlay Overview

VP for Finance and Administration Troy Kierczynski provided a high level overview of the capital outlay process and the documentation included in the packet. The FY2023 Five Year Capital Outlay Plan will be submitted to the NMC Board of Trustees at their meeting on October 25, 2021. In Fall 2020, the State's Department of Technology, Management Budget (DTMB) notified Northwestern Michigan College that they were not accepting major project requests for Fiscal Year 2022. However, in June 2021, at the request of a State legislator, we submitted an informal funding request to the State's Joint Capital Outlay Committee to renovate the Osterlin building into an "Integrated Student Services Hub". We intend to resubmit the Integrated Student Services Hub as our Fiscal Year 2023 project along with the Five Year Capital Plan.

Trustee Bishop attended the meeting remotely. According to the bylaws of the Board of Trustees and state statute, Bishop's virtual attendance counts toward constitution of a quorum, but does not allow for his participation in voting. All votes referenced below reflect the votes of those present at the inperson meeting.

CONSENT ITEMS—On a motion by Rachel Johnson, seconded by Kennard Weaver, the minutes of the August 23, 2021, regular meeting were approved by unanimous vote of those present without discussion.

ACTION ITEMS

Local Strategic Value Resolution--Laura Oblinger made a motion, seconded by Kennard Weaver, to adopt the presented Local Strategic Value Resolution certifying that Northwestern Michigan College meets the best practice standards required by the appropriations law for fiscal year 2022. The motion passed with a unanimous vote of those present.

Storage System Replacement--On a motion by Laura Oblinger, seconded by Kennard Weaver, the Board authorized administration to enter into contract with iXsystems for the replacement of the Storage Area Network System at a cost of \$489,598.50. Todd N addressed a question regarding how often storage system replacements are required. The motion passed with a unanimous vote of those present.

Security Log Management Software--On a motion by Rachel Johnson, seconded by Laura Oblinger, the Board authorized for administration to enter into contract with August Schell Enterprises for the capacity increase and license extension of the Security Log Management System at a cost of \$40,458.64. The motion passed with a unanimous vote of those present.

Voicemail System Replacement--On a motion by Laura Oblinger, seconded by Ken Warner, the Board authorized administration to enter into a contract with BSB Communications for the replacement of the voicemail system on our Mitel phone system at a cost of \$56,148.80. The motion passed with a unanimous vote of those present.

Drone Purchase--On a motion by Kennard Weaver, seconded by Laura Oblinger, the Board authorized administration to purchase a DJI Matrice 300 RTK Combo (drone) from Unmanned Vehicle Technologies (UVT) for the purchase price of \$55,141. In response to a question, Jason Slade, Dir of Technical Division, described the size and capabilities of the drone, noting the technical aspects of the drone are the greatest expense and fulfill the commercial needs (advanced payloads). The motion passed with a unanimous vote of those present.

REVIEW OF FOLLOW-UP REQUESTS—Confirmed requests made by the Board that require administrative follow-up for information to be provided to the Board at a later date.

ADJOURNMENT—The meeting adjourned at 7:51 p.m.

Recorded by Lynne Moritz, Executive Director of the President's Office and Board Operations.

SIGNED		_
	Chris M. Bott, Chair	
ATTESTED		
	Kenneth E. Warner, Secretary	

FY 2023 FIVE YEAR CAPITAL OUTLAY PLAN

NORTHWESTERN MICHIGAN COLLEGE

1701 East Front Street Traverse City, Michigan 49686

Submit to the NMC Board of Trustees on October 25, 2021

Questions should be directed to:
Troy Kierczynski
Vice President of Finance and Administration
231-995-1147

Northwestern Michigan College Budget Letter – Capital Outlay

Overview / Project

Section I – Mission Statement

Section II – Instructional Programming

Appendix A Programs of Study (NMC Catalog)Appendix B Initiatives Impacting Facilities UsageAppendix C Socioeconomic Benefits

Section III – Staffing and Enrollment

Appendix D Current Enrollment Report Fall 2021

Appendix E Five Year Enrollment Patterns by Program

Appendix F Faculty/Staff Headcount History

Appendix G Class Size & Projected Class Size Needs - Course Efficiency Report

Section IV – Facility Assessment

Appendix H Summary description of each facility (net to gross ratios)

Appendix I Building and/or Classroom Utilization Rates

Appendix J Functionality of Existing Structures (Space Allocation)

Appendix K Replacement Value - Appraisal of Buildings

Appendix L Map of Parking and Roads

Appendix M Energy Audit Report

Appendix N Land Inventory

Section V – Implementation Plan

Appendix O FCAP Schedule

Overview

NORTHWESTERN MICHIGAN COLLEGE FIVE-YEAR CAPITAL OUTLAY PLAN

OVERVIEW

Northwestern Michigan College (NMC) is a comprehensive community college founded in 1951 and located in Traverse City, Michigan.

It provides programming at five principal sites in Traverse City. The major campus facilities are found at the:

- Main campus located at 1701 East Front Street
- Great Lakes Campus located at the base of West Grand Traverse Bay
- Aero Park campus located in the Traverse City airport industrial park
- University Center campus located on South Cass Street in Traverse City
- Rogers Observatory site located in Garfield Township

To meet our mission, we are engaged in the following purposes:

- Associate degree, certificate and transfer education in liberal arts and sciences, and occupational studies
- Career/occupational education and workforce development
- Bachelor degrees in select programs
- Cultural and personal enrichment
- Baccalaureate and graduate program facilitation
- Regional economic development

The delivery of these programs leads to the:

- Bachelors of Science Degree in Maritime Technology
- Associate in Science and Arts degree
- Associate in Applied Science degree
- Associate in General Studies
- Associate Degree in Nursing
- Career Certificates
- Skills Training
- Lifelong Learning opportunities
- Cultural Enrichment
- Economic Development
- Merchant Marine Officer's licenses valid for service on the Great Lakes and oceans

I. – Mission Statement

Northwestern Michigan College was the first comprehensive community college chartered in the State of Michigan. Since its founding in 1951, NMC has provided quality, affordable access to higher education for learners of all ages and backgrounds. NMC is integrally woven into the economic, social and cultural fabric of the region, providing leadership and support for key initiatives that shape our communities and prepare our learners for rich and meaningful lives.

Mission

Northwestern Michigan College provides lifelong learning opportunities to our communities.

Vision

NMC will be the resource of choice for higher education, lifelong learning and cultural experiences. NMC will be an essential contributor to quality of life and a vibrant economy. We will demonstrate collaborative and inventive approaches to education and training for liberal studies, careers, interests and emerging learner markets.

Values

Our individual and collective efforts create the legacy of NMC. In order to achieve our mission, we are individually committed and responsible to live these values:

- Learning is at the center of all we strive to achieve. It is the foundation upon which an enlightened citizenry and a dynamic community are built and is a lifelong process in which we are all engaged.
- We will continuously improve the learning experience and its global relevance to those we serve through innovation, agility and thoughtful risk-taking.

Our actions are governed by the highest degree of ethics, integrity and personal responsibility, exhibited through transparency, openness and trust.

We each will practice **responsible stewardship** for the human, physical, financial and environmental resources entrusted to our care.

Each of us will strive to **exceed expectations** for quality and service in all that we do.

We value all people and will invest in their personal and professional growth and development.

We will **exhibit foresight** by monitoring the changing world around us and taking actions today that prepare us to meet future needs of our communities.

We will **seek others** who share our vision and values, and **collaborate** with them on behalf of our communities.

Purposes

To meet our mission, we are **fully** engaged in **each of** the following purposes with the result that our learners meet their goal(s) of being college ready, transfer ready, career ready and lifelong-learning ready.

- Associate degree, certificate and transfer education in liberal arts and sciences, and occupational studies
- Career/occupational education and workforce development
- Bachelor degrees in select programs
- Cultural and personal enrichment
- Baccalaureate and graduate program facilitation
- Regional economic development

Current Strategic Directions and Capacities

In order to accomplish NMC's stated Mission, Vision, and Purposes, organizational activities focus on achieving the following strategic directions and demonstrating competence in Institutional Effectiveness Criteria.

Strategic Directions

- 1. Ensure that NMC learners are prepared for success in a global society and economy.
- 2. Establish national and international competencies and provide leadership in select educational areas connected to the regional economy and assets.
- 3. Deliver learning through a networked workforce.
- 4. Establish lifelong relationships with learners.
- 5. Transcribe most learning to establish credentials of value.

Institutional Effectiveness Criteria College Policy C-104.00

1. Learning

a. Scholarship: NMC promotes the acquisition of knowledge, skills, and attitudes that all students need to function effectively in a changing world through outstanding academic programs recognized for their regional and national level competencies. NMC is committed to helping students acquire the ability to communicate effectively, to think critically, and to be aware of diversity in our world. The scholarship criterion measures the effectiveness of how well NMC prepares students for success in the workplace related to their chosen field and the extent to which NMC provides credible transfer and articulation programs for those students who choose to continue their education at other colleges and universities. Furthermore, in support of our open access philosophy, NMC encourages the academic success of under-prepared college students in their pursuit of basic educational skills and abilities.

- b. Enrichment: NMC provides lifelong learning opportunities to regional residents by offering quality educational opportunities for all ages. Programs are designed to be flexible, convenient, and responsive to the needs of the community. Moreover, NMC is committed to enriching and broadening the knowledge base and cultural life of the community. It does so by offering a wide range of programs and curricula that emphasize continuing education, skill enhancement, professional development, and cultural and personal enrichment. The enrichment criteria measures how effectively NMC performs in responding to the community's learning needs in those areas.
- c. Workforce: NMC is a significant contributor to regional economic development. The College supports economic development by providing programs responsive to key economic drivers and in support of business and partnership needs. NMC is committed to working collaboratively with community agencies, assessing the economic climate, and providing excellent and reputable training and services. The workforce criterion assesses how well NMC serves in this capacity.

2. Organization

- a. Partnership: NMC develops and maintains collaborative relationships with the communities it serves to create a learning-centered College that meets the needs of its students and stakeholders. To this end, NMC effectively communicates with its communities. It successfully raises resources to support strategic initiatives. NMC develops meaningful relationships with partners in seeking out potential areas for improvement. The partnership criteria assesses the extent to which NMC effectively builds relationships with educational institutions, businesses, service organizations, external agencies, alumni and the general community to fulfill its mission.
- b. Operations: NMC conducts College operations in a manner reflecting the highest standards of business and professional ethics, legal compliance, and accountability to the public trust. College leaders guide the institution in establishing and accomplishing institutional directions and action plans and in seeking opportunities to build and sustain an effective learning environment. NMC promotes a goals and outcomes related culture by collecting and using data to responsibly manage its operations and to continuously improve.
- c. Champion: NMC is committed to supporting (championing) students in a learning-centered environment. NMC seeks to understand student and stakeholder needs and expectations through a variety of methods. NMC provides quality academic and support services with the goal of meeting students' needs in an environment of continuous improvement. The champion criterion evaluates how well NMC understands its students' and stakeholders' needs as well as how well it supports those needs.
- d. Culture: NMC fosters a work environment that reflects the College's values and leads to an effective work culture. NMC is committed to the development of the talents and continuous learning of all its faculty, staff, and administrators. NMC manages its employees through effective personnel processes.

II. Instructional Programming

As part of our capital outlay planning process it is important to recognize both our current academic programs and major academic initiatives that could have an impact on facilities and its infrastructure. The following section addresses current academic programming and future growth.

At NMC, you'll find more than 60 areas of academic study, all of which feature dedicated faculty, small classes and personal attention. NMC offers transfer courses, Bachelor's degrees in select areas, two-year associate degrees and professional certificates, with access to BA and advanced degrees through our University Center. We also offer online learning options.

II-A. Describe existing academic programs and projected programming changes in the next 5 years in so far as academic programs are affected by specific structural considerations (i.e. laboratories, classrooms, current and future distance learning initiatives, etc.)

The executive staff evaluated the proposed projects that were included in the 2012 campus master plan study. The college is in the final stages of completing those priorities. As a starting point, the framing assumptions were part of the discussion. In addition to the framing assumptions, we evaluated the projects based on:

- 1. The 5 strategic directions/or continuous improvement.
- 2. Was there data to demonstrate an immediate or future need?
- 3. Was there a business model that demonstrated financial thriveability?
- 4. Evaluate the project on the basis of the 8 prioritization criteria (listed in the table). The table below evaluates the projects that have met the first three above criteria and at least one of the eight prioritization criteria.

Project	Support Strategic Plan	Meet current capacity need	Create excess capacity/ undefined growth	Safety issue	Meet planned for capacity requirement	Cosmetic	Learner expectation	Time sensitivity
Osterlin	X	X	X	X	X	X	X	X
Aviation Hangar	X	X	X	X		X	X	X
Energy Infrastr.	X	X	X	X		X		X
Founder's Hall	X	X	X		X		X	
Physical Ed	X	X				X	X	
UC Driveway				Х				

Project	Total Cost
Integrated Student Services Hub (Osterlin Building renovation)	\$ 4.5 million
Aviation Hangar (expansion)	\$ 1.5 million
Energy Infrastructure Upgrade (geothermal, multi-building)	\$ 12.0 million
Founders Hall renovation	\$ 4.0 million
Physical Education Building (renovation)	\$ 8.2 million
UC Driveway	\$ 326 thousand

In addition to these facility building projects, we see continued need for investment in technology to support the changing environment of learning. During FY 21, the college invested \$350,000 to expand wireless infrastructure, ensuring students would have access to the internet in all areas of the college and creating more flexibility for students to connect anywhere on our campuses. The College also invested \$500,000 in an upgraded firewall to enhance its cybersecurity infrastructure.

Safety and security upgrades have been completed in the last three years. The college installed remote door access in all of our buildings. This investment allows for NMC security to lock down buildings remotely. Additional cameras have been installed on all campuses for the safety and security of our students, employees and visitors.

Section II, Appendix A, provides a link to NMC's complete catalog for 2019-2020.

Academic programs offered during the 2019-2020 academic year are listed below.

Bachelor of Science Degree in Maritime Technology Emphasis in:	
Marine Technology Maritime, Deck Officer	

•	Maritime, Engine Officer
•	Power Systems

Associate in Science and Arts (ASA) Degree Emphasis in:					
• Accounting	Engineering	Political Science			
• Art	English	Pre-Law			
• Biology	Freshwater Studies	Pre-Medical			
Business Administration	Geography	Psychology			
• Chemistry	History	Social Sciences			
• Communications	Liberal Arts/Science	Surveying			
• Criminal Justice	Mathematics	Visual Communications			
• Early Childhood Education	Performing Arts	World Languages			
• Economics	Philosophy/Religion				
	Physical Sciences				

Associate in Applied Science (AAS) Degree

Programs in:

- Accounting
- Audio Technology
- Automotive Service Technology
- Business Administration
- Computer Information Technology-Developer
- Computer Information Technology-Infrastructure
- Construction Management
- Construction Technology
 - o Electrical
 - o HVAC/R

- Culinary Arts/Sales
- Dental Assistant
- Early Childhood Education
- Engineering Technology
- Freshwater Studies
- Law Enforcement
- Manufacturing Technology
- Paramedic
- Plant Science
 - o Fruit & Vegetable Crop Production
 - o Landscape Management
 - o Viticulture

- Renewable Energy
 - o Electrical
 - o HVAC/R
- Surgical Technology
- Technical Management Administration
- Visual Communications
- Visual Communications-Creative Management in Art Direction
- Welding Technology

Associate Degree in Nursing (ADN)

Associate in General Studies (AGS)

Certificates of Achievement

- Accounting
- Administrative Support Specialist
- Audio Tech I & II
- Automotive
 - Electrical & Drivability Specialist
 - o Hybrid Tech Specialist
 - Master Automotive Technician
 - o Under Car Specialist
 - 0

- Computer Information Technology
 - o Developer I, III
 - o Infrastructure Specialist I, II, III
 - o Office Applications Specialist
 - o Computer Support Specialist
 - o Web Developer I, II, III
- Construction Technology
 - o Carpentry Technology
 - o Electrical Technology
 - o Facilities Maintenance
 - HVAC/R Technology
 - o Programmable Logic Controllers

- Culinary Arts
- Culinary Arts, Baking Concentration
- Dental Assistant
- Early Childhood Education
- Engineering
- Entrepreneurship I, II
- Practical Nursing
- Welding Technology I, II

New and Projected Programming Changes

NMC's programmatic changes are influenced by the following factors:

- Improving the success rate of its learners
- Meeting the needs of its communities

- Contributing to the economic development of the region
- Ensuring the fiscal stability of the College

New Certificates and Programs - Last Six Years

Northwestern Michigan College developed new associate degree programs and a new bachelor of science degree in six program areas during the past five years:

- Audio Technology
- Engineering Technology
- Paramedic
- Surgical Technology
- Water Studies
- Marine Technology

The following certificates were approved in the past five years:

- Computer Information Technology Developer I & II
- Early Childhood Care Infant/Toddler & Preschool
- Programmable Logic Controllers
- Carpentry Technology Level II

Health Education

Also supporting the health care industry, NMC has continued to expand the activities offered under the Health Education Institute (HEI), a collaborative effort between Munson Health Care (MHC) and NMC. HEI coordinates continuing professional development based on the prioritized learning needs as identified by managers and administrative staff. HEI facilitates delivery of training programs, certificates, or degree options based on strategic need. Since 2006, HEI has coordinated the design and delivery of community learning opportunities that make MHC content experts available through NMC's Extended Educational Services (40,000 household outreach capability). In 2011, NMC expanded collaboration with Michigan State University's College of Human Medicine to facilitate a community lecture series in collaboration with the Family Medicine Residency program hosted at Munson Medical Center. The series provides highlights from current medical research projects of topical interest. In 2015, NMC has prioritized the relationship with MHC by fast-tracking new degree programs such as EMT and Surgical Technology, and, through initiation of a joint visioning approach to establish regional assets for simulation training for new and incumbent healthcare workers.

Building on this partnership with Michigan State University (MSU) and Munson Healthcare, NMC established the NMC/MSU Early Assurance Program in August 2015 whereby at least one NMC student will have an enhanced opportunity for admission to medical school for premedical students who are interested in practicing in an underserved area of medicine. This enrichment program will be open to all premedical students at NMC. It will include seminars and workshops, special advising, and other extracurricular activities that will strengthen student candidacy for medical school at MSU.

Great Lakes Maritime Academy

Established in 1969, the Great Lakes Maritime Academy (GLMA) is one of only seven federally regulated maritime academies in the United States. Since inception, GLMA has successfully

prepared cadets for service as Officers in the United States Merchant Marine. Beginning in 2002 GLMA cadets had the option of earning a merchant marine officers license valid for Great Lakes and ocean service. With the advent of the Bachelor's Degree in Marine Transportation, the course work required for earning a license valid for ocean service was built into the model schedule. Therefore, all cadets now earn a license valid for ocean and Great Lakes service. GLMA is the only program where Great Lakes Pilotage and the required coursework for earning an ocean license are built into the curriculum.

In August 2002, the U. S. Maritime Administration (MARAD), at the request of Michigan's Governor, transferred operation of the USNS Persistent (T-AGOS-6) to GLMA where she was rechristened the T/S State of Michigan. Since that time the vessel has been an integral part of the Academy's training program. Beginning in 2016 GLMA began to hold two annual training cruises. This ensures all cadets have an avenue to obtain requisite sea service. In the summer of 2019 the Academy held one 75 day cruise. This longer cruise was created to help ensure retention and completion.

The following are just a few examples of the value the T/S State of Michigan has added to the program:

- GLMA has been able to ensure the curriculum meets both the U.S. law as described in 46 Code of Federal regulations, and also be in full compliance with the complex international treaty Standards for Training, Certification and Watchkeeping for Seafarers (STCW Code).
- By having cadets complete their first sea project on the T/S State of Michigan, they are fully versed in shipboard culture prior to being assigned a berth on a commercial vessel as part of subsequent sea project (cadets must complete three sea projects). This has greatly improved retention.
- The T/S State of Michigan serves as a dockside laboratory for courses of instruction in diesel engines, shipboard auxiliary systems, air conditioning and refrigeration, firefighting and damage control, stability, and navigation, just to name a few. Interdisciplinary uses of the ship being studied include collaboration with the Great Lakes Culinary Institute (GLCI). These collaborations have resulted in several graduates from GLCI earning Merchant Marine Credentials in addition to their Associate's degree, thus greatly expanding employment opportunities.
- Having the use of the training ship ensures that GLMA will be able to accrue requisite sea service required for graduation and licensure.

The Michigan Legislature passed House Bill 4496 enabling Michigan community colleges to offer a select number of baccalaureate degrees, among them a Bachelor of Science degree in Maritime Technology on December 13, 2012. The Governor signed the bill into law on December 27, 2012.

In April 2013, the NMC Board of Trustees authorized the college to offer the Bachelor of Science degree in Maritime Technology program and supported the administration to seek approval of the Higher Learning Commission to authorize the college to offer the degree.

In February 2019, the United States Coast Guard reapproved the Academy's programs. It is now approved through February 2023, and certified as meeting the requirements of the international treaty STCW Code. This includes the most recent amendment to the STCW Code.

In November 2013, the Higher Learning Commission authorized Northwestern Michigan College to award the Bachelor's Degree in Maritime Technology. In January 2014, Northwestern Michigan College became the first community college in Michigan to award a bachelor's degree. The degrees were awarded to GLMA cadets. Since that time, 174 cadets have received a bachelor's degree from NMC. This number includes greater than 75 GLMA alumni who have earned their Bachelor's Degree in Maritime Technology through the use of a prior learning system process which awarded academic credit based upon upper division merchant marine license exams and other completed coursework.

II-B. Identify the unique characteristics of each institution's academic mission.

Northwestern Michigan College is recognized by members of its service district and various accrediting agencies for unique characteristics and special programming that are a part of the fabric of the college.

These include:

Aviation Pilot Training Program International Partnerships
Unmanned Aerial Training Joseph H. Rogers Observatory

Aero Park Laboratories Lean Consortium Audio Technology Math Center

Center for Instructional Excellence Michigan Energy Demonstration Center

Childcare Center Military and Veteran Services

Commitment Scholarship Program NMC Foundation

Construction Technology Program On-Campus Residence Life Opportunity

Dennos Museum Center (DMC) Online Nursing

Early Colleges Outdoor Sculpture Collection

Electronics Technology Phi Theta Kappa

Entrepreneurial Studies Remote Operated Vehicle Training (Marine)

Extended Educational Services Service Learning

Global Endorsement Student Success Center

Groot Lakes Culinary Institute Training Services

Great Lakes Culinary Institute
Great Lakes Maritime Academy
Great Lakes Water Studies Institute

Training Services
Tutoring Center
University Center

Health Education Institute Writing and Reading Center International Affairs Forum WNMC-FM Radio Station

International Services

Below are brief descriptions for some of these unique characteristics and special programs.

Aviation Division

Established in 1967, Northwestern Michigan College has a proven background in delivering safe and effective flight training to generations of pilots. Today, the Aviation Division operates an FAA approved Part 141 training facility, has established exclusive training agreements with (5) international universities to provide flight training in Traverse City, and offers extensive handson training on several different Unmanned Aerial Systems platforms.

The professional pilot program currently operates at maximum student capacity, training 100 full time students in a diverse fleet of 17 aircraft valued at more than \$5 million. Between 2012 and 2018, the Aviation Division has established numerous hiring partnerships with regional airlines, allowing graduates direct routes to employment opportunities.

In 2011, the Aviation Division launched Michigan's first Unmanned Aerial Systems (UAS) program, with focus on preparing UAS operators to meet the needs of a rapidly growing industry. In 2015, NMC was named one of the 15 Best Drone Training Colleges in America and was the only community college listed in the top 10.

One of the 2015 recipients of the Community College Skilled Trades Equipment Fund (CCSTEF), the UAS Department now maintains a fleet of commercial-grade unmanned aircraft designed to meet the training and experience demands of today's (and tomorrow's) employers.

Great Lakes Maritime Academy

Established in 1969, the Great Lakes Maritime Academy (GLMA) is one of only seven maritime academies in the United States that is federally regulated under 46 Code of Federal Regulations 310. These regulations allow for a holistic approach which allows GLMA to accept a cadet with no prior seagoing experience and within four years he or she can complete both a bachelor's degree and earn a merchant mariner's credential valid for service on large tonnage vessels which are in ocean or Great Lakes service.

All GLMA cadets must complete one course in Naval Science which is delivered by active duty Naval personnel. Those cadets that are accepted into the U.S. Navy's Strategic Sealift Officer's program complete an additional two classes in Naval Science, earn a commission as a Naval Officer, and are awarded \$32,000, by the U.S. Navy, over the course of their four years at the academy.

In August 2002 the U. S. Maritime Administration (MARAD), at the request of Michigan's Governor, transferred operation of the USNS Persistent (T-AGOS-6) to GLMA where she was rechristened the T/S State of Michigan. Since that time the vessel has been an integral part of the Academy's training program. In 2018 GLMA conducted two training cruises for the third consecutive year. The vessel was underway from 07 May 2018 through 08 August 2018. In addition to providing training for GLMA and Massachusetts Maritime Academy cadets, the vessel carried three GLCI interns and for the first time an NMC instructor who was not part of the GLMA faculty. As previously noted, in 2019 GLMA held one 75 day cruise. GLMA did not carry cadets from other academies, but the transition will ensure all cadets earn pilotage and assist with retention and completion. Lakes and ocean shipping companies now routinely request to speak with the GLCI interns who sailed with GLMA. Additionally, carrying an NMC faculty member allowed nine GLMA cadets to complete three General Education credits, thus assisting

GLMA in meeting its retention and completion goals. There are currently 47 GLMA cadets on track to graduate in 2020. This will be the one of the largest GLMA graduating class in over 30 years.

In November 2013, NMC was granted authorization to award GLMA cadets a bachelor's degree. The GLMA program of study was the first academic program, in a Michigan community college to offer a bachelor's degree. All GLMA cadets are now enrolled in the bachelor's degree program. Federal regulation contained in 46 U.S. Code 51506 requires a cadet complete both a degree and merchant mariner credential examinations. GLMA cadets must earn both. They cannot be issued a credential if they do not complete degree requirements; they cannot be issued a diploma if they do not successfully complete their merchant mariner credential exams.

Great Lakes Water Studies Institute

The Great Lakes Water Studies Institute (GLWSI), located on the Great Lakes campus, delivers programs and conducts research directly related to the area's most important natural resource. Students may focus on multiple areas of water studies including management, policy, business and science, or may focus in marine technology including applied technical work in support of the marine industries involving the calibration, deployment, operation, maintenance, and management of marine technology assets, including data collection, processing and mapping, for use in the marine environment both offshore and onshore.

In fall 2015, the GLWSI officially launched NMC's third Bachelors of Science in Maritime Technology major in the area of Marine Technology. This program is unique to the United States and one of the only in the world and builds directly on the Engineering Technology AAS marine specialty. Specific training emphasis includes remotely operated vehicles and marine platforms, marine acoustics and sonar, marine data processing and project management. Multiple industry collaborations allow graduates a broad range of career opportunities. The Great Lakes Water Studies Institute also offers professional development opportunities in sonar training for industry and government partners. Beginning in 2015, ROV training at NMC will be certified through the Association of Diving Contractors International (ADCI).

The Great Lakes Campus site includes a water analysis laboratory for student experiments/labs, qualified environmental research organizations and university partners. Students work aboard the 56 foot R/V Northwestern or the 21 foot R/V Hawk Owl in Grand Traverse Bay, Lake Michigan or the inland waters of Michigan. The Great Lakes campus harbor also serves as a year round laboratory where training occurs from NMC's pier. The GLWSI is also home to two advanced Remotely Operated Vehicle systems, multiple sonar systems, advanced GPS and water quality sampling equipment. Additionally, there is a 60,000 gallon indoor training tank located at NMC's Aeropark campus for year round, climate controlled operations.

In 2014, collaboration with Western Michigan University (WMU) led to the joint development of a bachelor's degree completion program in Freshwater Science and Sustainability, currently offered through the NMC's University Center and delivered entirely at Northwestern Michigan College in Traverse City. This degree is the first of its kind in the United States. In September 2015, Northwestern Michigan College officially started delivery of the third Bachelor's Degree in Maritime Technology major in Marine Technology.

The GLWSI is involved in multiple Great Lakes research projects with university and government partners and also collaborates globally with multiple institutions in many areas of water and the marine environment. MOU's with institutions in China and also Costa Rica have generated additional water opportunities. The partnership with Costa Rica has resulted in multiple internships, faculty exchanges and collaborative research projects.

Great Lakes Culinary Institute

This program provides rigorous and concentrated study for those students who plan careers in the rapidly growing food service industry. The program's main emphasis is to prepare students for positions as entry-level chefs and kitchen managers. Consideration is given to the science and techniques associated with the selection, preparation and serving of foods to large and small groups. Students further develop their knowledge of food and guest service through internships at area restaurants, hotels and resorts. The program includes an Institute-run training restaurant, Lobdell's, which greatly enhances the level of restaurant experience of graduates. The facility provides five kitchen "laboratories" including Lobdell's, a training restaurant, which is a critical component of a top quality culinary program.

The GLCI is also pursuing collaboration with other learning opportunities. In an effort to enhance student retention, culinary certificate programs have been implemented. For years, the Culinary Institute has provided lifelong learning and professional development offerings in collaboration with other areas of the College. The expanded facilities, with its lakefront location, have been leveraged to create world-class food and wine events, open to the public. All events have served to showcase Michigan agricultural and value added agricultural products.

The American Culinary Federation Education Foundation Accrediting Commission accredits Great Lakes Culinary Institute programs, one of only approximately 400 such schools to receive this program accreditation in the United States. In 2018, the Great Lakes Culinary Institute received a five-year program accreditation by the American Culinary Federation Education Foundation. Upon completion of the Great Lakes Culinary Institute program, students are eligible for certification through the American Culinary Federation.

Agribusiness

Agriculture and viticulture are significant parts of the region's economy, eco-structure and quality of life. Since 2001, the Great Lakes Culinary Institute has emphasized the relationship between the hospitality industry and local agribusiness by a special focus on local foods, and by serving as a regional leader modeling recycling and reprocessing of food waste. This year, NMC has begun the redevelopment of specialty programming within its associate degree program in Applied Plant Science, a program delivered in conjunction with the Institute of Agricultural Technology of Michigan State University's College of Agriculture, Natural Resources and Recreation. Distinctive of this partnership is a new staff specialist position jointly funded by both institutions to provide continuity between the specialty courses (MSU) and the field experiences and general education courses (NMC). In 2016, a joint research project partnered NMC UAS, Leelanau County Horticulture research station, and private growers supporting a student-based application for early diagnosis of Cherry Leaf Spot.

Science and Mathematics Curriculum On-line

Since fiscal year 2005, NMC has offered the Associate in Science and Arts Degree in the online format. This was made possible by putting our high-demand Physics and Chemistry courses in the online hybrid format. Students take their didactic coursework online and visit the campus on alternating weekends or one evening per week to complete their laboratory work in our state-of-the-art facility, the Health and Science Building. More importantly, our five most popular Biology courses, including the year-long Anatomy and Physiology sequence, are all offered entirely online including the laboratory portion of the courses. We have also put additional courses in Mathematics, including Intermediate Algebra, College Algebra, and Probability and Statistics, online.

Construction Technology

During the 2009-2010 academic year, NMC received authorization to offer four new level I certificates and one AAS degree in Construction Trades. These certificates include HVAC/R installation and service, Electrical, Plumbing and Carpentry. For students that complete any one of these four certificates, we have developed appropriate construction trades courses to customize their degree requirements for the remainder of the trades courses and infuse the required general education courses to achieve the sixty four credits required to complete an AAS degree. Students in this program have the option to include a specialization in renewable energy with options in residential and light commercial solar PV, solar thermal, wind installation, including both net-metered and independent installations. A certificate in Programmable Logic Controls (PLC) has been developed and available to students Fall 2014.

Engineering Technology

In 2011, a new associate degree in Engineering Technology offers students a broad-based curriculum across all areas of technical education, preparing the graduates for emerging job markets and highly technical fields. The program is designed to allow students to focus on areas of interest or specialize in one of seven technical specializations: Computers, Electronics, Photonics, Marine, Robotics & Automation, Unmanned Aerial Systems, and Unmanned Ground Vehicles. In 2018, a new specialization was added to the degree pathway this is focused on Biomedical Equipment Technologies. Partnering with Leica Geosystems, an AAS degree in Surveying was added in 2019 to serve the growing demand for surveying technicians in the region.

Engineering technology education focuses primarily on the applied aspects of science and engineering aimed at preparing graduates for practice in that portion of the technological spectrum closest to product improvement, manufacturing, robotics, unmanned systems, and engineering operational functions.

Parson-Stulen Building

In 2015 Northwestern Michigan College was awarded a \$2.8MM grant from the State of Michigan in support of the Community College Skilled trades Program Fund (CCSTEP). \$2.1 MM dollars from the grant was used to purchase equipment and renovate facilities in support of the Colleges Engineering Technology, Marine Technology and Computer Technology programs. This included an advanced electronics lab and marine technology, 60,000 gallon indoor test tank, a state of the art remote operated vehicles, three unmanned aerial platform and flight simulators.

Aero-Park Laboratories

In 2011, NMC opened the Aero-Park Laboratories (APL) building at the Aero-Park Campus as a companion facility housing laboratories for construction technology, renewable energy, engineering technology and welding. APL is a 29,600 sq. ft. facility which allows a variety of configurations to accommodate large group lectures as well as individualized student space or small team project areas. The facility is LEED certified and equipped to support a high level of instructional technology requirements and welding facilities.

Audio Technology

An associate program in applied audio technology /technician was approved in July 2012 to meet the needs of students entering the recording, editing, and live music engineering specializations of the music industry. At the core of the degree program are Logic-Pro certifications offered through Apple, Inc. NMC's program has certified instructors, and is certified by Apple, Inc. as a Logic-Pro training center. NMC's program is one of two Apple, Inc. certified programs in Michigan. The audio technology laboratory facility includes the only *Raven* simulation sound board in use by an academic program in North America as of this writing.

Commitment Scholarship Program

The NMC Commitment Scholarship Program was developed to encourage academically promising students with financial need to successfully complete high school and enter college. The program began in 1993, and has included over 1,000 first-generation college students from 19 participating high schools. Each fall, 40-50 new students are inducted from the region to engage in activities that support successful educational attainment. The students, in partnership with the parents and high schools, commit to regular participation in the program activities, demonstration of good citizenship, and completion of high school with a minimum of a 2.5 grade point average.

NMC Math Center

The Math Center is a drop-in tutoring resource to help students with all NMC math classes, from Pre-Algebra through Calculus III and Differential Equations. Math Center employees are tutors and instructors who are equipped to help students with homework and general math skills. Students come to the Math Center with specific questions about class lectures or assignments, or to work with classmates. Many students complete homework assignments in the Math Center so they can review their answers with Math Center employees and receive tutoring as needed.

NMC Writing and Reading Center

The NMC Writing and Reading Center is a unique service dedicated to helping students become better and more confident readers and writers. Students can, at no charge, receive assistance from the Center at all stages of the writing process and have their work reviewed by a trained and experienced reader. They can also receive guidance in critical reading strategies. Since employers demand solid communication skills, the NMC Writing and Reading Center helps students prepare for their futures by showing them what it takes to become effective readers and writers. The best students at NMC often wind up working as Writing and Reading Center readers, allowing them to share their knowledge and experience with others, while continuing the rich tradition of service for which the NMC Writing and Reading Center is

known.

On-Campus Residence Life Opportunities

The Residence Hall Living/Learning program at NMC is one of six residence hall programs offered at the community college level in Michigan. Student and professional staff provide peer social programs, educational seminars, and community service opportunities. The Residence Halls are alcohol/drug free zones except for designated suites in North Hall where all residents are over 21 and agree to special restrictions. Affordable housing is limited in the Traverse City area which is reflected in our growth in the number of students living in the halls and apartments in the past several years. Having reached capacity in three consecutive years, the college opened a new residence Hall in August of 2017 expanding overall capacity to 370. There are also 36 apartments on NMC's main campus which are consistently full with a waiting list.

Extended Educational Services

Providing opportunities for lifelong learning is the mission of Extended Educational Services. Extended Educational Services (EES) offers over 700 continuing education and *non-credit* courses for all ages. Continuing Education Certificate programs available include: Northern Naturalist Program, Mobile Marketing Certificate, Small Business Entrepreneur Certificate, Certified Nurse Assistant, and the International Affairs Forum. Of note is the *College for Kids* catalog and the *Life Academy* catalog for learners over 50. In 2015, Cheboygan and Kalkaska public libraries established cooperative programs for delivery of select non-credit programs through EES. An innovation grant was awarded for a new project supporting a non-credit program for individuals on the autism spectrum.

University Center

The mission of NMC's University Center is to facilitate the delivery of high quality programs and course offerings beyond the associate degree level to northwest Michigan as deemed desirable by the citizens of the region. The University Center is a unique partnership between Northwestern Michigan College and eight participating universities. NMC offers associate's degrees in over 50 liberal arts, health, business, and technical programs. The partnering universities offer all courses required for the completion of the final two years of selected bachelor degree programs, complete master's programs in selected areas, post-bachelor's and graduate certificates, specialized endorsements, and two professional doctorates. University Center partners include: Central Michigan University, Davenport University, Ferris State University, Grand Valley State University, Michigan State University, and Western Michigan University.

Global Endorsement

Beginning in the fall of 2014, the college developed a cross-curricular endorsement for students who complete a variety of curricular and extra-curricular experiences that are recorded on an official college transcript. In part funded by the NMC Global Opportunity Fund, students take coursework, attend the college's Window on the World Week, Passport Student Lecture Series, and International Affairs Forum and even travel to international educational sites to receive credit towards this endorsement. This effort is part of the college's strategic direction to "Ensure that NMC learners are prepared for success in a global society and economy."

Dennos Museum Center

The Dennos Museum Center at Northwestern Michigan College is the region's premier cultural center offering programming in the visual and performing arts to the citizens of northwestern Michigan and tourists from the state and nation. Changing exhibitions are selected to provide a variety of experiences for our visitors with the added goal of offering thought-provoking and course related programming for students and instructors as part of the academic program whenever possible. The museum holds the College's art collection which now consists of approximately 2,600 catalogued works of art, 1,600 of which comprise the College's major collection of Inuit art, currently the largest and most historically complete collection in the United States. The museum also features a "hands on" interactive Discovery gallery for children and their families. The museum's 367 seat Milliken auditorium offers an array of lectures, theater and performances year round. The auditorium provides performance space for NMC students and Music Department performing groups and presentation space for college events. The museum, which opened in 1991, is owned and operated by Northwestern Michigan College. Ground breaking for an addition to the museum occurred in August 2016. The expansion opened to the public in January 2018, adding 14,545 square feet to the facility. It includes five new galleries, a classroom and additional storage and support space. The addition allows our academic programs to better integrate their course outcomes with the museum's permanent art collection which is now exhibited in the new galleries. The classroom provides space for instruction connected to collections, exhibitions and performances.

Joseph H. Rogers Observatory

The primary function of the Northwestern Michigan College's Joseph H. Rogers Observatory is to serve as the laboratory facility for NMC astronomy students. It also provides educational opportunities for the community. The 1,500 square foot building, with two observing domes, stands as an example of this area's commitment to education. Constructed completely with donated funds, the Observatory houses astronomical equipment utilized for both education and research. The Observatory hosts Open Houses for the general public throughout the year with over 5,000 visitors annually. The Joseph H. Rogers Observatory is one of fifteen sites in the National Network of Project ASTROTM , a K-12 science education outreach program, and one of three sites chosen to host Family ASTROTM.

Great Lakes Professional Development Center

The Great Lakes Campus is also home to the Great Lakes Professional Development Center, called the Hagerty Center. The Center provides a flexible, technology-equipped space to accommodate seminars, classes, and specialized training in support of all NMC programs. The site also serves as a venue for professional development seminars for regional, national, and international businesses. This enables NMC to increase its role in bringing new learning opportunities and new visitors to the region, thus providing economic growth and quality of life improvements. It also promotes further integration of programs within NMC, and enables NMC programs to draw on resources from outside the area to augment its own program offerings.

Childcare Center

In the summer of 2014, NMC partnered with Munson Healthcare to open a childcare center at

the Oleson Center on NMC's main campus. NMC is a member of the 5toOne Initiative of the Great Start Traverse Bay Collaborative which has been working to create a comprehensive regional system for early childhood development programs. Munson Healthcare and Traverse Bay Area Intermediate School District (TBAISD) have also been included in these discussions and have been aware of our on-going concerns for NMC students as it relates to children's educational services. By partnering with Head Start and GSRP students who qualify are able to access free quality preschool services.

Key factors in this arrangement are two grant opportunities that provide a source of funding to pay for daycare services. The two grants awarded by the State of Michigan and available through TBAISD are the Great Start Readiness Program and Headstart. For students that do not qualify for one of these programs, the hourly rate is \$3.50. Munson allows families to call one week in advance to schedule time.

II-C. Identify other initiatives which may impact facilities usage.

In the next five-year period, the College expects to significantly expand health occupations related programming. Continued growth in this area will require investment in additional simulation and teaching facilities. As the College continues AQIP projects designed to increase persistence and credential completion, it is adding instructional support activities that have an impact on experiential and supplemental instructional space. Finally, the College is embedding within the curriculum a multi-disciplinary approach to learning that is desired by employers. These initiatives require large interactive space that can be reconfigured for multiple uses. The college's current buildings do not accommodate this demand and renovation and additions to existing college buildings is needed.

NMC has embarked on a strategy of programmatic partnerships and recruiting in the international marketplace. It is expected that these efforts will draw in excess of 500 domestic and international students to our region requiring additional housing and instructional spaces.

The current priorities for facilities planning are aimed at using the self-assessment to guide establishment of flexible learning spaces. These efforts include:

- Major maintenance work required, or anticipated, on existing buildings.
- Increased flexible, technologically advanced classroom space.
- Energy, or other operational, savings.

Section 2, Appendix B provides an Executive Summary for **NMC's Campus Master Plan**.

II-D. Demonstrate economic development impact of current/future programs.

According to a 2017 study by the economic modeling firm EMSI, NMC creates a significant positive impact on the business community and generates a return on investment to its major stakeholder groups – students, taxpayers, and society.

• 287.4 million in added income, approximately equal to 3.6% of the GRP of the NMC Service Area, which is nearly as large as the entire Wholesale Trade Industry in the

region

- NMC impacts 5,766 jobs or one out of every 22 jobs in the NMC Service Area
- Average annual rate of return for NMC students is 9.6% compared to the 10-year average of 6.9% return to the U.S. stock market
- 2.9 benefit-cost ration. Every \$1 in costs returns \$2.09 in benefits-an average annual return on investments for taxpayers is 10.5%

NMC serves more than 50,000 learners each year. Those with an associate degree in Northern Michigan benefit in important ways.

- Average earnings for those with an Associate Degree earn \$31,800 per year versus \$23,300 per year for those with a High School Diploma
- Lower unemployment. Associate degree holders experienced less than 6% unemployment compared to over 12% for those with less than a high school diploma

Some specific examples of NMC initiatives directed at regional economic improvement are highlighted below.

Technical Workforce and Career Development

NMC's Parson-Stulen Building houses a range of credit and non-credit programs that directly support training for key skills of high value to the region. Each major program area facilitates employer feedback through program Advisory Boards. In addition, faculty and staff participate in state, regional, and national organizations, and are directly engaged in research to help with development of appropriate programs and courses.

In collaboration with other workforce agencies and organizations, NMC has been able to respond to the need for incumbent worker training directly in the workplace, and in areas customized to employer needs. In addition, the technical workforce areas have prepared programs that can be quickly delivered to area communities where there is an identified need to prepare individuals for a specific labor pool. Recognized by the Governor's office in 2012, NMC is host to the Regional Entrepreneurial Collaborative – a partnership among NW Michigan Council of Governments, Small Business Technology Development Center, Score, Michigan Works, PTAK, Grand Traverse County Economic Development, Traverse Area Chamber of Commerce that supports collaboration between organizations to facilitate service for business development and expansion.

Michigan Manufacturing Technology Center

NMC is home to the Northwest regional office of the Michigan Manufacturing Technology Center. The purpose of the MMTC is to strengthen the competitiveness of small to mid-sized manufacturers through training and consulting services primarily through Lean Manufacturing and strategy assistance. The MMTC is part of a national network though the Department of Commerce's Manufacturing Extension Partnership and part of a statewide network of five offices.

Michigan New Jobs Training Program

Since authorization in 2009, NMC has been an active participant in the use of this economic development tool for community colleges. To date, NMC has developed contracts representing close to \$5,167,750 in associated training, with over 863 jobs in sectors including advanced manufacturing, value-added agriculture (food processors, distribution and retail), healthcare, insurance and construction.

Great Lakes Maritime Academy

- The Great Lakes Maritime Academy (GLMA) cadets continue to enjoy 100% employment. This is due to the age of the workforce on the Great Lakes which has resulted in numerous vacancies due to retirements.
- In 2015 a report jointly authored by the U.S. Department of Education, Department for Labor, and Department of Transportation predicted that the U.S. will need 35,000 credentialed mariners, with officer's endorsements by 2020.
- During the fall semester recruiters from vessel operators and maritime unions visit the Academy weekly. Additionally, each cadet will complete three internships, two of which will be on commercial vessels. These internships expose the cadets to different options, and allow the operators to see the quality of the cadets first hand.

The average age of the 2018 incoming class is 23.6, 15% are female, and 10% are veterans. Additionally, two cadets have completed law degrees, and one has previously earned a PhD. Many of these non-traditional students remain in Traverse City after graduation.

Great Lakes Water Studies Institute

GLWSI officially launched NMC's third Bachelors of Science in Maritime Technology major in the area of Marine Technology. This program is unique to the United States and one of the only in the world. Specific training emphasis includes remotely operated vehicles and marine platforms, marine acoustics and sonar, marine data processing and project management. Multiple industry collaborations allow graduates a broad range of career opportunities. The Great Lakes Water Studies Institute also offers professional development opportunities in sonar training for industry and government partners who travel from around the world to participate in these training programs. Beginning in 2015, ROV training at NMC will be certified through the Association of Diving Contractors International (ADCI) which will draw additional personnel to our programs.

The Great Lakes Campus site includes a water analysis laboratory for student experiments/labs, qualified environmental research organizations and university partners. The GLWSI is involved in multiple Great Lakes research projects with university and government partners and also collaborates globally with multiple institutions in areas of water and the marine environment.

Tourism and Hospitality Industries

Tourism and the hospitality industry are among the largest economic sectors in NMC's five county service area. The Great Lakes Culinary Institute directly supports that sector. There is a significant shortage of skilled professionals in this area. The Culinary Institute's ability to expand the programs that it offers is important to the area's economy.

Agribusiness

Agriculture and viticulture are significant parts of the region's economy, eco-structure and quality of life. NMC has developed a successful and long-standing partnership with Michigan State University's Institute of Agricultural Technology to provide a series of technical specialties within NMC's associate of applied plant science. Students may select areas in applied horticulture, turf management, nursery management, and viticulture. In 2013, NMC and MSU's Institute of Agricultural Technology established a shared position, in collaboration with MSU's Department of Horticulture, as an innovative approach toward collaboration in employer outreach, student recruitment, and internship development. In 2014, this shared approach has expanded NMC's capacity to provide specialized programming related to precision agriculture.

Health Care

The health industry is of critical importance to the citizens of the region and is characterized by having the largest regional employer, Munson Health Care. NMC's Health Occupation programs are critical suppliers to this industry, especially in the preparation of associate degree nurses.

A successful strategy has been the development of the Health Education Institute, a partnership between Munson Health Care and NMC that supports the coordination of community learning resources, delivers continuing professional development to staff, and identifies areas for future collaboration in the preparation of health care professionals.

HEI has completed an extensive internal assessment of program impact with the recommendation to continue and expand the relationship as a shared approach to improving efficiency in professional development for staff, career program planning in the nursing program and related allied health areas.

Most recently, NMC has partnered with Munson Medical Center to offer Associate of Applied Science Degrees in Paramedic and Surgical Technology.

III. Staffing and Enrollment

The following section responds to questions related to staffing and enrollment trends for Northwestern Michigan College.

III-A. Describe current full and part-time student enrollment levels and define how the programs are accessed by the student.

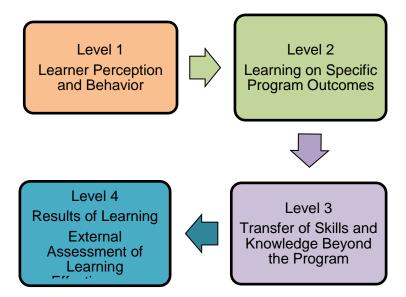
Statistics on student enrollment are provided in two enrollment reports attached as Appendix III-A shows full and part-time student counts by CIP program classification.

NMC uses multiple measures for student assessment of programs. NMC's annual program review process is the way in which we ensure that our programs and courses are up to date and effective. The premise of the program review is an annual evaluation of quantitative metrics and qualitative reflection on the prior year's activities. From this, goals for the program are set and action plans identified for the coming year. The program review documents and institutional metrics are made available to the college community on the intranet site.

The metrics tracked in program review are categorized in four phases of evaluation: Learner Perception and Behavior, Learning of Program Outcomes, Skill Transfer, and Results (Figure

1.1). For Level One, Learner Perception and Behavior, the college measures learner assessment of the quality of the course instruction and of the course itself, and learner satisfaction with the program as a whole. Enrollment tracking and participation of non-traditional students in the program are measured. For Level Two, Learning and Program Outcomes, the program areas track course completion rates, enrollee success rates, completer success rates, graduation rates, student retention or transfer rates, and non-traditional student completion rates. For Level Three, Skill Transfer, NMC assesses student success on industry tests, such as licensure, and student placement in employment. Finally for Level Four, Results, program managers query their industry advisory groups for feedback on the curriculum, equipment, graduates, and program administration. NMC has college targets or state baselines to measure progress for improvement. When any of these measures fall short of the college targets or state baselines, the program establishes goals and activities designed to improve its performance in these areas. Program areas create action plans to address deficiencies as part of the institutional annual planning and budgeting process.

Figure 1.1. Outcome Framework for Academic Program Review



(Source: Kirkpatrick, D.L. 1994. Evaluating Training Programs: The Four Levels. San Francisco, CA: Berrett-Koehler.

III-B. Projected enrollment pattern next 5 years

Enrollment experienced an expected increase from 2009-2011, peaking in the 2010-2011 academic year. This increase was primarily due to the economic factors in the state and region related to unemployment. As in all Michigan community colleges, the pattern of increased enrollment paralleled the regional impact of an increased unemployment rate and conversely the decrease in the unemployment rate paralleled the decrease in enrollment. Though enrollment has now reached a level previously held prior to the downturn, census data indicates that traditional age student population (18-20) will continue to decline through 2023. We anticipate declining enrollment due to this demographic shift taking place and continued reductions in unemployment. We continue to promote the strong academic foundation that Northwestern Michigan College provides students as they complete select bachelor's degrees offered by NMC and their associate degrees for transfer to 4-year colleges and universities, while also highlighting the cost benefit and value students and families realize by attending a community college. Enrollment remains very strong in a number of programs (i.e. aviation, maritime). In addition, we are promoting two additional Bachelor of Science degrees in Maritime Technology; Marine Technology and Power Systems. As the State focuses on economic growth, new and enhanced job skills and transfer education will remain as key objectives. The largest potential for increases in enrollment growth will be through dual enrollment, early college, and concurrent enrollment and recruitment efforts related to specific programs. NMC is well positioned to offer courses and programs which will capture this audience. NMC also continues to expand existing and new relationships with colleges and universities in other countries such as China, Costa Rica, South Africa and UK for the purpose of program expansion and student exchange opportunities.

III-C. Evaluation of Enrollment History

Research shows that enrollment at community colleges during an economic downturn follows the rate of unemployment. If the unemployment rate increases, enrollment increases as the population returns to college to seek education for new career opportunities or access training to increase skills to raise their potential for subsequent employment. This pattern occurred at NMC during the surge of enrollment from Fall 2009 through Spring 2011 when the college saw record enrollments. Prior to this time enrollment and contact hours rose modestly each year from 2005 through 2008. Enrollment numbers have returned to levels similar to those in previous years to the enrollment increases. In addition, we continue to observe the trend of strong enrollment of early college, concurrent enrollment and dual enrollment students as a clear reflection of our efforts to provide options for high school students to complete college credit or specific programs. NMC currently has early college partnerships with Traverse City Area Public Schools and the Traverse Bay Intermediate School district in addition to an enhanced dual enrollment agreement with Grand Traverse Academy. High school students have significantly increased their participation in acquisition of college credit over the past six years, though most recently, the high school population has decreased slightly.

High School Student Enrollment Comparison

% of total enrollment	% increase o	ver previous year
Year		_
Fall 2010 - 149	4.3	
Fall 2011 – 181	5.0	.7
Fall 2012 – 287	7.7	2.7
Fall 2013 – 324	9.1	1.4
Fall 2014 – 501	11.2	2.1
Fall 2015 – 485	11.4	.2
Fall 2016 – 521	12.5	1.1
Fall 2017 – 510	12.9	.4
Fall 2018 – 483	13.0	.1
Fall 2019 – 447	12.5	5
Fall 2020 - 426	13.1	.6

To strategically support these efforts NMC has participated in the Michigan College Access Network (MCAN), Local College Access Network (LCAN) and with individual schools (ICAN). We collaborate with these organizations providing presentations and face to face support for students and their parents/guardians in order to assist them as they complete college applications, the Free Application for Federal Student Aid (FAFSA) and college scholarship applications.

Section III, Appendix D and E provides 2017 through 2021 enrollment reports.

III-D. Provide instructional staff/student and administrative staff/student ratios

NMC has a standing practice of evaluating all position vacancies for opportunities to distribute work differently, assess the relevancy of a service level, and to identify areas in which partnerships may provide options for joint appointments or other creative approaches to management of personnel costs.

NMC and Michigan State University's Institute of Agricultural Technology (IAT) developed an MOU to share equally in a replacement position serving NMC's Applied Plant Science degree program, which uses IAT's specialty agriculture certificates. This has allowed funding for a full-time position.

Based on fall student, faculty and staff headcount the ratio of student to staff is as follows for the last five years.

	Fall Student	Fulltime Faculty	Ratio of
<u>Year</u>	<u>headcount</u>	<u>& Adjunct</u>	Student to
		<u>headcount</u>	<u>Faculty</u>
<u>Fall 2017</u>	<u>3,956</u>	<u>235</u>	<u>17:1</u>
<u>Fall 2018</u>	<u>3,726</u>	<u>254</u>	<u>15:1</u>
<u>Fall 2019</u>	<u>3,581</u>	<u>226</u>	<u>16:1</u>
<u>Fall 2020</u>	3,278	<u>226</u>	<u>16:1</u>
<u>Fall 2021</u>	<u>3,285</u>	<u>221</u>	<u>14:1</u>

Year	Fall Student headcount	Fulltime Admin. & Professional headcount	Ratio of Student to Staff
<u>Fall 2017</u>	<u>3,956</u>	<u>118</u>	<u>33:1</u>
<u>Fall 2018</u>	<u>3,726</u>	<u>118</u>	<u>32:1</u>
<u>Fall 2019</u>	<u>3,581</u>	<u>111</u>	<u>32:1</u>
<u>Fall 2020</u>	3,278	<u>109</u>	<u>28:1</u>
<u>Fall 2021</u>	<u>3,285</u>	<u>108</u>	<u>28:1</u>

Based on the structure at NMC some administrative positions include teaching as part of their responsibilities.

Section III, Appendix F provides the annual number of faculty and staff employees for the past five years.

III-E. Projected staffing needs based on projected enrollment

NMC has approached a number of staffing questions through the development of a multi-year project-based approach toward Talent recruitment, development, retention, and succession. The "Talent" projects have produced new employee orientation programs, the NMC Leadership Institute, multiple professional development modules ranging from compliance training, supervisor training, and including wellness initiatives and self-directed learning opportunities related to workplace improvement.

The College is committed to aligning its workforce to support its strategic direction and to establish a values-based framework to provide sustainable and competitive compensation. During fiscal year 2018 we offered an early separation incentive to faculty and staff at the top of their pay scale. This gave us an opportunity to restructure the organization. The college was able to reduce 12 positions with this incentive program. The program was one strategy in reducing salary costs.

III-F. Identify current average class size and projected class size needs

NMC has implemented a Section Management initiative, effective Fall 2001, targeted at improving class size efficiency. Appendix III-G contains class size goals and guidelines, and shows a four-year trend in class size averages. Class sizes are driven primarily by pedagogical factors related to the subject matter being taught.

III – G. Appendix G provides a Course Efficiency report.

Section IV FACILITY ASSESSMENT

In 2012 NMC contracted for a campus master plan. The plan assessed building and plant requirements to meet future needs. These items have been prioritized within the executive summary of the campus master plan. The college has a contract with Sodexo for management services within that contract Sodexo provides facility assessment that helps to prioritize deferred maintenance projects. A full assessment was done in fiscal year 2018 and the college is using the report to prioritize deferred maintenance projects.

IV-A. Summary description of each facility

A summary of building's ages, and square footage is included as Section IV – Appendix H.

IV-B. Building and classroom utilization rates.

Appendices IV-I provides information on the utilization, functionality and allocation of organizational facilities. In 2003, NMC began the implementation of a Room Scheduling software system. In 2005, the College began scheduling academic classes through R25. Virtually all events and classes are scheduled through the system.

IV-C. Mandated facility standards

NMC's programs fully comply with all applicable laws and safety standards.

IV-D. Functionality of existing structures -

Appendix IV-J summarizes functionality of existing structures.

IV-E. Replacement value of existing facilities

Appendices IV-K provides data on appraised values of NMC facilities. The replacement value new of buildings is assessed at \$227,520,600. The most recent insurance appraisal was performed in the fall of 2019.

IV-F. Utility System Condition

Each item identified in the NMC Capital Improvement Plan is listed in a construction category (i.e. electrical, mechanical, plumbing, etc.) Of the 7.7 million of Capital Improvement Projects, 7.5 percent of the capital outlay needs were identified as 6 percent Electrical Projects, 24 percent as Mechanical (HVAC), and 9 percent as Plumbing.

As part of our annual deferred maintenance budget we have allocated at least 30% of the annual budget to projects in this category.

Table 5 Campus Utilities

Utility	Comment					
Electric	Traverse City Light and Power (Traverse City Campuses). Sufficient city					
	capacity appears to be available to meet projected college needs.					
Water	Traverse City and Garfield Township provide water.					
Sewage	City of Traverse City and Garfield Township.					
Storm Sewers	Limited access to Traverse City storm sewers is available. The Front Street campus is equipped with numerous dry wells into which storm water drains. A large storm water retention system was recently added on the main campus.					
Natural Gas	Campus heating systems are natural gas. Adequate capacities currently exist.					

IV-G. Facility Infrastructure Condition (i.e. roads, bridges, parking lots)

The majority of lots, roads and walks on and off Main Campus are in good shape. An annual

schedule for the repair/replacement of sidewalks and the repair/seal/replacement of lots and roads has been prepared and incorporated in the Capital and Operational budgets as applicable.

The University Center currently has one driveway. A secondary means of egress for vehicles was recommended in the 2012 campus master plan. A second means of egress would be able to be used in a case of emergency or downed trees and/or power lines. Section IV-L shows a map of the Front Street (Main) campus.

IV-H. Adequacy of existing utilities and infrastructure systems

Based on our current and five year projections NMC utilities and infrastructure systems are sufficient. As a means to reduce utility costs NMC continues to investigate ways to provide alternative energy solutions to our campus. The college board authorized geothermal for the West Hall Innovation Building. The intention is to use the data from this building as a starting point for an overall campus alternative energy project. Parking was at capacity in 2009 but based on current and projected trends the campus master plan shows we have sufficient systems to meet the needs for the next five years. We work closely with area public transportation agency (BATA) in an effort to both encourage and promote public transportation as a means of reducing the need for additional parking.

IV-I. Energy Audit

NMC contracted for an energy audit in 2010 and worked with Honeywell in 2015 to review energy inefficiencies. These two reports have been used to prioritize project that will return overall energy savings to the institution. During the annual deferred maintenance budget we target several projects each year to address recommendations from the two audits.

The college has been implementing the lighting recommendations from the energy audit. The estimated annual savings from the campus wide projects is over \$40,000 per year. Other projects included water conservation and low flow aerators and variable frequency drivers in some of our buildings. The College also takes full advantage of Traverse City Light and Powers rebate program. This program has enabled us to complete several lighting projects across campus. All projects are evaluated for energy savings. As roofs are replaced additional insulation is included in the project. Other areas of savings are insulated glass overhead doors in our power house, replacement of old boiler and cooling towers to more energy efficient units. Section IV, Appendix M. provides an energy audit.

The college will be using a geothermal system for our recent construction project. This will be used to gather data that could benefit an overall campus renewable energy project.

IV-J. Land owned by the institution

Section IV - Appendix N. lists College properties. Under current assumptions for future growth, there is existing capacity for future development on land owned by the college.

IV-K. State Building Authority Leases

Table 6 outlines the statistics on the three NMC buildings that are obligated to the State Building

Authority.

Table 6

Building Description	Primary Use	Date of Retirement
Health & Science Building (Integrated Science & Tech Learning Center)	Classrooms	2042
Great Lakes Campus (West Bay)	Specialized classrooms and conferencing facility	2043
Oleson Center	Specialized classrooms and conferencing facility	2042

V. IMPLEMENTATION PLAN

V-A. Prioritize major capital projects requested from the State, including a brief description and estimated costs.

We have identified the renovation of the Osterlin Building for our major capital project – the Integrated Student Service Hub. This 60-year old building would be renovated and remodeled to provide our students a one-stop student service hub. The updated space would provide a holistic approach to student services.

Estimated cost: \$5,000,000

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

Northwestern Michigan College recognizes the importance of addressing deferred maintenance repairs. Beginning in 2009 the College began providing funding through our annual budget to address deferred maintenance backlog. Each year the college evaluates its facilities based on the APPA standards. The Board of Trustees has set an overall benchmark of good for its buildings.

The capital improvement identified approximately \$9.4 MM in deferred maintenance required over the next five years. Funding for identified items has been included in the College's fiscal year 2022 plant fund budget. Addressing deferred maintenance is critical for the college to carry out its mission of providing a state of the art quality program to its students.

V-C. Status of on-going projects financed with State Building Authority

Northwestern Michigan College hosted a groundbreaking ceremony on September 24, 2018 for

the West Hall Innovation Center (#332/16282). The West Hall Innovation Center was completed in July 2021.

V-D. Identify to the extent possible a rate of return on planned expenditures.

The college evaluates each major building project to determine a rate of return. This is accomplished by a reduction in operating costs such as utility savings along with any staffing reductions that could be attributed to the redesign of a facility.

V–E. Where applicable, consider alternatives to new infrastructure such as distance learning.

Although the college believes that distance learning plays a key role in program delivery, there is still a role in facilities. The proposed building projects enhance current learning by engaging students and faculty in an interactive learning environment.

V-F. Identify maintenance schedule for major maintenance items in excess of \$1 million for fiscal year 2023-2027. Currently, there are no identified maintenance items over \$1 million.

V-G. Identify the amount of non-routine maintenance the institution has budgeted for in its current fiscal year and relevant source of financing

In fiscal year 2003-2004, Northwestern Michigan College developed a comprehensive Facility Capital Improvement Plan (FCAP) that is reviewed and updated annually. Each year data is compiled and reviewed on each building to determine the physical needs of the individual facilities. The twenty-seven (28) structures contained in the Capital Improvement Plan represent approximately 862,632 square feet of space contained in facilities. The College includes deferred maintenance of over \$1,000,000 a year in its annual budget. NMC has established a benchmark that overall facilities rating will remain at a rating of good. Northwestern Michigan College has identified \$1,200,000 non-routine maintenance that will be funded from the Plant Fund in FY2019.

A summary of our deferred maintenance is in Section V.

10.18.21

Capital Outlay Project Request(Attachment B)

ATTACHMENT B

FISCAL YEAR 2023 CAPITAL OUTLAY PROJECT REQUEST

institution Name:	Northwestern Michigan College
Project Title:	Integrated Student Services Hub
Project Focus:	Academic Research x Administrative/Support
Type of Project:	x Renovation Addition New Construction
Program Focus of	Occupants: Student Academic and Administrative Support
Approximate Squa	are Footage: 26,000 square feet
Total Estimated Co	ost: \$5,000,000
	Exampletion Dates: Project is ready for construction contingent upon val. Total build time would be one-year.
Is the Five-Year Pla	an posted on the institution's public internet site? X Yes No
Is the requested pro	oject the top priority of the Five-Year Capital Plan? x Yes No
Is the requested pro	oject focused on a single, stand-alone facility? x Yes No

Executive Summary Student Learning Support Services Renovation Project

Project Overview

Northwestern Michigan College is applying for Capital Outlay funding to renovate and upgrade the Osterlin Building on central campus into an Integrated Student Services Hub ("the Hub") or ("the project"). The Hub would become a central building for the College's key student service departments including admissions, advising, tutoring, counseling, financial aid, cashier's, international outreach; it would add a Veteran's Lounge, testing center, and talent development services area. These services are currently spread out among three different buildings on central campus.

Built in 1961 and expanded in 1984, Osterlin has reached the end of its functional life and is in need of significant repairs and upgrades. This includes upgrades to the building envelope, HVAC system and a reconfiguration of the layout to maximize use of the existing building footprint. The project will also include energy efficiency upgrades and student focused spaces to enable collaboration and learning. The project will not impact tuition and will be cost shared from existing NMC reserves. The last Capital Outlay project funded at NMC was in 2018 for the Student Services Learning Center Renovation Project.

Project Purpose

The purpose of this project is to address 3 main needs for NMC's central campus:

- 1. **Enhance an Existing Asset:** The Osterlin building is over 60 years old and has reached the end of its functional life. Instead of demolishing the structure, NMC intends to repurpose, transform, and extend the life of the building while creating a functional, centralized hub for key student services.
- 2. Improve Student Efficiency: Currently, students must travel to several different buildings for their support service needs. Consolidating all of our student support services into one area will allow students to access resources in one location. We believe this holistic customer service experience will lead to increased student retention and completion due to the enhanced experience.
- 3. **Improve Energy Efficiency**: The project would include a complete envelope overhaul including new energy efficient windows and doors, new insulation and a new exterior that would increase efficiency and sustainability. Additional project elements would include a new HVAC system and the installation of LED lights, all of which will help reduce the carbon footprint for this building.

Describe the Scope of the Project

The project is the complete renovation and modernization of the 60 year old Osterlin Building. The scope includes addressing deficiencies identified in the facility assessment report (Attachment A) as well as making needed upgrades to transform the space into a centrally located integrated student services hub.

Specific project elements include:

- Updated information technology infrastructure
- Replace existing windows and exterior doors to increase efficiency
- Replace deteriorating stucco with new insulated metal panels to increase efficiency and sustainable design
- Updated facility to address ADA accessibility
- Upgrade/replace lighting with LED lights
- Replacement of current inefficient HVAC system with new energy efficient system
- Elevator upgrades
- Electrical upgrades
- New Interior finish
- Create learning spaces that have the flexibility and adaptability for group and individual learning and for learning partnerships with institutions outside the region
- Create breakout spaces to support services to students
- Improved operating efficiencies
- Consolidation of student support offices

Once completed the Osterlin Building will be home to:

- Admissions
- Financial Aid and Cashiers
- Registrar
- Counseling
- Health Services
- Veterans Lounge
- Advising and Tutoring
- Learning Services and Student Testing Center
- International Outreach and Service Learning

The project outcomes for our learners include:

- Integrated student support services
- Holistic advising experience to help them with their student success
- Improved customer service to students
- Increased use of student support services
- Improved retention rates

Please provide detailed, yet appropriately concise responses to the following questions that will enhance our understanding of the requested project:

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

Northwestern Michigan College plays a pivotal role in talent enhancement and economic growth initiatives at the local, regional, state and national basis. A 2017 study conducted by Emsi, a leading provider of economic impact studies and labor market data to educational institutions, concluded that NMC "benefits local businesses by increasing consumer spending in the region and supplying a steady flow of qualified, trained workers into the workers." The study further found that NMC "benefits the state and local taxpayers through increased tax receipts" and "benefits society as a whole in Michigan by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students."

Specifically the study found that 1 out of every 22 jobs in the region is supported by the activities of NMC and its students. The study also reported that NMC added \$42.3 million in income to the region during the analysis year as a result of its day-to-day operations. Further, the 2017 economic impact study conducted by Emsi found that for every \$1.00 of public monies invested in NMC, taxpayers receive a cumulative value of \$2.90 over the course of the student's working lives.

Therefore, the proposed integrated student services hub is critically important to ensure that NMC is able to continue meeting its goal of providing our communities and learners with the skills, experiences and values that help them create social and economic wealth during their lifetime.

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

This project is closely aligned with NMC's mission of "providing lifelong learning opportunities to our communities." With an enrollment of approximately 4,000 students, services such as advising, tutoring, financial aid, and counseling play a key role in student success and completion.

In 2017, financial aid was offered to 67% of our student population. A 2016 RAND study¹ and a 2019 University of Chicago study² found that **providing community college students with comprehensive wraparound services increases full time enrollment and completion rates.** The 2019 study by the University of Chicago Poverty Lab found that providing wraparound supports for community college students can improve their chances of persisting, resulting in nearly doubling their retention to the next term and leading to a 35% increase in full-time enrollment.

Therefore, to support success and completion for our approximately 4,000 students, this project will allow NMC to provide a singular location to help students navigate enrollment, financial aid and advising. Delivering more consistent and timely answers will provide the project outcome of a more uniform, holistic customer service experience that will help attract and retain students.

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

The integrated student services hub will be an adaptive re-purposing of a centrally located outdated facility. The project maximizes the use of an existing building to accommodate the majority of our student support services in one location. In addition, the project leverages space that is being vacated by the College's library, which is moving to a new space being constructed and funded by NMC. Without completing the Learning Support Services project, 26,000 square feet of centrally located space would not be repurposed in such a way as to benefit all students.

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

Yes, the project will address several health/safety deficiencies in the existing structure. The building was built in 1961 and expanded in 1984. A renovation and re-purposing of the building will allow us to update the building based on current emergency management protocol and today's ADA requirements. In summary, some of the deficiencies addressed with a project would include:

Additional barrier free restrooms

¹ https://www.rand.org/news/press/2016/11/30/index2.html

² https://news.uchicago.edu/story/study-evaluates-model-helping-students-complete-community-college

- Remodel of interior of buildings to eliminate ramps that are not ADA compliant
 - Currently the building utilizes a series of ramps to access portions of the building that are not compliant with the current ADA standards
- HVAC heating and cooling upgrades
 - Dated equipment will be replaced with a higher efficiency and environmentally compliant system
- Window and exterior door replacement
 - Replace dated windows with energy efficient windows
- 4. How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

NMC utilizes a robust analytic process for determining efficient use and utilization of our classrooms and spaces. We were one of the first colleges to use classroom efficiency rather than "go numbers" to determine enrollment decisions. Starting in 2000, NMC adopted an efficiency model whereby the college set an ambitious target to achieve an average of 90% fill rate for our classes. While not reaching that goal in every area due to the need to support smaller efficiency in some key specialty areas, the college average has reached between 82% and 85% in the last five academic years. Our classes are entirely full in a number of areas. To further our efforts in the last two years, we have over enrolled some of our classes so that after some attrition in the first week, the remaining class remains at 100%.

The college also analyzes the utilization of our current buildings using our scheduling software. Our current utilization reports show that our adaptive learning spaces are at maximum use. These spaces are scheduled for large and small student study groups. Additionally, our reports show that simulation space is at capacity. These adaptive rooms are used by both credit and certificate programs. NMC was at capacity for our residential students and added an additional 150 new beds in 2017. Our residential halls are currently at 90% occupancy.

This project would greatly assist in improving the utilization of existing space on campus. Specifically, with the movement of the library to a new building on campus, a large portion of the Osterlin building will be vacant. Further, as the building is currently configured, space is non-congruent and prevents students from seamlessly utilizing space and service. Once completed, the project would create a more holistic space for student support service activity. With more students living on campus, we believe areas such as counseling and health services will see more activity. Both of these departments are strained for space in their current location. Offices that are currently being used by these departments will be able to be repurposed as additional classrooms or needed office space.

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

Over the years, NMC has shown a commitment to sustainable design principles in construction of both new buildings and renovation projects. Although this is a relatively small renovation project, we will once again incorporate facility efficiencies wherever appropriate. This project will see the same level of commitment to integrate sustainable design principles to enhance operating efficiency as all of our building and renovation projects have seen.

An example of how NMC's projects have adhered to sustainable design principals can be found in NMC's self-funded purchase and renovation of a former manufacturing facility in 2010 that has led to LEED certification. The new facility is used to teach our sustainable energy programs, construction trade and other technical programs that relate to the sustainable design fields. In 2009, NMC conducted an energy audit to identify areas of improvement in current building. Each year the College commits to projects that will result in energy efficiencies. We have converted exterior and interior lighting to LED efficient lighting and installed occupancy sensors in classrooms, hallways, and restrooms.

Specific to the Student Learning Support Services project, NMC will include sustainability features including:

- Upgraded lighting
- Occupancy sensors
- Energy efficient HVAC upgrades
- Improved building envelope design around exterior doors
- 6. Are match resources currently available for the project? If yes, what is the source of the match resources? If no, identify the intended source and the estimated timeline for securing said resources?

Yes. The college has the reserve funds available to match state dollars for this project as well as resources from private contributions from the NMC Foundation.

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

No, not at this time. NMC is committed to the 50% match required for the project.

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

No, we do not anticipate an increase in operating costs if this project were funded. If anything, the improvements to the building should yield operating efficiencies in electrical and heating costs and with the combining of multiple departments, the college will be able to reduce some personnel costs- thus saving the college money in the long term.

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

There will not be an impact on tuition costs as a result of the project because capital projects are planned for and built into a 4 year budget model that we operate under.

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

If this project is not authorized it will be a determent to our current and future students. We would also be left with space that will be vacant-following the move of our library to a new location. Further, if not authorized, the space would not be able to provide a more robust student support services area that will give students the ability to access a multitude of student support services in one location. Once completed, the Student Learning Support Services Building will be a more efficient way for student to access these services which translates to more use and less time constraints for the student.

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

There is no viable alternative to this project. The project allows for us to consolidate student support service in one area. This will result in a more holistic approach for our students and a more efficient delivery system for staff. We expect this to result in time savings for students with greater results.

Any alternative would only allow for us to make limited changes based on space capacity. This does not allow for the unified holistic experience for our students. Additionally, the alternative would not address many of the ADA compliance concerns we have with this dated facility.

Based on the age of the facility and the need for a unified student support service center we believe that this project will best meet all of the objectives for the Student Learning Support Services Renovation Project.

13. History of prior appropriations received by the institution through the capital outlay process.

Project	Year
Integrated Science & Tech Learning Center	2002
West Bay Great Lakes Campus	2004
Oleson Center Renovation Project	2006
Student Services Learning Center Renovation Project	2018

Supplemental Information

- a) Facility assessment report
- b) Current floor configuration
- c) Conceptual design for renovation
- d) Draft Project budget



Building Detail Report By Building Name

Client: Northwestern Michigan College Building: Osterlin Library

Campus: Main Campus

Building Number: BUILDING_ID_02311

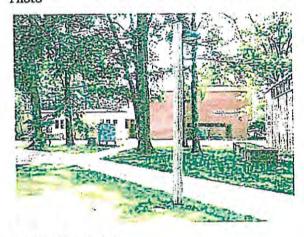
Buildings are ordered by Building Name Currency: USD

Statistics

FCI Cost:	1,006,758	FCE	0.09		
RI Cost:	1,038,474	RI:	0.09		
Total Requirements Cost:	1,038,475				
Current Replacement Value:	11,684,400	Date of most Recent Assessment:	*		

Туре	Building 46,734 SF		
Area Use	STUDY-LIBRARY FACILITIES	Construction Type	
Floors	2	Historical Category	
Address 1	1701 East Front Street	City	Traverse City
Address 2	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	State/Province/Region	
Year Constructed	1961	Zip/Postal Code	49686
Year Renovated	2002	Architect	1977
Ownership	5	Commission Date	-
		Decommission Date	

Photo



Building Description

Requirements



Building Detail Report By Building Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
AHU1/Central Station, constant volume, 15,000 CFM Renewal	Yes	D3041 - Air Distribution Systems	Lifecycle	4- Due within 4 Years of Inspection	Nov 8, 2021	89,608
AHU2/Central Station, constant volume, 12,500 CFM Renewal			within 4 Years of	Nov 8, 2021	89,608	
AHU3/Central Station, constant volume, 8,000 CFM Renewal	Yes	D3041 - Air Distribution Systems	Lifecycle	4- Due within 4 Years of Inspection	Nov 8, 2021	51,828
BUR (Built-Up Roofing) Renewal	Yes	B30 - Roofing	Lifecycle	2- Due within 2 Years of Inspection	Dec 29, 2019	27,378
Carpeting - Tile Renewal	Yes	C3020 - Floor Finishes	Appearance	1- Due within 1 Year of Inspection	Nov 8, 2018	248,513
Chiller, 100 ton, air cooled Renewal	Yes	D3031 - Chilled Water Systems	Lifecycle	5- Due within 5 Years of Inspection	Dec 29, 2022	81,852
Circulating Pump, 5 HP Renewal	Yes	D3090 - Other HVAC Systems and Equipment	Lifecycle	5- Due within 5 Years of Inspection	Nov 8, 2022	9,047
Circulating pump 2 HP Renewal	Yes	D3090 - Other HVAC Systems and Equipment	Lifecycle	5- Due within 5 Years of Inspection	Nov 8, 2022	6,780
Condensate Return System Renewal	Yes	D3022 - Boiler Room Piping and Specialties	Lifecycle	4- Due within 4 Years of Inspection	Nov 8, 2021	36,531
DDC System - Average Renewal	Yes	D3060 - Controls and Instrumentation	Functionality	4- Due within 4 Years of Inspection	Dec 29, 2021	135,471
Demo/Remove/Dispose of Abandoned Satellite Dishes on	Yes	G2048 - Flagpoles	Appearance	2- Due within 2	Nov 8, 2019	8,831

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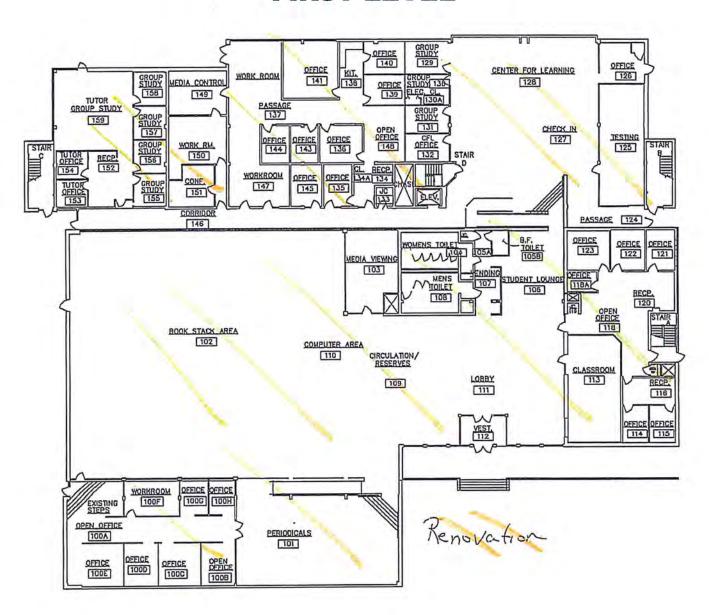
Jan 15, 2018 4:07:45 PM

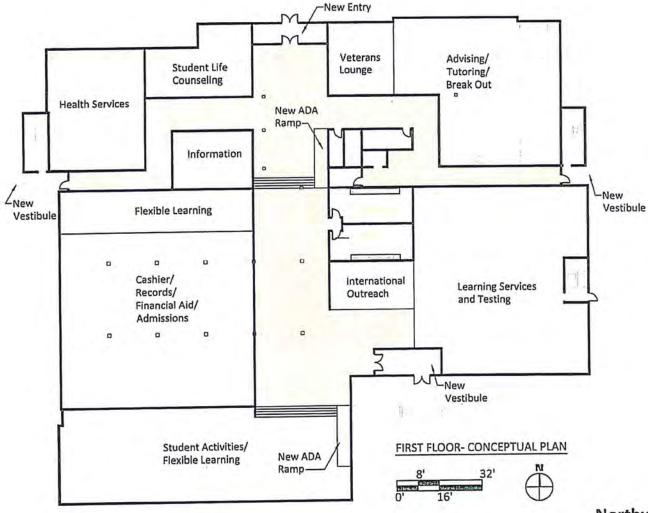


Building Detail Report By Building Name

Requirement Name	Renewal	Prime System	Category	Priority	Action Date	Estimated Cost
Roof Renewal				Years of Inspection		
Door Assembly - 3 x 7 HM Renewal	Yes	B2030 - Exterior Doors	Lifecycle	5- Due within 5 Years of Inspection	Nov 8, 2022	5,061
Door Assembly - 3 x 7 Storefront Renewal	Yes	B2030 - Exterior Doors	Lifecycle	4- Due within 4 Years of Inspection	Nov 8, 2021	9,594
Door Assembly - 6 x 7 HM Renewal	Yes	B2030 - Exterior Doors	Lifecycle	5- Due within 5 Years of Inspection	Nov 8, 2022	4,761
Heat Exchanger, 120 GPM, Shell & Tube Type, HW or Steam Renewal	Yes	D3044 - Hot Water Distribution	Energy	4- Due within 4 Years of Inspection	Nov 8, 2021	31,716
Site Electrical Distribution - Underground Power Distribution - 750kVA Pad Mounted Transformer Renewal	Yes	G4013 - Underground Power Distribution	Lifecycle	5- Due within 5 Years of Inspection	Nov 8, 2022	43,711
Skylights - Monumental Renewal	Yes	B3021 - Glazed Roof Openings	Lifecycle	1- Due within 1 Year of Inspection	Nov 8, 2017	146,295
Variable Frequency Drive (VFD) 10 HP Renewal	Yes	D5090 - Other Electrical Systems	Lifecycle	2- Due within 2 Years of Inspection	Nov 8, 2019	6,113
Water Heater - Elec - Residential - 80 Gal Renewal	Yes	D2020 - Domestic Water Distribution	Lifecycle	1- Due within 1 Year of Inspection	Nov 8, 2018	5,777
Total						1,038,475

03-OSTERLIN BUILDING (O) FIRST LEVEL





Building Upgrades:

- Replace existing windows with new energy efficient windows
- Replace deteriorating stucco exterior with new insulated metal panels
- Upgrade existing toilet rooms/ADA compliance
- Upgrade existing HVAC system
- Upgrade/replace lighting with LED lights
- Upgrade IT infrastructure
- New interior finishes
- ADA accessibility upgrades
- Elevator Upgrades
- Electrical Upgrades

Northwestern Michigan College

Traverse City, Michigan

Osterlin Library Renovation- Preliminary Design 4.23.2018

Cornerstone Architects
Traverso City - Grand Rapids

Cornerstone Architects

Northwestern Michican College

Student Learning Center - Osterlin Renovation

Preliminary Cost Estimate September 2019



Construction Estimate			\$/SF		Gross Area (SF)	Cost Sub-Totals
			\$200	/s.f.	2,000	\$400,000
New Vestibules & Entry			\$110		26,500	\$2,915,000
Renovation		Sub-totals	7220		28,500	\$3,315,000
400	5%					\$165,750
Site Improvements	270					
General Requirements	10%					\$331,500
(Permits, Insurances Fees, Etc.)	10%					\$331,500
Design Contingency	9717					\$331,500
Contruction Contingency	10%					
Construction Cost			\$157	/s.f.		\$4,475,250
Associated Project Costs						ć212 260
Architectural/Engineering Fees	7%					\$313,268
Furniture, Fixtures and Equipment						¢200.000
Furniture						\$300,000
Commissioning						\$20,000
Security						\$20,000
Associated Project Costs			\$23	/s.f.		\$653,268
Total Estimated Project Cost			\$180	/s.f.		\$5,128,518

Section I – Mission Statement

I. - Mission Statement

Northwestern Michigan College was the first comprehensive community college chartered in the State of Michigan. Since its founding in 1951, NMC has provided quality, affordable access to higher education for learners of all ages and backgrounds. NMC is integrally woven into the economic, social and cultural fabric of the region, providing leadership and support for key initiatives that shape our communities and prepare our learners for rich and meaningful lives.

Mission

Northwestern Michigan College provides lifelong learning opportunities to our communities.

Vision

NMC will be the resource of choice for higher education, lifelong learning and cultural experiences. NMC will be an essential contributor to quality of life and a vibrant economy. We will demonstrate collaborative and inventive approaches to education and training for liberal studies, careers, interests and emerging learner markets.

Values

Our individual and collective efforts create the legacy of NMC. In order to achieve our mission, we are individually committed and responsible to live these values:

- Learning is at the center of all we strive to achieve. It is the foundation upon which an enlightened citizenry and a dynamic community are built and is a lifelong process in which we are all engaged.
- We will continuously improve the learning experience and its global relevance to those we serve through innovation, agility and thoughtful risk-taking.

Our actions are governed by the highest degree of ethics, integrity and personal responsibility, exhibited through transparency, openness and trust.

We each will practice **responsible stewardship** for the human, physical, financial and environmental resources entrusted to our care.

Each of us will strive to **exceed expectations** for quality and service in all that we do.

We value all people and will invest in their personal and professional growth and development.

We will **exhibit foresight** by monitoring the changing world around us and taking actions today that prepare us to meet future needs of our communities.

We will **seek others** who share our vision and values, and **collaborate** with them on behalf of our communities.

Purposes

To meet our mission, we are **fully** engaged in **each of** the following purposes with the result that our learners meet their goal(s) of being college ready, transfer ready, career ready and lifelong-learning ready.

- Associate degree and certificate education in liberal arts and sciences, and occupational studies.
- Bachelor's degree in select programs
- Career/occupational education and workforce development.
- Cultural and personal enrichment.
- Facilitating baccalaureate and graduate programs.
- Contributing to regional economic development.

Current Strategic Directions and Capacities

In order to accomplish NMC's stated Mission, Vision, and Purposes, organizational activities focus on achieving the following strategic directions and demonstrating competence in Institutional Effectiveness Criteria.

Strategic Directions

- 1. Ensure that NMC learners are prepared for success in a global society and economy.
- 2. Establish national and international competencies and provide leadership in select educational areas connected to the regional economy and assets.
- 3. Deliver learning through a networked workforce.
- 4. Establish lifelong relationships with learners.
- 5. Transcribe most learning to establish credentials of value.

Institutional Effectiveness Criteria

- 1. Scholarship, Enrichment and Workforce: Helping Students Learn
- 2. Partnership:
 - a. Economic Development and Community Involvement
 - b. Building Collaborative Relationships
- 3. Champion:
 - a. Understanding Student and Stakeholder Needs
 - b. Supporting Organizational Operations
- 4. Culture: Valuing People
- 5. Operations:
 - a. Leading and Communicating
 - b. Measuring Effectiveness
 - c. Planning Continuous Improvement

Section II Instructional Programming

Appendix A Programs of Study (NMC Catalog)

Appendix A – Programs of Study (NMC Catalog)

https://catalog.nmc.edu/?_ga=2.125540812.751963423.1628598249-540205210.1525350857

Appendix B Initiatives Impacting Facilities Usage



2. Executive Summary



The Executive Summary for this Facilities Master Plan report includes the following:

- A. Background / Purpose of Master Plan
- B. Planning Goals / Areas of Focus
- C. Strategic Context
- D. Planning Process
- E. Recommendations



2. Executive Summary (continued)



A. Background / Purpose of Master Plan

Northwestern Michigan College is comprised of four campus locations, over 25 buildings, and several additional properties and buildings. The facilities total over 795,000 SF, with a total current replacement value estimated at over \$160 million.

As NMC looks forward toward the alignment of all planning, master planning is a key element in aligning the strategic agenda, programs and facilities. NMC commissioned this Master Plan in December, 2011.

The goal of this Master Plan is to provide Northwestern Michigan College with a more comprehensive roadmap for meeting facilities issues over the next 10 years. Selected projects and accompanying costs are presented later in this document.

Just as change has created the need for this facilities master plan, future changes will continue to make the planning process dynamic. While this master plan report makes recommendations to retain and enhance an attractive, serviceable physical environment that is responsive to the changing needs of NMC, it is not rigid or static. To be an effective consensus-building and decision-making tool, this facilities master plan should be seen as a flexible document, able to be periodically evaluated and revised as new ideas and opportunities emerge.



B. Planning Goals & Areas of Focus

Goals:

This plan includes the following specific goals:

- 1. Identify sites for new construction or expansion.
- 2. Address traffic patterns and parking facilities.
- 3. Respond to emerging and changing physical needs as they relate to updated academic offerings.
- 4. Maintain stewardship of the natural environment; evaluate environmental impact of proposed construction.
- 5. Establish priorities and cost estimates for a tenyear Master Plan.



C. Strategic Context

NMC's recent strategic planning process yielded several points of interest that formed the backdrop for the Planning Team:

- NMC is recognized for service beyond Grand Traverse County and the surrounding service area. Programs with state-wide, national, and international value will continue to strengthen this broader recognition.
- Development of private-sector partnerships will allow NMC to expand educational experiences.
 Strategies that promote asset sharing will be prioritized.
- . NMC is expanding from two-year to four-year programs in select areas tied to employer and regional economic development needs.
- . NMC believes that the education industry as a whole is trending from a time-based system to one that is competency-based.
- NMC believes that learners will expect innovative spaces for learning in the classroom and as part of daily activity on all its campuses. NMC will be able to facilitate learning programs from a variety of sources in addition to its own.





- Facilities at the Aero-Park Campus will have capacity to expand into research activities connected to learning experiences and to regional economic development. Similarly, the Eastern Avenue property will have the potential to house a next generation of programs and services.
- Simulation-based learning will continue to expand as a requirement in many of NMC's programs (such as allied health, engineering technology, and maritime technology), providing resources for continuing professional training beyond degrees and certifications.
- NMC is committed to sustainable practices both fiscally and environmentally.
- NMC will continue to use strategies that integrate its multiple campuses into a single learning community. Transportation, technology, smart planning and scheduling will all play a part in promoting this vision.



D. Planning Process

The Planning Team began its work with data collection and review of existing documents and reports, including site surveys, building plans, condition assessment reports, and utility reports. This was supplemented by College-provided data on enrollment history and trends, room utilization, parking counts, land use, NMC Strategic Plan, and previous capital outlay requests. Primary sources of background data were individual strategic plan documents prepared by College departments.

The Planning Team subsequently met with the **President's Council and NMC Leadership Team to gather** addition input and insight into the existing documents and direction for the future.

The Team toured each NMC building and site to gain a deeper understanding of the content and costs represented in the FCAP Report; become familiar with campus layouts, facility functions, infrastructure, circulation patterns and general building conditions; and better understand the background of facilities and programs, as well as future intent and strategic direction.

These tours were followed by meetings with each department to review the strategic planning documents and clarify specific points in the context of existing facilities and future direction. Each department received advance questions from the Planning Team as preparation for each meeting.

Following this input, the Team prepared a series of optional ideas, with conceptual costs, for consideration and feedback by the President's Council and ultimately by the Board of Trustees prior to refinement into a final Master Plan document.



F. Recommendations

Following are narrative descriptions of major components of the 2012 Master Plan, followed by site plan illustrations. These components are not necessarily listed in the order of priority.

Main Campus

Site

Traffic and Parking

There is capacity to expand selected parking lots (Aspen, Birch, Cedar, Juniper, Pine, and Tamarack) to create more, dispersed parking opportunities across campus. The relocation of a portion of College Drive would add almost three acres of area within the ring road. Redevelopment of student housing would also create a stronger pedestrian pathway between Oleson and the rest of campus west of College Drive. With the addition of 244 new parking spaces, the NMC campus would have a total of 1,789 spaces available.

Although not a formal recommendation for this master plan, the option exists of developing a multi-level parking structure on campus that could address the parking need on a smaller footprint in favor of retaining existing natural ground area. The specific size, location, cost and financing terms of a parking structure would be critical to maximize the benefit to NMC, its students, and its patrons. The most likely locations for a structure maximizing shared use would be the Aspen Lot and/or the Cherry Lot.





Recreation Fields

The recreation fields would be improved in two major ways: first, the area would be raised to provide adequate site drainage and new fill to eliminate standing water, and thereby increase its usability. Second, the area would be redefined to provide space for baseball, softball, football, soccer, lacrosse, and rugby, thereby increasing its value for formal PE classes, student life activities, club sports and informal recreation.

Campus Edge

Upgrading the campus edge between NMC and TCAPS property through effective landscaping and other design elements would provide a safer, more attractive buffer.

Pedestrian Improvements

Redevelopment of the pedestrian corridor from Tanis to West Hall would enhance visual connections from west campus to center campus and provide a more clear and useful path to connect core NMC buildings.

West Hall

Renovation of 33,450 SF and expansion of West Hall by 40,000 SF would consolidate student services, expand dining options, bookstore offerings, health services and space for student organizations, as well as add new classroom space and study space for individuals and groups. As the Multi-Disciplinary Student Learning Center, the facility would be multi-story and located near several major parking areas.

An expanded plan would add new library space and new fitness/wellness space to expand the Multi-Disciplinary Student Learning Center to approximately 150,000 SF. The Campus Master Plan following this Summary illustrates this expanded plan at West Hall.





PE Building

The functions now located in the PE Building would be relocated to the expanded West Hall project (Multi-Disciplinary Student Learning Center). The existing PE Building would be razed to make room for a future academic building. The new facility would create new opportunities for academic programming, as well as increased informal recreation and fitness/wellness activity.

Fine Arts

The Fine Arts Building was originally designed for an expansion at the north end of the building. An expansion of approximately 6,000 SF would accommodate potential new programming and provide space for increasing use by larger music groups and ensembles.

The renovation of the existing music wing (approximately 9,000 SF) would also make the existing space more usable and flexible for current and future music programming.

Dennos Museum Center

Redevelopment of the west loading dock and approach drive will improve servicing of the building and reduce damage to the walls of the drive because of its narrow width. Also, a modest equipment storage addition at the loading dock will enhance the flexibility and utilization of Milliken Auditorium.

New Student Housing

New housing totaling 129,000 SF would replace the three existing apartment buildings, but also increase the housing capacity from 138 to 300 in order to meet NMC strategic goals to accommodate future growth and specifically that 5% of its enrollment come from international students. This housing can be developed in a phased approach as the need grows.





Renovation of Osterlin and Tanis

The consolidation of student services at West Hall, combined with the relocation of library space from Osterlin Library to the Multi-Disciplinary Student Learning Center offers an opportunity to renovate 32,500 SF on the first floor of Osterlin Library to increase the its value as expanded study space (individuals or groups), testing space, and flexible academic space. Located between NMC's most intensely used academic buildings (Scholars Hall and Health Science), it is positioned for optimal value.

The opportunity to reconfigure the upper level of Tanis (approximately 7,200 SF) offers possibilities to enhance communication and operational efficiencies for NMC components as the implementation of the master plan evolves.



Aero Park Campus

Aero Park Laboratories

The APL contains large open spaces for construction, renewable energies, and engineering programs. The building is well suited to accommodate future growth in building area and parking capacity by building additions of 60,000+ SF to the east of the existing building (dependent on use, parking, and site circulation requirements). APL is also suitable as a location for the emerging Engineering Technology Program, currently in development.

Automotive Services Technology

With the anticipated growth of current programming, as well as programming for alternative energies (electric and hybrids), this building is capable of classroom and lab expansion to accommodate the growth by 4,000 – 5,000 SF, plus corresponding parking.

Aviation Building

Indoor storage for aircraft at the existing facility is at capacity (12 aircraft). With the recent and anticipated growth of the aviation program, additional storage capacity can be accommodated by phased additions to the existing pre-engineered building with a hangar addition of up to 11,000 SF (to fit up to 12 additional aircraft to the existing fleet of 12 aircraft), which will double the interior aircraft storage capacity. An additional 3,000 SF will handle additional classroom space, simulator space, and additional student load anticipated for the unmanned aircraft program. At its maximum capacity, the expansion will require site work related to parking capacity and stormwater management.





Parsons Stulen

Parsons Stulen has approximately 4,000 SF of existing space, primarily in the west wing of the building, that could be repurposed for other programming needs as they emerge.

University Center Campus

There are three primary components to improvements proposed at the University Center: new emergency exit drive from the parking lot to Wysong Road; upgrade of two interior classrooms (2,260 SF) to science labs to accommodate expanded programming by NMC and University Center partners; and the addition of formal access to Boardman Lake for potential future programming and as a community asset.

The wooded area south of the existing building also offers an opportunity to accommodate future housing or an executive retreat / learning center development, taking advantage of the quiet, secluded nature of the site, its proximity to existing corporate-level learning facilities, as well as recreational use of Boardman Lake.





Additional Areas of Focus:

Appel Property

Site improvements related to entry drive and parking, as well as an improved septic system, would make the property more accommodating and desirable for regular use. The changing ecology and environment of the Boardman River Basin makes this a resource useful for science curricula, environmental studies, and outreach to the broader community.

Rogers Observatory

Increased use of this NMC resource would occur with two proposed improvements: a barrier-free pedestrian pathway from the parking lot to the observatory main level; and a 1,000 SF expansion of the classroom area to accommodate more occupants , as well as additional space for storage.

Eastern Avenue Property

Because of the size and unique aspects of this property, it holds the potential for a range of ideas:

- . Student housing
- . Intergenerational housing
- . Recreation fields and nature trails
- . New academic live/learn buildings
- . Agribusiness-related farming & production facilities
- . Alternative energy site

The dramatic topography on the site could suggest the potential for two primary uses – one at the upland portion, accessed from existing residential roads that engage the property at the northern corners; and one at the lower portion of the site, more related to Eastern Avenue and to close proximity to the NMC campus. Because of the orientation of the land, it has maximum exposure to the sun.





At 55 acres, it is equal to 60% of the existing main campus land area. Because of this, it would be appropriate to think of this property in terms of a short-term strategy and a long-term strategy. The initial development of a new walk, entry drive and parking area on the Eastern Avenue property would provide students and faculty safe access to the site and its walking trails. Clearing areas for development associated with agribusiness programming could be included, along with associated support structures and utilities.



Immediate Recommendations

Moving forward, based upon the recommendations and the information gathered during this master plan, the following projects have been identified by the Executive Team as areas that need immediate solutions. Funding of these projects may take on a multi-year approach, and projects will be staged based on final funding opportunities.

For example, as a major capital improvement, the Multi-Disciplinary Student Learning Center will likely require funding from multiple sources, including the State of Michigan through the capital outlay process and state bonding capacity. This may take several years to accomplish. In the interim, funding for other projects may become available through grants, partnerships, and donations.

Similarly, new programming may raise the urgency of a particular priority in order to take advantage of new funding opportunities not known at this time. Additionally, other recommendations within Section 5 will be addressed as the College sets priorities throughout the next 5-10 years.

Multi-Disciplinary Student Learning Center

This facility will combine learning, recreation, and student services in one area. The project will address student services, classroom simulation expansion, library services, and a comprehensive physical education complex.

Anticipated funding: The project will require multiple sources of funding. The College anticipates a combination of private donations, state sources, and College funds to complete the project.

Timeframe: 3-5 years to complete funding requirements.





Renovation of Osterlin Library

Renovation of the building is necessary in order to optimize space and meet current capacity needs.

Anticipated funding: The project would be accomplished through the College's current plant fund reserves.

Timeframe: 1 year

New Student Housing

This will provide both additional housing to meet anticipated future growth, as well as updated apartments.

Funding: The College has not identified funding for this project. It is anticipated that this will be a cooperative arrangement and funded through a private/public partnership.

Timeframe: 2-3 years

New Drive at University Center

This will provide additional egress for safety and emergency exiting from the site.

Funding: The College will fund this project through the annual plant fund budget.



Appendix C Socioeconomic Benefits

W.E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH

Final Report

Economic Impact of Northwestern Michigan College

May 27, 2014

George Erickcek

Introduction and Findings

This report provides an estimation of the total economic contribution that Northwestern Michigan College (NMC) makes on its surrounding region. Of course, the full comprehensive impact of the college on the region's social and cultural environment is much larger than its economic influence. Since its founding in 1951, the college has changed the social environment of the greater Grand Traverse region. This change has occurred informally by the simple presence of more young adults staying in the community to pursue their education, and formally through activities such as the Dennos Museum Center, WNMC 90.7 FM, and the Rogers Observatory which have increased both the cultural offerings and cultural expectations of the region. The purpose of this report is to document the college's economic contributions to the region which, while an important measure, reflects only a portion of the college's total impact.

The report's findings are presented in three sections. First, we provide an estimate of the economic presence of Northwestern Michigan College. The college's economic presence is the level of annual economic activity generated in its service region because of its ongoing operations, the consumer expenditures of its students, and the resulting spinoff that occurs in the region due to these direct expenditures.

Second, we present an estimate of Northwestern Michigan College's economic impact. Estimating economic impact is a conceptual exercise that involves making valuations of the status quo compared to a counterfactual situation in which the college is absent from the region. In measuring the impact of a new facility to a region, such as a factory, the level of economic activity with the facility in full operation is compared to the level of economic activity in the region before the facility was constructed. Similarly, to measure the economic impact of an existing facility, a strictly hypothetical level of the region's economic activity without the facility must be estimated.

The final part of the report estimates the impact of Northwestern Michigan College on the potential earnings of its graduates. During the course of their working career, Associate-degree holders in northern Michigan earn \$460,000 more than persons who only have a high school diploma. The net present value of the return on investment for a student successfully completing

a two-year Associate's degree, which discounts the value of future earnings, is estimated to be between \$7.93 and \$11.14 for each dollar he/she spent on tuition and foregone income while attending school. The student's return on investment depends on whether he/she receives federal aid and attends school full or part time. This is a conservative estimate as it does not factor in the unique, high-demand technical degrees that the college offers.

Northwestern Michigan College's economic contribution is estimated by an economic simulation model especially constructed for the communities served by the college by Regional Economic Models Incorporated (REMI). The REMI model is considered one of the best regional impact models available due to its flexibility and structure. A brief description of the model is provided in the Appendix.

NMC's impact on the region's economy is multi-faceted and includes the impact of:

- The purchases of goods and services made by the college in its ongoing operations;
- The regional consumer expenditures made by its faculty and staff;
- The regional consumer expenditures of its students; and
- The growth in business activity due to its technical assistance to area businesses as well as the increased competitiveness of its businesses due to the college's technical training programs and a more educated regional employment base.

NMC's economic contribution is measured by its impact on:

- Total year-round employment in the regions, both full and part time;
- Personal income of the regions' full-time residents which includes earned income, such as wages and salaries, and unearned income such as pensions and dividends; note that personal income is based on where someone lives while wages are based on where someone works;
- The increase in total sales: the purchase of all goods and services in the regions including purchases made by businesses to suppliers; and
- The change in the regions' Gross Regional Product (GRP).

The last measure, the region's GRP, equals the increase in the purchases of goods and services generated by NMC minus the value of all intermediate goods and services that are either shipped or provided outside the region. For example, the purchase price of a text book would be included in total sales, while only the "mark-up" earned by the local seller is included in the GRP.

This study estimates the economic contribution of Northwestern Michigan College on the following regions:

Region 1: Grand Traverse County;

Region 2: Grand Traverse, Antrim, Benzie, Kalkaska, Leelanau, and Wexford Counties

Region 3: Grand Traverse, Antrim, Benzie, Kalkaska, Leelanau, Wexford, Charlevoix, Emmet, Manistee, and Missaukee Counties

The presence of Northwestern Michigan College contributes \$130.9 million in total sales, \$62.6 million in personal income, and generates 1,822 jobs in the 10-county region of Northwestern Michigan as shown in Table 1.

On average, each employee of the college (full- and part-time) supports:

- 0.6 additional job positions in the region
- \$118, 900 in total sales
- \$56,900 in total personal income of residents living in the region.

The economic impact of Northwestern Michigan College is an increase in 1,060 jobs and a rise in total sales of \$55.2 million. Personal income is \$32.7 million greater and the region's Gross Regional Product is \$33.0 million larger. This is the regional economic impact that is supported by \$9.1 million in property taxes paid to NMC in FY'13.

The students attending Northwestern Michigan College can also expect a significant increase in their lifelong earnings.

- Individuals holding an associate degree in Northern Michigan had a low 3.8 percent unemployment rate in 2012 (most current data available) compared to a high 14.9 percent rate for persons with only a high school degree.
- Annual earnings for associate degree holders in Northern Michigan were \$31,800 in 2012 compared to \$24,110 for individuals with only a high school diploma.

Table 1 Summary of Economic Presence and Impact of Northwestern Michigan College

				Total Gross
		Total personal	Total sales in the	Regional Product
	Total employment	income (\$ mil)	region (\$ mil)	(\$ mil)
Economic presence	e			
Region 1	1,664	43.7	111.0	63.8
Region 2	1,788	60.6	124.7	70.8
Region 3	1,822	62.6	130.9	73.6
Economic impact				
Region 1	962	23.7	43.4	27.2
Region 2	1,032	33.9	50.3	31.0
Region 3	1,060	32.7	55.2	33.0

Economic Presence

The economic presence of NMC is defined as the level of economic activity in the region that is supported by the existence of the college. As highlighted above, the economic presence is very

diverse, ranging from the college's purchases of locally generated services, to the consumer spending of its employees and students, and to the increased competitiveness of local businesses.

In 2012, Northwestern Michigan College employed 1,092 employees, of whom 314 were full time, 294 were adjunct instructors teaching for-credit courses, 12 were adjunct instructors teaching non-credit courses¹, and the remaining 472 employees were student workers and other part-time workers. It should be noted that the annual number of workers at the college includes short-time workers as well, persons who only work for a semester or less. In any given month over the course of 2012, NMC employed in the range of 553-811 workers. That same year the college reported a point-in-time employment level of 655 for the fall semester, excluding student workers. Due to the employment definitions required by the REMI model (see Appendix), the annual full-, part- and short-time employment estimate was used for this analysis. Annual payroll at the college was \$22.3 million in 2012. These values are used in generating the college's economic presence.² Finally, the total college employment figure used in the analysis—1,101 employees—includes contracted security personnel.

As shown in Table 2 below, the ongoing operation of Northwestern Michigan College, which includes the consumption expenditures of its staff and faculty, generates 386 additional jobs in the 10-county region beyond the 1,101 jobs at the college for a total employment impact of 1,487. Not surprisingly, the major share of these jobs (96 percent) is located in Grand Traverse County–322 positions. The jobs generated in Regions 2 and 3, outside of Grand Traverse County, are due primarily to the local consumption expenditures of the college's staff and faculty who reside in these regions.

The college's operations increase total sales in the 10-county region by \$75.8 million annually. Since most of these sales are for goods and services that are generated outside the region, the college's impact on the region's Gross Regional Product—the value of goods and services generated in the region—is less, \$48.5 million.

The economic presence of Northwestern Michigan College also includes the economic contribution of the consumption expenditures of its students that are associated with their attendance at the college. In this study we used the complete enrollment data for 2012-2013 (Fall '12, Spring '13, Summer '13) which is shown in Table 3.

¹ Most non-credit instructors (Extended Education courses) are paid as independent contractors and are therefore not included in the employee figures. Those adjunct instructors who teach for-credit courses, typically over a semester, are paid as adjunct employees, and therefore are included in the figures above.

² The REMI model uses the college's employment level to estimate the level of demand for local goods and services the community college would require based on national statistics. We adjusted the REMI model's estimate by including its payroll—the college's payroll and its outsourcing of security services.

Table 2 Economic Presence of Northwestern Michigan College

Grand Traverse	Region 2	Region 3								
Operations										
1,101	1,101	1,101								
1,423	1,478	1,487								
35.9	48.9	49.8								
70.9	74.9	75.8								
45.4	48.0	48.5								
MC and University	(Center)									
67	87	90								
2.1	2.8	2.9								
5.9	7.5	7.8								
3.9	4.9	5.1								
ning Division										
8		•								
150	180	182								
4.9	7.3	7.3								
30.2	35.2	35.2								
12.6	14.7	14.7								
ompetitiveness										
24	43	63								
0.7	1.6	2.7								
4.0	7.1	12.2								
1.8	3.1	5.3								
Sales (\$ mil 2012) 70.9 74.9 75.8 Gross Regional Product (\$ mil 2012) 45.4 48.0 48.5 Student Expenditures (NMC and University Center) Employment 67 87 90 Personal income (\$ mil 2012) 5.9 7.5 7.8 Oross Regional Product (\$ mil 2012) 3.9 4.9 5.1 NMC Training Division Employment 150 180 182 Personal income (\$ mil 2012) 4.9 7.3 7.3 Sales (\$ mil 2012) 30.2 35.2 35.2 Gross Regional Product (\$ mil 2012) 12.6 14.7 14.7 Business Competitiveness Employment 24 43 63 Personal income (\$ mil 2012) 0.7 1.6 2.7 Sales (\$ mil 2012) 4.0 7.1 12.2										
1,664	1,788	1,822								
43.7	60.6	62.6								
111.0	124.7	130.9								
63.8	70.8	73.6								
	1,101 1,423 35.9 70.9 45.4 MC and University 67 2.1 5.9 3.9 ning Division 150 4.9 30.2 12.6 competitiveness 24 0.7 4.0 1.8 sence Impact 1,664 43.7 111.0	1,101 1,101 1,423 1,478 35.9 48.9 70.9 74.9 45.4 48.0 MC and University Center 67 87 2.1 2.8 5.9 7.5 3.9 4.9 150 180 4.9 7.3 30.2 35.2 12.6 14.7 1.8 3.1 3.1								

^{*}By place of work and includes contracted security personnel

Table 3 2012–2013 Student Enrollment

	Fall 2012	Spring 2013	Summer 2013
Northwestern Michigan College			
Grand Traverse (Region 1)	3,058	2,954	865
Percent 3/4 time or more	55	56	13
Region 2 excluding GT	1,208	1,192	281
Percent 3/4 time or more	57	58	13
Region 3 excluding Region 2	164	140	34
Percent 3/4 time or more	67	68	13
Other	414	344	147
Total	4,844	4,630	1,327
Percent 3/4 time or more	58	59	13

SOURCE: Northwestern Michigan College.

Moreover, the consumer expenditures of University Center students are included in estimating the NMC economic presence. University Center enrollment expressed in contact hours generated, were converted to estimated student headcount as shown in Table 4.

Table 4 University Center Student Enrollment

_		Undergraduate students	Graduate students
Semester	Total credit hours (CH)	(70% of CH at 9 CH per student)	(30% of CH at 6 CH per student)
Fall 2012	5,041	392	168
Spring 2013	4,819	375	241
Summer 2013	2,290	178	115

According to the finding of a study prepared by Geoffrey Paulin, full-time college students spend \$3,700 per quarter.³ However, roughly 40 percent of NMC students are less than three-quarter time during fall and spring semesters and 87 percent of the college's summer students are less than three-quarter. These individuals can include working adults taking career advancement courses and/or retirees taking classes for personal enrichment as well as credential seeking students. Since, for these individuals, attending class is not their primary activity, their consumer expenditures are excluded from estimating both NMC's economic presence and economic impact.⁴ In addition, some full-time and three- quarter-time students attending NMC live at home with their parents and do not pay rent. While we do not know the percentage of NMC students living at their parents' residence, we do know that only 36 percent of the college's full-time students are under 21 years old and only 21 percent of the college's three-quarter-time students are under 21 years of age. We subtracted housing costs (rent) from the expenditures of students who are under 21 years of age.

As shown again in Table 2, the economic presence of student expenditures generated 90 jobs in the 10-county region, contributed \$7.8 million in total sales, and generated \$5.1 million in the region's Gross Regional Product.

Business Community Impact

Northwestern Michigan College is a vital economic asset for the regional business community. Having NMC in the region is advantageous to both employers and county residents who are potential members of the workforce for at least two reasons. First the college imparts skills and knowledge that enhance workers' productivity and employability. Second, it tends to retain workers in the region. Many local employers interact with the college through internships, advisory committees, or in other ways, which promotes the hiring of NMC students and simultaneously promotes the retention of county residents by providing good employment opportunities within the region.

All communities compete on the strength of the talent of their workforce. In addition to the overall contribution of the NMC programs in increasing the base of educated and trained workers

³ Geoffrey D. Paulin, "Expenditures of College-Age Students and Nonstudents," *Monthly Labor Review*, July 2001, pp. 46–50. He found that in the 1996–1998 period, college students spent \$2,584 per quarter. In our calculations, we subtracted housing expenditures from this total since we assume many NMC students live at home and used an inflation factor of 43.2 percent.

⁴ While this step is required for this study, it is unfortunate because it neglects the importance of the college to the area's quality of life. However, the business impact of workers enhancing their workplace skills is estimated in the next section.

in the region, NMC's technical training programs and the NMC Training Division (part of the Michigan Manufacturing Technology Center), play a significant role in improving the competitiveness of the region's base industries—industries that sell their goods or services to customers outside the region.

The direct impact of the NMC Training Division is also shown in Table 2. In total, its activities contributed 182 jobs to the greater 10-county Grand Traverse region as well as \$35.2 million in total sales and a \$14.7 million increase in the region's Gross Regional Product.

In addition, Northwestern Michigan College offers courses and certificates in welding, auto tech, construction trades, renewable energy programs, advanced manufacturing, manufacturing tech, engineering, electronics tech, and CAD operations. These are skills that are in high demand from the region's base industries. It is impossible to estimate the competitiveness gained by the region's base industries because of these programs; however, if they lower production costs for the region's manufacturers by just 1.0 percent, they would generate 63 jobs in the region and generate \$12.2 million in sales, again shown in Table 2.

The total economic contribution of NMC to the region is also shown in Table 2. The presence of NMC generated more than 1,800 jobs in the 10-county region, increased personal income by \$62.6 million and total sales by \$130.9 million.

Often an employment multiplier is calculated to illustrate the total employment impact of a facility or organization. The multiplier is derived by dividing the total employment impact of the organization, in this case 1,822 for the 10-County Region by the college's direct annual employment in the region, 1,101. The multiplier for NMC's ongoing operations in the 10-County Region is 1.6. In other words, every 10 employees at the college support another 6 jobs in the region.

A more detailed illustration of the college's contribution to the regions' employment is shown in Table 5. As expected, the college's presence has a large impact on the regions' retailers; however, it also supports 82 jobs in its health care sector due, in large part, to the health care benefit package utilized by NMC employees.

Table 5 Detailed Employment Breakdown of NMC's Economic Presence

	Grand Traverse	Region 2	Region 3
Northwestern Michigan College	1,101	1,101	1,101
Construction	77	93	96
Manufacturing	94	117	126
Wholesale trade	18	20	21
Retail trade	79	99	103
Real estate	44	52	54
Prof., scienific, & technical serv.	19	21	22
Administratve	29	35	37
Health care	64	78	82
Arts	9	11	11
Food service	29	37	39
Other services	41	49	51
State and local government	61	73	79
Total	1,664	1,787	1,821

Economic Impact

To measure the economic impact of Northwestern Michigan College we must measure the difference between NMC as a comprehensive community college and a community without NMC. Grand Traverse County—with a population of nearly 90,000—is too large to not be served by a public or private higher educational institution. Therefore this analysis assumes the following assumptions:

- A much smaller higher-education entity would provide a limited, core offering to the region and receive no property tax support.
- Many of the current activities and unique training programs at NMC exist because NMC is a comprehensive community college with strategic priorities tailored to the needs and assets of the community. Specifically, this analysis assumes that the following activities exist primarily for these reasons and would, therefore, likely not exist under the hypothetical counterfactual scenario.
 - Hagerty Center
 - Great Lakes Culinary Institute
 - University Center
 - Great Lakes Maritime Academy
 - Dennos Museum Center
 - Aviation Division, Technical Division
 - Extended Educational Services (including music and physical education)
 - Bridge Program
 - Great Lakes Water Studies Institute
 - NMC Training Division
- The staffing and payroll of the hypothetical, alternative educational provider would be much smaller. Including not offering the activities cited above, we assume that the "core" activities of a higher education institution offering services in the region under the counterfactual scenario would be reduced by two-thirds with a staff estimated at 270 FTE's.
- Without NMC, its current students would have to decide whether to discontinue their education or select a different higher education institute which would likely necessitate

- leaving the area. In fact, we have assumed that all of NMC's current students living outside Grand Traverse County would attend school elsewhere because of the counterfactual institution's limited course offerings. For students living in Grand Traverse County, we have assumed that 50 percent would decide not to advance their education beyond high school and remain in the county.
- At the same time, in estimating the economic impact of the college's presence in the region, we must consider the local tax support for NMC's ongoing operational budget of \$55 million (FY'13 actual). Without NMC all or, at least, a portion of these property tax dollars would be returned to the region's property owners. In short, the \$9.1 million in local property taxes would be returned to taxpayers in this scenario. The reduction in property taxes for residents would have a positive impact on consumption expenditures. For businesses, the decrease in property taxes would lower their capital costs on plant and equipment, making the county marginally more cost competitive. As shown in Table 6, the combined impact to residents and businesses of the lower property taxes would generate an estimated 179 jobs in the 10-county region. Since this is an offsetting impact to the college's economic presence, it is entered as a negative impact.

As shown in Table 6, the direct impact of NMC employment is reduced to 831, because the hypothetical higher education entity would be staffed by an estimated 270 instructors and administrators. Again, the economic impact of NMC is the difference between its current level of operations and this hypothetical educational institution. This total economic impact of NMC can be measured in several ways: an increase of 1,060 jobs, \$55.2 million in sales, \$37.2 million in the region's personal income or a \$33.0 million in the region's Gross Regional Product. In the following section, we break out the individual components that make up NMC's economic impact.

We estimate that the economic impact of NMC's ongoing operations generates 1,123 jobs in the 10-county region, contributes \$56.5 million in extra sales, and \$36.2 million to the region's Gross Regional Product.

Table 6 Economic Impact of Northwestern Michigan College

	Grand Traverse	Region 2	Region 3
Ongoi	ng Operations		
Direct employment	1,101	1,101	1,101
Alternative institute	-270	-270	-270
Net institute impact	831	831	831
Full impact on the regions			
Employment	1,074	1,116	1,123
Personal income (\$ mil 2012)	27.3	37.1	34.9
Sales (\$ mil 2012)	53.6	56.7	56.5
Gross Regional Product (\$ mil 2012)	34.3	36.3	36.2
Student Expenditures	(NMC and Univer	sity Center)	
Employment	34	51	53
Personal income (\$ mil 2012)	1.1	1.6	1.7
Sales (\$ mil 2012)	3.0	4.4	4.6
Gross Regional Product (\$ mil 2012)	1.9	2.9	3.0
Business	Competitiveness		
Employment	24	43	63
Personal income (\$ mil 2012)	0.7	1.6	2.7
Sales (\$ mil 2012)	4.0	7.1	12.2
Gross Regional Product (\$ mil 2012)	1.8	3.1	5.3
Т	ax Impact		
Employment	-170	-178	-179
Personal income (\$ mil 2012)	-5.4	-6.5	-6.6
Sales (\$ mil 2012)	-17.2	-17.8	-18.1
Gross Regional Product (\$ mil 2012)	-10.9	-11.3	-11.5
Total Ed	conomic Impact		
Employment	962	1,032	1,060
Personal income (\$ mil 2012)	23.7	33.9	32.7
Sales (\$ mil 2012)	43.4	50.3	55.2
Gross Regional Product (\$ mil 2012)	27.2	31.0	33.0

The economic impact of student expenditures is determined by estimating the percentage of students who would either leave the area to attend college elsewhere, or not attend college because of the absence of a more comprehensive and potentially more affordable option. The hypothetical institution's course offering would be limited; however, some students in Grand Traverse County would remain.

Finally, since it is assumed that the counterfactual institution would not provide the technical career programs being offered by NMC, the college's economic impact would include its positive impact on the competitiveness of the regions' businesses. However, it is very likely that the local MMTC operations would move to a different host and, therefore, its contribution is not included in the college's economic impact.

The full economic impact of the college is shown in Table 6. In total, the economic impact of Northwestern Michigan College compared to a private transfer institution is an increase in 1,060 jobs and a rise in total sales of \$55.2 million. Personal income is \$32.7 million greater and the

region's Gross Regional Product is \$33.0 million larger. In other words this is the regional economic impact that is supported by \$9.1 million in property taxes paid to NMC.

Finally, Table 7 provides a detailed breakdown of the college's employment impact on the region's industrial sectors.

Table 7 Detailed Employment Breakdown of Northwestern

Michigan College's Economic Impact Region 2 Grand Traverse Region 3 Northwestern Michigan College 1,101 1,101 1,101 Alternative Institute -270 -270 -270 Net Direct 831 831 831 21 Construction 30 32 Manufacturing 8 17 26 Wholesale trade 5 7 6 Retail trade 23 37 40 Real estate 5 10 12 Prof., scienific, & technical serv. 4 5 6 Administratve 11 14 15 Education services 821 820 820 Health care 25 27 16 Arts 3 4 4 4 10 11 Food service Other services 9 13 15 State and local government 31 39 44

962

Impact on Potential Graduate Earnings

Total

If young adults decide not to further their academic careers because of the absence of Northwestern Michigan College, it would significantly lower their lifetime earning potential. In the following figures, we show the 2012 average annual earnings and unemployment rates for working age adults living in Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Missaukee, and Wexford counties. As can be seen in Figure 1, the average annual income of individuals with an Associate's degree is 30 percent higher than that of a person who holds only a high school diploma. Moreover, as seen in Figure 2, Associate-degree holders also face lower unemployment rates than persons with only a high school diploma.

1,031

1,060

⁵ The geographic limitation of the iPUMS database, which provides a five percent sample of individual records from the 2012 U.S. American Community Survey, requires this large geographic area. Note that Manistee County is excluded from this region based on available data.

80 70 Annual income (in 000s) 60 50 40 30 20 10 0 Less than HS High school Some Associate's Bachelor's Graduate college ■ Northern Michigan ■ Michigan

Figure 1 Average Annual Income by Educational Attainment

SOURCE: Ruggles et al, IPUMS USA 2012.

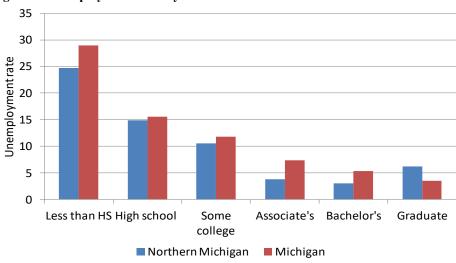


Figure 2 Unemployment Rate by Educational Attainment

SOURCE: Ruggles et al, IPUMS USA 2012.

It should be noted that the above data do not specifically reflect the value of an NMC Associate degree but rather an Associate degree from any institution of those employed in the Northern Michigan region.

It is difficult to estimate the average return on investment (ROI) of a student attending Northwestern Michigan College for several reasons. First, some do not complete a certificate or degree program and yet receive economic benefits from attending classes which upgrade their skills. Second, NMC offers a wide selection of unique programs that charge differential tuition rates based on higher program costs. Therefore there is increasing variability in the cost of attendance depending on the program pursued. Third, students may take longer than two years to complete, and may not be successful in finding a career that uses their training to its utmost. Fourth, the opportunity cost of attending college—the loss of income from not working full time—varies greatly between students and their economic conditions. Finally, in estimating a lifetime flow of earnings generated by attending college, a proper discount rate must be used.

There is much debate on this topic: too low of a discount rate will overvalue long-term returns, while the opposite is true if the discount rate is set too high.

As shown in Table 8, we provide three separate estimates for the return on investment for students completing their Associate degrees at NMC. These three scenarios are as follows:

- Scenario 1: A student completes a general Associate's degree from Northwestern Michigan College in two years, without receiving any financial support.
- Scenario 2: A student completes a general Associate's degree from NMC and receives financial support (Federal Pell Grant)

In both of the scenarios above, the student would forego the opportunity to earn \$9,600 per year for the 30 weeks that he/she is attending class for the two years. This is based on the student working full-time for \$8.00 per hour for 30 weeks each year.

Scenario 3: A student goes to NMC on a part-time basis, taking 11 credit hours each semester and completes in three years. During these three years he/she is also working part-time, 20 hours per week, earning \$4,800 per year.

As shown in Table 8, we estimate that the student paying full tuition would see a \$7.93 return for every dollar spent attending college (2012 dollars); including foregoing earned income during the two years. For students receiving the average federal assistance package (Pell Grants) who completes in two years, the return is \$11.14 per every dollar invested. Finally for the student who works and attends NMC on a part-time basis, completing in three years, the return on his/her investment is \$9.85. Under scenarios 1 and 2, the average associate degree holder earns \$460,000 more during their working career than a high school graduate. In the third scenario it is slightly lower. To estimate the current value of this difference in earning streams between an associate degree holder and a high school graduate, a three percent discount rate was used to adjust for time preferences, current earnings are valued more than future earnings even when accounting for inflation.

It is clear that the student's ROI for attending college will vary greatly depending on the courses taken, parental support, and career success. Nevertheless, even under the conservative conditions stated above, attending NMC is a smart move.

Table 8 Return on Investment for Attending and Completing an Associate Degree at Northwestern Michigan College

					F	oregone	Ea	arning differer	ıce	between Ass	ocia	te degree and	l hig	gh school				
			Tota	lamount	ear	rnings due				diploma (20	13 d	ollars)						
	Tota	l tuition	of	federal	to	attending		20 to 34		35 to 44		45 to 54		55 to 64	Ne	t present	Re	tum on
Scenario	(2013	dollars)	ass	istance		NMC		2010 34		33 10 44		43 10 34		33 10 04		value	inv	estment
Full-time student completing in two years																		
without financial support	\$	5,523	\$	-	\$	19,200	\$	6,237	\$	9,605	\$	13,970	\$	12,987	\$	193,199	\$	7.93
Full-time student completing in two years with																		
federal Pell Grant assistance	\$	5,523	\$	6,534	\$	19,200	\$	6,237	\$	9,605	\$	13,970	\$	12,987	\$	199,638	\$	11.14
Part-time student completing in three years																		
working full time	\$	5,696	\$	-	\$	14,400	\$	6,237	\$	9,605	\$	13,970	\$	12,987	\$	192,248	\$	9.85

Other Considerations

Dollars and cents are an important but incomplete unit of measurement when it comes to evaluating the importance of Northwestern Michigan College to the greater Grand Traverse

community. Last year, more than 7,200 individuals visited the Dennos Museum Center and only 50 percent resided in Grand Traverse County. In addition, more than 1,200 K–12 students and nearly 700 college students attended programs at the Dennos. Unfortunately, it is difficult to find empirical data on which to estimate the economic impact of these events. These types of visits are often associated with other activities, such as visiting friends or family or multi-destination vacations.

Additionally, NMC retirees overwhelmingly (86 percent of current retirees) stay in the region following retirement. It seems likely that the educational and cultural contributions of NMC to the community play a significant role in their decision to remain and to use their retirement savings in this local region.

NMC's non-credit Extended Education enrollment is not included in this economic analysis. It is noteworthy that a full 39 percent of the Extended Education (non-credit) enrollment is comprised of adults age 65 or older in the region (2,346 individuals). Clearly this is an offering that appeals to and likely enriches the community at all ages but particularly the life-long learners.

Summary

This analysis quantifies the significant economic presence of Northwestern Michigan College in the region. With \$9.1 million in local property tax support (FY'13 actual) funding 17 percent of their overall \$55 million operating budget, NMC contributed \$130.9 million in total sales, \$62.6 million in personal income and \$73.6 million in total Gross Regional Product. Every NMC job supports .6 additional jobs in the 10-county region. NMC is a net positive investment for the community. Local businesses are more competitive because NMC contributes to a trained workforce. At the student level, attaining an associate degree yields a return on investment of \$7.94 to \$11.15 and historically offers lower levels of unemployment.

NMC contributes far more to the cultural enrichment of the region in ways that are difficult to quantify, and yet local residents experience a higher quality of life because of NMC's presence. Finally, the region benefits from these aspects of NMC's operations:

- Providing economic activity during the off-season. Most of the college's economic
 impact, including the expenditures of its students, occurs during the tourism off-season
 months. The college provides balance to an economy that is highly dependent upon
 tourism.
- Increasing the number of retirees residing in the region. Currently, 175 former NMC full-time employees live in the greater Grand Traverse 10-county region.

Clearly Northwestern Michigan College is an integral part of the greater Grand Traverse regional economy. Moreover, its role will only grow in importance as the region's industries continue to compete on the global stage. In a world environment where transportation costs continue to decline in importance, the quality of a region's workforce and the caliber of its education system will play a more crucial role.

Appendix

Description of the REMI Model

The W.E. Upjohn Institute maintains an economic computer model specially designed to estimate the economic impact of changes in the greater Grand Traverse region. The model was constructed by Regional Economic Models Incorporated (REMI) and contains three separate components that together capture the resulting total impact to the local economy due to a change in employment. These components are:

- An input-output model that estimates the impact of changes in inter-industry purchases on the local economy. This component of the model captures the impact of an increase in orders to local suppliers of goods and services, as well as the impact of households increasing their purchases of consumer goods and services.
- A relative wage component that estimates the impact of the expected changes in the area's cost structure due to changes in economic activity. For instance, when a major employer moves into the area, it can cause wages to increase across almost all industries due to the increased demand for workers and other local resources. This boost in wages, while generating additional consumption expenditures, increases the cost of doing business in the area, making the area slightly less attractive to other industries. On the other hand, an increase in the number of skilled workers enhances the area's productivity, and thereby lowers the cost per unit of production, making the region more competitive.
- A forecasting and demographic component that forecasts the resulting changes in future employment and population levels due to a change in economic activity. The model generates an annual forecast which averages seasonal jobs by their duration. For example, four summer jobs that have durations of three months each are modeled as only one year-round job in REMI.

The model is particularly suited to measure the economic impact of higher-education institutions because:

- It contains a highly detailed breakdown of expenditures made by higher-education institutions. Other models use a more general breakdown that includes expenditures made by all education institutions including K–12 public and private schools.
- It allows for estimating the unique consumption expenditures made by students and the college's faculty and staff.
- Finally, it includes a residential component that allows for the modeling of the impact of students, faculty, and staff staying in the county and working outside the county. Other models mistakenly assume that once an employer has left the county, all of the workers would leave as well.

Finally, the model has been rigorously reviewed in numerous academic journals.

Appendix D Current Enrollment Report Fall 2021



Records Office

Contact Hours Generated All Campuses

		Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Pct
		06-SEP-17	05-SEP-18	04-SEP-19	02-SEP-20	08-SEP-21	Change
Aviati	ion						
AVF	Aviation Flight	458	438	421	383	347	-9.4%
AVG	Aviation Ground	548	530	515	411	478	16.3%
UAS	Unmanned Aerial Systems	0	0	0	0	186	100.0%
Acade	emic Area Totals:	1,006	968	936	794	1,011	27.3%
Busin	ess						
ACC	Accounting	783	638	610	671	621	-7.5%
BUS	Business Administration	1,050	923	819	711	723	1.7%
CIT	Computer Info Technology	1,679	1,605	1,565	1,389	1,476	6.3%
CUL	Culinary Arts	1,723	1,314	1,192	1,166	1,311	12.49
MGT	Management	375	300	348	360	249	-30.8%
MKT	Marketing	274	232	228	232	241	3.9%
	emic Area Totals:	5,884	5,012	4,762	4,529	4,621	2.0%
Comp	nunications	V					
ANI	Anishinaabemowin	0	0	0	0	0	0.0%
ASL	American Sign Language	80	76	120	208	264	26.9%
COM	Communications	316	348	272	292	244	-16.49
ENG	English	5,757	5,470	5,192	4,377	4,779	9.29
ESL	English Second Language	132	0	0	0	0	0.09
FRN	French	72	72	44	0	0	0.0%
GRM	German	128	76	52	0	0	0.0%
SPN	Spanish	220	212	152	128	240	87.5%
	emic Area Totals:	6,705	6,254	5,832	5,005	5,527	10.4%
			THE WORLD	1. (3)(7.7)	7 (6)		
	ruction Technology	1					
CAR	Carpentry	136	154	195	254	373	46.9%
CMT	Construction Management	12	18	0	15	24	60.0%
EGY	Renewable Energy	42	0	36	12	36	200.09
ELE	Electrician	296	312	376	401	394	-1.7%
HVA	Heating and Ventilation	92	64	106	111	112	0.9%
PLU	Plumbing	24	28	0	20	24	20.0%
Acade	emic Area Totals:	602	576	713	813	963	18.5%
Healt	h Occupations						
HAH	Allied Health	295	346	291	275	266	-3.3%
HDA	Dental Assistant	284	264	214	274	260	-5.1%
HNR	Nursing	2,755	2,999	2,636	3,032	2,805	-7.5%
HPD	Professional Development	12	10	9	11	10	-10.7%
SRG	Surgical Technology	264	306	261	308	205	-33.3%
Annd	emic Area Totals:	3,610	3,925	3,410	3,900	3,546	-9.1%
Acade							
	nities				The state of		

	Audio Technology	233	254	264	182	200	213 9.9%
DNC	Dance	32	24	24	0	8	100.0%
HST	History	1,091	997	864	869	844	-2.9%
HUM	Humanities	196	196	204	171	198	15.8%
MUS	Music	535	579	510	290	402	38.6%
PHL	Philosophy	1,067	946	946	884	825	-6.7%
VCA	Visual Communication Arts	528	588	416	388	300	-22.7%
	emic Area Totals:	4,669	4,612	4,302	3,651	3,840	5.2%
				/			
Mariti		016	1 011	012	1 027	072	1 5 00/
MDK	Maritime-Deck	816	1,011	913	1,037	873	-15.8%
MNG		795	785	721	563	545	-3.2%
MNS	Naval Science	82	80	94	112	82	-26.8%
Acade	emic Area Totals:	1,693	1,876	1,728	1,712	1,500	-12.4%
Physi	cal Education						
HF	Health and Fitness	86	0	0	0	0	0.0%
PE	Physical Education	52	0	0	0	0	0.0%
	emic Area Totals:	138	0	0	0	0	0.0%
		7					
	ce & Math	335	355	350	245	220	-10.2%
AST	Astronomy			2,705		2,363	-8.3%
BIO	Biology	2,729 1,063	2,443	878	2,577 843	469	-44.4%
CHM	Chemistry	1,063	1,021	160	186	154	-17.2%
EGR	Engineering	795	760	760	670	635	-5.2%
ENV	Environmental Sciences				3,680		-7.3%
MTH	Mathematics	4,583 631	4,348 640	737	613	3,410 542	-11.6%
PHY	Physics emic Area Totals:		9,690	9,731	8,814	7,793	-11.6%
A					0.014		
Acade	emic Area Totals:	10,315	9,090	3//32	0,021	1,155	-11.6%
	I Science	10,315	9,090	3,732	0,02.1	7,755	-11.6%
	PU ES COSTO SE DE LA COSTO DEL COSTO DE LA COSTO DEL COSTO DE LA COSTO DEL COSTO DE LA COSTO DEL COSTO DE LA COSTO DEL COSTO DE LA COSTO DE LA COSTO DEL COSTO DE LA COSTO DE LA COSTO DE LA COSTO DE LA COSTO DEL COSTO DE LA COSTO DEL COSTO DEL COSTO DEL COSTO DEL COSTO DE LA COSTO DEL	216	147	141	102	162	
Socia	I Science						58.8%
Socia ANT	I Science Anthropology	216	147	141	102	162	58.8% -2.1%
Socia ANT CJ	Science Anthropology Criminal Justice	216 293	147 300	141 346	102 239	162 234	58.8% -2.1% 47.9%
Socia ANT CJ ECE	Science Anthropology Criminal Justice Early Childhood Education	216 293 291	147 300 361	141 346 388	102 239 317	162 234 469	58.8% -2.1% 47.9% -8.5%
Socia ANT CJ ECE ECO	Anthropology Criminal Justice Early Childhood Education Economics	216 293 291 618	147 300 361 612	141 346 388 516	102 239 317 531	162 234 469 486	58.8% -2.1% 47.9% -8.5% 58.2%
Socia ANT CJ ECE ECO EDU	I Science Anthropology Criminal Justice Early Childhood Education Economics Education	216 293 291 618 51	147 300 361 612 66	141 346 388 516 200	102 239 317 531 141	162 234 469 486 223	58.8% -2.1% 47.9% -8.5% 58.2% -24.4%
Socia ANT CJ ECE ECO EDU GEO	Science Anthropology Criminal Justice Early Childhood Education Economics Education Geography	216 293 291 618 51 316	147 300 361 612 66 315	141 346 388 516 200 302	102 239 317 531 141 324	162 234 469 486 223 245	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6%
Socia ANT CJ ECE ECO EDU GEO LWE	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement	216 293 291 618 51 316 405	147 300 361 612 66 315 638	141 346 388 516 200 302 338	102 239 317 531 141 324 220	162 234 469 486 223 245 272	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS	I Science Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science	216 293 291 618 51 316 405 417	147 300 361 612 66 315 638 285	141 346 388 516 200 302 338 369	102 239 317 531 141 324 220 363	162 234 469 486 223 245 272 357	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology	216 293 291 618 51 316 405 417 1,671	147 300 361 612 66 315 638 285 1,628	141 346 388 516 200 302 338 369 1,589	102 239 317 531 141 324 220 363 1,320	162 234 469 486 223 245 272 357 1,212	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology	216 293 291 618 51 316 405 417 1,671 717	147 300 361 612 66 315 638 285 1,628 606	141 346 388 516 200 302 338 369 1,589 768	102 239 317 531 141 324 220 363 1,320 627	162 234 469 486 223 245 272 357 1,212 579	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7% 0.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals:	216 293 291 618 51 316 405 417 1,671 717 89	147 300 361 612 66 315 638 285 1,628 606 86	141 346 388 516 200 302 338 369 1,589 768 155	102 239 317 531 141 324 220 363 1,320 627 109	162 234 469 486 223 245 272 357 1,212 579 93	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals:	216 293 291 618 51 316 405 417 1,671 717 89 5,084	147 300 361 612 66 315 638 285 1,628 606 86 5,044	141 346 388 516 200 302 338 369 1,589 768 155 5,112	102 239 317 531 141 324 220 363 1,320 627 109 4,293	162 234 469 486 223 245 272 357 1,212 579 93 4,332	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7% 0.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology	216 293 291 618 51 316 405 417 1,671 717 89 5,084	147 300 361 612 66 315 638 285 1,628 606 86 5,044	141 346 388 516 200 302 338 369 1,589 768 155 5,112	102 239 317 531 141 324 220 363 1,320 627 109	162 234 469 486 223 245 272 357 1,212 579 93 4,332	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7% 0.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design	216 293 291 618 51 316 405 417 1,671 717 89 5,084	147 300 361 612 66 315 638 285 1,628 606 86 5,044	141 346 388 516 200 302 338 369 1,589 768 155 5,112	102 239 317 531 141 324 220 363 1,320 627 109 4,293	162 234 469 486 223 245 272 357 1,212 579 93 4,332	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -7.7% -14.7% 0.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techn AT DD EET	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech	216 293 291 618 51 316 405 417 1,671 717 89 5,084	147 300 361 612 66 315 638 285 1,628 606 86 5,044	141 346 388 516 200 302 338 369 1,589 768 155 5,112 555 248 430	102 239 317 531 141 324 220 363 1,320 627 109 4,293 531 135 270	162 234 469 486 223 245 272 357 1,212 579 93 4,332	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7% 0.9% 19.8% 85.2% 25.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies	216 293 291 618 51 316 405 417 1,671 717 89 5,084 764 309 538 200	147 300 361 612 66 315 638 285 1,628 606 86 5,044 599 217 464 208	141 346 388 516 200 302 338 369 1,589 768 155 5,112 555 248 430 144	102 239 317 531 141 324 220 363 1,320 627 109 4,293 531 135 270 168	162 234 469 486 223 245 272 357 1,212 579 93 4,332 636 250 340 210	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -7.7% -14.7% 0.9% 19.8% 85.2% 25.9% 25.0%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG RAM	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies Robotics and Automation	216 293 291 618 51 316 405 417 1,671 717 89 5,084	147 300 361 612 66 315 638 285 1,628 606 86 5,044	141 346 388 516 200 302 338 369 1,589 768 155 5,112 555 248 430 144 152	102 239 317 531 141 324 220 363 1,320 627 109 4,293 531 135 270 168 132	162 234 469 486 223 245 272 357 1,212 579 93 4,332 636 250 340 210 180	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -7.7% -14.7% 0.9% 19.8% 85.2% 25.9% 25.0% 36.4%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies	216 293 291 618 51 316 405 417 1,671 717 89 5,084 764 309 538 200 168	147 300 361 612 66 315 638 285 1,628 606 86 5,044 599 217 464 208 148	141 346 388 516 200 302 338 369 1,589 768 155 5,112 555 248 430 144	102 239 317 531 141 324 220 363 1,320 627 109 4,293 531 135 270 168	162 234 469 486 223 245 272 357 1,212 579 93 4,332 636 250 340 210	58.8% -2.1% 47.9% -8.5% 58.2% -24.4% 23.6% -1.7% -8.2% -7.7% -14.7% 0.9%

Water Studies Institute						214
WSI Water Studies Institute	188	193	138	192	165	-14.1%
Academic Area Totals:	188	193	138	192	165	-14.1%
Report Totals:	42,328	40,098	38,581	35,190	35,348	0.4%

Note: This report does not include enrollment from EES sections that are cross-listed with academic sections

Digital Dashboard - Registration

Appendix E

Enrollment Patterns (5 years)



Records Office

Credit Hours Generated All Campuses

		Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Pct
		06-SEP-17					Change
Aviati	on						
AVF	Aviation Flight	431	409	391	364	347	-4.7%
AVG	Aviation Ground	548	530	515	411	478	16.3%
UAS	Unmanned Aerial Systems	0	0	0	0	150	100.0%
Acade	emic Area Totals:	979	939	906	775	975	25.8%
Busin	ACC						
ACC	Accounting	783	638	610	671	621	-7.5%
BUS	Business Administration	1,050	923	819	711	723	1.7%
CIT	Computer Info Technology	1,434	1,328	1,312	1,143	1,234	8.0%
CUL	Culinary Arts	1,031	794	732	681	763	12.0%
MGT	Management	375	300	348	360	249	-30.8%
MKT	Marketing	274	232	228	232	241	3.9%
	emic Area Totals:	4,947	4,215	4,049	3,798	3,831	0.9%
				= = = = = = = = = = = = = = = = = = = =			
	nunications				2.1		
ANI	Anishinaabemowin	0	0	0	0	0	0.0%
ASL	American Sign Language	80	76	120	208	264	26.9%
COM	Communications	316	348	272	292	244	-16.4%
ENG	English	5,757	5,470	5,192	4,377	4,779	9.2%
ESL	English Second Language	132	0	0	0	0	0.0%
FRN	French	72	72	44	0	0	0.0%
GRM	German	128	76	52	0	0	0.0%
SPN	Spanish	220	212	152	128	240	87.5%
Acade	emic Area Totals:	6,705	6,254	5,832	5,005	5,527	10.4%
Const	ruction Technology						
CAR	Carpentry	108	126	162	204	282	38.2%
CMT	Construction Management	12	18	0	15	24	60.0%
EGY	Renewable Energy	42	0	36	12	36	200.0%
ELE	Electrician	222	234	285	309	306	-1.0%
HVA	Heating and Ventilation	69	48	84	90	84	-6.7%
PLU	Plumbing	18	21	0	15	18	20.0%
	emic Area Totals:	471	447	567	645	750	16.3%
	h Occupations						12 4/21
HAH	Allied Health	278	319	277	265	254	-4.2%
HDA	Dental Assistant	250	234	189	243	230	-5.2%
HNR	Nursing	1,445	1,583	1,472	1,644	1,517	-7.8%
HPD	Professional Development	12	10	9	11	10	-10.7%
SRG	Surgical Technology	158	184	157	146	119	-18.2%
Acade	emic Area Totals:	2,142	2,330	2,103	2,308	2,130	-7.7%
Huma	nities						
ART	Art	830	872	913	758	912	20.3%
7 11 1	123.5	000	0,2	223	, 55	212	

AUD	Audio Technology	233	254	264	182	200	217 9.9%
DNC	Dance	16	12	12	0	4	100.0%
HST	History	1,091	997	864	869	844	-2.9%
HUM	Humanities	196	196	204	171	198	15.8%
MUS	Music	461	487	443	268	353	31.7%
PHL	Philosophy	1,067	946	946	884	825	-6.7%
VCA	Visual Communication Arts	397	441	312	291	225	-22.7%
	emic Area Totals:	4,291	4,205	3,958	3,423	3,561	4.0%
					-1-11		
Marit							1 - 2 - 1
MDK		816	1,011	913	1,037	873	-15.8%
MNG		795	785	721	563	545	-3.2%
MNS		82	80	94	112	82	-26.8%
Acade	emic Area Totals:	1,693	1,876	1,728	1,712	1,500	-12.4%
Physi	ical Education						
HF	Health and Fitness	49	0	0	0	0	0.0%
PE	Physical Education	26	0	0	0	0	0.0%
	emic Area Totals:	75	0	0	0	0	0.0%
Scien	ce & Math						
AST	Astronomy	268	284	280	196	176	-10.2%
BIO	Biology	2,037	1,804	1,965	1,859	1,714	-7.8%
CHM	Chemistry	781	750	642	623	356	-42.9%
EGR	Engineering	163	113	143	156	133	-14.7%
ENV	Environmental Sciences	636	608	608	536	508	-5.2%
MTH	Mathematics	4,583	4,348	4,141	3,680	3,410	-7.3%
PHY	Physics	468	478	541	458	406	-11.4%
Acade	emic Area Totals:	0.026	8,385	8,320	7,508	6,703	-10.7%
Acaue	eilic Area Totals.	8,936	0,000				
		8,936	0,000				
Socia	I Science						
Socia ANT	I Science Anthropology	216	147	141	102	162	58.8%
Socia ANT CJ	Anthropology Criminal Justice	216 293	147 300	141 346	102 239	162 234	58.8% -2.1%
Socia ANT CJ ECE	Anthropology Criminal Justice Early Childhood Education	216 293 291	147 300 361	141 346 388	102 239 317	162 234 469	58.8% -2.1% 47.9%
Socia ANT CJ ECE ECO	Anthropology Criminal Justice Early Childhood Education Economics	216 293 291 618	147 300 361 612	141 346 388 516	102 239 317 531	162 234 469 486	58.8% -2.1% 47.9% -8.5%
Socia ANT CJ ECE ECO EDU	Anthropology Criminal Justice Early Childhood Education Economics Education	216 293 291 618 51	147 300 361 612 66	141 346 388 516 200	102 239 317 531 141	162 234 469 486 223	58.8% -2.1% 47.9% -8.5% 58.2%
Socia ANT CJ ECE ECO EDU GEO	Anthropology Criminal Justice Early Childhood Education Economics Education Geography	216 293 291 618 51 276	147 300 361 612 66 282	141 346 388 516 200 264	102 239 317 531 141 300	162 234 469 486 223 219	58.8% -2.1% 47.9% -8.5% 58.2% -27.0%
Socia ANT CJ ECE ECO EDU GEO LWE	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement	216 293 291 618 51 276 314	147 300 361 612 66 282 493	141 346 388 516 200 264 263	102 239 317 531 141 300 170	162 234 469 486 223 219 212	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science	216 293 291 618 51 276 314 417	147 300 361 612 66 282 493 285	141 346 388 516 200 264 263 369	102 239 317 531 141 300 170 363	162 234 469 486 223 219 212 357	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology	216 293 291 618 51 276 314 417 1,671	147 300 361 612 66 282 493 285 1,628	141 346 388 516 200 264 263 369 1,589	102 239 317 531 141 300 170 363 1,320	162 234 469 486 223 219 212 357 1,212	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology	216 293 291 618 51 276 314 417 1,671 717	147 300 361 612 66 282 493 285 1,628 606	141 346 388 516 200 264 263 369 1,589 768	102 239 317 531 141 300 170 363 1,320 627	162 234 469 486 223 219 212 357 1,212 579	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology	216 293 291 618 51 276 314 417 1,671	147 300 361 612 66 282 493 285 1,628	141 346 388 516 200 264 263 369 1,589	102 239 317 531 141 300 170 363 1,320	162 234 469 486 223 219 212 357 1,212	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% 0.6%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work	216 293 291 618 51 276 314 417 1,671 717 89	147 300 361 612 66 282 493 285 1,628 606 86	141 346 388 516 200 264 263 369 1,589 768 155	102 239 317 531 141 300 170 363 1,320 627 109	162 234 469 486 223 219 212 357 1,212 579 93	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals:	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866	141 346 388 516 200 264 263 369 1,589 768 155 4,999	102 239 317 531 141 300 170 363 1,320 627 109 4,219	162 234 469 486 223 219 212 357 1,212 579 93 4,246	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866	141 346 388 516 200 264 263 369 1,589 768 155 4,999	102 239 317 531 141 300 170 363 1,320 627 109 4,219	162 234 469 486 223 219 212 357 1,212 579 93 4,246	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% 0.6%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866	141 346 388 516 200 264 263 369 1,589 768 155 4,999	102 239 317 531 141 300 170 363 1,320 627 109 4,219	162 234 469 486 223 219 212 357 1,212 579 93 4,246	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6% 17.2% 84.9%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866 405 172 355	141 346 388 516 200 264 263 369 1,589 768 155 4,999 377 195 336	102 239 317 531 141 300 170 363 1,320 627 109 4,219 367 106 216	162 234 469 486 223 219 212 357 1,212 579 93 4,246	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6% 17.2% 84.9% 23.6%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866 405 172 355 148	141 346 388 516 200 264 263 369 1,589 768 155 4,999 377 195 336 99	102 239 317 531 141 300 170 363 1,320 627 109 4,219 367 106 216 120	162 234 469 486 223 219 212 357 1,212 579 93 4,246	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6% 17.2% 84.9% 23.6% 15.8%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG RAM	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies Robotics and Automation	216 293 291 618 51 276 314 417 1,671 717 89 4,953	147 300 361 612 66 282 493 285 1,628 606 86 4,866 405 172 355 148 111	141 346 388 516 200 264 263 369 1,589 768 155 4,999 377 195 336 99 114	102 239 317 531 141 300 170 363 1,320 627 109 4,219 367 106 216 120 99	162 234 469 486 223 219 212 357 1,212 579 93 4,246 430 196 267 139 135	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6% 17.2% 84.9% 23.6% 15.8% 36.4%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG RAM SVR	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies Robotics and Automation Surveying	216 293 291 618 51 276 314 417 1,671 717 89 4,953 522 256 422 158 126 0	147 300 361 612 66 282 493 285 1,628 606 86 4,866 405 172 355 148 111 0	141 346 388 516 200 264 263 369 1,589 768 155 4,999 377 195 336 99 114 94	102 239 317 531 141 300 170 363 1,320 627 109 4,219 367 106 216 120 99 60	162 234 469 486 223 219 212 357 1,212 579 93 4,246 430 196 267 139 135 98	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7% 0.6% 17.2% 84.9% 23.6% 15.8% 36.4% 63.3%
Socia ANT CJ ECE ECO EDU GEO LWE PLS PSY SOC SWK Acade Techr AT DD EET MFG RAM	Anthropology Criminal Justice Early Childhood Education Economics Education Geography Law Enforcement Political Science Psychology Sociology Social Work emic Area Totals: nical Automotive Technology Drafting and Design Electrical/Electronics Tech Manufacturing Technologies Robotics and Automation	216 293 291 618 51 276 314 417 1,671 717 89 4,953 522 256 422 158 126	147 300 361 612 66 282 493 285 1,628 606 86 4,866 405 172 355 148 111	141 346 388 516 200 264 263 369 1,589 768 155 4,999 377 195 336 99 114	102 239 317 531 141 300 170 363 1,320 627 109 4,219 367 106 216 120 99	162 234 469 486 223 219 212 357 1,212 579 93 4,246 430 196 267 139 135	58.8% -2.1% 47.9% -8.5% 58.2% -27.0% 24.7% -1.7% -8.2% -7.7% -14.7%

Wate	r Studies Institute						218
WSI	Water Studies Institute	159	171	120	163	132	-19.0%
Acad	emic Area Totals:	159	171	120	163	132	-19.0%
Repo	rt Totals:	37,129	35,076	33,958	30,633	30,805	0.6%

Note: This report does not include enrollment from EES sections that are cross-listed with academic sections

Digital Dashboard - Registration



Records Office

Credit Hours Generated All Campuses

		Spring 2017 02-MAY-17	Spring 2018 04-MAY- 18	Spring 2019 30-APR-19	Spring 2020 28-APR-20	Spring 2021 30-APR-21	Pct Change
Aviati	ion	12.00					
AVF	Aviation Flight	309	409	418	313	297	-5.1%
AVG	Aviation Ground	425	545	505	472	379	-19.7%
UAS	Unmanned Aerial Systems	0	0	0	0	72	100.0%
Acade	emic Area Totals:	734	954	923	785	748	-4.7%
Busin	ess			A			
ACC	Accounting	793	729	577	572	535	-6.5%
BUS	Business Administration	1,011	963	889	741	714	-3.6%
CIT	Computer Info Technology	1,556	1,380	1,375	1,235	1,115	-9.7%
CUL	Culinary Arts	879	840	679	753	407	-45.9%
MGT	Management	399	267	321	351	249	-29.1%
MKT	Marketing	269	277	258	208	212	1.9%
	emic Area Totals:	4,907	4,456	4,099	3,860	3,232	-16.3%
Comn	nunications						
ANI	Anishinaabemowin	0	0	0	0	0	0.0%
ASL	American Sign Language	52	56	64	72	72	0.0%
COM	Communications	530	462	458	434	302	-30.4%
ENG	English	4,181	4,113	3,973	3,759	3,207	-14.7%
ESL	English Second Language	102	0	0	0	0	0.0%
FRN	French	57	44	12	16	0	-100.0%
GRM	German	80	108	64	28	0	-100.0%
SPN	Spanish	152	144	140	108	60	-44.4%
	emic Area Totals:	5,154	4,927	4,711	4,417	3,641	-17.6%
Const	truction Technology						
CAR	Carpentry	120	84	87	90	132	46.7%
CMT	Construction Management	96	28	80	72	80	11.1%
EGY	Renewable Energy	0				0	0.0%
ELE	Electrician	150	186			180	-29.4%
HVA	Heating and Ventilation	126				78	-13.3%
PLU	Plumbing	0	0			0	0.0%
	emic Area Totals:	492	340			470	-7.3%
111	th Otions						
	th Occupations	170	166	180	194	185	-4.6%
HAH		304				309	33.7%
HDA		1,668				1,483	-4.2%
HNR		1,668					3.6%
HPD		150	100				12.5%
SRG							0.6%
Acad	emic Area Totals:	2,297	2,009	2,077	2,055	2,008	0.0%

Huma	nities						220
ART	Art	821	886	962	843	742	-12.0%
AUD	Audio Technology	171	177	208	248	151	-39.1%
DNC	Dance	14	28	30	34	0	-100.0%
HST	History	1,056	917	954	688	934	35.8%
HUM	Humanities	212	243	233	224	109	-51.3%
MUS	Music	409	422	410	360	203	-43.6%
PHL	Philosophy	1,155	1,104	1,015	1,024	865	-15.5%
VCA	Visual Communication Arts	380	405	426	376	264	-29.8%
Acade	emic Area Totals:	4,218	4,182	4,238	3,797	3,268	-13.9%
Mariti	me						
MDK		1,099	1,100	1,129	1,106	1,171	5.9%
MNG		566	620	567	477	452	-5.1%
	Naval Science	62	54	44	52	30	-42.3%
	emic Area Totals:	1,727	1,774	1,740	1,635	1,653	1.1%
Physic	cal Education		_				
HF	Health and Fitness	78	28	0	0	0	0.0%
OUT	Outdoor Pursuits	0	0	0	0	0	0.0%
PE	Physical Education	26	21	0	0	0	0.0%
	emic Area Totals:	104	49	0	0	0	0.0%
	22.0						
	ce & Math		0.00	276	0.1	104	100.00/
AST	Astronomy	284	252	276	0	184	100.0%
BIO	Biology	1,773	1,664	1,705	1,861	1,251	-32.8%
CHM	Chemistry	745	626	640	623	541	-13.2%
EGR	Engineering	154	74	119	109	139	27.5%
ENV	Environmental Sciences	672	670	656	672	564	-16.1% -16.1%
MTH	Mathematics	3,737	3,437	2,969 306	3,189 407	2,675 304	-25.3%
PHY	Physics	7,690	329 7,052	6,671	6,861	5,658	-17.5%
Acade	emic Area Totals:	7,690	7,052	0,071	0,801	3,036	-17.570
Socia	I Science					-314	
ANT	Anthropology	204	138	132	132	135	2.3%
CD	Child Development	236	0	0	0	0	0.0%
C	Criminal Justice	292	316	304	298	241	-19.1%
ECE	Early Childhood Education	0	240	455	287	403	40.4%
ECO	Economics	699	645	561	642	582	-9.3%
EDU	Education	57	81	189	182	102	-44.0%
GEO	Geography	248	254	315	260	294	13.1%
LWE	Law Enforcement	331	353	520	274	190	-30.7%
PLS	Political Science	477	373	426	375	348	-7.2%
PSY	Psychology	1,350	1,542	1,351	1,315	1,064	-19.1%
SOC	Sociology	951	783	684	744	510	-31.5%
SWK		180	126	126	243	162	-33.3%
Acade	emic Area Totals:	5,025	4,851	5,063	4,752	4,031	-15.2%
Techi	nical						
_	Automotive Technology	462	513	430	355	314	-11.5%
AT		224	216	177	161	131	-18.6%
DD	Drafting and Design	234	210	1,,	7.7		
	Drafting and Design Electrical/Electronics Tech	267	370	276	332	163	-50.9%
DD							-50.9% -32.1%

Repo	rt Totals:	34,059	32,349	31,442	30,091	25,839	-14.1%
Acad	emic Area Totals:	137	150	123	105	113	7.6%
WSI	Water Studies Institute	137	150	123	105	113	7.6%
Wate	r Studies Institute						2 227
Acade	emic Area Totals:	1,574	1,605	1,291	1,318	957	-27.4%
WPT	Welding Process Technology	350	191	192	140	88	-37.1%
SVR	Surveying	0	0	0	72		22†33.3%

Note: This report does not include enrollment from EES sections that are cross-listed with academic sections

Digital Dashboard - Registration



Records Office

Credit Hours Generated All Campuses

		Summer	Summer	Summer	Summer	Summer	
		2017	2018	2019	2020	2021	Pct
		13-AUG- 17	12-AUG- 18	11-AUG- 19	09-AUG- 20	08-AUG- 21	Change
Aviati	on	**	10	1.0	20	2.1	
AVF	Aviation Flight	217	406	282	211	226	7.1%
AVG	Aviation Ground	128	271	183	153	144	-5.9%
UAS	Unmanned Aerial Systems	0	0	0	0	78	100.0%
	emic Area Totals:	345	677	465	364	448	23.1%
Busin	ess						
ACC	Accounting	164	120	158	186	156	-16.1%
BUS	Business Administration	99	66	78	144	99	-31.3%
CIT	Computer Info Technology	221	220	142	209	233	11.5%
CUL	Culinary Arts	60	65	44	39	56	43.6%
MGT	Management	78	81	75	102	60	-41.2%
MKT	Marketing	87	51	60	105	57	-45.7%
	emic Area Totals:	709	603	557	785	661	-15.8%
Comp	nunications						
COM	Communications	128	124	84	72	128	77.8%
ENG	English	517	586	578	491	478	-2.6%
SPN	Spanish	0	15	0	0	0	0.0%
	emic Area Totals:	645	725	662	563	606	7.6%
		(e)					
	ruction Technology					100	100.00/
CAR	Carpentry	0	0	0	0	480	100.0%
CMT	Construction Management	0	0	0	0	320	100.0%
EGY	Renewable Energy	0	0	0	0	0	0.0%
ELE	Electrician	0	0	0	0	0	0.0%
Acade	emic Area Totals:	0	0	0	0	800	100.0%
Healt	h Occupations						
HAH	Allied Health	0	0	0	48	54	12.5%
HDA	Dental Assistant	114	119	97	78	113	45.4%
SRG	Surgical Technology	60	68	56	53	64	21.9%
Acade	emic Area Totals:	174	187	153	179	231	29.6%
Huma	nities			-			
ART	Art	208	196	197	212	204	-3.8%
AUD	Audio Technology	0	0	0	0		100.0%
HST	History	291	247		290		-30.0%
HUM	Humanities	0			0		0.0%
MUS	Music	60	70		33	63	90.9%
PHL	Philosophy	420			274		-20.4%
VCA	Visual Communication Arts	0			0		0.0%
VUA	the second reservation and the second		1	1		1	

MFG	Manufacturing Technologies	3	10	7	0	0	0.0%
EET	Electrical/Electronics Tech	6	25	27	3	3	0.0%
DD	Drafting and Design	0	0	3	3	0	-100.0%
AT	Automotive Technology	0	0	0	0	0	0.0%
Techr							
		, , , , ,	505	, 01	505	720	20,0 %
	emic Area Totals:	789	665	781	865	720	-16.8%
SWK	Social Work	48	27	27	3	9	200.0%
SOC	Sociology	138	90	165	138	114	-17.4%
PSY	Psychology	192	153	189	228	219	-3.9%
PLS	Political Science	87	78	21	75	54	-28.0%
LWE	Law Enforcement	0	12	4	0	0	0.0%
GEO	Geography	0	0	0	102	105	2.9%
ECO	Economics	222	180	213	222	174	-21.1%
ECE	Early Childhood Education	0	47	105	19	15	-21.19
CD	Child Development	- 6	0	0	0	0	0.0%
ANT	Anthropology	96	78	57	78	30	-61.5%
Socia	I Science						
Acade	emic Area Totals:	1,571	1,153	1,210	1,244	1,200	-3.5%
PHY	Physics	60	52	44	84	52	-38.1%
MTH	Mathematics	821	553	566	402	582	44.8%
ENV	Environmental Sciences	68	78	52	80	60	-25.0%
CHM	Chemistry	226	0	114	210	120	-42.9%
BIO	Biology	368	448	416	468	360	-23.1%
AST	Astronomy	28	22	18	0	26	100.0%
Scien	ce & Math						T.A.D.
					-		3.0 /
	emic Area Totals:	7	5	0	0	0	0.0%
PE	Physical Education	1	0	0	0	0	0.0%
OUT	Outdoor Pursuits	0	0	0	0	0	0.0%
HF	Health and Fitness	6	5	٥١	0.1	0	0.00
Dhyei	ical Education						
Acad	emic Area Totals:	480	582	522	315	687	118.1%
MNG		192	168	216	111	195	75.7%
MDK		288	414	306	204	492	141.2%

Note: This report does not include enrollment from EES sections that are cross-listed with academic sections

Digital Dashboard - Registration

Appendix F Faculty/Staff Headcount History

NORTHWESTERN MICHIGAN COLLEGE FACULTY AND STAFF HEADCOUNT HISTORY

(Headcount as of October 1)

CATEGORY	2019	2018	2017	2016	2015	2014	2013	2012	2011 2	2010 2	2009 2	2008 2	2007 2	2006 20	2005 2004	2003	3 2002	2 2001	2000
Faculty	8			06		96	95	92	86	89	93								87
Full time	7	79 84	85	88	93	93	88	88	90		87	84	85	88	91 88	3 90	88	88	87
Part time		3 2	3	2	2	3	4	4	8	8	9	9	9	4	3 4	4	2	0	0
	FTE	85.22	87.22	89.48	94.48	95.04	89.50	89.36	92.20	84.09	89.00	86.17 8	88.14 8	89.54 92.	92.04 89.42	42 91.80	00'68 00	0 88.00	87.00
Administrative	6	37 36	35	36	37	37	37	36	35	59	28	56	27	23 2	22 20	22	21	20	21
Full time	m	36 35	34	35	36	36	36	35	34	29	28	56	27	23 2	22 20	22	21	20	21
Part time			1	_	-	-	-	-	-	0	0	0	0	0	0 0	0	0	0	0
	FTE	35.5	34.5	35.50	36.50	36.23	36.33	35.33	34.21	28.33	28.00 2	26.00 2	27.00 2:	23.00 22	22.00 20.00	00 22.00	00 21.00	0 20.00	
	-			1		1	1	i	-										í
Professional Staff	1/1	C/ 8:	89	91	8 8	8 8	76	4 0	92	75	73	90	20	50 5	53 54	5 P	55	51	ر ا
Part time	2			2 4	5 10	9 4	5 10	5 4	5 4		5 -								5 ~
	FTE	73.6	87.	89.9375	86.15	84.35	79.375	71.375	77.4		73.33 6	65.49 6	62.56	စ္ပ	9	25	26	2(
Paraprofessional/Technical		40		43	45	44	46	47	20	40	46	20			46 44				40
Full time		40	38	42	4	43	45	46	48	38	44		47	46 4	44 41	1 40	42	38	36
Part time		0	0 (1	1	1	1	1	2	2	2	2	2	2	2 3	3	2	2	4
L	FTE	39.25	38.75	42.20	44.50	43.50	44.8	46.5	49.25	38.45 4	45.25	49 4	48.00 4	47.00 45.	45.00 43.00	00 42.46	6 43.25	5 39.50	
2				8	8	,	Ş	,	- 2										
Support Staff		19		20		18	19	18	21		28								39
Full time		17	, 18	19	19	17	18	17	18	20	25	21	21	۵.	25 27	7 29	31	32	34
Part time		2	1	_	_	_	_	_	3	က	3	3	4	3	2 5	7	9	9	2
	FTE	18.87	7 19	20.00	19.44	17.36	18.74	17.87	20.96	24.37	2 77.72	22.90 2	23.57 2.	24.09 26	26.42 29.74	74 33.78	8 34.78	8 35.82	
Maintenance/Custodial	•	32	31	31	2	35	38	38	40	39	40	37	40	36	36 37	36	35	30	29
Full time	0 (4.					35	38	88	40	5 65						+			000
Dart time	,			5	5 0	3 0	3 0	3 0	2 0	3 0						-			3 0
	FTE	3		3 8	3 0	35 0	9 8	2 88	O 4		6	22	0	9	30	ñ	36	ě	-
												Н							
Total Regular Employees	322			311	317	316	313	302	324										269
Full time	31	315 279	290	302	307	304	301	294	306	282	297	281 2		274 271	71 267	•	272	2 257	258
Part time		7 8	10	6	10	12	12	11	18	15	12	12	13	12 1	10 14	19	12	10	1
	FTE	282.99	9 296.74	308.119	312.069	311.4752	306.7427 2	298.4388 3	315.0166	289.74	303.04 28	286.07 28	289.27 28	280.92 276	276.25 274.18	.18 284.57	57 279.50	50 263.79	6
Adjunct Faculty	168	140	170	177	178	191	192	509	212	224	206	191	179 1	179 16	168 167	7 178	8 163	3 154	153
	FTE			65.61	67.49	71.17	81.73	85.77	89.03										
Student Employees	106			93	108	102	66	121	124										
	FTE	31.61	33.14	30.82	34.3964	34.1155	34.7033	40.828	43.5187 4	42.1513 4	46.48 4	40.15	43.10 4;	43.04 43.41	42.29	29 39.84	38.97	7 35.27	
Supplemental Employees	189			127	132	133	129	126	121	114	97		28	65 7	70 73	3 75	17	69	92
4	FTE	68.15	5 68.56	65.5827	62.5457	71.2025	64.8693	65.033	66.0712	62.578	51.68 4	45.63 3	38.46 3	34.21 30.01	.01 31.77	77 31.73	3 38.01	1 33.99	
Ctot trong	705	073	744	700	725	742	733	764	704	755	743	2 113	2 173	643	673 643	699	763	102	
Nepoli total	3		,	`		747	-	6		1			١,		`			+`	25
Fall Student Headcount	<u>.</u>	3.714			4	4.542		4.847		'		+_	+		-	+		-	-
Fall Contact Hours		39.854	4	43.398	45.821	48.721	_	-	9	ч.	ш.	+	+-	+	H.	+-	1	<u> </u>	+ ·
	_)	-)	!))			4	4	4	-	-	-	-	-	4	-	-	1

Appendix G Class Size & Projected Class Size Needs - Course Efficiency Report

Northwestern Michigan College – Course Efficiency Report

(Note: Highlighted cells exceed 90% goal)

	Available	Avg.	Count Day	Jo#	Avg. Students			Available	Avg.	Count Day	Jo#	Avg. Students	
Fall 2015	Seats	Max	Enrollment Sections		per Section	% Full	Spring 2016	Seats	Max	Enrollment	Sections	per Section	% Full
Aviation	208	23.11	148	6	16.4	71.15	Aviation	204	22.67	122	6	13.56	59.80
Business	2,112	23.73	1728	88	19.4	81.82	Business	1924	23.75	1522	22	18.79	79.11
Communications	1,938	19.98	1806	97	18.6	93.19	Communications	1672	20.64	1455	22	17.96	87.02
Construction Tech	362	15.08	165	24	6.9	45.58	Construction Tech	309	14.05	192	22	8.73	62.14
Health Occupations	944	14.3	904	99	13.7	95.76	Health Occupations	971	15.17	833	64	14.05	92.58
Humanities	1,565	19.56	_	80	19	97.32	Humanities	1385	20.07	1270	69	18.41	91.70
Maritime	821	20.02		41	16.9	84.53	Maritime	807	21.81	652	37	17.62	80.79
Physical Education	528	22.96		23	7.2	31.44	Physical Education	331	15.76	143	21	6.81	43.20
Science/Math	4.405	25.46		173	22.6	88.83	Science/Math	3531	25.96	3082	136	22.66	87.28
Social Science	2.155	29.52		73	25.3	85.85	Social Science	2226	28.91	1739	77	22.58	78.12
Technical	655	14.24		46	9.6	67.63	Technical	487	16.79	363	29	12.52	74.54
Water Studies	43	21.5		2	15.5	72.09	Water Studies	200	20.25	39	4	9.75	48.15
TOTALS	15,736	21.76	13,3	723	18.49	84.97	TOTALS	13928	22.11	11478	630	18.22	82.41
	Available	Avg.	Count Day	# of	Avg. Students			Available	Avg.	End of Sem	Jo#	Avg. Students	
Fall 2016	Seats	Max	Enrollment	Sections	per Section	% Full	Spring 2017	Seats	Max	Enrollment	Sections	per Section	% Full
Aviation	232	23.20	142	10		61.21	Aviation	180	22.50	112	80	14.00	62.22
Business	1,923	23.45	1622	82	19.78	84.35	Business	1931	23.84	1494	84	18.44	77.37
Communications	1,829	20.10	1711	91	18.80	93.55	Communications	1590	20.38	1371	78	17.58	86.23
Construction Tech	277	15.39	171	18	9.50	61.73	Construction Tech	244	13.56	172	18	9:26	70.49
Health Occupations	1006	14.17	925	71	13.03	91.95	Health Occupations	947	15.52	814	61	13.34	85.96
Humanities	1,556	19.70	_	79		87.85	Humanities	1554	21.00	1281	74	17.31	82.43
Maritime	852	21.30	069	40	17.25	80.99	Maritime	867	21.68	661	40	16.53	76.24
Physical Education	398	24.88	26	16	90.9	24.37	Physical Education	327	15.57	107	21	5.10	32.72
Science/Math	3,907	25.37	3367	154	21.86	86.18	Science/Math	3317	25.71	2907	129	22.53	87.64
Social Science	2,101	29.59	1820	71	25.63	86.63	Social Science	2141	28.55	1635	75	21.80	76.37
Technical	909	15.15	520	40	13.00	85.81	Technical	476	16.41	367	29	12.66	77.10
Water Studies	9/	19.00	49	4	12.25	64.47	Water Studies	106	21.20	44	5	8.80	41.51
TOTALS	14,763	21.84	12,481	9/9	18.46	84.54	TOTALS	13680	22.10	10965	619	17.71	80.15

Fall 2017 Seats Aviation 262 Business 1,797	Available Avg.	Count Day	# of	Avg. Students			Available	Avg.	End of Sem	# of	Avg. Students	
		Enrollment	Sections	per Section	% Full	Spring 2018	Seats	Max	Enrollment	Sections	per Section	% Full
	23.82	147	Ŧ	13.36	56.11	Aviation	191	23.88	148	∞	18.50	77.49
	7 23.96	1498	75	19.97	83.36	Business	1692	21.97	1353	11	17.57	79.96
Communications 1,34	4 18.87	1873	103	18.18	96.35	Communications	1502	20.30	1321	74	17.85	87.95
Construction Tech 264	14.67	165	19	9.17	62.50	Construction Tech	179	14.92	125	12	10.42	69.83
Health Occupations 1022	13.81	843	74	11.39	82.49	Health Occupations	938	16.46	730	25	12.81	77.83
Humanities 1,626		1372	78	17.59	84.38	Humanities	1599	20.50	1278	78	16.38	79.92
Maritime 846	6 20.14	699	42	15.93	79.08	Maritime	849	21.23	735	40	18.38	86.57
Physical Education 378		77	15	5.13	20.37	Physical Education	176	22.00	64	8	8.00	36.36
cc,		3350	146	22.95	91.38	Science/Math	3091	24.93	2661	124	21.46	86.09
Social Science 1,997			88	24.37	82.97	Social Science	2028	28.56	1594	71	22.45	78.60
Technical 680	16.19	498	42	11.86	73.24	Technical	287	16.31	406	99	11.28	69.17
Water Studies 8	82 20.50	53	4	13.25	64.63	Water Studies	98	21.50	48	4	12.00	55.81
TOTALS 14,564		12,202	9/9	18.05	83.78	TOTALS	12918	21.93	10463	589	17.76	81.00
Available	Avg.	Count Day	# of	Avg. Students			Available	Avg.	End of Sem	# of	Avg. Students	
Fall 2018 Seats	Max	Enrollment	Sections	per Section	% Full	Spring 2019	Seats	Max	Enrollment	Sections	per Section	% Full
Aviation 211	1 23.44	145	6	16.11	68.72	Aviation	250	25.00	144	10		57.60
Business 1,680	0 24.00	1288	0/	18.40	76.67	Business	1586	23.67		67		78.88
Communications 1,904		1788	100	17.88	93.91	Communications	1541	19.76		78		85.20
Construction Tech 209	9 14.93	149	14	10.64	71.29	Construction Tach	220	1431		\$		70 31
Health Occupations 1029	9 14.29	897	72	12.46	87.17	Health Occupations	270	15.78		2 6		70.07
Humanities 1,664	4 20.80	1353	8	16.91	81.31	Health Occupations	45.65	20.50	Ī	20 27		00 00
Maritime 892	2 20.74	725	43	16.86	81.28	Callingiiin	200	20.03		2 5		00.09
Physical Education No Cours	No Courses Offered					Maritime	877	20.55		40		86.37
	6 24.62	3092	142	21.77	88.44	Science/Math	3068	24.54	2521	125		82.17
a				24.91	86.39	Social Science	1955	27.54	1590	71	22.39	81.33
				11.68	76.35	Technical	488	16.27	374	30	12.47	76.64
Water Studies 7			4	13.75	70.51	Water Studies	06	22.50	88	4	9.50	42.22
TOTALS 13,557		11,508	633	18.18	84.89	TOTALS	12541	21.73	10164	277	17.62	81.05

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	Available	Avg.	Count Day	Jo #	Avg. Students		Av	Available A	Avg. E	End of Sem	# of A	Avg. Students	
Fall 2019	Seats	Max	Enrollment	Sections	per Section	% Full	Spring 2020	Seats N	Max	Enrollment	Sections	per Section	% Full
Aviation	316	26.33	137	12	11.42	43.35	Aviation	222	22.20	135	10	13.50	60.81
Business	1,589	23.72	1235	29	18.43	77.72	Business	1643	23.14	1181	71	16.63	71.88
Communications	1,851	19.48	1631	98	17.17	88.11	Communications	1468	19.84	1209	74	16.34	82.36
Construction Tech	314	14.27	217	22	9.86	69.11	Construction Tech	249	13.83	163	49	90.6	65.46
Health Occupations	1069	15.27	862	0/	12.31	80.64	Health Occupations	1015	17.50	753	99	12.98	74.19
Humanities	1,602	20.03	1290	8	16.13	80.52	Humanities	1462	20.89	1177	0/	16.81	80.51
Maritime	988	20.60	069	43	16.05	77.88	Maritime	827	20.68	629	40	16.98	82.10
Science/Math	3,562	24.07	3105	148	20.98	87.17	Science/Math	3147	24.02	2548	131	19.45	80.97
Social Science	2,011	28.32	1647	71	23.20	81.90	Social Science	1894	27.06	1491	20	21.30	78.72
Technical	457	16.93	354	27	13.11	77.46	Technical	543	16.45	380	33	11.52	69.98
Water Studies	282	19.50	33	4	9.75	50.00	Water Studies	98	21.50	34	4	8.50	39.53
TOTALS	13,735	21.49	11,207	639	17.54	81.59	TOTALS	12556	21.69	9750	629	16.84	77.65
	Available	Avg.	Count Day	# of	Avg. Students			Available	Avg.	Count Day	jo#	Avg. Students	
Fall 2020	Seats	Max	Enrollment Sections	t Section	s per Section	% Full	Spring 2021	Seats	Max	Enrollment	t Sections	-	% Full
Aviation	269	26.90	0 126		10 12.60	46.84	Aviation	222	27.75	135	80	oxdot	8 60.81
Business	1,691	22.55	5 1158		75 15.44	68.48	Business	1467	20.10	1010	73	13.84	1 68.85
Communications	1,532	17.02	2 1399		90 15.54	91.32	Communications	1174	14.68	1001	1 80	12.51	85.26
Construction Tech	449	24.94	4 214		11.89	47.66	Construction Tech	234	15.60	148	3 15	9.87	63.25
Health Occupations	1177	16.81	1 936		70 13.37	79.52	Health Occupations	1076	17.93	825	9 60	13.75	76.67
Humanities	1,515	20.20	1121		75 14.95	73.99	Humanities	1556	21.61	1057	72	14.68	8 67.93
Maritime	847	20.17	7 688		42 16.38	81.23	Maritime	884	21.56	681	1 41	16.61	177.04
Science/Math	3,439	24.56	5 2881	1 140	0 20.58	83.77	Science/Math	2787	22.30	2193	3 125	17.54	1 78.69
Social Science	1,751	25.75	5 1438		68 21.15	82.12	Social Science	1575	23.16	1253	89	18.43	3 79.56
Technical	202	12.68	8 303		40 7.58	59.76	Technical	465	12.92	270	36	7.50	58.06
Water Studies	78	19.50	0 54	4	4 13.50	69.23	Water Studies	70	17.50	35	5 4	8.75	50.00
TOTALS	13,255	20.97	7 10,318	8 632	2 16.33	77.84	TOTALS	11510	19.78	8098	3 582	14.79	74.79

Appendix H Summary description of each facility (net to gross ratios)

SCHEDULE OF BUILDINGS & CONTENTS (Period: 7/1/2020 through 7/1/2021)

Northwestern Michigan College

1			
	\$ 222,938,780	\$ 242,474,966	
		٠,	
	18,675,080 Building + Contents	\$ 19,610,766 Building + Contents \$	
	\$ 18,675,080	\$ 19,610,766	
	Contents	Contents	
	204,263,700 Contents	222,864,200	
	⋄	s	
	Buidings	Buidings	
	<u>Last Year Totals:</u>	Current Year Totals:	

Location#	Location Description	Last Year	Last Year	Last Year	Last Year	New	New Contents	New	New	Leased
		Building Value	Contents	Total Value	Square Ft	Building Value	Value	Total Value	Square Ft	(Mark "X")
1	Tanis/Beiderman/ISTLC	31,506,900	734,388	32,241,288	105,519	33,082,400	1,668,797	34,751,197	105,519	
2	Apartments A	1,846,200	-	1,846,200	12,399	1,938,600	•	1,938,600	12,399	
2B	Apartment B	1,846,200	-	1,846,200	12,399	1,938,600	•	1,938,600	12,399	
2C	Apartment C	1,846,200	-	1,846,200	12,399	1,938,600	•	1,938,600	12,399	
3	Appel Biology	157,800	2,996	160,796	1,160	165,500	•	165,500	1,160	
5	Aviation	2,481,100	1,428,465	3,909,565	20,912	2,605,200	810,502	3,415,702	20,912	
9	Founders Hall	1,212,000	51,016	1,263,016	4,950	1,273,500	56,288	1,329,788	4,950	
7	East Residence Hall	12,382,100	798,958	13,181,058	52,288	13,001,500	1,800,593	14,802,093	52,288	
8	Fine Arts Building	4,997,000	535,709	5,532,709	18,800	5,246,900	116,196	5,363,096	18,800	
10	Osterlin Library	12,470,500	5,416,715	17,887,215	46,734	13,094,200	3,447,033	16,541,233	46,734	
13	Museum - Auditorium	17,876,700	427,443	18,304,143	39,000	18,770,700	566,836	19,037,536	52,085	
14	Observatory	418,300	72,744	491,044	1,624	439,300	67,454	506,754	1,624	
15	Oleson Center	2,597,300	281,797	2,879,097	10,398	2,727,200	63,723	2,790,923	10,398	
16	Physical Education	008'608'5	226,927	6,036,727	25,674	6,100,500	71,224	6,171,724	25,674	
17	Powerhouse	2,192,200	26,506	2,218,706	3,580	2,301,900	15,149	2,317,049	3,580	
18	Scholars Hall	15,983,800	562,169	16,545,969	62,812	16,782,800	27,188	16,809,988	62,812	
19	West Hall Innovation Center	9,884,600	863,663	10,748,263	35,800	18,762,600	2,819,514	21,582,114	66,304	
20	University Center Campus	13,952,400	145,594	14,097,994	59,460	14,649,800	332,338	14,982,138	59,460	
22	Utility Tunnels	1,981,700	91,762	2,073,462	6,925	2,080,800	•	2,080,800	6,925	
23	Eastern Avenue Apartment Storage	59,400	143,653	203,053	1,344	62,300	•	62,300	1,344	
26	Beckett	8,440,700	775,797	9,216,497	34,269	8,862,900	433,544	9,296,444	34,269	
45	Parsen - Stullen M-TEC	15,826,000	1,246,516	17,072,516	000′59	16,617,400	2,212,833	18,830,233	65,000	
46	Maintenance	1,053,000	761,831	1,814,831	11,900	1,106,700	559,824	1,666,524	11,900	
47	Landscape Bin	31,600	-	31,600	675	33,200	•	33,200	675	
48	Automotive Service Tech	3,382,500	526,243	3,908,743	18,328	3,551,700	242,583	3,794,283	18,328	
49	Great Lakes Campus	22,689,300	1,943,142	24,632,442	75,364	23,824,000	2,992,188	26,816,188	75,364	
50	Aero Park Lab	4,268,700	1,276,623	5,545,323	29,600	4,482,200	1,530,290	6,012,490	29,600	
51	North Hall	002'690'2	334,423	7,404,123	46,730	7,423,200	0/99/	7,499,870	46,730	
	Totals:	\$ 204,263,700	\$ 18,675,080	\$ 222,938,780	816,043	\$ 222,864,200	\$ 19,610,766	\$ 242,474,966	862,632	

total ***
grand
contents
.⊑
included

Included in contents grand total			
Miscellaneous Items Throughout Campus	Last Year Value	This Year Value	
Monitoring Equipment (Mtec)	24,900	24,900	24,900 College Value
Cell Demo System (Mtec)	9/6,9	92669	College Value
BioDiesel Project (Mtec)	5,397	268'9	5,397 College Value
Solar Thermal System (Mtec)	58,646	58,646	58,646 College Value
Solar PV (Mtec)	57,274	57,274	57,274 College Value
Wind Power Generator (U.C.)	68,568	895'89	68,568 College Value
Outdoor Equipment	5,592	269'5	5,592 College Value
Communications Equipment	000'06	000'06	90,000 College Value
Safety/CPR/First Aid Equipment	24,200	24,200	24,200 College Value
Books and Multi-media Material	18,571	18,571	18,571 College Value
Machinery & Tools	12,852	12,852	12,852 College Value
Totals:	\$ 372,976	\$ 372,976	

This Year Value	24,900 College Value	6,976 College Value	5,397 College Value	58,646 College Value	57,274 College Value	68,568 College Value	5,592 College Value	90,000 College Value	24,200 College Value	18,571 College Value	12,852 College Value	372 976
Last Year Value Th	24,900	926,9	5,397	58,646	57,274	892'89	5,592	000'06	24,200	18,571	12,852	\$ 979 976 \$
Miscellaneous Items Throughout Campus	Monitoring Equipment (Mtec)	Cell Demo System (Mtec)	BioDiesel Project (Mtec)	Solar Thermal System (Mtec)	Solar PV (Mtec)	Wind Power Generator (U.C.)	Outdoor Equipment	Communications Equipment	Safety/CPR/First Aid Equipment	Books and Multi-media Material	Machinery & Tools	Totals:

Appendix I Building and/or Classroom Utilization Rates

Based on events from 12:00 A.M. to 11:30 P.M., between Aug 15 2020 and May 15 2021. There are 6,439.00 total hours in the report period, (K).

	(A)	(B)	(C)	<u>@</u> ;	(E)	(F)	(O)	Œ	(1)	3
	Max Capacity	Ratio	Biackout	Possible Hours	Hours	Contact	IIme Utilization	Class seat Utilization	Station Utilization	Net Utilization
AL - ENTIRE SHOP (NO SPACES)	536		ž	No events found						
AL 101	16		00.00	6,439.00	374.80	2,730.35	5.82%	47.32%	2.65%	0.15%
AL 102	24		0.00	6,439.00	649.83	7,161.32	10.09%	44.79%	4.63%	0.47%
AL 103	13		ž	No events found						
AL 106	16		ž	No events found						
AL 110A	16		0.00	6,439.00	196.00	1,311.75	3.04%	41.67%	1.27%	0.04%
AL 110B	20		00.00	6,439.00	352.28	2,956.48	5.47%	42.5%	2.3%	0.13%
AL 118	20		0.00	6,439.00	335.25	2,052.50	5.21%	34.17%	1.59%	0.08%
AL 122	20		ž	No events found						
AL A	20		0.00	6,439.00	454.50	3,431.98	%90.7	38.57%	2.66%	0.19%
AL A/B	40		ž	No events found						
AL A/B/C	09		ž	No events found						
AL A/B/C/D	80		ž	No events found						
AL B	20		ž	No events found						
AL B/C	40		ž	No events found						
AL B/C/D	09		ž	No events found						
AL BLDG (NO SPACES)	0		ž	No events found						
ALC	20		ž	No events found						
AL C/D	40		0.00	6,439.00	184.77	2,044.48	2.87%	27.5%	0.79%	0.02%
ALD	20		ž	No events found						
ALE	20		ž	No events found						
AL E/F	40		ž	No events found						
AL E/F/G	09		ž	No events found						
AL E/F/G/H	80		ž	No events found						
ALF	20		ž	No events found						
AL F/G	40		ž	No events found						
AL F/G/H	09		ž	No events found						
AL G SD 15	20		00.00	6,439.00	124.52	1,044.33	1.93%	42.5%	0.81%	0.02%
AL G/H	40		0.00	6,439.00	60.25	903.75	0.94%	37.5%	0.35%	%0
AL H SD 15	20		0.00	6,439.00	124.52	1,044.33	1.93%	42.5%	0.81%	0.02%
ALI	20		ž	No events found						33
AL 1/J	40		ž	No events found						

File Name: SpUtilizationSummary.xsl

	€	(B)	9	Q)	Œ	Ð	9	£	Ξ	(5)
	Max	≣	Blackout	Possible	Hours	Contact	Time	Class Seat	Station	Net
	Capacity	Ratio	Hours	Hours	Nsed	Hours	Utilization	Utilization	Utilization	Utilization
ALJ	20		2	No events found						
ALK	20		0.00	6,439.00	60.25	903.75	0.94%	%92	%2.0	0.01%
AL L	24		0.00	6,439.00	60.25	903.75	0.94%	62.5%	0.58%	0.01%
APPEL	45		2	No events found						
ARR ROOM	666		0.00	6,439.00	1,580.42	122,064.72	24.54%	1.67%	1.9%	0.47%
AT 100	18		0.00	6,439.00	353.53	4,835.42	5.49%	74.07%	4.17%	0.23%
AT 102	18		2	No events found						
AT 104	18		2	No events found						
AT 108	18		0.00	6,439.00	563.53	6,776.85	8.75%	60.19%	2.85%	0.51%
AT 111	18		0.00	6,439.00	432.88	5,710.93	6.72%	%02	4.93%	0.33%
AT BLDG (NO SPACES)	0		2	No events found						
BFC GYM	200		2	No events found						
BIK STUDIO	20		2	No events found						
CC POOL	200		2	No events found						
CITY OPERA HOUSE	0		2	No events found						
CTC BLDG	666		00.00	6,439.00	519.65	1,200.30	8.07%	0.3%	0.02%	%0
DMC 101	30		0.00	6,439.00	265.12	2,283.08	4.12%	22.22%	1.18%	0.05%
DMC BINSFELD GALLERY	20		2	No events found						
DMC CONFERENCE ROOM	12		_	No events found						
DMC DISCOVERY GALLERY	100		2	No events found						
DMC DUTMERS THEATER	34		2	No events found						
DMC GALLERIES	250		2	No events found						
DMC INUIT GALLERY	50		2	No events found						
DMC JANIS ROOM	75		2	No events found						
DMC MACFARLANE GALLERY	200		_	No events found						
DMC MILLIKEN	400		0.00	6,439.00	61.48	953.17	0.95%	6.38%	0.04%	%0
DMC MUSEUM CENTER	200		2	No events found						
DMC PARKING LOT	666		2	No events found						
DMC SCHMUCKAL GALLERY	150		_	No events found						
DMC SCULPTURE COURT	300		2	No events found						
ED SERVICES RECEPTION AREA T 55	0		_	No events found						2
F - MUSIC WING	0		2	No events found						34
F 102	49		2,608.50	3,830.50	107.07	608.53	2.8%	10.71%	0.32%	0.01%
F 103	10		0.00	6,439.00	199.73	515.20	3.1%	22.5%	0.8%	0.02%
File Name: SpUtilizationSummary.xsl	Event Sear	R Event Search: All Academic	Report Printed nic Classes, Lo	eport Printed on Aug 19 2021 at 2:39 P.M. Classes, Location Search: ALL SPACES (including Dennos/Hagerty)	at 2:39 P.M. - SPACES (incl	uding Dennos/F	lagerty)			Page 2 of 14

	€	(B)	<u>(</u>)	Q)	(E)	(F)	9	Ē	€	3
	Max Capacity	Fill	Blackout Hours	Possible Hours	Hours	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
F 104	4			No events found						
F 105	30		0.00	6,439.00	28.93	115.73	0.45%	13.33%	%90.0	%0
F 107/108 - RECORDING STUDIO	ю		_	No events found						
F 109/110 - MUSIC PRACTICE ROOMS	2		_	No events found						
F 115	84		0.00	6,439.00	227.67	13,037.58	3.54%	35.33%	2.41%	%60.0
F 115 STEINWAY PIANO	0		_	No events found						
F 120	18		0.00	6,439.00	437.27	6,280.08	%62.9	77.78%	5.42%	0.37%
F 126	0		_	No events found						
F 130	20		0.00	6,439.00	492.07	8,753.40	7.64%	59.17%	%8.9	0.52%
F 132	20		0.00	6,439.00	130.72	1,378.75	2.03%	13.33%	0.43%	0.01%
F 135	18		0.00	6,439.00	308.55	1,540.73	4.79%	27.78%	1.33%	%90.0
F 137 - KILN ROOM	0		_	No events found						
F BLDG (NO SPACES)	0		_	No events found						
F CENTER LOBBY	0		_	No events found						
F NORTH LOBBY	0		_	No events found						
F SOUTH LOBBY	0		_	No events found						
FFY GYM	20		_	No events found						
FH (NO SPACES)	0		_	No events found						
FH 109	10		_	No events found						
FH 110	16		0.00	6,439.00	373.77	7,167.33	2.8%	104.81%	%96:9	0.4%
FH 113	12	0	0.00	6,439.00	56.93	228.67	0.88%	33.33%	0.3%	%0
GL 100	24		0.00	6,439.00	184.77	939.90	2.87%	20.83%	0.61%	0.02%
GL 101	40		0.00	6,439.00	231.28	2,998.88	3.59%	30%	1.16%	0.04%
GL 102	10		0.00	6,439.00	191.78	939.90	2.98%	37.5%	1.46%	0.04%
GL 103	24		0.00	6,439.00	261.50	2,228.60	4.06%	31.25%	1.44%	%90.0
GL 108	24		0.00	6,439.00	30.50	915.00	0.47%	125%	0.59%	%0
GL 110	24		_	No events found						
GL 111	32		0.00	6,439.00	506.82	8,052.32	7.87%	42.19%	3.91%	0.31%
GL 112	40		0.00	6,439.00	242.50	3,589.23	3.77%	42.69%	1.39%	0.05%
GL 114	12		0.00	6,439.00	113.10	1,286.57	1.76%	88.89%	1.67%	0.03%
GL 200-205 RADAR LABS	2		_	No events found						
GL 207	12		0.00	6,439.00	181.00	995.50	2.81%	45.83%	1.29%	0.04%
GL 210	24		0.00	6,439.00	209.55	2,495.50	3.25%	41.67%	1.61%	0.05%
GL 211	40		00:00	6,439.00	472.15	10,000.85	7.33%	48.59%	3.88%	0.28%
File Name: SpUtilizationSummary.xsl	Seart Searc	Ryent Search: All Academic	Report Printer	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes Joration Search: Al SPACES (including Dennos/Hanerty)	at 2:39 P.M.	- Inding Dennos/F	lacerty)			Page 3 of 14

	(A) Max	(B)	(C) Blackout	(D) Possible	(E) Hours	(F) Contact	(G) Time	(H) Class Seat	(I) Station	(J) Net
	Capacity	Ratio	Hours	Hours	Nsed	Hours	Utilization	Utilization	Utilization	Utilization
GL 214 - DO NOT BOOK	12		Ž	No events found						
GL 215 - STUDENT ENCLAVE & GALLEY SD 12	16		Ž	No events found						
GL 222	36		0.00	6,439.00	1,021.48	19,744.33	15.86%	49.68%	8.52%	1.35%
GL 231	12		0.00	6,439.00	7.02	0.00	0.11%	%0	%0	%0
GL 251	24		0.00	6,439.00	320.07	3,775.60	4.97%	52.5%	2.44%	0.12%
GL 252	21		0.00	6,439.00	591.55	6,645.85	9.19%	65.31%	4.91%	0.45%
GL 254	27		0.00	6,439.00	406.02	3,119.00	6.31%	47.22%	1.79%	0.11%
GL 256	25		0.00	6,439.00	135.02	1,446.50	2.1%	%82	%6.0	0.02%
GL 257	12		0.00	6,439.00	317.02	3,030.50	4.92%	118.75%	3.92%	0.19%
GL 258	0		Ž	No events found						
GL 269	106		0.00	6,439.00	533.55	5,667.80	8.29%	15.09%	0.83%	0.07%
GL 271	0		Ž	No events found						
GL BLDG (NO SPACES)	0		Ž	No events found						
GL CULINARY OFFICE	0		Ž	No events found						
GL HARBOR LAWN	0		Ž	No events found						
GL MARITIME OFFICE	0		Ž	No events found						
GL PIER	0		Ž	No events found						
GL RECEPTION DESK & WORKROOM	0		Ž	No events found						
GL T/S STATE OF MICHIGAN	0		Ž	No events found						
GL WEST LAWN	0		Ž	No events found						
GTA ROOM	32		Ž	No events found						
Greenspire School	0	0	Ž	No events found						
HCA	156		Ž	No events found						
HC A & 1/2 B	264		Ž	No events found						
HC A & B	420		Ž	No events found						
НСВ	192		Ž	No events found						
HCB & C	432		Ž	No events found						
HC BALLROOM	594		Ž	No events found						
НС	224		Ž	No events found						
HC C & 1/2 B	314		Ž	No events found						2
HC CATWALK	0		Ž	No events found						236
HC COURTYARD	300		Ž	No events found						
НС D	92		Ž	No events found						

File Name: SpUtilizationSummary.xsl

Report Printed on Aug 19 2021 at 2:39 P.M. Event Search: All Academic Classes, Location Search: ALL SPACES (including Dennos/Hagerty)

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	€	(B)	(2)	(D)	(E)	(F)	9	£	€	3
	Max Capacity	Fill Ratio	Blackout Hours	Possible Hours	Hours Used	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
HC HAGERTY OFFICE	0		Z	No events found						
HC OFF-SITE	666		Z	No events found						
HC ROTARY HALL	64		Z	No events found						
HOMESTEAD	0		Z	No events found						
HS 110	12		0.00	6,439.00	418.53	3,123.45	%5'9	22.56%	4.04%	0.26%
HS 111	25		0.00	6,439.00	230.78	5,014.72	3.58%	86.86%	3.12%	0.11%
HS 111/113 VESTIBULE	0	0	Z	No events found						
HS 111A	თ		Z	No events found						
HS 112	16		0.00	6,439.00	210.83	2,028.00	3.27%	48.75%	1.97%	%90.0
HS 113	25		0.00	6,439.00	291.28	5,982.72	4.52%	81.78%	3.72%	0.17%
HS 114	32		Z	No events found						
HS 115	25		00.00	6,439.00	284.32	4,187.97	4.42%	49.78%	2.6%	0.11%
HS 115/117 VESTIBULE	0	0	Z	No events found						
HS 116	32		0.00	6,439.00	60.50	1,391.50	0.94%	71.88%	0.68%	0.01%
HS 117	25		0.00	6,439.00	365.47	4,832.95	2.68%	51.56%	3%	0.17%
HS 117A	14		Z	No events found						
HS 119 GREENHOUSE	24		Z	No events found						
HS 208	24		0.00	6,439.00	28.60	5,328.65	0.44%	174.62%	3.45%	0.02%
HS 208/210	20		Z	No events found						
HS 210	24		00.00	6,439.00	722.03	44,781.25	11.21%	%18	28.98%	3.25%
HS 211	27		0.00	6,439.00	554.10	8,649.48	8.61%	22.56%	4.98%	0.43%
HS 212	ω		0.00	6,439.00	10.62	51.57	0.16%	60.71%	0.1%	%0
HS 213	24		0.00	6,439.00	584.35	8,800.73	%80.6	60.42%	2.69%	0.52%
HS 214	11		0.00	6,439.00	13.65	72.80	0.21%	48.48%	0.1%	%0
HS 215	24		0.00	6,439.00	380.38	6,041.82	5.91%	%96.99	3.91%	0.23%
HS 216	30		00.00	6,439.00	317.68	960.22	4.93%	12.08%	0.5%	0.02%
HS 217	24		00.00	6,439.00	410.38	5,556.82	6.37%	61.01%	3.6%	0.23%
HS BLDG (NO SPACES)	0		Z	No events found						
HS BOOKSTORE	32		Z	No events found						
HS BOOKSTORE STORAGE	54		Z	No events found						
HSLOBBY	0		Z	No events found						2
HS LOBBY - UPSTAIRS	0		Z	No events found						37
JB 127 (MEDIA SERVICES)	0		Z	No events found						
JB 128	-		Z	No events found						
File Name: SpUtilizationSummary.xsl	Fyent Search: All Academic	imebeod III	Report Printed	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes I ocation Search: ALL SPACES (including Dennas/Hanarty)	2:39 P.M.	H/sound Paip	(Vitable			Page 5 of 14

	€	(B)	<u>(</u>)	<u>Q</u>	Œ	Ð	9	Ξ	€	3
	Max Capacity	Fill	Blackout Hours	Possible Hours	Hours Used	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
JB 130	14		_	No events found						
JB 136	48		_	No events found						
JB 140	48		_	No events found						
JB 146	36		_	No events found						
JB 146/147	72		0.00	6,439.00	157.53	5,642.38	2.45%	52.27%	1.22%	0.03%
JB 147	36		_	No events found						
JB 148	35		_	No events found						
JB 149	32		_	No events found						
JB 202	17		0.00	6,439.00	720.58	8,993.52	11.19%	65.13%	8.22%	0.92%
JB 204	20		0.00	6,439.00	733.57	8,204.87	11.39%	48.33%	6.37%	0.73%
JB 214 - PC Classroom	24		_	No events found						
JB 215	30		0.00	6,439.00	22.75	113.75	0.35%	16.67%	%90:0	%0
JB 216	35		_	No events found						
JB 217	24		0.00	6,439.00	143.05	1,442.35	2.22%	32.29%	0.93%	0.02%
JB BLDG (NO SPACES)	0		_	No events found						
JB FIRST LEVEL LOBBY	0		_	No events found						
JB SECOND LEVEL LOBBY	0		_	No events found						
JB SIMPLY-TO-	0		_	No events found						
LB 105 - International Office	40		_	No events found						
LB 106 - STUDENT HEALTH SERVICES	0		_	No events found						
LB 206	49		0.00	6,439.00	43.13	346.15	%29.0	11.22%	0.11%	%0
LB 207	40		0.00	6,439.00	98.45	273.00	1.53%	2.5%	0.11%	%0
LB 208	40		0.00	6,439.00	192.62	2,199.17	2.99%	26.39%	0.85%	0.03%
LB 32 (STUDY ROOM)	7		_	No events found						
LB 35/37	24		0.00	6,439.00	360.65	2,835.43	2.6%	21.3%	1.83%	0.1%
LB 38	70		0.00	6,439.00	11.05	850.07	0.17%	49.52%	0.19%	%0
LB BLDG (NO SPACES)	0		_	No events found						
LB LOBBY	0		_	No events found						
LOBDELL'S RESTAURANT - BOT	0		_	No events found						
LUCKY JACK'S	0		_	No events found						
MILL CREEK ELEMENTARY	30		_	No events found						2
O 103	4	0	_	No events found						38
0 113	23		_	No events found						
O 152 TUTORING	0		۷	No events found						
File Name: SpUtilizationSummary.xsl	Fyont Search: All Academic	mobcov IIV	Report Printed	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes Tocation Search: ATT SPACES (including Dennas/Hagarty)	t 2:39 P.M.	- Aina Danna/F	(Appendix)			Page 6 of 14

	((B)	<u> </u>	Q)	Œ	(F)	9	£	€	3
	Max Capacity	Fill Ratio	Blackout Hours	Possible Hours	Hours Used	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
O 201	12		Z	No events found						
O 202	24		0.00	6,439.00	3.52	84.40	0.05%	100%	0.05%	%0
O 203	72		0.00	6,439.00	201.42	4,133.18	3.13%	28.74%	0.89%	0.03%
O 204	30		0.00	6,439.00	30.13	730.80	0.47%	81.67%	0.38%	%0
O 205	72		0.00	6,439.00	116.65	2,464.47	1.81%	25.61%	0.53%	0.01%
O 208 OFFICE	5		Z	No events found						
O 209 OFFICE	2		Z	No events found						
O 210 OFFICE	2		Z	No events found						
O BLDG (NO SPACES)	0		Z	No events found						
O LOBBY	0		Z	No events found						
O SIMPLY-TO-GO CAFE	0		Z	No events found						
O SSC	20		Z	No events found						
OBSV BLDG	09		0.00	6,439.00	249.73	2,972.27	3.88%	20%	0.77%	0.03%
OBSV GATE	0		Z	No events found						
OC 102	5		Z	No events found						
OC 112	91		0.00	6,439.00	26.35	263.50	0.41%	10.99%	0.04%	%0
OC 129	20		Z	No events found						
OC A	44		Z	No events found						
OC A/B	88		Z	No events found						
OC ABC	132		00.00	6,439.00	126.20	3,028.80	1.96%	18.18%	0.36%	0.01%
OCB	44		Z	No events found						
OC B/C	88		Z	No events found						
OC BACK DOOR (NO SPACES)	0		Z	No events found						
OC BLDG (NO SPACES)	0		Z	No events found						
200	44		Z	No events found						
OC LOBBY	98		Z	No events found						
OFF CAMPUS	6666666		Z	No events found						
ONLINE CLASS	6666666		0.00	6,439.00	327.65	8,967.95	2.09%	%0	%0	%0
OPEN TO PUBLIC	6666666		Z	No events found						
OSTERLIN TESTING SITE A	25	0	0.00	6,439.00	28.18	550.37	0.44%	80.67%	0.34%	%0
OSTERLIN TESTING SITE B	25	0	0.00	6,439.00	7.05	151.67	0.11%	100%	%60.0	%0
Off Site Catering	0	0	z	No events found						39
P 100	06		00.00	6,439.00	302.15	2,780.33	4.69%	6.35%	0.48%	0.02%
P 100N	50		Z	No events found						
File Name: SpUtilizationSummary.xsl	Fyent Search: All Academic	mobcov IIV	Report Printed	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes Jonatics Search: All SPACES (including Dennis/Hagarty)	t 2:39 P.M.	T/sound Dailoi	(Apperty)			Page 7 of 14

	(A) Max	(B) Fill	(C) Blackout	(D) Possible	(E) Hours	(F) Contact	(G) Time	(H) Class Seat	(I) Station	(J) Net
0007	Capacity	Katio	SINOUL S	Hours	paso	Hours	Otilization	Offilization	Otilization	Offilization
Sould	06		2 2	NO everits round						
P 107 - APPLIED MUSIC	ა ද		2 2	No events found						
P 120	04		2	NO everits round						
P 202	24		Z	No events found						
P 206	30		Z	No events found						
P 207 (MEDIA SERVICES)	0		Z	No events found						
P BUILDING	0		Z	No events found						
P LOBBY	0		Z	No events found						
P SHOWER ROOMS	0		Z	No events found						
PHG GYM	200		Z	No events found						
PRESIDENT'S CONFERENCE ROOM	2		Z	No events found						
PRESIDENT'S OFFICE	0		Z	No events found						
PS - HALL OF TECHNOLOGY	0		Z	No events found						
PS 101/103	78		0.00	6,439.00	240.38	1,784.75	3.73%	7.41%	0.36%	0.01%
PS 104B	0		Z	No events found						
PS 105 (NOT RENTABLE)	12		Z	No events found						
PS 106 (CYCR)	16		0.00	6,439.00	4.02	20.08	%90.0	31.25%	0.02%	%0
PS 106K SIMPLY-TO-GO CAFE	0		Z	No events found						
PS 107	16		0.00	6,439.00	453.23	4,030.52	7.04%	46.25%	3.91%	0.28%
PS 110	12		Z	No events found						
PS 112	32		0.00	6,439.00	68.00	634.75	1.06%	29.69%	0.31%	%0
PS 114	24		Z	No events found						
PS 115 - MMTC-NL	24		Z	No events found						
PS 151	22		0.00	6,439.00	443.53	4,433.98	%68.9	35.35%	3.13%	0.22%
PS 153 - CNC LAB	12		Z	No events found						
PS 154 (RESOURCE ROOM)	9		Z	No events found						
PS 155	24		0.00	6,439.00	549.03	4,778.37	8.53%	29.95%	3.09%	0.26%
PS 157 - TECH LAB	96		0.00	6,439.00	153.57	0.00	2.38%	%0	%0	%0
PS 157A	16		0.00	6,439.00	680.87	6,492.40	10.57%	56.25%	6.3%	%29.0
PS 157B	16		Z	No events found						
PS 157C	7		Z	No events found						2
PS 159	0		0.00	6,439.00	193.65	0.00	3.01%	%0	%0	240 %
PS 1ST FLOOR COMMONS	0		Z	No events found						
PS 201	24		0.00	6,439.00	10.08	0.00	0.16%	%0	%0	%0
File Name: SpUtilizationSummary.xsl	Fvent Sear	Report Search: All Academic	Report Printed	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes Jocation Search: Al SPACES (including Dennos/Hanerty)	it 2:39 P.M. SPACES (incli	Hind Dennos/F	lacerty)			Page 8 of 14

	€	(B)	(2)	(Q)	Œ	Ð	(9)	£	€	<u>5</u>
	Max Capacity	Fill Ratio	Blackout Hours	Possible Hours	Hours Used	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
PS 203	24		0.00	6,439.00	493.57	5,670.77	7.67%	47.69%	3.67%	0.28%
PS 204	19		0.00	6,439.00	120.75	1,147.25	1.88%	20%	0.94%	0.02%
PS 204 B - RESOURCE ROOM	0		Z	No events found						
PS 205	24		0.00	6,439.00	124.52	2,454.18	1.93%	70.83%	1.59%	0.03%
PS 206	20		Z	No events found						
PS 206A	0		Z	No events found						
PS 216	0		Z	No events found						
PS 217/219	20		0.00	6,439.00	460.88	4,647.85	7.16%	48%	3.61%	0.26%
PS 218	16		0.00	6,439.00	165.80	501.33	2.57%	15.62%	0.49%	0.01%
PS 220	30		0.00	6,439.00	45.25	316.75	%2.0	23.33%	0.16%	%0
PS 222	24		0.00	6,439.00	87.79	1,295.88	1.05%	47.92%	0.84%	0.01%
PS 222/224	99		0.00	6,439.00	217.38	3,609.72	3.38%	24.74%	1%	0.03%
PS 224	24		Z	No events found						
PS 225	24		0.00	6,439.00	124.93	696.97	1.94%	26.39%	0.45%	0.01%
PS 226	24		0.00	6,439.00	304.60	1,844.43	4.73%	22.5%	1.19%	%90.0
PS 227	4		z	No events found						
PS 2ND FLOOR COMMONS	0		Z	No events found						
PS AIRPORT SIDE PATIO	0		Z	No events found						
PS BLDG (NO SPACES)	0		Z	No events found						
PS BUILDING	0		Z	No events found						
PS EAST OFFICE WING	0		Z	No events found						
PS NORTH OFFICE WING	0		Z	No events found						
PS RECEPTION LOBBY	0		Z	No events found						
PS SOLAR TRAILER	0		z	No events found						
SBHS SBHS	20		Z	No events found						
SH FIRST LEVEL WEST LOBBY	0		Z	No events found						
8H 09	24		Z	No events found						
SH 101	40		0.00	6,439.00	45.50	1,001.00	0.71%	22%	0.39%	%0
SH 102	40		0.00	6,439.00	20.13	208.95	0.31%	30.62%	0.08%	%0
SH 103	24		z	No events found						
SH 103/105	64		0.00	6,439.00	151.57	1,888.27	2.35%	22.79%	0.46%	0.01%
SH 104	32		Z	No events found						41
SH 105	40		Z	No events found						
SH 106	32		0.00	6,439.00	60.50	1,270.50	0.94%	65.62%	0.62%	0.01%
File Name: SpUtilizationSummary.xsl	Fyent Search: All Academic	mobcov IIV .		eport Printed on Aug 19 2021 at 2:39 P.M.	t 2:39 P.M.	T/sound Dailo	(Apportiv)			Page 9 of 14

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	Max	≣	Blackout	Possible	Hours	Contact	Time	Class Seat	Station	Net
	Capacity	Ratio	Hours	Hours	Nsed	Hours	Utilization	Utilization	Utilization	Utilization
SH 107 - FACULTY & STAFF BREAKROOM	10		_	No events found						
SH 109	120		0.00	6,439.00	2.77	564.43	0.04%	34.17%	0.07%	%0
SH 113	40		_	No events found						
SH 15	24		_	No events found						
SH 19	0			No events found						
SH 20	24		-	No events found						
SH 20/22	09		0.00	6,439.00	415.52	4,605.17	6.45%	16.67%	1.19%	%80.0
SH 202	40		0.00	6,439.00	90.9	103.42	0.09%	42.5%	0.04%	%0
SH 204	28		0.00	6,439.00	123.02	2,091.28	1.91%	60.71%	1.16%	0.02%
SH 205	24		_	No events found						
SH 206 ALICE 1	25		0.00	6,439.00	3.02	0.00	0.05%	%0	%0	%0
SH 207	32		0.00	6,439.00	60.50	1,331.00	0.94%	68.75%	0.65%	0.01%
SH 209	32		_	No events found						
SH 215 - FACULTY & STAFF BREAK ROOM	10		_	No events found						
SH 217	77		_	No events found						
SH 218 ALICE 2	23		_	No events found						
SH 22	32		_	No events found						
SH 221 - WRITING & READING CNTR SD 10	0		_	No events found						
SH 23 - WHITE PINE PRESS OFFICE	10			No events found						
SH 28 - NMC MAGAZINE	Ŋ		_	No events found						
SH 30	32		0.00	6,439.00	35.23	352.33	0.55%	31.25%	0.17%	%0
SH 32	32		_	No events found						
SH BLDG (NO SPACES)	0			No events found						
SH FIRST LEVEL EAST LOBBY	0		_	No events found						
SH SECOND LEVEL LOBBY	0			No events found						
STUDENT SERVICES CONFERENCE ROOM	10		_	No events found						
T 51 - TECH HELP DESK	0		_	No events found						
T 53 - MATH LAB	7		_	No events found						
TANIS BUILDING (NO SPACES)	0		_	No events found						
TC GOLF AND COUNTRY CLUB	0		_	No events found						2
TC OPERA HOUSE	0			No events found						242
TCAPS	0		_	No events found						
TCCHS ROOM	0		_	No events found						
File Name: SpUtilizationSummary.xsl	R All According Signature	mobcov IIV	Report Printer	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes I contion Search: Al I SDACES (including Demos/Hagerty)	t 2:39 P.M.	H/soquoO paib	(vtrope			Page 10 of 14

Report Printed on Aug 19 2021 at 2:39 P.M. Event Search: All Academic Classes, Location Search: ALL SPACES (including Dennos/Hagerty)

	€	(B)	9	<u>Q</u>	Œ	(F)	9	Ξ	€	3
			Blackout Hours	Possible Hours	Hours Used	Contact Hours	Time Utilization	Class Seat Utilization	Station Utilization	Net Utilization
TCWSH ROOM	30		No	No events found						
TECHNOLOGY HELP DESK	0		N	No events found						
UC 01	24		No	No events found						
UC 05	42		S O N	No events found						
UC 06	22		N	No events found						
UC 07	44		°N	No events found						
UC 08	13		o N	No events found						
UC 09	24		N	No events found						
UC 103 (ZONTA)	ω		N _O	No events found						
UC 105 (ZONTA)	∞		°Z	No events found						
UC 106	16		S _O	No events found						
UC 11	14		°Z	No events found						
UC 12	24		S _O	No events found						
UC 14	28		N	No events found						
UC 14/16	48		o N	No events found						
UC 16	28		S O N	No events found						
UC 17	0		o N	No events found						
UC 18	0		N	No events found						
UC 202-F (GRAY)	15		N _O	No events found						
UC 204	36		°Z	No events found						
UC 205	24		Š	No events found						
UC 206	6		°Z	No events found						
UC 207	40		°Z	No events found						
UC 208	20		°N	No events found						
UC 209	32		N _O	No events found						
UC 211	12		N _o	No events found						
UC 212	32		No	No events found						
UC 213	24		°N	No events found						
UC 214	24		N	No events found						
UC 215	24		°N	No events found						
UC 215/217	48		S _O	No events found						2
UC 216	24		No	No events found						43
UC 217	24		No	No events found						
UC 218	24		N	No events found						
File Name: SpUtilizationSummary.xsl	Ryent Search: All Academic		port Printed o	(eport Printed on Aug 19 2021 at 2:39 P.M.	39 P.M.	Mysounach	oderft/)			Page 11 of 14

	€	(B)	<u>(၁</u>	<u>Q</u>	Ξ	Ð	9	Œ	€	3
	Мах	Ē	Blackout	Possible	Hours	Contact	Time	Class Seat	Station	Net
	Capacity	Ratio	Hours	Hours	Nsed	Hours	Utilization	Utilization	Utilization	Utilization
UC 219	24		_	No events found						
UC BLDG (NO SPACES)	0		_	No events found						
UC CAFE	41		_	No events found						
UC FIRST LEVEL SOUTH LOBBY	9		_	No events found						
UC LOWER LEVEL SOUTH LOBBY	19		_	No events found						
UC OFF CAMPUS	0		_	No events found						
UC PARTNER OFFICE	0		_	No events found						
UC PATIO	35		_	No events found						
VIRTUAL MEETING	666666		_	No events found						
WH - KITCHEN BACK DOOR	0		_	No events found						
WH - LOWER LEVEL STUDENT CENTER	55		_	No events found						
WH - NORTHWEST GRIND C-STORE	0		_	No events found						
WH - STUDENT LOUNGE/STUDY AREA	10		_	No events found						
WH 01	9	0	_	No events found						
WH 02	9	0	_	No events found						
WH 03	4	0	_	No events found						
WH 04	4	0	_	No events found						
WH 08	41	0	_	No events found						
WH 09	က	0	_	No events found						
WH 104	24	0	_	No events found						
WH 104/105	48	0	00.00	6,439.00	205.97	3,857.03	3.2%	36.21%	1.25%	0.04%
WH 105	24	0	_	No events found						
WH 106	36	0	_	No events found						
WH 106/107	92	0	00.00	6,439.00	268.10	11,528.85	4.16%	30.67%	2.36%	0.1%
WH 107	40	0	_	No events found						
WH 116	4	0	_	No events found						
WH 117	4	0	_	No events found						
WH 118	4	0	_	No events found						
WH 123	12	0	_	No events found						
WH 14	30	0	_	No events found						
WH 15	30	0	0.00	6,439.00	60.50	1,512.50	0.94%	83.33%	0.78%	%10.0
WH 203	0	0	_	No events found						44
WH 207	4	0	_	No events found						
WH 208	2	0	_	No events found						
File Name: SpUtilizationSummary.xsl	Fyent Sear	Ryent Search: All Academic	Report Printer	Report Printed on Aug 19 2021 at 2:39 P.M. in Classes Incation Search: All SPACES (including Dennos/Hagerty)	SPACES (incli	H/sound Dailor	acter(v)			Page 12 of 14

	€	(B)	<u>(</u>)	<u>Q</u>	(E)	(F)	<u>(</u> 9	Đ	Ξ	<u>(5)</u>
	Мах	≣	Blackout	Possible	Hours	Contact	Time	Class Seat	Station	Net
	Capacity	Ratio	Hours	Hours	Nsed	Hours	Utilization	Utilization Utilization Utilization	Utilization	Utilization
WH 209	4	0	ž	No events found						
WH 35	10	0	ž	No events found						
WH BLDG (NO SPACES)	0		ž	No events found						
WH LOBBY	0	0	ž	No events found						
WH Library	0	0	ž	No events found						
West Hall Catering	0	0	Ž	No events found						

Column A & B

Maximum Capacity and Fill Ratio are values that may be provided for a location. The location utilization computations cannot be made where Maximum Capacity has not been specified.

Column C

Blackout Hours is the total hours of all blackout dates defined for a location for this report time period.

Column D

Possible Hours is calculated by taking the total possible hours for the report period (K) defined by the user report parameters and subtracting the total blackout hours for the location during that same time period.

Column E

Hours Used is the total number of hours for all occurrences assigned to this location during the report period.

Column F

Contact Hours is the product of (column I), Total Hours Used, and the Selected Head Count for each reservation in the report period.

Column G

Time Utilization is the percentage of hours a location is used during the report period. This is the quotient of (column E), Hours Used, divided by (column D), Possible Hours. This value is expressed as a percentage.

Column H

Class Seat Utilization is the average percentage of seats used for each reservation compared to the Maximum Capacity of the location. Class Seat Utilization is calculated by taking the Selected Head Count, divided by (column A), Maximum Capacity, multiplied by 100. This value is expressed as a percentage.

Column I

Station Utilization is the percentage of total contact hours compared to the total possible contact hours for the location during the report period. The total possible contact hours is the (column A), Maximum Capacity, multiplied by (column D), Total Possible Hours. This value is expressed as a percentage.

Column J

Net Utilization is the product of (column G), Time Utilization, and (column I), Station Utilization. This value is expressed as a percentage.

Column K

The Total Hours per Report Period is computed from the date and time range entered when the report was printed.

Appendix J Functionality of Existing Structures (Space Allocation)

SCHEDULE OF BUILDINGS & CONTENTS (Period: 7/1/2020 through 7/1/2021)

Northwestern Michigan College

1			
	\$ 222,938,780	\$ 242,474,966	
		٠,	
	18,675,080 Building + Contents	\$ 19,610,766 Building + Contents \$	
	\$ 18,675,080	\$ 19,610,766	
	Contents	Contents	
	204,263,700 Contents	222,864,200	
	⋄	s	
	Buidings	Buidings	
	<u>Last Year Totals:</u>	Current Year Totals:	

Location#	Location Description	Last Year	Last Year	Last Year	Last Year	New	New Contents	New	New	Leased
		Building Value	Contents	Total Value	Square Ft	Building Value	Value	Total Value	Square Ft	(Mark "X")
1	Tanis/Beiderman/ISTLC	31,506,900	734,388	32,241,288	105,519	33,082,400	1,668,797	34,751,197	105,519	
2	Apartments A	1,846,200	-	1,846,200	12,399	1,938,600	•	1,938,600	12,399	
28	Apartment B	1,846,200		1,846,200	12,399	1,938,600	•	1,938,600	12,399	
2C	Apartment C	1,846,200	-	1,846,200	12,399	1,938,600	•	1,938,600	12,399	
3	Appel Biology	157,800	2,996	160,796	1,160	165,500	•	165,500	1,160	
2	Aviation	2,481,100	1,428,465	3,909,565	20,912	2,605,200	810,502	3,415,702	20,912	
9	Founders Hall	1,212,000	51,016	1,263,016	4,950	1,273,500	56,288	1,329,788	4,950	
7	East Residence Hall	12,382,100	798,958	13,181,058	52,288	13,001,500	1,800,593	14,802,093	52,288	
8	Fine Arts Building	4,997,000	535,709	5,532,709	18,800	5,246,900	116,196	5,363,096	18,800	
10	Osterlin Library	12,470,500	5,416,715	17,887,215	46,734	13,094,200	3,447,033	16,541,233	46,734	
13	Museum - Auditorium	17,876,700	427,443	18,304,143	39,000	18,770,700	266,836	19,037,536	52,085	
14	Observatory	418,300	72,744	491,044	1,624	439,300	67,454	506,754	1,624	
15	Oleson Center	2,597,300	281,797	2,879,097	10,398	2,727,200	63,723	2,790,923	10,398	
16	Physical Education	008'608'5	226,927	6,036,727	25,674	6,100,500	71,224	6,171,724	25,674	
17	Powerhouse	2,192,200	26,506	2,218,706	3,580	2,301,900	15,149	2,317,049	3,580	
18	Scholars Hall	15,983,800	562,169	16,545,969	62,812	16,782,800	27,188	16,809,988	62,812	
19	West Hall Innovation Center	9,884,600	863,663	10,748,263	35,800	18,762,600	2,819,514	21,582,114	66,304	
20	University Center Campus	13,952,400	145,594	14,097,994	59,460	14,649,800	332,338	14,982,138	59,460	
22	Utility Tunnels	1,981,700	91,762	2,073,462	6,925	2,080,800	•	2,080,800	6,925	
23	Eastern Avenue Apartment Storage	59,400	143,653	203,053	1,344	62,300	•	62,300	1,344	
56	Beckett	8,440,700	797,277	9,216,497	34,269	8,862,900	433,544	9,296,444	34,269	
45	Parsen - Stullen M-TEC	15,826,000	1,246,516	17,072,516	65,000	16,617,400	2,212,833	18,830,233	65,000	
46	Maintenance	1,053,000	761,831	1,814,831	11,900	1,106,700	559,824	1,666,524	11,900	
47	Landscape Bin	31,600	-	31,600	675	33,200	•	33,200	675	
48	Automotive Service Tech	3,382,500	526,243	3,908,743	18,328	3,551,700	242,583	3,794,283	18,328	
49	Great Lakes Campus	22,689,300	1,943,142	24,632,442	75,364	23,824,000	2,992,188	26,816,188	75,364	
20	Aero Park Lab	4,268,700	1,276,623	5,545,323	29,600	4,482,200	1,530,290	6,012,490	29,600	
51	North Hall	002'690'2	334,423	7,404,123	46,730	7,423,200	16,670	7,499,870	46,730	
	Totale	007 263 700	18 675 080	0338780	816.013	\$ 222 864 200	397 019 610 766	990 1/1 6/6 3	CE9 C98	

total ***
grand
contents
.⊑
included

included in contents grand total			
Aiscellaneous Items Throughout Campus	Last Year Value	Last Year Value This Year Value	
Monitoring Equipment (Mtec)	24,900	24,900	24,900 College Value
Cell Demo System (Mtec)	92669	926,9	6,976 College Value
BioDiesel Project (Mtec)	5,397	5,397	5,397 College Value
Solar Thermal System (Mtec)	58,646	58,646	58,646 College Value
Solar PV (Mtec)	57,274	57,274	57,274 College Value
Wind Power Generator (U.C.)	895'89	892'89	68,568 College Value
Jutdoor Equipment	5,592	5,592	5,592 College Value
Communications Equipment	000'06	000'06	90,000 College Value
Safety/CPR/First Aid Equipment	24,200	24,200	24,200 College Value
Books and Multi-media Material	18,571	18,571	18,571 College Value
Machinery & Tools	12,852	12,852	12,852 College Value
Totals:	372,976	\$ 372,976	

Miscellaneous Items Throughout Campus	Last Year Value	Last Year Value This Year Value	
Monitoring Equipment (Mtec)	24,900	24,900	24,900 College Value
Cell Demo System (Mtec)	92669	926'9	6,976 College Value
BioDiesel Project (Mtec)	26:39	266'9	5,397 College Value
Solar Thermal System (Mtec)	58,646	58,646	58,646 College Value
Solar PV (Mtec)	57,274	57,274	57,274 College Value
Wind Power Generator (U.C.)	895'89	895'89	College Value
Outdoor Equipment	5,592	269'9	5,592 College Value
Communications Equipment	000'06	000'06	90,000 College Value
Safety/CPR/First Aid Equipment	24,200	24,200	24,200 College Value
Books and Multi-media Material	18,571	18,571	18,571 College Value
Vlachinery & Tools	12,852	12,852	12,852 College Value
Totals:	\$ 372,976	372,976	

Appendix K Replacement Value - Appraisal of Buildings

R.A. Schettler, Inc.

24634 W. FIVE MILE RD. REDFORD, MI. 48239

Appraisal Service

Residential - Institutional

NOVEMBER 1, 2020

Industrial - Commercial

ASSOCIATED RISK MANAGEMENT, INC. LIVONIA, MICHIGAN 48152 39111 W. SIX MILE ROAD

TO WHOM IT MAY CONCERN:

NORTHWESTERN MICHIGAN COLLEGE

TRAVERSE CITY, MICHIGAN 49686 1701 EAST FRONT STREET

WE SUBMIT HEREWITH OUR CERTIFIED APPRAISAL OF ASSETS BELONGING TO NORTHWESTERN MICHIGAN COLLEGE, 1701 EAST FRONT, TRAVERSE CITY, MICHIGAN. THIS APPRAISAL INCLUDES BUILDINGS ONLY.

THIS APPRAISAL IS ARRANGED UNDER SEVERAL PROPERTY CLASSIFICATIONS AND FURNISHES AN UNBIASED STATEMENT OF VALUES.

ACQUIRING AN EQUALLY DESIRABLE SUBSTITUTE FOR PROPERTY, WHICH IS DETERMINED IN ACCORDANCE WITH MARKET PRICES PREVAILING AT THE DATE OF THIS APPRAISAL AND REPRESENTS THE COST TO REPLACE NEW, THE THE "REPLACEMENT VALUE NEW" THE COST THAT WOULD BE INCURRED IN PROPERTY IN LIKE KIND.

THE "SOUND OR INSURABLE VALUE" INDICATING PRESENT PHYSICAL SOUND VALUES OF THE PROPERTY OF AN OPERATING ENTERPRISE BASED UPON THE COST OF REPRODUCTION NEW, LESS AN ALLOWANCE FOR ACCRUED DEPRECIATION RESULTING FROM ITS AGE, CONDITION AND DEGREE OF

A SUMMARY IMMEDIATELY FOLLOWING THIS LETTER SHOWS THE REPLACEMENT VALUE NEW AND SOUND INSURABLE VALUES SEGREGATED ACCORDING TO ACCOUNTS ESTABLISHED BY OUR COMPANY.

IN ORDER THAT YOU MAY FULLY UNDERSTAND THE SERVICES WE HAVE RENDERED, WE PRESENT THE IMPORTANT POINTS AS FOLLOWS:

REMOVALS, REPLACEMENTS, ALTERATIONS AND CHANGES IN LOCATION) AS FURNISHED BY THEIR MANAGERIAL STAFF ALL PHYSICAL CHANGES OF THEIR PROPERTY (ADDITIONS, AND/OR RECORDS HAVE BEEN INCORPORATED IN THE FIRST:

SECOND: WE HAVE CHECKED AND VERIFIED BY PERSONAL INVESTIGATION ALL CHANGES SUBMITTED BY THEIR STAFF.

A RECOGNIZED AUTHORITY SINCE 1935

R. A. SCHETTLER, INC.

PAGE 2

WITH THE INFORMATION OBTAINED FROM THEIR RECORDS, WE HAVE DEDUCTED IN DOLLARS ALL RETIREMENTS AND ABANDONMENTS THAT HAVE TRANSPIRED SINCE THE DATE OF THEIR LAST APPRAISAL. THIRD:

ECONOMIC CONDITIONS AFFECTING THE CONSTRUCTION, EQUIPMENT AND LABOR MARKETS, VALUES SHOWN ARE SUBJECT TO ADJUSTMENT, AS REQUIRED, AFTER THE DATE SPECIFIED IN CERTIFICATES.

WE HAVE NOT EXAMINED THE LEGAL TITLES OF PROPERTY; THEREFORE WE DO NOT ASSUME RESPONSIBILITY REGARDING THE OWNERSHIP OF PROPERTY IN THIS APPRAISAL.

VERY TRULY YOURS,

R. A. SCHETTLER, INC.

RAS/mbj

R.A. Schettler, Inc.

24634 W. FIVE MILE RD. REDFORD, MI. 48239

Appraisal Service

(248) 705-5801

RAS

Industrial - Commercial

Residential - Institutional

NOVEMBER 1, 2020

TRAVERSE CITY, MICHIGAN 49686 NORTHWESTERN MICHIGAN COLLEGE 1701 EAST FRONT STREET

TO WHOM IT MAY CONCERN:

WE SUBMIT HEREWITH OUR CERTIFIED APPRAISAL OF ASSETS BELONGING TO NORTHWESTERN MICHIGAN COLLEGE, 1701 EAST FRONT, TRAVERSE CITY, MICHIGAN. THIS APPRAISAL INCLUDES BUILDINGS ONLY.

THIS APPRAISAL IS ARRANGED UNDER SEVERAL PROPERTY CLASSIFICATIONS AND FURNISHES AN UNBIASED STATEMENT OF VALUES.

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VALUES OF THE PROPERTY OF AN OPERATING ENTERPRISE BASED UPON THE COST OF REPRODUCTION NEW, LESS AN ALLOWANCE FOR ACCRUED DEPRECIATION RESULFING FROM ITS AGE, CONDITION AND DEGREE OF THE "SOUND OR INSURABLE VALUE" INDICATING PRESENT PHYSICAL SOUND

A SUMMARY IMMEDIATELY FOLLOWING THIS LETTER SHOWS THE REPLACEMENT VALUE NEW AND SOUND INSURABLE VALUES SEGREGATED ACCORDING TO ACCOUNTS ESTABLISHED BY OUR COMPANY

IN ORDER THAT YOU MAY FULLY UNDERSTAND THE SERVICES WE HAVE RENDERED, WE PRESENT THE IMPORTANT POINTS AS FOLLOWS: ALL PHYSICAL CHANGES OF YOUR PROPERTY (ADDITIONS, REMOVALS, REPLACEMENTS, ALTERATIONS AND CHANGES IN LOCATION) AS FURNISHED BY YOUR MANAGERIAL STAFF AND/OR RECORDS HAVE BEEN INCORPORATED IN THE FIRST:

SECOND: WE HAVE CHECKED AND VERIFIED BY PERSONAL INVESTIGATION ALL CHANGES SUBMITTED BY YOUR STAFF.

A RECOGNIZED AUTHORITY SINCE 1935

R. A. SCHETTLER, INC.

PAGE 2

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ECONOMIC CONDITIONS AFFECTING THE CONSTRUCTION, EQUIPMENT AND LABOR MARKETS, VALUES SHOWN ARE SUBJECT TO ADJUSTMENT, AS REQUIRED, AFTER THE DATE SPECIFIED IN CERTIFICATES.

WE HAVE NOT EXAMINED THE LEGAL TITLES OF PROPERTY; THEREFORE WE DONOT ASSUME RESPONSIBILITY REGARDING THE OWNERSHIP OF PROPERTY IN THIS APPRAISAL.

VERY TRULY YOURS,

R. A. SCHETTLER, INC.

RAS/MBJ

REGISTERED APPRAISERS R.A SCHETTLER, INC.

-CERTIFY-

THAT ON THE DATE GIVEN IN THIS CERTIFICATE, THE PROPERTY OF

NORTHWESTERN MICHIGAN COLLEGE

1701 EAST FRONT STREET LOCATED AT:

TRAVERSE CITY, MICHIGAN 49686

WAS WELL AND REASONABLY WORTH:

TWO HUNDRED TWENTY-SEVEN MILLION, FIVE HUNDRED TWENTY THOUSAND, SIX HUNDRED DOLLARS.

REPLACEMENT VALUE NEW ON THE BASIS OF ITS DISTRIBUTION OF VALUES ARE AS FOLLOWS:

REAL ESTATE - BUILDINGS. \$227,520,600.00

R.A. SCHETTLER, INC. DATE: NOVEMBER FIRST TWO THOUSAND TWENTY

BY

PROJECT NO:

R.A SCHETTLER, INC.

REGISTERED APPRAISERS

THAT ON THE DATE GIVEN IN THIS CERTIFICATE, THE PROPERTY OF

NORTHWESTERN MICHIGAN COLLEGE

LOCATED AT: 1701 EAST FRONT STREET

TRAVERSE CITY, MICHIGAN 49686

WAS WELL AND REASONABLY WORTH:

ONE HUNDRED SIXTY-THREE MILLION, EIGHT HUNDRED NINETEEN THOUSAND, THREE HUNDRED DOLLARS

SOUND VALUATION ON THE BASIS OF ITS

DISTRIBUTION OF VALUES ARE AS FOLLOWS:

REAL ESTATE - BUILDINGS. \$163,819,300.00

DATE: NOVEMBER FIRST TWO THOUSAND TWENTY R.A. SCHETTLER, INC.

2186 PROJECT NO:

BY

R.A. SCHETTLER, INC

	As of 11/1/20	
SUMMATION	NORTHWESTERN MICHIGAN COLLEGE	REAL ESTATE - BUILDING -
	sset Acct:	

bvi	Replacement Value New	Sound or Depr. Value
TANIS/BIEDERMAN/HEALTH & SCIENCE	33,776,700.00	
APARTMENT A	1,977,500.00	1,028,300.00
APARTHENT B	1,977,500.00	1,028,300.00
APARTMENT C	1,977,500.00	1,028,300.00
EASTERN AVENUE STORAGE BUILDING	63,600.00	47,100.00
APPEL BIOLOGY LABORATORY	168,800,00	64,100.00
AVIATION	2,657,200.00	1,488,000.00
BECKETT	9,040,100.00	6,960,900.00
FOUNDERS HALL	1,299,000.00	857,300.00
EAST HALL	13,261,400.00	7,691,600.00
FINE ARTS	5,351,800.00	3,318,100.00
OSTERLIN LIBRARY	13,356,200.00	7,613,000.00
MUSEUM/AUDITORIUM	19,154,900.00	15,132,400.00
OBSERVATORY	448,200.00	273,400.00
OLESON CENTER	2,781,800.00	2,058,500.00
PHYSICAL EDUCATION	6,222,500.00	2,986,800.00
POWERHOUSE	2,347,900.00	1,033,100.00
SCHOLARS HALL	17,118,300.00	10,099,800.00
WEST HALL INNOVATION CENTER	19,312,000.00	17,573,900.00
UNIVERSITY CENTER CAMPUS	14,943,000.00	10,310,700.00
UTILITY TUNNELS	2,122,400.00	997,500.00
PARSEN-STULLEN M-TEC	16,949,700.00	13,559,800.00
MAINTENANCE	1,111,800.00	900,600.00
WIN BURNOWS	שם שמם בב	200

CONTINUED

R.A. SCHETTLER, INC SUMMATION ASSET ACCT: NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING -

As of 11/1/19

Summary by:	Replacement Value New	Sound or Depr. Value
AUTOMOTIVE SERVICE TECHNOLOGY	3,622,800.00	2,318,600.00
GREAT LAKES CAMPUS	24,300,400.00	20,169,300.00
AERO PARK LAB	4,572,000.00	2,834,600.00
NORTH HALL	7,571,700.00	7,420,300.00
GRAND TOTAL	227.520.600.00	163,819,300.00

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING	HEALTH AND SCIENCE
Description	11/1/20
BASEMENT:	
FLOOR	33,800.00
EXTERIOR WALLS	109,500.00
INTERIOR CONSTRUCTION	98,200.00
FOUNDATION:	1,028,100.00
SUPERSTRUCTURE:	
FRAME	1,434,500.00
FLOORS	1,292,600.00
FLOOR COVERINGS	1,005,400.00
CEILINGS	557,300.00
ROOF STRUCTURE	939,900.00
ROOF COVER	458,600.00
INTERIOR CONSTRUCTION	4,729,900.00
BUILT-IN FIXTURES	2,090,800.00
ELECTRICAL	3,120,600.00
PLUMBING	2,240,000.00
HEATING	3,497,100.00
MISCELLIANEOUS CONSTRUCTION	1,273,900.00
EXTERIOR WALLS	7,656,700.00
TOTAL LABOR AND MATERIALS	31,567,000.00
ARCHITECT'S DIANS AND SHPERUISION	96

eplacement Value New	33,776,700.00
epreciation %	268
ound Valuation	24,994,800.00

S TANTUAME AND MARIES 34 WITH S SUITURE SPAMS

R. A. SCHETTLER, INC. Appraisal Engineers REAL ESTATE - BUILDING NORTHWESTERN MICHIGAN COLLEGE
TANIS/BIEDERMAN: continued
MECHANICAL EQUIPMENT:
PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
14 - WATER CLOSETS
16 - LAVATORIES
5 - URINALS
2 - SANITARY SINKS
3 - DRINTRING FOUNTAINS
1 - WATER HEATER, ELECTRIC, 200 GALLON
1 - WATER HEATER, ELECTRIC, 200 GALLON
1 - WATER HEATER, ELECTRIC, 200 GALLON
DISTRIBUTION PANEL, TRANSFORMERS
HEATING AND AIR CONDITIONING - STEAM FROM POWERHOUSE
- MOCUAY MODEL MALL 64BH AIR HANDLING UNIT

- STEAM FRON POWERHOUSE
- MCQUAX WODEL WELL64BH AIR HANDLING UNIT
- MCQUAX WODEL WASL64BH AIR HANDLING UNIT
- HEATING PUMPS AND CHILLED WATER PUMPS AS REQUIRED
- LIEBERT COMPUTEN ROOM CONDENSING UNIT
- KOLDMAND AIR CONDITIONING UNIT
- MITSUBISHI PKG-30F WALL MOUNT AIR CONDITIONER
- MITSUBISHI CONDENSING UNIT
- BRYANT MODEL 580FW15124AA PACKAGED GAS HEAT, 12 1/2 TON
- COOLING UNIT, #4907G30305
- CARRIER MODEL 48TWE012-611 PACKAGED GAS HEAT, 12 TON
- COOLING UNIT, #1709G10902
- ABB VARIABLE FREQUENCY DRIVES
- FACE BRICK BLOCK BACK-UP, 12"
- DRYVIT, BLOCK BACK-UP, 8"
- 12" CONCRETE
- CURTAIN WALL
- REALANDOUS:

- SPRINKLERS THROUGHOUT
- COMPUTER ROOM FLOOR
- NOTIFIER
- FIRE ALAM SYSTEM
- ACCESS CONTROL SYSTEM
- ACCESS CONTROL SYSTEM
3 - CAMERA SECURITY SYSTEM
3 - CAMERA SECURITY SYSTEM
3 - CAMERA SECURITY SYSTEM
BUILTY OF CONSTRUCTION: GOOD

******	ALEA ESTATE - BOLLDING - NOVINGESTERN MICHIGAN COLLEGE
ENCE HEALTH SCIENCE: CON	NAME OF BUILDING: HEALTH AND SCIENCE
SUPERSTRUCTURE: con	KIND OF BUILDING: CLASS C
BESCHARLEY. PENTHOUSE	NO. OF STORIES: TWO WITH PARTIAL BASEMENT, PENTHOUSE
	OCCUPANCY: SCIENCE
FEET	SQUARE
TERM	2ND FLOOR - 22,821 SOUARE FEET
FEET	SQUARE
	TOTAL SQUARE FEET = 61,127
	POUNDATION - CONCERTE
	SUPERSTRUCTURE
	FRAME - STEEL
ANGEL TAIRER IN THE IN THE TAIL THE TAI	When I went in definition and definition of the design of
CONCRETE COMPOSITE ON METAL DECK	FLOORS - CONCRETE ON GROUND; CONCRETE
INOLEUM; PORCELAIN TILE	FLOOR COVERINGS - CARPET; LINOLEUM; PORCELAIN TILE CERAMIC TILE
CRETE ON METAL DECK	ROOF STRUCTURE - STEEL, CONCRETE ON METAL DECK
BRANE WITH INSULATION	ROOF COVER - EPDM ROOF MEMBRANE WITH INSULATION
TICAL TILE PLUMBING - AN TILE 19 -	CEILINGS - SUSPENDED ACOUSTICAL TILE PERFORATED METAL TILE
	GYPSUM BOARD
ONRY AND FRAME PARTITIONS	INTERIOR CONSTRUCTION - MASONRY AND FRANE PARTITIONS
	BUILT-IN FIXTURES -
DOUBLE FACE, WOOD, 74" WIDE	
18" WIDE	CABINETS, WOOD,
42" WIDE	3 - TALL CABINETS, WOOD, 42" WIDE
36" NIDE	CABINETS, WOOD,
24" WIDE	CABINETS, WOOD,
30" WIDE	CABINETS, WOOD, 30"
TOP, WOOD, 36" TOP, WOOD, 24"	- BASE CABINETS, WITH - BASE CABINETS, WITH
TOP, WOOD, 36" TOP, WOOD, 24"	- WALL CABINETS, WOOD, - WALL CABINETS, WOOD, - WALL CABINETS, WOOD, - BASE CABINETS, WITH - BASE CABINETS, WITH

R. A. SCHETTLER, INC. Appraisal Engineers

page 2

SAL ESTATE - BUILDING -	NORTHWESTERN MICHIGAN COLLEGE
SALTH SCIENCE: continued	
PERSTRUCTURE: continued	
BUILT-IN FIXTURES - continued	pent
	. 48" WIDE
CABINETS,	
CABINETS,	24"
- WALL CABINETS,	18.
10 - WALL CABINETS, WOOD,	48" WIDE
- BASE CABINETS.	
9 - BASE CABINETS,	WITH EPOXY RESIN TOP, 21"
CABINETS,	EPOXY RESIN TOP, 48" WIDE
CABINETS,	EPOXY RESIN TOP, 15"
CABINETS, WOOD,	EPOXY RESIN TOP,
CABINET, WOOD,	EPOXY RESIN TOP, 30" WIDE
SPACE CABINET,	WOOD, EPOXY RESIN TOP, 48"
12 - DREW WOOD PROVED	WOOD, EFOXY RESIN TOP, 52 WIDE
1	T.AMTNATE
1	LAMINATE TOP. 18"
BASE	LAMINATE TOP. 30"
- BACKPACK HANGERS, WALL MOUNT	LL MOUNT
1	
i	SENTINEL COIN OPERATED LOCKERS, 5-DOOR, 16 TIER
1	NET BASE
10 - CORRIDOR BENCH SEATING UNITS, - EMERGENCY EYE WASH	NG UNITS, 20 LINEAR FEET EACH WITH 2 TABLES
PLIMBTNG - AN ADDROUPED SVETTEM	TO CHIMPION STATISTICS CONSTRUCTION OF THE PROPERTY OF THE PRO
9	TS
1	
6 - URINALS	
>1	SINKS
U	FOUNTAINS
1 - BATHIUB	
1 - LOCHINVAR D	LOCHINVAR DOMESTIC HOT WATER TANK
ELECTRICAL - AN APPROVED S	AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH
- PITTWAY NOTIF	PITTWAY NOTIFIER FIRE ALARM SYSTEM
- CLOCK SYSTEM	
3 - CONTROLLED PO	CONTROLLED POWER EMERGENCY LIGHTING CONTROLLER
- TELEPHONE, DA	TELEPHONE, DATA, LAN AND FIBER OPTIC

page 3

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: APARTMENT A REAL ESTATE - BUILDING

R. A. SCHETTLER, INC. Appraisal Engineers

72,100.00

154,100.00 140,400.00 46,800.00 51,600.00 31,600.00 465,000.00 53,700.00 161,100.00 156,900.00

PENLYH SCIENCE continued	REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE	Description	n 11/1/20
SUPERSTRUCTURE: FLOORS IR HOUSE IR HOUSE IR HOUSE IR HANDLING UNIT, #01-638101R FLOOR COVERINGS FLOOR COVERINGS FLOOR COVERINGS FLOOR COVERINGS ROOF STRUCTURE ROOF STRUCTURE ROOF COVER INTERIOR CONSTRUCTION INTERIOR CONSTRUCTION BUILD-IN FIXTURES FLOGIC 2 HUMIDIFIER SUMMER SYSTEM AND SOPFIT PEASTING AND ALUMINUM FRAME, SPLAYED SELECTRICAL PROBLESSYSTEM IN AND ALUMINUM CURTAIN WALL SYSTEM RISCELLANDOUS CONSTRUCTION RISCELLANDOUS CONSTRUCTION EXTERIOR WALLS	HEALTH SCIENCE continued	FOUNDATION:	72,10
REPONES RESPONER MOTOR RESPONER MOTOR RESPONER MOTOR RESPONER MOTOR RESPONER MOTOR 10 ROOFTOP AIR CONDITIONING UNIT ROOFTOP AIR CONDITIONING UNIT ROOFTOP AIR CONDITIONING UNIT ROOFTOP AIR CONDITIONING UNIT RADILE ROOF COVER ROOF COVER RECTRICAL BUILT-IN FIXTURES ELECTRICAL FIX AND ALUMINUM FRAME, SPLAYED IN ANOD ALUMINUM CURTAIN WALL SYSTEM REALING MISCELLANBOUS CONSTRUCTION EXTERIOR WALLS ELECTRICAL RECTRICAL R	SUPERSTRUCTURE: continued	SUPERSTRUCTURE:	
FLOOR COVERINGS SET FAM, 30 HORSEPOWER MOTOR STATE ANDLING UNIT, #01-638101R SET FAM, 30 HORSEPOWER MOTOR SULPHOAD SET ON STRUCTURE STALE PARCE SET OF	HEATING AND AIR CONDITIONING -	FLOORS	154,10
STATE FARS, 25 HORSEPOWER MOTOR HEATERS SOUTED SOUTH FANS, 25 HORSEPOWER MOTOR HEATERS SOUTED SOUTE FANS, 25 HORSEPOWER MOTOR HEATERS SOUTED SOUTED SOUTED SOUTED SOUTED SOUTED SOUTED SOUTED SOUTHOL WODILE SPORT LOGIC 2 HUMIDIFIER HEATING STAL PANEL SYSTEM AT FASCIA AND SOFFIT STAL PANEL SYSTEM AT MOD ALUMINUM CURTAIN WALL SYSTEM STAL PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM STAL STAL STAL SYSTEM IN SYSTEM IN STAL SYSTEM IN SYSTEM IN SYSTEM SYSTEM IN SYSTEM IN SYSTEM	12.0	FLOOR COVERINGS	140,40
ROOF STRUCTURE ROOF STRUCTURE ROOF COVER ROOF C 2 HUMIDIPIER ROOF COVER ROOF COVER ROOF COVER ROOF COVER ROOF C 2 HUMIDIPIER ROOF COVER ROOF COVER ROOF COVER ROOF COVER ROOF C 2 HUMIDIPIER ROOF COVER ROOF COVER ROOF COVER ROOF COVER ROOF C COVER ROOF CO	2 - TRANE EXHAUST FAN, 30 HORSEPOWER MOTOR	CEILINGS	46,80
AMERICAL BOOLD ROOFTOP ALK CONDITIONING UNIT TARK CONTROL MODULE APPRICATE THE STATE AND SOFFIT BLOCK BACKUP, 12" PLUMBING THE SEL GLAZING THE STATE IN AND ALUMINUM CURTAIN WALL SYSTEM MISCELLANBOUS CONSTRUCTION TARE TO STATEM THE SYSTEM TO ALUMINUM CURTAIN WALL SYSTEM EXTERIOR IN AND ALUMINUM CURTAIN WALL SYSTEM EXTERIOR ALL SYSTEM TO ALUMINUM CURTAIN WALL SYSTEM EXTERIOR IN AND ALUMINUM CURTAIN WALL SYSTEM EXTERIOR WALLS EXTERIOR WALLS EXTERIOR WALLS			51,60
AM CONTROL MODULE APPROCATED TOUR TERMINAL UNITS (VAV) BLOCK BACKUP, 12" BLOCK BACKUP,			31,60
AM COMTROL MODDLE APOR LOGIC 2 HUMIDIFIER THE VOLUME TERMINAL UNITS (VAV) BLOCK BACKUP, 12" BLOCK BACKUP, 12" FLUMBING TALL PANEL SYSTEM AT FASCIA AND SOFFIT BUTT GLAZING IN ANOD ALUMINUM FRAME, SPLAYED GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM TALL PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM TALL PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM TEXTED PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM EXTERIOR WALLS	1 - TRANE RAUCD104BL0320 D0010 ROOFTOP AIR CONDITIONING #C01M67624		465,00
ELECTRICAL BLOCK BACKUP, 12" BLOCK BACKUP, 12" PLUMBING HEATING AND ALUMINUM CURTAIN WALL SYSTEM PLUMBING HEATING MISCELLANBOUS CONSTRUCTION EXTERIOR WALLS EXTERIOR WALLS	- TRANE PROGRAM CONTROL MODULE - DRISTEAM VAPOR LOGIC 2 HUMIDIFIER	BUILT-IN FIXTURES	53,70
BLOCK BACKUP, 12" FIUMBING FIRE SYSTEM AT PASCIA AND SOFFIT DENT GLAZING IN ANOD ALUMINUM FRAME, SPLAYED LAP SEL GLAZING LAP SEL GLAZING O GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM FIRE PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM FINEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM FINEL SYSTEM IN AND ALUMINUM CURTAIN WALL SYSTEM FINEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM FINEL SYSTEM IN AND ALUMINUM CURTAIN WALL SYSTEM	65 - VARIABLE AIR VOLUME TERMINAL UNITS (VAV)	ELECTRICAL	161,10
CONTOCITE BUT GRAZING AT FASCIA AND SUSTIFF AT INSULATED BUT GRAZING MULLION AND LAP SEAL GLAZING AND ALUMINUM FRAME, SPLAYED MULLION AND LAP SEAL GLAZING AND ALUMINUM CURTAIN WALL SYSTEM IN THOULARD GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM SPANDREL GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM EXTERIOR WALLS	BLOCK BACKUP, 12"	PLUMBING	156,90
COMPOSITE METAL PANEL SYSTEM IN AND ALUMINUM CURTAIN WALL SYSTEM COMPOSITE METAL PANEL SYSTEM IN ANOD ALUMINUM CURTAIN WALL SYSTEM SPANDREL GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM EXTERIOR WALLS			156,00
SPANDREL GLAZING IN ANOD ALUMINUM CURTAIN WALL SYSTEM			
		White Sister	317,00

156,000.00

41,800.00 317,000.00 1,848,100.00 3/

ARCHITECT'S PLANS AND SUPERVISION

MISCELLANBOUS:

1 - OTIS PASSENGER ELEVATOR, 4 STOP, #38832

- PREFABRICATED GREENHOUSE
- LIFELINE MEDICAL AIR SYSTEM WITH 2 HITACHI 7.5 HORSEPOWER AIR COMPRESSORS
- SNOWMELT SYSTEM WITH 3 HEATWAY 1574 UNITS
- SPRINKLERS THROUGHOUT
- ACCESS CONTROL SYSTEM
5 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 2002

TOTAL LABOR AND MATERIALS

placement Value New	1,977,500.00
epreciation %	48\$
ound Valuation	1,028,300,00

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING -

NAME OF BUILDING: APARTMENT A

KIND OF BUILDING: CLASS D

NO. OF STORIES: THREE

OCCUPANCY: APARTMENTS

SIZE

- 4,133 SQUARE FEET - 4,133 SQUARE FEET - 4,133 SQUARE FEET 1ST FLOOR 2ND FLOOR 3RD FLOOR

12,399 TOTAL SQUARE FEET

FOUNDATION: CONCRETE

SUPERSTRUCTURE:

PLOORS - WOOD JOISTS, WOOD DECK; CONCRETE ON GROUND

FLOOR COVERINGS - CARPET IN APARTMENTS AND CORRIDORS - VINYL TILE IN KITCHENS, BATHROOMS, LAUNDRY ROOM

ROOF STRUCTURE - WOOD TRUSS, WOOD DECK, HIP

ROOF COVER - SHINGLES, INSULATION

CEILINGS - GYPSUM BOARD

INTERIOR CONSTRUCTION - WOOD FRAME PARTITIONS

BUILT-IN FIXTURES - KITCHEN CABINETS WITH 2 COMPARTMENT SINK IN EACH - 36 COMPARTMENT MAILBOX

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
12 - WATER CLOSETS
23 - LAVATORIES
12 - BATH TUBS
2 - WATER HEATERS, 75 GALLON

- AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES ELECTRICAL

HEATING AND AIR CONDITIONING - WEIL-MCLAIN GAS FIRED BOILER
- PUMPS AS REQUIRED
- 40-GALLON EXPANSION TANK
- BASEBOARD THROUGHOUT

R. A. SCHETTLER, INC. Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING -

APARIMENT A: continued

SUPERSTRUCTURE: continued

EXTERIOR WALLS - WOOD FRAME, FACE BRICK

MISCELLANEOUS:

8 - BALCONIES, WOOD CONSTRUCTION WITH RAILING

- FIRE ALARM SYSTEM

2 - AWNINGS, WOOD CONSTRUCTION, 10 X 16

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1972

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bidg.: APARTMENT B REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	72,100.00
SUPERSTRUCTURE;	
FLOORS	154,100.00
FLOOR COVERINGS	140,400.00
CEILINGS	46,800.00
ROOF STRUCTURE	51,600,00
ROOF COVER	31,600.00
INTERIOR CONSTRUCTION	465,000.00
BULLT-IN FIXTURES	53,700.00
BLECTRICAL	161,100.00
PLUMBING	156,900.00
HEATING	156,000.00
MISCELLANEOUS CONSTRUCTION	41,800.00
EXTERIOR WALLS	317,000.00
TOTAL LABOR AND MATERIALS	1,848,100.00
ARCHITECT'S PLANS AND SUPERVISION	7

eplacement Value New	1,977,500.00
epreciation %	488
ound Valuation	1,028,300.00

R. A. SCHETTLER, INC.

NAME OF BUILDING: APARTMENT B KIND OF BUILDING: CLASS D NO. OF STORIES: THREE
SS
NO. OF STORIES: THREE
OCCUPANCY: APARTMENTS
SIZE 1ST FLOOR - 4,133 SQUARE FEET ZND FLOOR - 4,133 SQUARE FEET 3RD FLOOR - 4,133 SQUARE FEET
TOTAL SQUARE FEET 12,399
FOUNDATION: CONCRETE
SUPERSTRUCTURE:
FLOORS - WOOD JOISTS, WOOD DECK; CONCRETE ON GROUND
FLOOR COVERINGS - CARPET IN APARTMENTS AND CORRIDORS - VINYL TILE IN KITCHENS, BATHROOMS, LAUNDRY ROOM
ROOF STRUCTURE - WOOD TRUSS, WOOD DECK, HIP
ROOF COVER - SHINGLES, INSULATION
CELLINGS - GYPSUM BOARD
INTERIOR CONSTRUCTION - WOOD FRAME PARTITIONS
BUILT-IN FIXTURES - KITCHEN CABINETS WITH 2 COMPARTMENT SINK IN EACH - 36 COMPARTMENT MAILBOX
PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 12 - WATER CLOSETS 23 - LAVATORIES 12 - BATH TUBS 2 - WATER HEATERS, 75 GALLON
ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES
HEATING AND AIR CONDITIONING - WEIL-MCLAIN GAS FIRED BOILER - PUMPS AS REQUIRED - 40-GALLON EXPANSION TANK - BASEBOARD THROUGHOUT

page 2

EAL ESTATE - BUILDING -	NORTHWESTERN MICHIGAN COLLEGE
PARTMENT B: continued	
UPERSTRUCTURE: continued	
EXTERIOR WALLS - WOOD FRAME, FACE BRICK	FACE BRICK

MISCELLANEOUS:

8 - BALCONIES, WOOD CONSTRUCTION WITH RAILING

- FIRE ALARM SYSTEM

2 - AMNINGS, WOOD CONSTRUCTION, 10 X 16'

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1972

R. A. SCHETTLER, INC. Appraisal Engineers

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Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: APARTMENT C REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	72,100.00
SUPERSTRUCTURE:	
FLOORS	154,100.00
FLOOR COVERINGS	140,400.00
CEILINGS	46,800.00
ROOF STRUCTURE	51,600.00
ROOF COVER	31,600.00
INTERIOR CONSTRUCTION	465,000.00
BUILT-IN FIXTURES	53,700.00
ELECTRICAL	161,100,00
PLUMBING	156,900.00
HEATING	156,000.00
MISCELLANEOUS CONSTRUCTION	41,800.00
EXTERIOR WALLS	317,000.00
TOTAL LABOR AND MATERIALS	1,848,100.00
ARCHITECT'S PLANS AND SUPERVISION	78

eplacement Value New	1,977,500.00
epreciation &	48%
ound Valuation	1,028,300.00

FLOOR COVERINGS - CARPET IN APARTMENTS AND CORRIDORS - VINYL TILE IN KITCHENS, BATHROOMS, LAUNDRY ROOM NORTHWESTERN MICHIGAN COLLEGE FLOORS - WOOD JOISTS, WOOD DECK; CONCRETE ON GROUND ROOF STRUCTURE - WOOD TRUSS, WOOD DECK, HIP - 4,133 SQUARE FEET - 4,133 SQUARE FEET - 4,133 SQUARE FEET ROOF COVER - SHINGLES, INSULATION NAME OF BUILDING: APARTMENT C TOTAL SQUARE FEET 12,399 CEILINGS - GYPSUM BOARD KIND OF BUILDING: CLASS D REAL ESTATE - BUILDING NO. OF STORIES: THREE OCCUPANCY: APARTMENTS FOUNDATION: CONCRETE 1ST FLOOR 2ND FLOOR 3RD FLOOR SUPERSTRUCTURE: SIZE

BUILT-IN FIXTURES - KITCHEN CABINETS WITH 2 COMPARTMENT SINK IN EACH - 36 COMPARTMENT MAILBOX

INTERIOR CONSTRUCTION - WOOD FRAME PARTITIONS

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
12 - WATER CLOSETS
23 - LAVATORIES
12 - BATH TUBS
2 - WATER HEATERS, 75 GALLON

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PIUGS AND SWITCH BOXES

HEATING AND AIR CONDITIONING - WEIL-MCLAIN GAS FIRED BOILER
- PUNPS AS REQUIRED
- 40-GALLON EXPANSION TANK
- BASEBOARD THROUGHOUT

R. A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

APARIMENT C: continued

SUPERSTRUCTURE: continued

EXTERIOR WALLS - WOOD FRAME, FACE BRICK

MISCELLANEOUS:

8 - BALCONIES, WOOD CONSTRUCTION WITH RAILING

- FIRE ALARM SYSTEM

2 - AMNINGS, WOOD CONSTRUCTION, 10 X 16'

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1972

BUILT: 1992 - ADDITION 1994

63,600.00 26% 47,100.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: EASTERN AVENUE REAL ESTATE - BUILDING STORAGE BUILDING

REAL ESTATE - BUILDING	STORAGE BUILDING
Description	11/1/20
FOUNDATION: SUPERSTRUCTURE:	4,400.00
FRAME	4,900,00
FLOORS	9,200.00
CEILINGS	4,400.00
ROOF STRUCTURE	5,900.00
ROOF COVER	4,800.00
INTERIOR CONSTRUCTION	2,900.00
ELECTRICAL	4,800.00
HEATING	1,300.00
EXTERIOR WALLS	18,000.00
TOTAL LABOR AND MATERIALS	00.009,09
ARCHITECT'S PLANS AND SUPERVISION	36. 36.

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING - NORTHWESTERN NAME OF BUILDING: EASTERN AVENUE STORAGE BUILDING	QUALITY OF CONSTRUCTION: AVERAGE	WIDTH 24', LENGTH 56', HEIGHT 8'/13'	TOTAL SQUARE FEET = 1,344	KIND OF BUILDING: CLASS D	NO. OF STORIES: ONE	OCCUPANCY: STORAGE	FOUNDATION: WOOD	SUPERSTRUCTURE:	PRAME - WOOD	FLOORS - CONCRETE ON GROUND	CEILINGS - PARTICLE BOARD WITH INSULATION	ROOF STRUCTURE - WOOD JOISTS	ROOF COVER - METAL DECK	INTERIOR CONSTRUCTION - ONE WOOD FRAME PARTITION	ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT	HEATING - 2 - ELECTROMODE SUSPENDED ELECTRIC UNIT HEATERS
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EXTERIOR WALLS - VINYL SIDING, WINDOWS IN VINYL SASH

QUALITY OF CONSTRUCTION: AVERAGE BUILT: 1950'S, RENOVATED IN 1983

HEATING - RUDD GAS FIRED FURNACE WITH DUCTWORK

168,800.00 64,100.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWE

Description	11/1/20
FOUNDATION:	4,200.00
SUPERSTRUCTURE:	
FRAME	2,800.00
FLOORS	12,200.00
FLOOR COVERINGS	14,500.00
CEILINGS	5,400.00
ROOF STRUCTURE	11,500.00
ROOF COVER	5,400.00
INTERIOR CONSTRUCTION	23,800.00
BUILT-IN FIXTURES	10,300.00
ELECTRICAL	12,000.00
PLUMBING	15,400.00
HEATING	5,000.00
EXTERIOR WALLS	38,300.00
TOTAL LABOR AND MATERIALS	160,800.00
ARCHITECT'S PLANS AND SUPERVISION	55

RESTERN MICHIGAN COLLEGE ESTATE - BUILDING	E Bldg.: APPEL BIOLOGY LAB	REAL ESTATE - BUI
scription	11/1/20	NAME OF BUILDING:
	4,200.00	TYPE OF BUILDING: NO. OF STORIES: 01
	2.800.00	OCCUPANCY: PIELD
	12,200.00	TOTAL SQUARE FEET
SS	14,500.00	FOUNDATION: CONCRI
	5,400.00	SUPERSTRUCTURE: FRAME - WOODI
	11,500.00	FLOORS - WOOL
	5,400.00	FLOOR COVERII
RUCTION	23,800.00	
RES	10,300.00	CELLINGS - W
	12,000.00	ROOF STRUCTU
	15,400.00	ROOF COVER -
	5,000.00	INTERIOR CON
	38,300.00	BUILT-IN FIX
ERIALS	160,800.00	
ND SUPERVISION	er in	PLUMBING - AL

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE	STATE - BUILDING NORTHWESTERN MICHIGAN COLLEGE
NAME O	DING: APPEL BIOLOGY LA
TYPE O	TYPE OF BUILDING: RESIDENTIAL RANCH, CLASS D
NO. OF	NO. OF STORIES: ONE
OCCUPA	OCCUPANCY: PIELD LABORATORY WITH CONFERENCE ROOM
TOTAL	TOTAL SQUARE FEET = 1,160, MORE OR LESS
FOUNDATION:	TION: CONCRETE BLOCK
SUPERS	SUPERSTRUCTURE: FRAME - WOODEN FRAME
Di.	FLOORS - WOODEN DECK
E4	FLOOR COVERINGS - ASPHALT TILE IN LABORATORY AND DINING AREA HARDWOOD IN CONFERENCE ROOM, CARPET TILES
O	CEILINGS - WOOD TOUNGUE AND GROOVE GYPSUM BOARD
26	ROOF STRUCTURE - WOODEN GABLE
B	ROOF COVER - ASPHALT SHINGLES
Ħ	INTERIOR CONSTRUCTION - WOOD FRAME DRYWALL PARTITIONS - PINE SIDING IN CONFERENCE ROOM
m	BUILT-IN FIXTURES - 1 - FIREPLACE, BRICK MANTLE - LAB COUNTER, 30 LINEAR FT. WITH STAINLESS STEEL SINK 1 - YOUNGSTOWN METAL KITCHEN SINK
ā.	PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 1 - WATER CLOSET 1 - LAVATORY 1 - UNIAL 1 - KITCHEN SINK 1 - WATER HEATER, 18 GALLON
čai	ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES, INCANDESCENT AND FLUORESCENT FIXTURES

2,657,200.00 44% 1,488,100.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: AVIATION REAL ESTATE - BUILDING

FOUNDATION: SUPERSTRUCTURE: FRAME FLOORS FLOOR COVERINGS CELLINGS ROOF COVER ROOF COVER NITERIOR CONSTRUCTION BUILT-IN FIXTURES ELECTRICAL PLUMBING HEATING MISCELLANEGUS CONSTRUCTION 194,800.00 194,800.00 194,800.00 194,800.00 197AL LABOR AND MATERIALS 2,506,800.00 1,50	Description	11/1/20
	FOUNDATION:	115,900.00
	SUPERSTRUCTURE:	
	FRAME	281,100.00
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	FLOORS	217,300.00
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	FLOOR COVERINGS	41,200.00
2,]	CEILINGS	35,800.00
10	ROOF STRUCTURE	210,500.00
rs	ROOF COVER	216,300.00
	INTERIOR CONSTRUCTION	232,900.00
n	BUILT-IN FIXTURES	12,000.00
l 6	ELECTRICAL	317,700.00
2,	PLUMBING	106,500.00
7,	HEATING	94,700.00
2,	MISCELLIANEOUS CONSTRUCTION	194,800.00
	EXTERIOR WALLS	430,100.00
	TOTAL LABOR AND MATERIALS	2,506,800.00
	ARCHITECT'S PLANS AND SUPERVISION	8.9

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE.
NAME OF BUILDING: AVIATION - 2550 AERO PARK DRIVE
KIND OF BUILDING: CLASS S/C
NO. OF STORIES: ONE
OCCUPANCY: AVIATION HANGAR WITH REPAIR AREA, OFFICES AND CLASSROOMS
TOTAL SQUARE PEET = 20,912 WITH 1,750 SQUARE FT. STORAGE MEZZANINE
FOUNDATION: POURED CONCRETE FOOTINGS, REINFORCED
SUPERSTRUCTURE:
FRAME - STEEL I BEAMS AND COLUMNS
FLOORS - 4" FOURED CONCRETE ON SAND FILL - CONCRETE DECK, MEZZANINE
FLOOR COVERINGS - VINYL ASBESTOS - CARPETING IN OFFICES AND CLASSROOMS
ROOF STRUCTURE - 1/2" METAL DECK ON RIGID FRAME - OPEN STEEL FOR METAL
ROOF COVER - SINGLE MEMBRANE WITH INSULATION - METAL, PRE-ENGINEERED WITH INSULATION
CEILINGS - SUSPENDED ACOUSTICAL IN OFFICES, CORRIDORS AND CLASSROOMS
INTERIOR CONSTRUCTION - MASONRY BLOCK PARTITIONS
BUILT-IN FIXTURES - 1 - FOLDING PARTITION WALL - CHALKBOARDS AND TACKBOARDS IN CLASSROOMS 1 - LAMINATE KITCHENETTE COUNTER WITH STAINLESS STEEL SINK
PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 4 - WATER CLOSETS 5 - LAVATORIES 2 - URINALS 2 - URINALS 1 - RHEEM 50-GALLON WATER HEATER 1 - WATER COOLER

R. A. SCHETTLER, INC. Appraisal Engineers

page 2

		TOTAL MANAGEMENT AND TOTAL MANAGEMENT AND THE PARTY OF TH
AVIATION: continued	pen	
SUPERSTRUCTURE: continued	continued	
ELECTRICAL	- AN APPROVED SYSTEM O NECESSARY WALL PLUGS TUBE FIXTURES, LED L	LECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PINGS AND SWITCH BOXES, FLUORESCENT TUBE FIXTURES, LED LIGHT FIXTURES IN HANGAR

SQUARE D PANEL BOARD

HEATING AND AIR CONDITIONING
- RUUD GAS FIRED PORCED AIR FURNACES W/AIR CONDITIONING

1 - APPLIED AIR MODEL GIF-100LH UNIT HEATER, 1,250,000 BTU

2 - ARCOAIRE ROOFFOP CONDENSING UNITS WITH INSULATION

EXTERIOR WALLS - PRE-ENGINEERED METAL SIDING; 8" FLUTED BLOCK AND MAIN ENTRANCE

MISCELLANEOUS:

- 1 ALUMINUM FOLD-UP HANGAR DOOR, 80' X 20' WITH ELECTRIC OPENING SYSTEM
- 1 ALUMINUM FOLD-UP DOOR, 50 X 20' WITH ELECTRIC OPENING SYSTEM
- 1 METAL STAIRWAY TO MEZZANINE
- 1 FIRE ALARM SYSTEM WITH CONTROL BOX
- ACCESS CONTROL SYSTEM
- 3 CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: AVERAGE

BUILT: 1976

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: BECKETT

-	9	
	- BUILDIN	
-	REAL ESTATE	
-	REAL	

Description	11/1/20
nescriberou	62/1/11
FOUNDATION:	181,600.00
SUPERSTRUCTURE:	
FRAME	414,800.00
FLOORS	514,900.00
FLOOR COVERINGS	309,800.00
CEILINGS	401,800.00
ROOF STRUCTURE	406,800.00
ROOF COVER	219,400.00
INTERIOR CONSTRUCTION	1,918,800.00
BUILT-IN FIXTURES	12,600.00
ELECTRICAL	1,017,300.00
PLUMBING	601,200.00
HEATING	1,278,600.00
MISCELLANEOUS	51,000.00
EXTERIOR WALLS	831,600.00
FIRE PROTECTION	175,600.00
ELEVATORS	112,900.00
TOTAL LABOR AND MATERIALS	8,448,700.00
ARCHITECT'S PLANS AND SUPERVISION	78

eplacement Value New	9,040,100,00
preciation %	23%
und Valuation	6,960,900.00

ROOF STRUCTURE - STEEL JOISTS, METAL DECK, 6-1/2" CONCRETE SLAB INTERIOR CONSTRUCTION - METAL FRAME PARTITIONS, SOME MASONARY NORTHWESTERN MICHIGAN COLLEGE - LAMINATE BASE CABINET, 11', WITH STAINLESS STEEL SINK - 6-1/2" CONCRETE SLAB ON 3" GALVANIZED METAL DECK, STEEL JOIST ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION CEILINGS - GYPSUM BOARD - SUSPENDED ACOUSTIC PANEL - SYXLIGHT - E.I.F.S. FLOOR COVERINGS - VINYL TILE
- CARPET
- CRRAMIC TILE
2 - RECESSED MATS FLOORS - CONCRETE ON GROUND OCCUPANCY: CLASSROOMS/OFFICES 20,221 TOTAL SQUARE FEET = 34,269 NO. OF STORIES: PARTIAL TWO KIND OF BUILDING; CLASS C NAME OF BUILDING: BECKETT REAL ESTATE - BUILDING -BUILT-IN FIXTURES SIZE: FIRST FLOOR SECOND FLOOR FOUNDATION: CONCRETE FRAME - STEEL SUPERSTRUCTURE:

R. A. SCHETTLER, INC. Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

BECKETT: continued

SUPERSTRUCTURE: continued

MECHANICAL EQUIPMENT

PLUMBING - AN MODERN SYSTEM OF SANITARY FIXTURES CONSISTING OF:
19 - WATER CLOSETS
17 - LAVATORIES
8 - URINAL
2 - SANITARY SINKS
5 - DRINKING FOUNTAINS
1 - WATER HEATER

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES

- COMPUTER WIRING

HEATING AND AIR CONDITIONING -

2 - RAYPACK MODEL H-1125 GAS FIRED BOILERS, 900 MBH. 1 - INECO MODEL EFC-C-2224 COOLING TOWER, #8823-IRH - PUMPS AS REQUIRED - ABB VARRABLE FREQUENCY DRIVES

EXTERIOR WALLS - CONCRETE BLOCK, PACE BRICK, 12"

MISCELLANEOUS:

- OTIS PASSENGER ELEVATOR, 2-STOP, 2500 LB. CAPACITY, #31455
- SPRINKLERS THRU-OUT
- BRIDGE WALKWAY, 12'5 X 20'
2 - AUTOWATIC DOOR OPENERS
- HONEYWELL NOTIFIER FIRE ALARM SYSTEM
- ACCESS CONTROL SYSTEM
4 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1996

- COMPUTER ROOM WORK COUNTER, LAMINATE, 36 LINEAR FEET - ISLAND BASE CABINET, LAMINATE, 12 X 3 X 3' HIGH

- LAMINATE WALL CABINET, 14'

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES

1,299,000.00 34% 857,300.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bidg.: FOUNDERS HALL REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	29,800.00
SUPERSTRUCTURE:	
FLOORS	51,100.00
FLOOR COVERINGS	45,800.00
CEILINGS	38,000.00
ROOF STRUCTURE	82,100.00
ROOF COVER	53,200.00
INTERIOR CONSTRUCTION	278,800.00
BUILT-IN FIXTURES	30,800.00
BLECTRICAL	146,000.00
PLUMBING	86,200.00
HEATING	117,900.00
MISCELLANEOUS CONSTRUCTION	20,600.00
EXTERIOR WALLS	233,700.00
TOTAL LABOR AND MATERIALS	1,214,000.00
ARCHITECT'S PLANS AND SUPERVISION	78

R. A. SCHETTLER, INC. Appraisal Engineers

KIND OF BUILDING: FOUNDERS HALL KIND OF BUILDING: CLASS C NO. OF STORIES: ONE OCCUPANCY: OFFICES/CONFERENCE ROOMS TOTAL SQUARE FEET = 4,950 FUNDATION: CONCRETE CREMIC TILE - CREMIC TILE ROOF STRUCTURE - STEEL JOISTS, STEEL DECK ROOF STRUCTURE - STEEL JOISTS, STEEL DECK ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION CELLINGS - SUSPENDED ACOUSTICAL PANELS - GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY PARTITIONS BUILT-IN FIXTURES - CABINETS IN CONFERENCE ROOMS AND WORK ROOM - BASE CABINET, OAK, 57-11/2' - BASE CABINETS, LAMINATE, 84" HEIGHT - WALL CABINETS, LAMINATE, 84" HEIGHT - WALL CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 8 9' - BASE CABINETS, LAMINATE, 11 X 7 9' - BASE CABINE	REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE	ICHIGAN COLLEGE
OF STORIES: ONE PANCY: OFFICES/CONFERENCE ROOMS L SQUARE FEET = 4,950 DATION: CONCRETE - CARPET - CARPET - CARPET - CERAMIC TILE - CELLINGS - SUBPENDED ACOUSTICAL PARTICES - GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY I - BASE CABINET, OAK, 31,5 X 3,5 - BASE CABINET, OAK, 31,5 X 3,5 - BASE CABINET, OAK, STAINLESS - CABINETS, LAMINATE, 11 X - WALL C		
OF STORIES: ONE PANCY: OFFICES/CONFERENCE ROOMS L SQUARE FEET = 4,950 DATION: CONCRETE PLOORS - CONCRETE ON GROUND FLOORS - CONCRETE ON GROUND FLOOR COVERINGS - VINYL TILE CERAMIC TILE ROOF COVER - SIEEL JOISTS, ST ROOF COVER - SINGLE PLY MEMBRANE CEILINGS - SUSPENDED ACOUSTICAL FAR INTERIOR CONSTRUCTION - MASONRY I - GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY I - BASE CABINET, OAK, 33,5 X 3,5 - BASE CABINET, OAK, 33,5 X 3,5 - WALL CABINETS, LAMINATE, 8 - WALL CABINETS, LAMINATE, 8 - WALL CABINETS, LAMINATE, 8 - WALL CABINETS, LAMINATE, 11 X - WALL CABINETS, LAMINATE, 6 X - WALL CABINETS, LAMINATE, 10 - BASE CABINETS, LAMINATE, 11 - BASE CABI	KIND OF BUILDING: CLASS C	
N X X B N N N N N N N N N N N N N N N N	OF	
THETE ON GROUND INSTER OR GRO	OCCUPANCY: OFFICES/CONFERENCE ROOMS	
TE ON GROUND - VINYL TILE - CARRET - CERAMIC TILE - STEEL JOISTS, ST NGLE PLY MEMBRANE ENDED ACOUSTICAL FOR BOARD, LOBBY UCTION - MASONRY FOR BOARD, LOBBY UCTION - METAL FRA - METAL FRA - RECEPTION DES , OAK, 31,5 N 31,		
ONCRETE ON GROUND RINGS - VINYL TILE - CARPET - CERAMIC TILE - CERAMIC TILE - CERAMIC TILE SUSPENDED ACOUSTICAL FOR THE FIRE TRAINED BOARD, LOBBY ONSTRUCTION - MASONRY I - MECPHTON DES RINGTS - CABINETS IN C - RECEPTION DES BINETS, OAK, 33.5 X 3.5	FOUNDATION: CONCRETE	
FLOOR COVERINGS - VINYL TILE - CARPET - CERAMIC TILE - COUNTRIES - STEEL JOISTS, ST ROOF COVER - SINGLE PLY MEMBRANE - GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY I - MATER CABINETS - CABINETS IN C - RECEPTION DES - BASE CABINET, OAK, 33,5 - BASE CABINETS, LAMINATE, 84 - WALL CABINETS, LAMINATE, 11 X - WALL CABINETS, LAMINATE, 1 X - BASE CABINETS, LAMINATE, 1 X - BASE CABINETS, LAMINATE, 1 X - MALL CABINETS, LAMINATE, 1 X - BASE CABINETS, OAK, STAINLESS - LAVATORY 1 - WALK HEATER 1 - BANINKING FOUNTAIN 1 - WATER HEATER	SUPERSTRUCTURE: FLOORS - CONCRETE ON GROUND	
ROOF STRUCTURE - STEEL JOISTS, ST ROOF COVER - SINGLE PLY MEMBRANE CEILINGS - SUSPENDED ACOUSTICAL P GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY F WALL CABINETS OAK, 31,5 X 31,5 - BASE CABINET, OAK, 31,5 X 31,5 - WALL CABINETS, LAMINATE, 84 - WALL CABINETS, LAMINATE, 11 X - WALL CABINETS, OAK, STAINLESS PLUMBING - AN APPROVED SYSTEM OF 2 - MATER CLOSETS 1 - MATER PRATER 1 - WALER HEATER 1 - WALER HEATER 1 - WATER HEATER	111	
CCILINGS - SINGLE PLY MEMBRANE - GYPSUM BOARD, LOBBY INTERIOR CONSTRUCTION - MASONRY I - METAL FAR - MECPTION DE - RECEPTION DE - RECEPTION DE - RASE CABINET, OAK, 3.5 x 3.5 - BASE CABINET, OAK, STAINLESS S - CABINETS, LAMINATE, 6 x 1 - WALL CABINETS, LAMINATE, 11 x - WALL CABINETS, OAK, STAINLESS - LAWATORY - BASE CABINETS, OAK, STAINLESS - LAWATORY - DELWALDRY - DELWAL	ROOF STRUCTURE - STEEL JOISTS, STEEL DECK	
CELLINGS - SUSPENDED ACOUSTICAL FOR GRAD, LOBBY INTERIOR CONSTRUCTION - MASONRY FOR THE CONSTRUCTION - METAL FINE CONSTRUCTION ON 3.5 % 3.	ROOF COVER - SINGLE PLY MEMBRANE WITH INSULAT	NOT
INTERIOR CONSTRUCTION - MASONRY I - METAL FRA BULLT-IN FIXTURES - CABINETS IN C - BASE CABINET, OAK, 3.5 X 3.5 - BASE CABINET, OAK, 37AINLESS S - CABINETS, 2 DOOR, LAMINATE, 84 - WALL CABINETS, LAMINATE, 11 X - WALL CABINETS, LAMINATE, 11 X - WALL CABINETS, OAK, STAINLESS S - BASE CABINETS, OAK, STAINLESS S - WALE CABINETS, OAK, STAINLESS S - WALE CABINETS, OAK, STAINLESS S - LAVATORY 1 - WALL CABINETS, OAK, STAINLESS 1 - MATER CLOSETS 2 - LAVATORY 1 - WALL CABINETS 1 - SANITARY SINKS 1 - DRINKING FOUNTAIN 1 - WATER HEATER	SUSPENDED ACOUSTICAL GYPSUM BOARD, LOBBY	
BULLT-IN FIXTURES - CABINETS IN C - RECEPTION DES - RACEPTION DES - BASE CABINET, OAK, 3.5 X 3.5 - BASE CABINETS, OAK, STAINLESS - CABINETS, LAMINATE, 84 - BASE CABINETS, LAMINATE, 11 X - WALL CABINETS, OAK, 7-1/2' - BASE CABINETS, OAK, 7-1/2' - BASE CABINETS, OAK, STAINLESS PLUMBING - AN APPROVED SYSTEM OF 2 - NATER CLOSETS 2 - LAVATORY 1 - URLNALS 1 - DAINKING FOUNTAIN 1 - DRINKING FOUNTAIN 1 - MATER HEATER	INTERIOR CONSTRUCTION - MASONRY PARTITIONS - METAL FRAME PARTITION	51
1 - SANITARY SINKS 1 - DRINKING FOUNTAIN 1 - WATER HEATER	BULLT-IN FIXTURES - CABINETS IN C - RECEPTION DES - BASE CABINET, OAK, 3.5 X 3.5 - BASE CABINET, OAK, STAINLESS - CABINETS, 2 DOOR, LAMINATE, 84 - WALL CABINETS, LAMINATE, 11 X - BASE CABINETS, IAMINATE, 11 X - WALL CABINETS, OAK, 7-1/2' - BASE CABINETS, OAK, 7-1/2' - BASE CABINETS, OAK, STAINLESS PLUMBING - AN APPROVED SYSTEM OF 2 - MATER CLOSETS 1 - WALER CLOSETS 2 - LAVATORY 1 - WALHALS	OMS AND WORK ROOM1/2' 5' TURES CONSISTING OF:
	1 - SANITARY SINKS 1 - DRINKING FOUNTAIN 1 - WATER HEATER	

R. A. SCHETTLER, INC. Appraisal Engineers

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REAL ESTATE - BUILDING -	NORTHWESTERN MICHIGAN COLLEGE
FOUNDERS HALL; continued	
SUPERSTRUCTURE: continued	
HEATING AND AIR CONDITIONING 2 - TRANE MODEL VCD060C HEATING UNITS, GAS 1 - TRANE YSCO60 ROOFTO CONDITIONING UNIT	DAIR CONDITIONING - FRANE MODEL VCD060C1HOBA COMBINATION COOLING AND FEATING UNITS, GAS FIRED, ROOF TOP FRANE YSCO60 ROOFTOP GAS FIRED HEATING AND AIR CONDITIONING UNIT

EXTERIOR WALLS - FACE BRICK, BLOCK BACK-UP, 12"

MISCELLANEOUS:

- FIRE ALARM SYSTEM - ACCESS CONTROL SYSTEM 1 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1976

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: EAST HALL REAL SEALE - BUILDING

Description	11/1/20
BASEMENT	
I World	100000000000000000000000000000000000000
FRAME	128,000.00
FLOOR	40,000.00
	37,100.00
EXTERIOR WALLS	45,700.00
INTERIOR PARTITION ELECTRICAL	282,600.00
FOUNDATION:	338,300.00
SUPERSTRUCTURE:	
FRAME	1,198,800.00
FLOORS	929,900.00
FLOOR COVERINGS	286,200.00
CEILINGS	348,200,00
ROOF STRUCTURE	352,000.00
ROOF COVER	167,400.00
INTERIOR CONSTRUCTION	2,914,000.00
BUILT-IN FIXTURES	232,700.00
ELECTRICAL	1,474,200.00
PLUMBING	1,123,600.00
HEADING	717,100.00
MISCELLANEOUS CONSTRUCTION	357,700.00
EXTERIOR WALLS	1,262,800.00
TOTAL LABOR AND MATERIALS	12,393,800.00
ARCHITECT'S PLANS AND SUPERVISION	78
Replacement Value New	13,261,400.00
Depreciation 8	428
Sound Valuation	7.691.600.00

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

NAME OF BUILDING: EAST HALL

NO. OF STORIES: ONE WITH BASEMENT KIND OF BUILDING: CLASS B

OCCUPANCY - DORMITORY

SIZE:

5,037 SQUARE FEET 19,951 SQUARE FEET 13,650 SQUARE FEET 13,650 SQUARE FEET 52,288 SECOND FLOOR THIRD PLOOR FIRST FLOOR BASEMENT

FOUNDATION: CONCRETE

FOTAL SQUARE FEET

SUPERSTRUCTURE:

FRAME - CONCRETE COLUMNS AND BEAMS

FLOORS - CONCRETE ON GROUND C, CONCRETE JOISTS AND CONCRETE SLAB

FLOOR COVER - CARPET, OFFICES, LOUNGE AREAS, AND CORRIDORS
- VINYL TILE IN RESIDENT ROOMS, CORRIDORS
- CERAMIC TILE IN RESIDENT BATHROOMS

ROOF STRUCTURE - PRECAST CONCRETE TEE SLAB - STEEL JOISTS, METAL DECK

ROOF COVER - SINGLE PLY MEMBRANE, INSULATION

CEILINGS - SUSPENDED ACOUSTICAL TILE IN OFFICES AND LOUNGE AREA BLDG C, RESIDENT ROOMS AND CORRIDOR IN BLDG, A AND B - GYPSUM BOARD

INTERIOR CONSTRUCTION - 8" BLOCK PARTITIONS - DOUBLE SOLID GYPSUM WALL

BULIT-IN FIXTURES -2 - 5-DRAWER 2-DOOR WARDROBE CABINETS, WOOD, 48 X 27 X 86" HEIGHT PER RESIDENT ROOM

2 - WOOD BASE CABINETS, LAMINATE MAPLE TOP, 60 X 24" AND STAINLESS

1 - LAVATORY BASE CABINET, LAMINATE, OAK EDGING IN EACH RESIDENT STEEL SINK BATHROOM

RECESSED MEDICINE CABINET AND MIRROR IN EACH RESIDENT BATHROOM
 CENTRAL ELEVATOR, PASSENGER ELEVATOR, 3-STOP WITH POWER OPERATED REAR DOOR, 750 LB. CAPACITY

R. A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE

EAST HALL: continued

REAL ESTATE - BUILDING

BUILT-IN FIXTURES: continued
- MAIL BOXES, 144 DOORS
- RECEPTION DESK, LAMINATE, 15 LINEAR FT.
- INFORMATION DESK, LAMINATE, 13 LINEAR FT.
- 22 LINEAR FT. OF LAMINATE BASE CABINETS
- 22 LINEAR FT. OF LAMINATE WALL CABINETS

- LAMINATE KITCHEN CABINETS IN SUPERVISOR'S APARTMENT

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 64 - WATER CLOSETS 64 - LAVATORIES

- URINALS

62221

- SANITARY SINKS
- ELECTRIC WATER COOLERS
- BATH TUBS.
- PREFABRICATED FIBERGLASS SHOWERS

- LAUNDRY TUBS - WATER HEATER, STEAM HEATED, 6' DIAMETER X 9' LONG

IN CONDUIT WITH - AN APPROVED SYSTEM OF WIRING ALL IN C NECESSARY WALL PLUGS AND SWITCH BOXES ELECTRICAL

HEATING AND AIR CONDITIONING

2 - LOCHIVAR MODEL FIX850N-M13, GAS PIRED TUBE BOILER
- EXHAUST FANS AS REQUIRED
- PUMPS AS BECUIRED

- PUMPS AS REQUIRED
3 - LIBBERT AIR CONDITIONING UNIT WITH CONDENSING UNIT
2 - DUCANE MODEL ACIOBASA CONDENSING UNIT
1 - DUCANE MODEL ACIOBASA CONDENSING UNIT
1 - DUCANE MODEL ACIOBAS CONDENSING UNIT
2 - UNIT AND CABINET HEATERS

EXTERIOR WALLS - FACE BRICK, BLOCK BACK-UP, 12"
- EIPS CANOPY

MISCELLANEOUS - HONEYWELL NOTIFIER FIRE ALARM SYSTEM WITH

- INSULATED GLASS IN ALUMINUM FRAME

- SPRINKLERS THROUGHOUT SMOKE DETECTORS

- ACCESS CONTROL SYSTEM 4 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD BUILT: 1967; RENOVATION OF LOBBY AND BASEMENT, ADDITION OF 1999; RESIDENT ROOMS RENOVATED IN 2002

5,351,800.00 3,318,100.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bidg.: FINE ARTS REAL ESTATE - BUILDING

18,000.00 74,200.00 7,200.00 112,500.00 198,900.00 99,500.00 1,700.00 443,200.00 175,600.00 1,079,500.00 623,700.00 61,400.00 298,500.00 786,900.00 231,100.00 743,500.00 4,955,400.00 11/1/20 8 ARCHITECT'S PLANS AND SUPERVISION MISCELLANEOUS CONSTRUCTION Description INTERIOR CONSTRUCTION TOTAL LABOR AND MATERIALS INTERIOR PARTITION BUILT-IN FIXTURES FLOOR COVERINGS EXTERIOR WALLS ROOF STRUCTURE EXTERIOR WALLS ROOF COVER SUPERSTRUCTURE: ELECTRICAL. CEILINGS PLUMBING HEATING FOUNDATION: FLOORS FLOOR BASEMENT:

R. A. SCHETTLER, INC. Appraisal Engineers

NAME OF BUILDING: PINE ARTS. KIND OF BUILDING: CLASS D NO. OF STORIES: ONE WITH PARTIAL BASEMENT OCCUPANCY - ART AND MUSIC CLASSROOMS AND OFFICES. SIZE: BASEMENT FLOOR TOTAL SQUARE FEET TOTAL SQUARE FEET TOTAL SQUARE FEET FOUNDATION: CONCRETE SUPERSTRUCTURE: FRAME - WOOD
NO. OF STORIES: ONE WITH PARTIAL BASEMENT OCCUPANCY - ART AND MUSIC CLASSROOMS AND OFFICES. SIZE: BASEMENT TOTAL SQUARE FEET TOTAL SQUARE FEET FOUNDATION: CONCRETE SUPERSTRUCTURE: FRAME - WOOD
NO. OF STORIES: ONE WITH PARTIAL BASEMENT OCCUPANCY - ART AND MUSIC CLASSROOMS AND OFFICES SIZE: BASEMENT FIRST FLOOR 18,800 FOUNDATION: CONCRETE SUPERSTRUCTURE: FRAME - WOOD
OCCUPANCY - ART AND MUSIC CLASSROOMS AND OFFICES SIZE: BASEMENT 2,076 SQUARE FEET FIRST FLOOR 18,800 FOUNDATION: CONCRETE SUPERSTRUCTURE: FRAME - WOOD
Laaa
PEET
FOUNDATION: CONCRETE SUPERSTRUCTURE: FRAME - WOOD
SUPERSTRUCTURE: FRAME - WOOD
FRAME - WOOD
DT AAAA
FLOORS - CONCRETE ON GROUND
FLOOR COVER - CARPET, CORRIDORS, MUSIC, CLASSROOMS, OFFICES, AUDITORIUM CERAMIC TILE RESTROOMS
ROOF STRUCTURE - WOOD TRUSS EXPOSED I & G WOOD DECK, 1-1/2" ROD- AND TURN BUCKLES - CONCRETE PLANK
ROOF COVER - ASPHALT SHINGLES, INSULATION - SINGLE PLY MEMBRANE WITH INSULATION
CEILINGS - GYPSUM BOARD IN RESTROOMS; - GLASS IN MUSIC PRACTICE ROOMS
INTERIOR CONSTRUCTION - MASONRY AND FRAME PARTITIONS
BUILT-IN FIXTURES -
- 175 LINEAR FEET OF CURVED OAK SEATING UNIT WITH FABRIC UPHOLSTERED CUSHIONS - PROJECTION COUNTER CABINET, WOOD BASE, LAMINATE TOP 1 - ROLLING DOOR, METAL, 16 X 7', CERAMICS 4 - WOOD BASE CABINETS WITH STAINLESS STEEL SINK, 12' 1 - WOOD BASE CABINET WITH STAINLESS STEEL SINK, 4' 1 - WOOD BASE CABINET WITH STAINLESS STEEL SINK, 4' 1 - WOOD BASE CABINET WITH STAINLESS STEEL SINK, 7'

R. A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE	PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 8 - WATER CLOSETS 8 - LAVATORIES 3 - LAVATORIES 2 - SANITARS 1 - DRINKING FOUNTAINS	HOT WATER GENERATOR, 150 GALLON CAPACITY WATER HEATER, ELECTRIC WATER COOLER	AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES LITETRACK SYSTEM	
REAL ESTAIR - BOILDING NORTH FINE ARTS: continued	PLUMBING - AN APPROVED SYSTEM OF S 8 - WATER CLOSETS 8 - LAVATORIES 3 - URINALS 2 - SANITARY SINKS 1 - DRINKING FOUNTAINS	1 - HOT WATER GENERATOR, 1: 1 - WATER HEATER, ELECTRIC 1 - WATER COOLER	ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES - LITETRACK SYSTEM	HEATING AND AIR CONDITIONING -

- CHARLE JULIA DALL MEALENS
- PUMES AS REQUIRED
1 - TRANE MODEL CGAFC25EAHAIAOODE 25-TON CHILLER, #C04J07864
1 - TRANE MODEL CGAFC25EAHAIAOODE 25-TON CHILLER, #C04J07864
1 - TRANE MODEL MCCB014UAOAOUB AIR HANDLING UNIT, AHU-2
1 - TRANE MODEL MCCB015UAOAOUA AIR HANDLING UNIT, AHU-1
1 - TRANE MODEL MCCB025UADAOUA AIR HANDLING UNIT, AHU-3
1 - COOR RETURN AIR FAN, 2 HORSEPOWER
1 - TACO CHILLER, #T19843
1 - LOCHINVAR MODEL KBN800 GAS FIRED DIRECT VENT BOILER
GO8H10057962
1 - LOCHINVAR MODEL KBN800 GAS FIRED DIRECT VENT BOILER
GO8H10057964
1 - FUJITSU SPLIT SYSTEM HEATING/AIR CONDITIONING SYSTEM, RM 104
1 - FUJITSU SPLIT SYSTEM HEATING/AIR CONDITIONING SYSTEM, RM 104

MISCELLANEOUS - NOTIFIER FIRE ALARM SYSTEM
- 36" DIAMETER KIN STACK, 30' HEIGHT
- SPRINKLERS THUR-OUT
- MECHANICAL BUILDING WOOD CONSTRUCTION, CONCRETE SLAB,
CEDAR SIDING, SINGLE PLY MEMBRANE ROOF COVER, WITH
STAMUNG RIDGES,14' X 22' X 9/14'6", 308 SQ. FEET
308 SQ. FT.
- ACCESS CONTROL SYSTEM
1 - CAMERA SECURITY SYSTEM EXTERIOR WALLS - WOOD STUD, RED CEDAR SIDING, PLYWOOD SHEATHING, - INSULATION

QUALITY OF CONSTRUCTION: GOOD BUILT: 1970; MECHANICAL BUILDING 2004

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MI	MICHIGAN COLLEGE	Bldg.: OSTER	STERLIN LIBRARY
1	- BUTTOTING		

Description	11/1/20
BASEMENT:	
FLOOR	73,000.00
EXTERIOR WALLS	155 800 00
INTERIOR PARTITION ELECTRICAL	390,200.00
FOUNDATION: SUPERSTRUCTURE:	316,000.00
FRAME	1,330,600.00
FLOORS	583,100.00
FLOOR COVERINGS	598,300.00
CEILINGS	331,000.00
ROOF STRUCTURE	594,900.00
ROOF COVER	346,200.00
INTERIOR CONSTRUCTION	2,246,100.00
BUILT-IN FIXTURES	227,100.00
ELECTRICAL	1,426,400.00
PLUMBING	732,600.00
HEATING	1,709,000.00
MISCELLANEOUS CONSTRUCTION	266,700.00
EXTERIOR WALLS	904,700.00
TOTAL LABOR AND MATERIALS	12,482,400.00
ARCHITECT'S PLANS AND SUPERVISION	78
Replacement Value New	13,356,200.00
Depreciation %	438
Sound Valuation	7,613,000,00

1 - ELEVATOR, 2,500 IB. CAPACITY WITH 3 STOPS, 2 DOORS
2 - IAMINATE A.V. REPAIR COUNTERS
1 - KRENITE PARSTIC DARKROOM SINK WITH LAMINATE WORK COUNTERS
1 - REVOLVING DARKROOM DOOR
1 - WOODEN SHOWCASE, 19'6" X 4' X 90" HEIGHT, SLIDING GLASS INTERIOR CONSTRUCTION - MASONRY BLOCK PARTITIONS; SOME PAINTED ROOF STRUCTURE - PRECAST CONCRETE TEES, SKYLIGHTS IN ALUMINUM NORTHWESTERN MICHIGAN COLLEGE FLOOR COVER - CARFET, LIBRARY, OFFICES AND CLASSROOMS
CERAMIC TILE RESPROOMS
VINYL ASBESTONS TILE IN CORRIDORS
TERRAZIO IN CIRCULATION AREA (UNDER CARPET) CEILINGS - PARTIAL ACOUSTIC AND SUSPENDED ACOUSTICAL - ALUMINUM FRAME MARKING BOARDS IN CLASSROOMS

1 - SERVICE DESK, LAMINATE 'L' SHAPE, 18 L.F.

1 - SERVICE DESK, LAMINATE, 20 L.F.

1 - CIRCULATION DESK, LAMINATE 'D' SHAPE, 50 L.F.

1 - ISLAND CIRCULATION COUNTER, LAMINATE, 10 L.F.

- LOCKERS FRAME - CONCRETE, REINFORCED I BEAMS AND COLUMNS ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION FLOORS - CONCRETE PRECAST TEES, SLAB ON GRADE OCCUPANCY - MEDIA CENTER, OFFICES AND CLASSROOMS FOUNDATION: POURED REINFORCED CONCRETE FOOTINGS 46,734 MORE OR LESS 7,048 SQUARE FEET 30,760 SQUARE FEET 8,926 SQUARE FEET NO. OF STORIES: PARTIAL TWO WITH BASEMENT DRYWALL NAME OF BUILDING: OSTERLIN LIBRARY PRAME TOTAL SQUARE FEET KIND OF BUILDING: CLASS BUILT-IN FIXTURES REAL ESTATE - BUILDING FIRST FLOOR SECOND FLOOR BASEMENT SUPERSTRUCTURE: SIZE:

R. A. SCHETTLER, INC. Appraisal Engineers page 2

NORTHWESTERN MICHIGAN COLLEGE

REAL ESTATE - BUILDING

OSTERLIN LIBRARY: continued

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
13 - WATER CLOSETS
18 - LAVATORIES
5 - URINALS
2 - SANITARY SINKS
4 - DRINKING FOUNTAINS
1 - HOT WATER HEATER, RHEEM, 82-GALLON
ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH
NECESSARY WALL FLUGS AND SWITCH BOXES
- FLUORESCENT TUBE FIXTURES;
- WIRING FOR T.V. PRODUCTION STUDIO WITH STAGE
LIGHTING GRID

HEATING AND AIR CONDITIONING

1 - TRANE MODEL MCCB025UACCOUB AIR HANDLING UNIT, AHU-4

1 - TRANE MODEL RAUCD124BNC320D0010 125 TON CONDENSING UNIT,
#CO4B01452

- CABINET AND UNIT HEATERS AS REQUIRED

1 - BOHN MODEL HCS144LF AIR HANDLER

1 - BOHN MODEL HCS214AF AIR HANDLER

1 - BOHN MODEL HZ26ALF AIR HANDLER

1 - TACO CHILLER

- STEAM FROM FUWERHOUSE

- ABB VARIABLE FREQUENCY DRIVES

EXTERIOR WALLS - FACE BRICK ON CONCRETE BLOCK
- WINDOWS IN ALUMINUM SASH
- DRYVIT ON BRICK - SOUTH ELEVATION
MISCELLANEOUS - FIRE ALARM SYSTEM WITH NOTIFIER AFP-200 CONTROL BOX
2 - AUTOMARTIC DOOR OPENERS
- SPRINKLERS THRU-OUT
- ACCESS CONTROL SYSTEM
5 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1961 - MAIN BUILDING 1983 - ADDITION

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: MUSEUM/AUDITORIUM REAL ESTATE - BUILDING

REAL ESTATE - BUILDING	
Description	11/1/20
FOUNDATION:	417,500.00
SUPERSTRUCTURE	
FRAME	938,100.00
FLOORS	625,100.00
PLOOR COVERINGS	616,100.00
CEILINGS	295,900.00
ROOF STRUCTURE	1,008,100.00
ROOF COVER	1,171,900.00
INTERIOR CONSTRUCTION	3,429,000.00
BUILT-IN FIXTURES	1,448,800.00
BLECTRICAL	1,876,100.00
PLUMBING	613,000.00
HEATING	2,304,600.00
MISCELLANEOUS CONSTRUCTION	462,100.00
EXTERIOR WALLS	2,695,500.00
TOTAL LABOR AND MATERIALS	17,901,800,00
ARCHITECT'S PLANS AND SUPERVISION	7.8

Replacement Value New	19,154,900.00
Depreciation %	218
Sound Valuation	15,132,400.00

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING -	NORTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: MUSEUM/AUDITORIUM	RIUM
KIND OF BUILDING: CLASS C	
NO. OF STORIES: ONE	
OCCUPANCY - MUSEUM/AUDITORIUM	
SIZE: TOTAL SQUARE FEET 55,085	អ
FOUNDATION: CONCRETE	
SUPERSTRUCTURE:	
FRAME - STEEL	
FLOORS - CONCRETE ON GROUND	Q
FLOOR COVER - CARPET IN OFFICE CERAMIC TILE IN HARDWOOD FLOORS MARBLE TILE IN COURT, CORRIDOR SERVING	CARPET IN OFFICES, LOBBY, GIFT SHOP, AUDITORIUM CERAMIC TILE IN RESTROOMS AND CLASSROOMS HARDWOOD FLOORS IN EXHIBIT A, B, AND C, STAGE MARBLE TILE IN LOBBY, RECEPTION, COATS, SCULPTURE COUNT, CORRIDOR, VESTIBULE, VINYL TILE IN STORAGE SERVING
ROOF STRUCTURE - OPEN WEB - 8' RADIUS	STRUCTURE - OPEN WEB STEEL JOISTS, 1-1/2" METAL DECK - 8' RADIUS QUARTER VAULT SKYLIGHT
ROOF COVER - STEPPED INSUL	STONE BALLAST ON SINGLE PLY ROOF MEMBRANE OVER STEPPED INSULATION OVER 3" RIGID INSULATION
CEILINGS - SUSPENDED ACOUSTICAL PANEL IN OFFICES - SUSPENDED GYPSUM BOARD - SUSPENDED CEILING PANELS, AUDITORIUM	ACOUSTICAL PANEL IN OFFICES GYPSUM BOARD CEILING PANELS, AUDITORIUM
INTERIOR CONSTRUCTION - MASONARY AND METAL	SONARY AND METAL FRAME PARTITIONS
BUILT-IN FIXTURES - 367 - PLASTIC FIXED THEATER SEATS SEAT 3 - LOBBY DISPLAY CASES, SLIDIN 32 - THEATER SEATS, PLASTIC FIXE 1 - CURVED OAK RECEPTION DESK, SURFACE - LOBBY CURVED BENCH, OAK TOP - OFFICE CASEWORK, LAMINATE - KITCHEN CASEWORK, LAMINATE - KITCHEN CASEWORK, LAMINATE - STAINLESS STREEL RINSE SINK - LIGHTING GRID WITH LED LIGH 2 - FOLDING PARTITIONS - PROJECTION SCREEN - WINDOW TREATMENT	PLASTIC FIXED THEATER SEATS WITH FABRIC UPHOLSTERED SEAT LOBBY DISPLAY CASES, SLIDING GLASS DOORS, 12 X 5. LOBBY DISPLAY CASES, SLIDING GLASS DOORS, 12 X 5. THEATER SEATS, PLASTIC FIXED WITH FABRIC UPHOLSTERED CURVED OAK RECEPTION DESK, 5' RADIUS LAMINATE WORK SURFACE LOBBY CURVED BENCH, OAK TOP OFFICE CASEWORK, LAMINATE KITCHEN CASEWORK, LAMINATE STATILESS STEEL RINSE SINK LIGHTING GRID WITH LED LIGHTS PROJECTION SCREEN WINDOW TREATMENT

page 2

NORTHWESTERN MICHIGAN COLLEGE MUSEUM/AUDITORIUM: continued REAL ESTATE - BUILDING

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
15 - WATER CLOSETS
14 - LAVATORIES
4 - URINALS
2 - DRINKING FOUNTAIN
1 - LOCHINVAR 92-GALLON WATER HEATER
1 - LOCHINVAR 92-GALLON COMPUTERIZED
2 - SHOWERS
1 - ELECTRIC WATER HEATER
1 - ELECTRIC WATER HEATER

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES PHONE, DATA AND VIDEO LINES CONDUIT

1 - TRANE MODEL CCDB35MEOM DRAW THROUGH CLIMATE CHANGER, #AHU-1
2 - NORTEC CONTROLLER HUMIDIFIERS
1 - JOHNSON THERMOSTATIC CONTROL
1 - TRANE MODEL 14-C CLIMATE CHANGER, #AHU-2
1 - TRANE MODEL 17-C CLIMATE CHANGER, #AHU-2
1 - TRANE MODEL 17-C CLIMATE CHANGER, #AHU-2
1 - TRANE MODEL RAUJD10EBA132000010, 100 TON CHILLER

HEATING AND AIR CONDITIONING -

1 - LOCHINVAR KNIGHT MODEL KBN801 GAS FIRED BOILER, #C10H04015

#F10H10143653 1 - LOCHINVAR KNIGHT MODEL KBN801 GAS FIRED BOILER, #F10H10143667

1 - TRANE MMDEL CSAA021UAL00, CLIMATE CHAMHER AIR HANDLING UNIT

#K17A04961 1 - THERMA-STOR MODEL HI-E DRY 110 DEHUMIDIFIER 1 - DRI-STERM MODEL GISS200, STEAM HUMIDIFIER 1 - LOCHINVAR MODEL MHN285, GSS , WALL-MOUNT BOILER,

#1607102616001

1 - TRANE MODEL RAUJC30EB, ROOF TOP CONDENSING UNIT 1 - LOCHINVAR MODEL WHN285, GAS , WALL-MOUNT BOILER,

#1603102505085

1 - ENVIRONMENTAL TECHNOLOGY MODEL APS-3C, SNOW/ICE MELTING CONTROLLER

77 - VAV BOXES

EXTERIOR WALLS - 4" STONE VENEER, 2" RIGID INSULATION, BLOCK BACK-UP

- 8" WITH 4" LIMESTONE BELT COURSES AND COPING - ALUMINUM WINDOW FRAMING WITH 1" INSULATED LOW E

R. A. SCHETTLER, INC.

Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE MUSEUM/AUDITORIUM: continued REAL ESTATE - BUILDING

GOUS - ART STORAGE RACKS, TRACK MOUNTED

1 - RECESSED TRUCK DOCK WITH LEVELER

2 - CATANLKS

2 - CATANLKS

4 - AUDITORIUM AND MINI THEATER SOUND SYSTEM

- HOUSE PAGING SYSTEM

2 - ROLLING SIEEL DOORS WITH ELECTRIC OPERATOR

- ALCESS CONTROL SYSTEM

- ACCESS CONTROL SYSTEM MISCELLANEOUS

- SECURITY SYSTEM 3 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: EXCELLENT BUILT: 1991, ADDITION 2017

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448,200.00 39% 273,400.00

Replacement Value New Depreciation % Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acet.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: OBSERVATORY REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	10,100.00
SUPERSTRUCTURE:	
FLOORS	17,100.00
FLOOR COVERINGS	12,500.00
CEILINGS	10,600.00
ROOF STRUCTURE	20,600.00
ROOF COVER	14,400.00
INTERIOR CONSTRUCTION	60,300.00
BUILT-IN FIXTURES	70,500.00
BLECTRICAL	45,800.00
PLUMBING	26,200.00
HEATING	19,700.00
MISCELLANEOUS	14,400.00
EXTERIOR WALLS	100,500.00
TOTAL LABOR AND MATERIALS	422,800.00
ARCHITECT'S PLANS AND SUPERVISION	89

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: OBSERVATORY - BRINLEY ROAD
KIND OF BUILDING: CLASS C
NO. OF STORIES: ONE WITH 2 STORY TELESCOPE RECESS
OCCUPANCY - OBSERVATORY WITH CLASSROOM
SIZE: TOTAL SQUARE FEET 1,624 MORE OR LESS
FOUNDATION: POURED CONCRETE
SUPERSTRUCTURE:
FRAME - STRUCTURAL STEEL
FLOORS - 4" REINFORCED CONCRETE
FLOOR COVER - CARPET IN CLASSROOMS, VINYL ASBESTOS TILE
ROOF STRUCTURE - STEEL DECK ON JOLST
ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION
CEILINGS - SUSPENDED ACOUSTICAL
INTERIOR CONSTRUCTION - FEW MASONRY PARTITION: - GYPSUM BOARD WALL COVER
BUILT-IN FIXTURES -
1 - ASH-DOME HEMISPHERE ALUMINIZED STEEL TELESCOPE DOME, 14' DIAMETER WITH SHUTTER SYSTEM
1 - CIRCULAR STAIRWAY TO TELESCOPE ACESS
1 - LAMINATE DARKROOM COUNTER WITH STAINLESS STEEL SINK
1 - ALUMINUM FRAME CHALKBOARD, 20 X 4'
PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 1 - NAVER CLOSET 1 - SANITARY 1 - SANITARY 1 - DRINKING FOUNTAIN 1 - HOT WATER HEATER, 8 GALLON

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NORTHWESTERN MICHIGAN COLLEGE OBSERVATORY: continued REAL ESTATE - BUILDING

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES - FLUORESCENT TUBE FIXTURES

HEATING AND AIR CONDITIONING -

1 - TRANE MODEL GXX110F GAS FIRED FORCED AIR FURNACE 110,000 BTU/HR

EXTERIOR WALLS - CONCRETE BLOCK WITH EARTH BERM STUCCO FINISH - FEW WINDOWS IN ALUMINUM SASH MISCELLANEOUS - ACCESS CONTROL SYSTEM 1 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1981

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Act.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: OLESON CENTER REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	60,000,00
SUPERSTRUCTURE:	
FRAME	130,900.00
FLOORS	109,600.00
FLOOR COVERINGS	45,300.00
CEILINGS	67,500.00
ROOF STRUCTURE	170,700.00
ROOF COVER	115,400.00
INTERIOR CONSTRUCTION	630,900.00
BUILT-IN FIXTURES	177,900.00
ELECTRICAL	320,700.00
PLUMBING	189,400.00
HEATING AND AIR CONDITIONING	259,700.00
MISCELLANEOUS CONSTRUCTION	111,300.00
EXTERIOR WALLS	210,300,00
TOTAL LABOR AND MATERIALS	2,599,800.00
ARCHITECT'S PLANS AND SUPERVISION	78

sement Value New	2,781,800.00
iation %	268
Valuation	2.058,500,00

NORTHWESTERN MICHIGAN COLLEGE 10,398 NAME OF BUILDING: OLESON CENTER KIND OF BUILDING: CLASS C SIZE: TOTAL SQUARE FEET REAL ESTATE - BUILDING OCCUPANCY - CLASSROOM NO. OF STORIES: ONE

FRAME - STEEL

SUPERSTRUCTURE:

FOUNDATION: POURED CONCRETE

FLOORS - 4" CONCRETE SLAB ON SAND FILL

FLOOR COVER - CARPET IN OFFICES, CLASSROOMS; CERAMIC TILE IN KITCHEN; VINYL IN BATHROOMS, CLASSROOM 112

ROOF STRUCTURE - STEEL DECK ON STEEL JOIST - HIP ROOF ON JOISTS AND TRUSSES, 1/2" PLYWOOD WITH INSULATION ROOF COVER - ASPHALT SHINGLES, SINGLE PLY MEMBRANE WITH INSULATION

CEILINGS - SUSPENDED ACOUSTICAL; GYPSUM BOARD

INTERIOR CONSTRUCTION - MASONRY BLOCK PARTITIONS

4 - PREP TABLES, 4-DOOR, LAMINATE, STAINLESS STEEL DOUBLE SINK, 84 X 30" 2 - GREENHECK STAINLESS STEEL GHEW900S CANOPY HOODS WITH BUILT-IN PIXTURES -1 - HARFORD WALK-IN COOLER, 6 X 12' 2 - FOLDING PARTITION WALLS, 30 X 9' - TOILET PARTITIONS

EXHAUST FAN, LIGHTS, 108 X 42 X 24"
DISH TRALES, STAINLESS STEEL WITH SINK, 96 X 30"
HARPORD DURACOOL 86025-11610R ROOFTOP WALK-IN COOLER
REFRIGERATION UNIT, #H1920AC 12

2 - HOBART LXIH STAINLESS STEEL WAREWASHER 2 - INSINKERATOR SS-150 DISPOSER AND PRERINSE 2 - ANSUL FIRE PROTECTION SYSTEMS 2 - WALL SHELVES, STAINLESS STEEL, 24 X 18" - VISUAL DISPLAY BOARDS

- WINDOW TREATMENT 1 - WORKSURFACE LAMINATE WALL MOUNTED 'L' SHAPE 19 LINEAR FT. - BASE CABINET LAMINATE 2-STAINLESS STEEL SINK 22.5 LINEAR FT. - WALL CABINETS LAMINATE 25.5 LINEAR FT.

R. A. SCHETTLER, INC.

Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

OLESON CENTER: continued

BUILT-IN FIXTURES - continued
3 - COAT RACKS, OAK WALL MOUNTED, 39X16"
3 - COAT RACKS, OAK WALL MOUNTED, 48X16"

- AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 7 - WATER CLOSETS 6 - LAVATORIES 2 - URINALS 2 - DRINKINS SINKS 2 - DRINKING FOUNTAINS 1 - RHEEM RUUD 91 GALLON GAS WATER HEATER 1 - RHEEM WATER HEATER, ELECTRIC PLUMBING

- AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES - FLLONESCENT THEE FIXTURES - INCANDESCENT SPOTLIGHTS IN LORBY AND MEETING ELECTRICAL

HEATING AND AIR CONDITIONING -

1 - TRANE YSC092A3RLA2FDOAD10/0300 PACKAGED GAS/ELECTRIC ROOFTOP UNIT, 7-1/2 TON CAPACITY, #655102686L 1 - TRANE YSC092A3RHAZPDOADF11B10300 PACKAGED GAS/ELECTRIC ROOFTOP UNIT, 7-1/2 TON CAPACITY, #655102986L 1 - TRANE YSC048A3RHAZMDZA101300 PACKAGED GAS/ELECTRIC

ROOFTOP UNIT, 4-TON CAPACITY, #635102880L 1 - TRANE YSCO60A3RHAZTDZAOA/B10300 PACKAGED GAS/ELECTRIC

ROOFTOP UNIT, 5 TON CAPACITY, #635102790L

1 - TRANE YSCO60A3HA2TD2A0A/B10300 PACKAGED GAS/ELECTRIC
ROOFTOP UNIT, 5-TON CAPACITY, #6351026654L

1 - AAON INC: RM-013-8-0-AA02-367 PACKAGED GAS/ELECTRIC
ROOFTOP UNIT, 13-TON CAPACITY, #200609-AMGK28824

EXTERIOR WALLS - 8" CONCRETE BLOCK WITH PLUSH WOOD SIDING - WINDOWS IN ALUMINUM SASH 8" SPLIT FACED CONCRETE BLOCK

MISCELLANEOUS -

1 - SPRINKLER SYSTEM THRU-OUT 1 - NOTIFIER MODEL APF - 200 FIRE ALARM CONTROL SYSTEM 1 - CANOPY, CONCRETE/SIEEL, 6 X 12'

- ACCESS CONTROL SYSTEM 2 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: VERY GOOD

BUILT: 1978; ADDITION AND RENOVATED IN 2006

1 - ELEVATOR, 2,000 LB. CAPACITY, 2-STOPS 6 - RETRACTABLE BASKETBALL BACKSTOPS

BUILT-IN FIXTURES -

NEVCO ELECTRONIC SCOREBOARD
 POWER GYMNASIUM DIVIDER CURTAIN

1 - KITCHENETTE COUNTER

528

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: PHYSICAL EDUCATION REAL ESTATE - BUILDING

Description	11/1/20
FOUNDATION:	182,100.00
SUPERSTRUCTURE:	
FRAME	466,300.00
FLOORS	322,400.00
FLOOR COVERINGS	381,400.00
CEILINGS	142,600.00
ROOF STRUCTURE	320,100.00
ROOF COVER	149,300.00
INTERIOR CONSTRUCTION	1,285,000.00
BUILT-IN FIXTURES	149,200.00
BLECTRICAL	617,000.00
PLUMBING	451,500.00
HEATING AND AIR CONDITIONING	465,200.00
MISCELLANEOUS CONSTRUCTION	143,200.00
EXTERIOR WALLS	740,100.00
TOTAL LABOR AND MATERIALS	5,815,400.00
ARCHITECT'S PLANS AND SUPERVISION	78

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: PHYSICAL EDUCATION
KIND OF BUILDING; CLASS C
NO. OF STORIES: ONE - PARTIAL TWO
OCCUPANCY - PHYSICAL EDUCATION
SIZE: LOWER LEVEL - 19,074 SQUARE FEET UPPER LEVEL - 6,600 SQUARE FEET
TOTAL SQUARE FEET 25,674 MORE OR LESS
FOUNDATION: POURED REINFORCED CONCRETE
SUPERSTRUCTURE:
FRAME - STRUCTURAL STEEL WITH COLUMNS, BEAMS AND JOISTS
FLOORS - POURED CONCRETE ON GRADE, PRECAST CONCRETE
FLOOR COVER - CARPETING IN OFFICES, FITNESS CENTER; CERAMIC TILE IN SHOWER ROOMS, VINYL ASBESTOS IN CORRIDORS, HARDWOOD IN GYMNASIUM, DANCE ROOM
ROOF STRUCTURE - 2" FIBER ROOF TILE ON STEEL JOISTS
ROOF COVER - BUILT-UP COMPOSITION WITH INSULATION
CELLINGS - ACOUSTICAL TILE IN OFFICES, CLASSROOMS, LOCKER ROOMS CORRIDORS
INTERIOR CONSTRUCTION - BRICK ON BLOCK PARTITIONS INCLUDING BASKETPALL COURT, LOCKER ROOMS, CLASSROOMS OFFICE AND STORAGE ROOMS

NORTHWESTERN MICHIGAN COLLEGE

REAL ESTATE - BUILDING

	NO.
	CONSTSTING
	PIXTURES
	SANITARY
	40
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continue	APPROVED
ION	MA
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EDUC	BING
HYSICAL I	PLUME

AM APPROVED SISTEM OF SANITARY FIXTURES CONSISTING WATER CLOSETS
12 - LAVATORIES
5 - URINALS
7 - SANITARY SINKS
4 - DRINTARY SINKS
8 - SHOWER HEADS
1 - SUPER STORE 120 GALLON WATER STORAGE TANK PL

- AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SHITCH BOXES.
- FLUCHSESCENT AND INCANDESCENT FIXTURES
- HIGH PRESSURE SODIUM FIXTURES IN GYMNASIUM ELECTRICAL

HEATING AND AIR CONDITIONING -

1 - AMERICAN STANDARD 10AB 21,000 CFM HORIZONTAL AIR HANDLER UNIT 1 - AMERICAN STANDARD 104 5,400 CFM MULTIZONE VENTILATING

1 - AMERICAN STANDARD 5,600 CFM VERTICAL VENTILATING UNIT 1 - AMERICAN STANDARD 2,000 CFM VERTICAL VENTILATING UNIT - PUMPS AS REQUIRED - M-FILEX ADJUSTABLE SPEED CONTROLLER 1 - LOCHINVAR MODEL KBN800 GAS FIRED DIRECT VENT BOILER # GO8H10057992

1 - LOCHINVAR MODEL KBN800 GAS FIRED DIRECT VENT BOILER # G08H10057954

EXTERIOR WALLS - CONCRETE BLOCK - FACE BRICK AT VESTIBULE ENTRANCE - DRYVITON BLOCK WALL COVER

MISCELLANEOUS

1 - FIRE ALARM SYSTEM WITH CONTROL BOX 1 - AUTOWATIC DOOR OPENER - SPRINKLER SYSTEM THRU-OUT - ACCESS CONTROL SYSTEM 2 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1969

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: POWERHOUSE REAL ESTATE - BULLDING

Description	11/1/20
FOUNDATION:	23,600.00
SUPERSTRUCTURE:	
FRAME	56,400.00
FLOORS	37,900.00
ROOF STRUCTURE	57,100.00
ROOF COVER	41,100.00
INTERIOR CONSTRUCTION	11,500.00
ELECTRICAL	346,200.00
PLUMBING	36,200.00
HEATING	1,330,400.00
MISCELLANEOUS	6,400.00
EXTERIOR WALLS	247,500.00
TOTAL LABOR AND MATERIALS	2,194,300.00
ARCHITECT'S PLANS AND SUPERVISION	78

Replacement Value New	2,347,900.00
Depreciation %	56\$
Sound Valuation	1,033,100,00

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING -

NAME OF BUILDING: POWERHOUSE

KIND OF BUILDING: CLASS C

NO. OF STORIES: ONE

OCCUPANCY - BOILER HOUSE

SIZE: TOTAL SQUARE FEET = 3,580

FOUNDATION: POURED REINFORCED CONCRETE

SUPERSTRUCTURE:

FRAME - STEEL I BEAMS WITH JOISTS AND COLUMNS

FLOORS - CONCRETE ON GRADE

ROOF STRUCTURE - TECTUM DECK ON 18 GALLON BOX

ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION

INTERIOR CONSTRUCTION - CONCRETE BLOCK RESTROOM PARTITION, $18\ \mathrm{X}\ 10^{\circ}$

- AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:

1 - WATER CLOSET
1 - IAVATORY
1 - URINAL
1 - 80-GALLON WATER HEATER
1 - WATER COOLER
1 - SANITARY SINK PLUMBING

- AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES ELECTRICAL

POWER WIRING DISTRIBUTION SYSTEM WITH SQUARE D SWITCHBOARD

R. A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

POWERHOUSE: continued

HEATING AND AIR CONDITIONING -

1 - CLEAVER BROOKS MODEL C8428-500 PACKAGED BOILER,
1-80366 2,092,000 BTU INPUT
- CLEAVER BROOKS MODEL C8428-700 PACKAGED BOILER,
#144353, 2,229,100 BTU INPUT
- CLEAVER BROOKS CR-266-200 PACKAGED BOILER, #L-48323
- TRANE UNIT HEATERS
2 - TRANE MODEL CB-700-50-150 GAS FIRED
PACKAGED BOILER # 0L106948

MISCELLANEOUS - ACCESS CONTROL SYSTEM

EXTERIOR WALLS - FACE BRICK ON 12" CONCRETE BLOCK - NORTH ELEVATION WINDOWS IN STEEL SASH 1 - OVERHEAD DOOR METAL/GLASS 12 X 10' HEIGHT

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1963

17,118,300.00 41\$ 10,099,800.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: SCHOLARS HALL

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bidg.: SCHOLARS HALL REAL ESTATE - BUILDING	Bidg.: SCHOLARS HALL
Description	11/1/20
BASEMENT: FRAME	603,500.00
FLOOR	207,800.00
CEILING	184,800.00
	111111111111

	207,800.00	336 500 00	1,215,000.00	606,200.00	402,500.00		1,209,200.00	832,300.00	581,100.00	365,700.00	412,600.00	231,200.00	2,436,200.00	243,000.00	1,214,200.00	1,134,200.00	2,312,000.00	43,000.00	1,139,600.00	287,800.00
BASEMENT:	FLOOR	CELLING EVERPION WALLS	INTERIOR PARTITION	ELECTRICAL	FOUNDATION:	SUPERSTRUCTURE:	FRAME	PLOORS	FLOOR COVERINGS	CEILINGS	ROOF STRUCTURE	ROOF COVER	INTERIOR CONSTRUCTION	BUILT-IN PIXTURES	ELECTRICAL	PLUMBING	HEATING	MISCELLANEOUS	EXTERIOR WALLS	FIRE PROTECTION TOTAL LABOR AND MATERIALS

R. A. SCHETTLER, INC. Appraisal Engineers

NAME OF BUILDING: SCHOLARS HALL
KIND OF BUILDING: CLASS B
NO. OF STORIES: TWO WITH FULL BASEMENT
OCCUPANCY - CLASSROOMS, LECTURE ROOMS AND OFFICES
SIZE: BASEMENT 19,996 SQUARE FEET FIRST FLOOR 20,951 SQUARE FEET SECOND FLOOR 19,092 SQUARE FEET
TOTAL SQUARE FEET 62,812 MORE OR LESS
POUNDATION: POURED REINFORCED CONCRETE FOOTINGS
SUPERSTRUCTURE:
FRAME - CONCRETE COLUMNS AND BEAMS WITH REINFORCED CONCRETE
FLOORS - SLAB ON GRADE, PRECAST CONCRETE TEES
FLOOR COVER - CARPET IN OFFICES CORRIDORS AND CLASSROOMS; VINYL TILE IN LABS
ROOF STRUCTURE - PRECAST CONCRETE TEES
ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION
CEILINGS - SUSPENDED ACOUSTICAL THROUGHOUT
INTERIOR CONSTRUCTION - MASONRY AND DRYWALL PARTITIONS
BUILT-IN FIXTURES -
1 - OTIS ELEVATOR, 2,000 LB. CAPACITY WITH 3 STOPS, #40562 120 - WOOD TILT-UP CHAIRS WITH TABLET ARMS 77 - WOOD TILT-UP CHAIRS WITH TABLET ARMS 4 - CORRIDOR BRECHES, VINYL UPHOLSTERY - RECEPTION WORK STATION OF ASSESSMENT OF A

R. A. SCHETTLER, INC. Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE

REAL ESTATE - BUILDING

page 2

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
14 - WATER CLOSETS
16 - LAVATORIES
6 - URINALS
1 - 80-GALLON WATER HEATER
4 - WATER COOLERS
2 - SANITARY SINKS SCHOLARS HALL: continued

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH
NECESSARY WALL PLUGS AND SWITCH BOXES
- FLUORESCENT AND INCANDESCENT FIXTURES

HEATING AND AIR CONDITIONING

1 - TRANE MODEL M-10 AIR HANDLING UNIT
1 - TRANE MODEL M-25 AIR HANDLING UNIT
3 - TRANE MODEL M-17 AIR HANDLING UNIT
1 - TRANE MODEL M-12 AIR HANDLING UNIT
1 - TRANE RTAC ROOFTOP AIR COOLED CHILLER, 160 TON CAPACITY
- STEAM FROM POWERHOUSE

EXTERIOR WALLS - FACE BRICK ON CONCRETE BLOCK - WINDOWS IN ALUMINUM SASH - 6" ALUMINUM CURTAIN WALL SYSTEM

MISCELLANEOUS -

1 - NOTIFIER FIRE ALARM SYSTEM WITH CONTROL BOX
1 - AUTOMATIC DOOR OPRIER
- FIRE PROFECTION SPRINKLERS
- ACCESS CONTROL SYSTEM
3 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1963

R. A. SCHETTLER, INC. Appraisal Engineers

Bldg.: WEST HALL INNOVATION CENTER Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

243,700.00 179,800.00 139,700.00 271,300.00 1,294,300.00 598,300.00 346,500.00 18,048,600.00 368,800.00 603,800.00 1,030,000.00 467,700.00 535,200.00 209,300.00 3,176,800.00 674,000.00 1,482,700.00 1,293,200.00 3,626,700.00 207,800.00 1,299,000.00 18 ARCHITECT'S PLANS AND SUPERVISION MISCELLANEOUS CONSTRUCTION Description INTERIOR CONSTRUCTION TOTAL LABOR AND MATERIALS EXTERIOR WALLS INTERIOR PARTITION BUILT-IN FIXTURES FLOOR COVERINGS ROOF STRUCTURE EXTERIOR WALLS ELECTRICAL ROOF COVER ELECTRICAL SUPERSTRUCTURE: CEILINGS PLUMBING HEATING CEILING LOWER LEVEL: FOUNDATION: FLOORS FRAME

splacement Value New	19,312,000.00
preciation %	86
ound Valuation	17,573,900.00

	BUILT-IN FIXTURES - 1 - ROBART CLESSGLIN AUTOMATIC DISHWASHER WITH STAINLESS STEEL DRAINBOARD AND DISPOSAL 1 - RANGE URMITTATION HOOD. 13' X 60" WITH EXTINGUISHING SYSTEM	INTERIOR CONSTRUCTION - MASONRY PARTITIONS, AND FRAME PARTITIONS	CEILINGS - SUSPENDED ACOUSTICAL TILE; GYPSUM BOARD	ROOF COVER - SINGLE PLY MEMBRANE WITH RIGID INSULATION	ROOF STRUCTURE - 6" DOX PLANK-PRECAST CONCRETE - SKYLIGHTS AT COMMONS AREA	FLOOR COVER - CARPET TILE, QUARRY TILE IN KITCHEN, PLANK TILE	FLOORS - 4" CONCRETE SLAB ON GRADE, 2" CONCRETE TOPPING ON DOX PLANK; STEEL JOIST, METAL DECK, CONCRETE TOPPING	FRAME - CONCRETE COLUMNS AND BEAMS - STEEL	SUPERSTRUCTURE:	FOUNDATION: CONCRETE FOOTINGS	TOTAL SQUARE FEET 66,304	SIZE: LOWER LEVEL 19,063 SQUARE FEET FIRST FLOOR 32,065 SQUARE FEET SECOND FLOOR 12,126 SQUARE FEET PENT HOUSE 3,050 SQUARE FEET	OCCUPANCY - STUDENT CENTER, CAFETERIA, OFFICES AND LIBRARY	NO. OF STORIES: TWO WITH LOWER LEVEL, PENT HOUSE	KIND OF BUILDING: CLASS B/C	NAME OF BUILDING: WEST HALL INNOVATION CENTER	REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE
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R. A. SCHETTLER, INC. Appraisal Engineers

Appraisal Engineers

MEST HALL INNOVATION CENTER: CONTINUED
BUILT-IN FIXTURES - CONTINUED
BUILT-IN FIXTURES - CONTINUED

1 - 3 CONTRANSMENT STAINLESS STEEL SINK, 48" X 19"
1 - 40ALK-IN FREEZEN, 16" X 90"
1 - 5 CONTRANSMENT STAINLESS STEEL SINK, 48" X 19"
1 - 40ALK-IN REESELY, 120" X 30"
1 - STAINLESS STEEL TABLE, 120" X 30"
1 - COPPER COUNTER, LAMINATE WITH CORLAN TOP, REPRIDGERATED
DISTAINLESS STEEL TABLE, 120" X 30"
1 - DELI WELCOCKER, LAMINATE WITH CORLAN TOP WELL (4)
COLD FOOD WILL (4), BERAFH PROPECTOR

- HOUT FOOD WILL (4), BERAFH PROPECTOR
- HOUT FOOD WILL (4), BERAFH PROPECTOR
- HOUT FOOD WILL (5), BERAFH PROPECTOR
- HOUT FOOD WILL (4), BERAFH PROPECTOR
- GOOD STAINLESS STEEL
- HAND SINKS, STAINLESS STEEL
- SHELVENS, STAINLESS STEEL
- SHELVENS, STAINLESS STEEL
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL ANNER HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUISHER SYSTEM, 50"
- STAINLESS STEEL LANGEH HOOD WITH EXTINUES CONTAIN TOP, 111" X 25"
- HENCHORD DISK, 1111 UPPOLISERED, 12" X 30"
- HOOKWER, 1111 X 12" X 30

10,310,700.00 14,943,000.00

Replacement Value New Depreciation & Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILTING

WEST HALL INNOVATION CENTER: continued

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH
NECESSARY WALL PLUGS AND SWITCH BOXES
- IT CABLE
- FIRE ALARM SYSTEM

HEATING AND AIR CONDITIONING - STEAM HEAT FROM POWERHOUSE

3 - LOCHINVAR MODEL FTXL880, GAS FIRED BOILER

1 - RENEWAIRE MODEL FTXL880, GAS FIRED BOILER

UNIT

1 - TRANE MODEL CSAA-80, AIR HANDLING UNIT, #AHU-1

1 - TRANE MODEL CSAA-25 AIR HANDLER UNIT, #AHU-2

1 - TRANE MODEL CSAA-10 AIR HANDLER UNIT, #AHU-2

1 - TRANE MODEL CSAA-10 AIR HANDLER UNIT, #AHU-3

1 - TRANE MODEL CSAA-10 AIR HANDLER UNIT, #AHU-3

1 - MINSUBSKI MODEL MSY-GLI8NA, MINI-SPLIT SYSTEM

- SNOW MELT SYSTEM

- PUMPS AS REQUIRED

- GEOTHERMAL SYSTEM

EXTERIOR WALLS - FACE BRICK ON CONCRETE BLOCK
- ALUMINUM CURTAIN WALL
- SOLID CORE ACM RAINSCREEN SYSTEM WITH DRY-LOC JOINTS
- KAWNEER SUN SHOUSTSTEM
- 4" HORIZONTAL INDULATED METAL PANEL SYSTEM
- ALUMINUM STOREFRONT
- BRICK VENEER, METAL STUDS

MISCELLANEOUS

LANEOUS - FIRE SPRINKLERS THROUGHOUT
1 - PUBLIC ADDRESS SYSTEM, PUBLIC AREAS
1 - RADIO BROADCAST ANTENNA, 100'
1 - METAL OVERHEAD DOOR WITH DOCK LEVELER
- ACCESS CONTROL SYSTEM

QUALITY OF CONSTRUCTION: VERY GOOD

BUILT: 1963

KITCHEN AND BOOKSTORE ADDITION 2003 ADDITION AND RENOVATION 2019 AND 2020

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bidg.:UNIVERSITY CENTER REAL ESTATE - BUILDING CAMPUS BOARDMAN LAKE

Description	11/1/20
FOUNDATION:	357,200.00
SUPERSTRUCTURE:	
FRAME	791,100.00
FLOORS	1,196,200.00
FLOOR COVERINGS	601,600.00
CEILINGS	484,300.00
ROOF STRUCTURE	362,900.00
ROOF COVER	238,400.00
INTERIOR CONSTRUCTION	3,420,500.00
BUILT-IN FIXTURES	176,600.00
BLECTRICAL	1,816,800.00
PLUMBING	1,070,400.00
HEATING	1,466,900.00
MISCELLANEOUS CONSTRUCTION	392,700.00
EXTERIOR WALLS	1,589,800.00
TOTAL LABOR AND MATERIALS	13,965,400.00
ARCHITECT'S PLANS AND SUPERVISION	78

NORTHWESTERN MICHIGAN COLLEGE NAME OF BUILDING: UNIVERSITY CENTER CAMPUS/BOARDMAN LAKE KIND OF BUILDING: CLASS C REAL ESTATE - BUILDING

NO. OF STORIES: THREE

OCCUPANCY - OFFICE RENTAL, CLASSROOMS, OFFICES

SIZE:

59,460 MORE OR LESS TOTAL SQUARE FEET

FOUNDATION: CONCRETE

SUPERSTRUCTURE:

FRAME - STREL

FLOORS - CONCRETE ON GROUND; STEEL PAN CONCRETE SLAB

FLOOR COVER - CARPET IN CLASSROOMS, OFFICES, CORRIDORS; - CERAMIC TILE RESTROOMS - VINYL TILE

ROOF STRUCTURE - STEEL JOIST, STEEL DECK

ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION

CEILINGS - SUSPENDED ACOUSTICAL TILE; GYPSYM BOARD

INTERIOR CONSTRUCTION - METAL FRAME PARTITIONS - MASONRY PARTITIONS

BUILT-IN FIXTURES

- KITCHEN CABINETS, LAMINATE WITH STAINLESS STEEL SINK

- OAK CREDENZAS, WALL MOUNTED

- LAMINATE BASE CABINETS

MONIGOMERY HYDRAULICALLY OPERATED ELEVATOR, 3-STOP, 2,000 LB. CAPACITY #23504

- ADDITIONAL STOP FOR EXISTING OTIS ELEVATOR, 2100 LB.

- FOLDING PARTITION, 32 X 9', ROOMS 202 / 203

R. A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING

UNIVERSITY CENTER CAMPUS/BOARDMAN LAKE: continued

- AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
31 - WATER CLOSETS
26 - LAVATORIES
9 - URINALS
6 - SANITARY SINKS
6 - WATER COOLERS
I - HOT WATER HEATER, 85-GALLON PLUMBING

- AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES - TRANSFORMER ELECTRICAL

HEATING AND AIR CONDITIONING - MC QUAY AIR HANDLING UNIT
- MC QUAY AIR COOLED CONDENSING UNIT
- RITE MODEL 150 WATER HEATING BOILER, GAS FIRED
- PUMPS AS REQUIRED
- TRANE GAS FIRED ROOFTOP HEATING AND AIR CONDITIONING
2 - RAYPACK MODEL H3-614A GAS FIRED BOILER
1 - LIEBERT AIR CONDITIONER
1 - LIEBERT CONDENSING UNIT
- MC QUAY MODEL LSL-108 MAKE-UP AIR UNIT
- SIVIER - GENERAL MODEL ALP037C AIR CONDITIONING UNIT
- SIVIER - GENERAL MODEL ALP037C AIR CONDITIONING UNIT
- MC MODEL EF-C 122-2 COOLING TOWER #6391-1 RH
- UAV'S AND CONTROLS

EXTERIOR WALLS - FACE BRICK, BLOCK BACK-UP 12"
- STEEL STUD WALLS, T & G CEDAR SIDING
- 1" INSULATED GLASS, ALUMINUM FRAME

MISCELLANBOUS - SPRINKLERS LOWER LEVEL, SECOND AND THIRD FLOOR ADDITION
- FIRELITE FIRE ALARM AND SECURITY SYSTEM
1 - AUTOMATIC DOOR OPENER
1 - BERGEY WINDPOWER WIND TURBINE WITH 70'18" TRIANGULAR GUYED TOWER, CABLE TO BUILDING, FOUNDATION, POWER

INVERTER

- ACCESS CONTROL SYSTEM 5 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: VERY GOOD

BUILT: 1986; THIRD FLOOR OVER 1995 ADDITION, 2000.

R. A. SCHETTLER, INC. Appraisal Engineers

Description

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: UTILITY TUNNELS REAL ESTATE - BUILDING

11/1/20

APPROXIMATELY 6,925 SQUARE PEET OR 54,100 CUBIC FRET STEAM TUNNELS CONNECTING BUILDINGS SERVICED BY CENTERAL HEATING SYSTEM

- INCLUDING LIGHTING AND DRAINAGE

- REINFORCED CONCRETE CONSTRUCTION

R. A. SCHETTLER, INC.

•••	
Engineers	
Appraisal	

REAL ESTATE - BUILDING	
Description	11/1/20
FOUNDATION:	120,100.00
SUPERSTRUCTURE:	
FRAME	101,900.00
FLOORS	118,600.00
FLOOR COVERINGS	16,100.00
CEILINGS	16,100.00
ROOF COVER	71,000.00
INTERIOR CONSTRUCTION	119,000.00
BUILT-IN FIXTURES	43,500.00
ELECTRICAL	119,400.00
PLUMBING	82,500.00
HEATING	36,300.00
MISCELLANEOUS CONSTRUCTION	97,300.00
EXTERIOR WALLS	133,200.00
TOTAL LABOR AND MATERIALS	1,058,900.00
ARCHITECT'S PLANS AND SUPERVISION	5.5

Depreciation %	Don languant Wallio Now	2.122.400.00	
Depreciation & Depreciation &	Description 6	53#	Replacement Value New
	Depreciation &	00 003 200	Depreciation %

(eplacement Value New	1,111,800,00
Depreciation &	19%
Sound Valuation	900.600.00

FLOORS - 6" REINFORCED CONCRETE OVER VAPOR BARRIER ON COMPACTED NORTHWESTERN MICHIGAN COLLEGE ROOF COVER - STANDING SEAM METAL ROOF WITH INSULATION CEILINGS - SUSPENDED ACOUSTICAL TILE; DRYWALL FLOOR COVER - VINYL COMPOSITION TILE; - CARPET OCCUPANCY - MAINTENANCE/STORAGE NAME OF BUILDING: MAINTENANCE ROOF STRUCTURE - STEEL TOTAL SQUARE FEET = 11,900 KIND OF BUILDING: CLASS S REAL ESTATE - BUILDING -FOUNDATION: CONCRETE NO. OF STORIES: ONE FRAME - STEEL SUPERSTRUCTURE:

QUALITY OF CONSTRUCTION: GOOD BUILT: 2001

7 LINEAR FEET OF PLASTIC LAMINATE WALL CABINETS, - LUNCH ROOM

- TOILET PARTITIONS

19 - LOCKERS

6 - MINI BLINDS

175

7 LINEAR FEET OF PLASTIC LAMINATE BASE CABINET WITH SINK, LAMINATE TOP, - LUNCH ROOM

BUILT-IN FIXTURES -11 LINEAR FEET OF PLASTIC LAMINATE BASE CABINETS WITH LAMINATE TOP, CONFERENCE ROOM

INTERIOR CONSTRUCTION - FRAME PARTITIONS

11 LINEAR FEET OF PLASTIC LAMINATE WALL CABINETS

- CONFERENCE ROOM

- LINEAR FEET OF CYCLONE FENCE, 10' HEIGHT WITH 3 SWING GAIES

R. A. SCHETTLER, INC. Appraisal Engineers

NORTHWESTERN MICHIGAN COLLEGE

page 2

REAL ESTATE - BUILDING

MAINTENANCE: continued

AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF;
4 - WATER CLOSETS
2 - LAVATORIES
1 - URINALS
1 - SANITARY SINKS
1 - ELECTRIC WATER COOLER
2 - SHOWER STALLS PLUMBING

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH
NECESSARY WALL PLUGS AND SWITCH BOXES
- FLUORESCENT FIXTURES
- 400 WAIT HIGH BAY PIXTURES

HEATING AND AIR CONDITIONING
2 - REENOR WODEL FE250 GAS FIRED SUSPENDED UNIT HEATERS

1 - PHILCO MODEL 5-TON CONDENSING UNIT

1 - PHILCO GAS FIRED FORCED AIR FURNACE WITH AIR

CONDITIONING

EXTERIOR WALLS - DECORATIVE BLOCK
- METAL SIDING WITH INSULATION
2 - 12 X 10' NETAL OVERHEAD DOORS

MISCELLANEOUS - FIRE SUPPRESSION SYSTEM - ACCESS CONTROL SYSTEM

R. A. SCHETTLER, INC. Appraisal Engineers

Asset	Acct.:	NORTHWESTERN N	ŭ	Bldg.: LANDSCAPE BIN
		REAL ESTATE	- BUILDING	

ASSEL ACCL: NORTHWESTERN INCHESTS - REAL ESTATE - BUILDING	
Description	11/1/20
FOUNDATION:	00.005,9
SUPERSTRUCTURE:	
FRAME	3,200.00
FLOORS	6,400.00
ROOF STRUCTURE	4,800.00
ROOF COVER	4,900.00
EXTERIOR WALLS	8,100.00

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING -	NOKTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: LANDSCAPE BINS	INS
KIND OF BUILDING: CLASS D	
NO. OF STORIES: ONE	
OCCUPANCY: STORAGE	
DIMENSIONS - 45' X 15' X 8'/	X 8'/11' HEIGHT X 11'/18' HEIGHT
TOTAL SQUARE FEET = 675	5
FOUNDATION: CONCRETE	
SUPERSTRUCTURE:	
FRAME - WOOD	
FLOORS - CONCRETE ON SAND FILL	D FILL
ROOF STRUCTURE - OPEN WOOD	- go
ROOF COVER - METAL PANELS.	Ω.
INTERIOR CONSTRUCTION - FRAME PARTITIONS	FRAME PARTITIONS
EXTERIOR WALLS - WOOD	

QUALITY OF CONSTRUCTION: GOOD

BUILT - 2001

30,200.00 33,900.00

Replacement Value New Depreciation %

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING	TECHNOLOGY
Description	11/1/20
FOUNDATION:	111,300.00
SUPERSTRUCTURE:	
FRAME	253,400.00
FLOORS	193,600.00
FLOOR COVERINGS	33,400.00
CEILINGS	25,300.00
ROOF STRUCTURE	198,600.00
ROOF COVER	207,800.00
INTERIOR CONSTRUCTION	704,600.00
BUILT-IN FIXTURES	6,900.00
ELECTRICAL	512,100.00
PLUMBING	294,400.00
HEATING	136,400.00
MISCELLANEOUS CONSTRUCTION	198,200.00
EXTERIOR WALLS	509,800.00
TOTAL LABOR AND MATERIALS	3,385,800.00
NOTSTURBUILD ON SALE OF THE STATE OF	35

3,622,800.00 36% 2,318,600.00 Replacement Value New Depreciation \$ Sound Valuation

R. A. SCHETTLER, INC. Appraisal Engineers

REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: AUTOMOTIVE SERVICE TECHNOLOGY
KIND OF BUILDING: CLASS C/S
NO. OF STORIES: ONE
OCCUPANCY - CLASSROOMS/TECHNOLOGY
TOTAL SQUARE FEET 18,328
FOUNDATION: CONCRETE
SUPERSTRUCTURE:
FRAME - STEEL
FLOORS - CONCRETE ON SAND FILL
FLOOR COVER - CONCRETE SEALER VINYL COMPOSITION TILE CARPET
ROOF STRUCTURE - STEEL - STEEL JOISTS, METAL DECK
ROOF COVER - METAL STANDING SEAM WITH INSULATION - BUILT UP COMPOSITION WITH INSULATION
CEILINGS - SUSPENDED ACOUSTICAL TILE
INTERIOR CONSTRUCTION - MASONRY AND FRAME PARTITIONS;
BUILT-IN FIXTURES - 95 LINEAR PEET OF CYCLONE FENCE, 8' HEIGHT WITH 3 SWING GATES
PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF: 4 - WATER CLOSETS 4 - LAVATORIES 1 - URINALS 1 - ELECTRIC WATER COOLER 1 - MASH POINTMAIN
1 - WATER HEATER

page 2

EAL ESTAT	E - BUILL	DING	NORTHWESTERN	MICHIGAN	COLLEGE
UTOMOTIVE	SERVICE	TECHNOLOGY:	continued		
VPCHANTCAL.	FOUTDWE	VP:			

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES;
FIRE ALARM SYSTEM

HEATING AND AIR CONDITIONING - VANTAGE II GAS FIRED SUSPENDED RADIANT HEAT
2 - EXHAUST WALL FANS
- ROOFTOP GAS HEATING UNIT WITH AIR CONDITIONING

EXTERIOR WALLS - FACE BRICK, BLOCK BACKUP
- 8" BLOCK
- NETAL, SIDING WITH INSULATION
3 - 14 X 12' OVERHEAD DOORS, METAL, ELECTRIC OPENER
1 - 16 X 12' OVERHEAD DOOR, METAL, ELECTRIC OPENER
1 - 14 X 14' OVERHEAD DOOR, METAL, ELECTRIC OPENER

MISCELLANEOUS: - AUTOWATIC FIRE SUPPRESSION SYSTEM
- COMPRESSED AIR SYSTEM
- VEHICLE EXHAUST FUME SYSTEM WITH 12 HOSE DROPS
3000 CFM CAPACITY
- ACCESS CONTROL SYSTEM
2 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 1982

R. A. SCHETTLER, INC.

PHATHERTS	
Appraisat	

cct.: NORTHWESTERN

Description	11/1/20
FOUNDATION:	489,300.00
SUPERSTRUCTURE:	
FRAME	1,136,500.00
FLOORS	1,439,200.00
PLOOR COVERINGS	851,500.00
CEILINGS	229,200.00
ROOF STRUCTURE	628,300.00
ROOF COVER	1,363,800.00
INTERIOR CONSTRUCTION	3,953,400.00
BUILT-IN FIXTURES	2,722,200.00
ELECTRICAL	2,577,000.00
PLUMBING	1,056,100.00
HEATING	2,763,800.00
MISCELLANEOUS	71,800.00
EXTERIOR WALLS	3,154,500.00
FIRE PROTECTION	274,100.00
TOTAL LABOR AND MATERIALS	22,710,700.00
NOTSING SING SHEER STANDARD STREET	78

nt Value New	24,300,400.00
ion &	178
nation	20,169,300.00

REAL ESTATE - BUILDING NORTHWESTERN MICHIGAN COLLEGE
NAME OF BUILDING: GREAT LAKES CAMPUS
KIND OF BUILDING: CLASS C
NO. OF STORIES: TWO WITH PENTHOUSE
OCCUPANCY: MARITIME ACADEMY, CULINARY ARTS, CONFERENCE CENTER
SIZE: FIRST FLOOR 35,670 SQUARE FEET SECOND FLOOR 33,050 SQUARE FEET PENTHOUSE 6,644 SQUARE FEET
TOTAL SQUARE FEET = 75,364
FOUNDATION: CONCRETE
SUPERSTRUCTURE:
FRAME - STEEL
PLOORS - CONCRETE ON GROUND, VAPOR BARRIER - STEEL, CONCRETE FLOOR ON STEEL DECK
PLOOR COVERINGS - VINYL TILE - CARPET - CERAMIC TILE - CARPET FILE - LINOLEUM TILE - THINSET TERRAZZO FLOORING
ROOF STRUCTURE - LOWER ROOF, STEEL LONG SPAN BAR JOIST, STEEL DECK - UPPER OOR, LIGHT GAUGE MONG-TRUSSES, METAL DECK
ROOF COVER - STANDING SEAM METAL DECK, INSULATION, VAPOR BARRIER ICE AND WATER SHIELD AT EAVE EPDM MEMBRANE WITH INSULATION PREFINISHED ENGINEERED SNOW RETENTION SYSTEM
CEILINGS - GYPSUM BOARD - ACOUSTICAL CEILING TILE - GLASS
INTERIOR CONSTRUCTION - MASONARY AND FRAME PARTITIONS
BUILT-IN FIXTURES - INTRO LAB: 4 - PREP TABLES, STAINLESS STEEL WITH SINK 1 - EXHAUST HOOD WITH FIRE PROTECTION SYSTEM 2 - POT SINKS, 3 COMPARTMENT, STAINLESS STEEL 1 - PREP TABLE, STAINLESS STEEL, 2 COMPARTMENT SINK

R. A. SCHETTLER, INC. Appraisal Engineers

GARDE MGR LAB:

1 - EXHAUST HOOD WITH FIRE PROTECTION SYSTEM

2 - COOKS TABLES, STAINLESS STEEL WITH SINK, UTENSIL RACK, DOUBLE FACE

2 - WORK TABLES, STAINLESS STEEL WITH REFRIGERATED BASE, SINK

1 - POT SINK, 3 COMPARTMENT, STAINLESS STEEL

2 - HAND SINKS, STAINLESS STEEL 1 - WALK-IN COOLER
1 - WALK-IN FREEZER.
2 - FIRE PROTECTION SYSTEMS
1 - PREP TABLE, STAINLESS STEEL, SINK, WATER METER/FILLER
1 - PREP TABLE, 2 COMPARTMENT SINK, STAINLESS STEEL, DISPOSAL
3 - HAND SINKS, STAINLESS STEEL
1 - POT SINK, 3 COMPARTMENT STAINLESS STEEL SINK, DISPOSAL, POT WASHER. 1 - EXHAUST HOOD, STAINLESS STEEL WITH FIRE PROTECTION SYSTEM NORTHWESTERN MICHIGAN COLLEGE FIRST FLOOR CONFERENCE DEMO KITCHEN:

1 - PREP TABLE, STAINLESS STEEL WITH SINK

1 - EXHAUST HOOD WITH FIRE PROTECTION SYSTEM

1 - DEMO TABLE, STAINLESS STEEL, SINK, MIRROR

1 - DEMO TABLE, STAINLESS STEEL,

1 - PLATING TABLE, STAINLESS STEEL

2 - ICE BIN AND WATER FILLER, STAINLESS STEEL

4 - HAND SINKS, STAINLESS STEEL

1 - POT SINK, 3 COMPARTMENT, STAINLESS STEEL

1 - POT SINK, 3 COMPARTMENT, STAINLESS STEEL

1 - HOBART DISHWASHER WITH BOOSTER HEATER, DISPOSAL

1 - DISHWASHER HOOD WITH EXHAUST FAN, STAINLESS STEEL ADVANCED COOLING LAB/SECOND FLOOR:

1 - WALK-THRU COOLER
2 - PREP TABLES, STAINLESS STEEL WITH SINK, 8'
2 - PREP TABLES, STAINLESS STEEL WITH SINK, 7 X 5'
1 - EXHAUST HOOD WITH FIRE PROTECTION SYSTEM
1 - FRONT SERVICE COUNTER
1 - HOAT FOOD TABLE
2 - HOT FOOD TABLE
3 - REFRIGERATED BASE
1 - UTILITY COUNTER WITH SINK
1 - UTILITY COUNTER WITH SINK
1 - UTILITY COUNTER WITH SINK
1 - BEVERAGE COUNTER 'L' SHAPE, 16' INTRO LAB: continued 4 - HAND SINKS, STAINLESS STEEL 1 - COOKS TABLE, WITH SINK, STAINLESS STEEL BUILT-IN FIXTURES - continued REAL ESTATE - BUILDING GREAT LAKES CAMPUS - continued

NORTHWESTERN MICHIGAN COLLEGE

R. A. SCHETTLER, INC. Appraisal Engineers

GREAT LAKES CAMPUS: continued

REAL ESTATE - BUILDING

HEATING AND AIR CONDITIONING

1 - LOCHINVAR MODEL FIX850N-M13, GAS FIRED TUBE BOILER,

#1639103476412

12 - TRANE RIBO94 CABINET UNIT HEATERS

3 - TRANE BOS UNIT HEATERS

4 - B & G HEATING EXCHANGERS

11 - TRANE MCC-40 AIR HANDLING UNIT, AHU-1

11 - TRANE MCC-25 AIR HANDLING UNIT, AHU-2

11 - TRANE MCC-35 AIR HANDLING UNIT, AHU-3

12 - TRANE MCC-35 AIR HANDLING UNIT, AHU-3

13 - TRANE MCC-35 AIR HANDLING UNIT, AHU-3

14 - TRANE MAUCS04 ROOFTOP CONDENSING UNIT, CU-2

15 - TRANE RAUCS04 ROOFTOP CONDENSING UNIT, CU-2

16 - TRANE ROOFTOP CONDENSING UNIT, CU-3

17 - TRANE ROOFTOP CONDENSING UNIT, CU-3

18 - TRANE ROOFTOP CONDENSING UNIT, CU-3

19 - TRANE ROOFTOP CONDENSING UNIT, CU-3

10 - TRANE ROOFTOP CONDENSING UNIT, CU-3

11 - TRANE ROOFTOP CONDENSING UNIT, CU-3

12 - HEATWAY 1574 SNOW MELTING RADIANT FLOOR SYSTEM

13 - TRANE WOBEL CAA-2D ROOFTOP DIRECT GAS INDUSTRIAL MAKE-UP

AIR UNIT, #565605B

1 - DUO-AIRE WODEL CAA-3D ROOFTOP DIRECT GAS INDUSTRIAL MAKE-UP
AIR UNIT, #565605

1 - DUO-AIRE MODEL CAA-1D ROOFTOP DIRECT GAS INDUSTRIAL MAKE-UP
AIR UNIT, #565605

1 - DUO-AIRE MODEL CAA-2D ROOFTOP DIRECT GAS INDUSTRIAL MAKE-UP
AIR UNIT, #565605

1 - DOCAIRE MODEL FEX850N-M13, GAS FIRED TUBE BOILER,

1 - LOCHINVAR MODEL FIX850N-M13, GAS FIRED TUBE BOILER, #1639103476415

#1639103476426 1 - LOCHINVAR MODEL FTX850N-M13, GAS FIRED TUBE BOILER, 1 - LOCHINVAR MODEL FIX850N-M13, GAS FIRED TUBE BOILER, #1639103476414

1 - LOCHINVAR MODEL FIX850N-M13, GAS FIRED TUBE BOILER, #1639103476431 LOCHINVAR MODEL FTX850N-M13, GAS FIRED TUBE BOILER, #1639103476425

#1639103476428

EXTERIOR WALLS - PACE BEICK, BLOCK BACK-UP 7-1/2" STRUCTURAL CURTAIN WALL SYSTEM WITH 1" INSULATED GLAZING UNITS OVERHEAD DOOR, GLASS/METAL WITH ELECTRIC OPERATOR, 20 X 16'

NORTHWESTERN MICHIGAN COLLEGE

BUILT-IN FIXTURES - CONTINUED continued GREAT LAKES CAMPUS:

REAL ESTATE - BUILDING

ADVANCED COOKING LAB/ SECOND FLOOR: continued 2 - DISH TABLES, STAINLESS STEEL FOR DISHWASHER WITH SINK 1 - POOF SINK, 3 COMPARTWENT, STAINLESS STEEL 1 - HOBART DISHWASHER WITH DISPOSAL 1 - DISHWASHER HOOD WITH EXHAUST FAN

- HOSE SPRAY UNIT.
- SERVICE STATION, "L" SHAPE, STAINLESS STEEL TOP, 35 L.F.
- FRONT BAR

- BAR SERVICE STATION AND ICE BIN

- PERLICK BLENDER STATIONS
- PERLICK REFRIGERATED BACK BAR
- PERLICK DRAINBOARDS
- PERLICK ICE BIN AND SPEED RAILS

- BAR SINK - CORNER FILLERS, STAINLESS STEEL - "U" SHAPE CARIAN TOP FRONT BAR, 60 L.F.

1 - EXHAUST FUME HOOD 15 - LOCKERS, 2 TIER MARITIME ACADEMY:

1 - OTIS ELVATOR, 2 STOP
2 - ROLLING DOORS, METAL, 24 X 10'
3 - ROLLING DOORS, NETAL, 78 X 120'
1 - ROLLING DOOR, METAL, 10 X 10'
1 - ROLLING DOOR, METAL, 15 X 10'
3 - MOVABLE PARTITIONS, 48'

CULINARY ARTS:

1 - OTIS ELEVATOR, 2-STOP 1 - WALK-IN PREEZER 2 - WALK-IN COOLERS

- AN MODERN SYSTEM OF SANITARY FIXTURES CONSISTING OF: PLUMBING

36 - WATER CLOSETS
30 - LAVATORIES
13 - URINAL
5 - JANITOR SINKS
12 - DRINKING FOUNTAINS
3 - SHOWERS
2 - STORAGE TANKS, 752 GALLON CAPACITY
3 - HELLEN BRAND MODEL H200M, WATER CONDITIONING SYSTEM

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES - EMERGENCY LIGHTING

page 5

NORTHWESTERN MICHIGAN COLLEGE

GREAT LAKES CAMPUS: continued

REAL ESTATE - BUILDING

MISCELLANEOUS:

- MARTITME ACADEMY DECK, STEEL FRAME, CONCRETE ON METAL DECK 1,262 SQUARE FEET - CULINARY ARTS DECK, STEEL FRAME, CONCRETE ON METAL DECK, 460 SCHOOL STEEL - ACCESS CONTROL SYSTEM 5 - CAMERA SECURITY SYSTEM

FIRE PROTECTION - FIRE PROTECTION SPRINKLERS

R. A. SCHETTLER, INC. Appraisal Engineers

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE REAL ESTATE - BUILDING	Bldg.: AERO PARK LAB
Description	11/1/20
FOUNDATION:	173,600.00
SUPERSTRUCTURE:	
PRAME	540,500.00
FLOORS	211,700.00
FLOOR COVERINGS	24,000.00
CEILINGS	12,100.00
ROOF STRUCTURE	361,100.00
ROOF COVER	326,500.00
INTERIOR CONSTRUCTION	508,400.00

50,400.00 720,500.00 292,700.00 203,100.00 456,800.00 431,800.00

BUILDING FIXTURES

ELECTRICAL PLUMBING HEATING 4,313,200.00 89

ARCHITECT'S PLANS AND SUPERVISION

TOTAL LABOR AND MATERIALS

MISCELLANEOUS CONSTRUCTION

EXTERIOR WALLS

eplacement Value New	4,572,000.00
epreciation %	388
ound Valuation	2.834.600.00

QUALITY OF CONSTRUCTION: GOOD, LEED CERTIFIED

R. A. SCHETTLER, INC. Appraisal Engineers

PLUMBING - AN APPROVED SYSTEM OF SANITARY FIXTURES CONSISTING OF:
7 - WATER CLOSET
8 - LAVATORY
3 - URINAL
1 - SANITARY SINK
1 - SHOWER
4 - ELECTRIC WATER COOLER
1 - WATER HEATER INTERIOR CONSTRUCTION - MASONRYAND FRAME PARTITIONS; STORE FRONT CEILINGS - SUSPENDED ACDUSTICAL CEILING SYSTEM WITH EDGE TRIM, OFFICES 1 - COFFEE BAR, L SHAPE, LAMINATE, 15'6" X 8'4"
1 - BASE CABINET, LAMINATE, 3-DOOR/4-DRAWER WITH
STAINLESS STEEL SINK
1 - WALL CABINET, LAMINATE, 2-DOOR WITH SHELF
66" X 16" X 24"
1 - PALLET RACKING SYSTEM
- TOLLET PARKITONS
- ROLLING DOORS, METEL, 8' X 8' NORTHWESTERN MICHIGAN COLLEGE ROOF COVER - SINGLE PLY MEMBRANE WITH INSULATION FLOOR COVERINGS - CARPET AND CERAMIC TILE ROOF STRUCTURE - STEEL JOIST, METAL DECK TOTAL SQUARE FEET = 29,600, MORE OR LESS OCCUPANCY: LABORATORY WITH CLASSROOM FLOORS - CONCRETE ON GROUND NAME OF BUILDING: AERO PARK LAB TYPE OF BUILDING: CLASS C BUILT-IN FIXTURES -REAL ESTATE - BUILDING FRAME - STEEL - CRANEWAY FOUNDATION: CONCRETE NO. OF STORIES: ONE SUPERSTRUCTURE:

R. A. SCHETTLER, INC. Appraisal Engineers

AERO PARK LAB: CONTINUED BECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT BUTCESSARY WALL PLOGS AND SWITCH BOXES - 2000 AND SWITCHBOARD - SOLAR PANEL ARRAY, 3.6 KM HEATING AND AIR CONDITIONING 1 - ABSOLUTAIRE MODEL AAGUKXDX, GAS DIRECT FI MARE-UP AIR UNIT #2558I 2 - AMARA HEAT PUMP SPLIT SYSTEM WITH CONDENS 1 - RENEWARDE MODEL FRA-A12GA DUCILESS AIR CONDITIONEN 1 - FUJITSU MODEL PRA-A12GA DUCILESS AIR CONDITIONEN 1 - FUJITSU MODEL PRA-A12GA DUCILESS AIR CONDITIONEN 2 - AMERICAN STANDARD FREEDOM 95 DIRECT VENT FURANCE 1 - BERRGY KNIGHT DUCILESS AIR CONDITIONER 2 - AMERICAN STANDARD FREEDOM 95 DIRECT VENT FURANCE 1 - SUSPENDEDGAS FIRED UNIT HEATER 1 - FURANCE 1 - FURANCE 1 - SUSPENDEDGAS FIRED WAIT MEATER 1 - SUSPENDEDGAS FIRED WAIT MEATER 1 - FURANCE 2 - AMERICAN GARDARD 1 - FURANCE 1 - FURANCE 1 - FURANCE 2 - FURANCE 3 - FURANCE 4 - FURANCE 4 - FURANCE 1 - FURANCE 1 - FURANCE 1 - FURANCE 2 - FURANCE 3 - FURANCE 4 - FURANCE 4 - FURANCE 1 - FURANCE 1 - FURANCE 1 - FURANCE 1 - FURANCE 2 - FURANCE 3 - FURANCE 4 - FURANCE 4 - FURANCE 1 - FURANCE 1 - FURANCE 1 - FURANCE 2 - FURANCE 3 - FURANCE 4 - FURANCE 4 - FURANCE 4 - FURANCE 4 - FURANCE 5 - FURANCE 6 - FURANCE 7 - FURANCE 8 - FURANCE 8 - FURANCE 9 - FURANCE 1 - FURANCE 1 - FURAN	AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES 1000 AMP SWITCHBOARD SWITCHBOARD SWITCHBOARD SWITCHBOARD SWITCHBOURD ANALY, 3.6 KW CONDITIONING ANANA HEAT PUME SPLIT SYSTEM WITH CONDENSING ANANA HEAT PUME SPLIT SYSTEM WITH CONDENSING ANANA HEAT PUME SPLIT SYSTEM WITH CONDENSING FULITSU MODEL PKA-AL2GA DUCTLESS ALR CONDITIONER FULITSU MODEL PKA-AL2GA DUCTLESS ALR CONDITIONER FULITSU MODEL PYA-AL2NHA CONDENSING UNIT BRIKO MODEL PYA-AL2NHA CONDENSING UNIT BRIKO MODEL PVY-AL2NHA CONDENSING UNIT BRIKO MODEL SAA-2020DSAG ELECTRIC HEATER BRIKO MODEL PYA-AL2NHA CONDENSING UNIT THANS REAS THRANST FANS SWENDEDGAS FIRED UNIT HEATER THRANCE ENERGY KNIGHT DUCTLESS ALR CONDITIONER SUSPENDEDGAS FIRED UNIT HEATER THRANCE TRANE MODEL 4TTA3048B4000CA, CONDENSING UNIT, #152452USSE HORIZONTAL RIBBED METAL, METAL FRAME BURNEL SIDING WITH INSULATION BETAL SIDING WITH INSULATION
HEATING AND AIR CONDITIONING 1 - ABSOLUTAIRE MODEL AAGUKXDX MARKE-UP AIR UNIT #25581 2 - AMAR HEAT PUMP SPLIT SYSTY AMBIENT PACKAGE 1 - RENEWARE MODEL HEZKET ENE 1 - FUJITSU MODEL PKA-A12GA DU 1 - FUJITSU MODEL PKA-A12GA DU 1 - FUJITSU MODEL SRA-C2020BSAG E 5 - EXHAUST FANS 2 - AMERICAN STANDARD FREEDOM FURANCE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - TRANE MODEL 4TTA304804000C #152452UE3F 1 - TRANE MODEL ATTA30480400C #152452UE3F - HORIZONPAL RIBBED METAL - MORIZONPAL RIBBED METAL - METAL SIDING WITH INSUL	L AAGUKXDX, GAS DIRECT FIRED ##25581 SPLIT SYSTEM WITH CONDENSING HEZKAT ENERGY RECOVERY VENTILATOR A-ALIZGA DUCTLESS AIR CONDITIONER Y-ALIZHA CONDENSING UNIT 2020DSAG ELECTRIC HEATER D FREEDOM 95 DIRECT VENT GAS CTLESS AIR CONDITIONER ED UNIT HEATER 3048D4000CA, CONDENSING UNIT, LOCK BACK-UP BBED METAL, METAL FRAME WITH INSULATION S
AMBLENT FACKAGE 1 - FUJITSU MODEL BEZERT ENE 1 - FUJITSU MODEL PRA-A12GA DU 1 - FUJITSU MODEL PRA-A12NBA CI 1 - BERKO MODEL SRA-2020DSAG ES 2 - AMERICAN STANDARD FREEDOM PURANCE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - SUSPENDEDGAS FIRED UNIT HE 1 - TRANE MODEL 4TTA304804000C #152452US3F - HORIZONFAL RIBBED METAL - HORIZONFAL RIBBED METAL - METAL SIDING WITH INSUL	HEZXRT ENERGY RECOVERY VENTILATOR A-A12GA DUCTLESS AIR CONDITIONER Y-A12NHA CONDENSING UNIT 2020DSAG ELECTRIC HEATER D FREEDOM 95 DIRECT VENT GAS CTLESS AIR CONDITIONER ED UNIT HEATER 3048D4000CA, CONDENSING UNIT, LOCK BACK-UP BBED METAL, METAL FRAME WITH INSULATION S
2 - AMERICAN STANDARD FREEDOM FURANCE 1 - ENERGY KNIGHT DUCTLESS AIR 1 - SUSPENDEDGAS FIRED UNIT HE 1 - TRANE MODEL 4TTA3048D4000C #152452UE3F FIS2452UE3F - HORIZONFAL RIBBED METAL - HORIZONFAL RIBBED METAL - METAL SIDING WITH INSUL	D FREEDON 95 DIRECT VENT GAS CTLESS AIR CONDITIONER ED UNIT HEATER 3048D4000CA, CONDENSING UNIT, LOCK BACK-UP BBED METAL, METAL FRAME WITH INSULATION S
EXTERIOR WALLS - FACE BRICK, BLOCK BACK- - HORIZONTAL RIBBED METAL - METAL SIDING WITH INSUL	LOCK BACK-UP BBED METAL, METAL FRAME WITH INSULATION S
- OVERHEAD DOORS	
MISCELLANEOUS - AUTOMATIC FIRE SUPPRESSION SYSTEM 1 - AURORA 5 TON BRIDGE CRANE, 60 SP. 1 - NEZZANINE WITH STAIRCASE - ACOUSTICAL BAFFLES	E SUPPRESSION SYSTEM BRIDGE CRANE, 60' SPAN WITH YALE H STAIRCASE FFLES
- SKYSTREAM 3-7 WIND TURBII - GE EST FIRE ALAHM SYSTEM 13 - WELDING BOOTHS MASONRY W EXHAUST DUCT	SKYSTREAM 3-7 WIND TUBBINE, 45' TOWER GE EST FIRE ALARM SYSTEM GELDING BOOTHS MASONRY WITH FUME, HOODS, EXHAUST DUCT
1 - CRIB FENCE, 31 LINEAR F 1 - ATLAS COPCO MODEL GX7P, COMPRESSOR - ACCESS CONTROL SYSTEM 12 - DOUBLE FACE WELDING BOO 3 - CAMBRA SECIRITY SYSTEM	CRIB FENCE, 31 LINEAR FEET X 8' HEIGHT ATLAS COPCO MODEL GX7P, ROTARY SCREW AIR COMPRESSOR ACCESS CONTROL SYSTEM BOUBLE FACE WELDING BOOTHS WITH LIGHTS EXHAUST CAMERA SECURITY SYSTEM

R. A. SCHETTLER, INC. Appraisal Engineers

ASSET ACCL: NOWITHWESTERN FILTERED COLLEGE HERE	M-TEC
Description	11/1/20
FOUNDATION:	367,800.00
SUPERSTRUCTURE:	
FRAME	1,378,500.00
FLOORS	855,900.00
FLOOR COVERINGS	771,500.00
CEILINGS	383,600.00
ROOF STRUCTURE	479,700,00
ROOF COVER	597,200.00
INTERIOR CONSTRUCTION	2,093,600.00
BUILT-IN PIXTURES	626,400.00
BIBCTRICAL	1,809,700.00
PLUMBING	980,700.00
HEATING	2,295,900.00
MISCELLANEOUS CONSTRUCTION	1,612,500.00
EXTERIOR WALLS	1,587,800.00
TOTAL LABOR AND MATERIALS	15,840,800.00
ARCHITECT'S PLANS AND SUPERVISION	7.8

REAL ESTATE - BUILDING - NORTHWESTERN MICHIGAN COLLEGE	Ü
NAME OF BUILDING: PARSEN-STULLEN M-TEC	
KIND OF BUILDING: CLASS C	
NO. OF STORIES: TWO	
OCCUPANCY - CLASSROOM	
SIZE: FIRST FLOOR 42,800 SQUARE FEET SECOND FLOOR 22,200 SQUARE PEET	
TOTAL SQUARE FEET - 65,000	
FOUNDATION: CONCRETE	
SUPERSTRUCTURE:	
FRAME - STEEL	
FLOORS - CONCRETE ON GROUND, 5 1/2" SLAB ON METAL DECK, STEEL JOISTS	1
FLOOR COVER - RESILIANT TILE - CERAMIC TILE - TERRAZEO - CARPET	
ROOF STRUCTURE - PRE-ENGINEERED BOW SPRING STEEL ROOF TRUSSES STEEL JOIST, METAL DECK ROOF COVER - SNAP-ON STANDING SEAM CURVED METAL ROOFING, PLYWOOD DECK WITH INSULATION - SINGLE PLY MEMBRANE WITH INSULATION	000D
CEILINGS - SUSPENDED ACOUSTICAL PANELS - SUSPENDED GYPSUM BOARD - SUSPENDED PREFORMED FLUSH ALUMINUM PANELS - SUSPENDED ALUMINUM PANELS - SUSPENDED VINYL FACED GYPSUM PANELS	

INTERIOR CONSTRUCTION - MASONRY AND FRAME PARTITION

BUILT-IN FIXTURES -

- 350 LINEAR FT. OF LAMINATE BASE CABINETS
- 225 LINEAR FT. OF LAMINATE WALL CABINETS
1 - INFORMATION DESK, LAMINATE, 20 LINEAR FT.
1 - INFORMATION DESK, LAMINATE, 13 LINEAR FT.
5 - FOLDING PARTITIONS, 28 X 9'
- LOT OF VISUAL DISPLAY BOARDS

Replacement Value New	16,949,700,00
Depreciation *	208
Sound Valuation	13,559,800.00

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RAYPACK GAS FIRED DOMESTIC WATER BOILER WITH 115 GALLON STORAGE TANK 1 - STAINLESS STEEL SINK WITH DRAINBOARD, DISPOSAL, DISHWASHER
1 - DOUBLE COMPARTMENT SINK, STAINLESS STEEL
1 - TV CABINET, LAMINATE, 48 x 24 x 84"
10 - WARDROBE CABINETS, LAMINATE, 42 x 24 x 84"
1 - ISLAND CABINET, LAMINATE, 68 x 48 x 35"
1 - ISLAND CABINET, LAMINATE, 68 x 48 x 35"
1 - GLAND CABINET, LAMINATE, 120 x 30 x 35"
- 40 LINEAR FT. LAMINATE WITH 3-DRAWER PEDESTAL BASE, 20 LOCKERS, METAL, 2-TIER, 15 X 16 X 60"

28 LIOCKERS, METAL, 2-TIER, 15 X 12 X 60"

1 OTIS PASSENGER ELEVATOR, 2-STOP

1 IAB FUNE HOOD, 47" WITH LANINATE BASE CABINET

3 - PENINSULA LAB BASE CABINETS, LAMINATE WITH SINK, GAS, AIR,

ACID PROOF TOP, 72 X 42"

- 12 LINEAR FT. LAB BASE CABINETS, LAMINATE, ACID PROOF TOP

TOLLET PARTITIONS PLUMBING - A MODERN SYSTEM OF SANITARY FIXTURES CONSISTING OF:
22 - MATER CLOSETS
25 - LAVATORIES
8 - URINALS 1 - RAYPACK WODEL H-ADB-500 GAS FIRED BOILERS
2 - RAYPACK WODEL H-ADB-750 GAS FIRED BOILERS
2 - RAYPACK WODEL H-6-962 GAS FIRED BOILERS
3 - RAYPACK WODEL H-6-962 GAS FIRED BOILERS
1 - ITT BELL & GOSSETT HEAT EXCHANGER
2 - YORK MODEL H-CA300346D CONDENSING UNITS, 25 TON CAPACITY
7 - YORK AIR HANDLING UNITS
1 - BALTHMORE AIR COIL WODEL F1443-0 FLUID COOLER - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES NORTHWESTERN MICHIGAN COLLEGE 38 LINEAR FT. LAMINATE WITH 3-DRAWER PEDESTAL BASE 2 - SANITARY SINKS 6 - ELECTRIC WATER COOLERS 1 - WASH FOUNTAIN 1 - SHOWER - MINI BLIND WINDOW TREATMENTS HEATING AND AIR CONDITIONING -- SIGNAGE 1 - DISPLAY CASE / DIRECTORY 12 - WELDING BOOTHS MASONARY BUILT-IN FIXTURES - continued REAL ESTATE - BUILDING -DOOR BASE M-TEC: continued PLECTRICAL

R.A. SCHETTLER, INC. Appraisal Engineers

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NORTHWESTERN MICHIGAN COLLEGE

REAL ESTATE - BUILDING

M-TEC: continued

HEATING AND AIR CONDITIONING - continued 1 - BALTIMORE AIR COIL MODEL F1463-P FLUID COOLER - PUMPS AS REQUIRED

- BASEBOARD RADIATION

- RADIANT FLOOR IN STUDENT ACTIVITIES ROOM
1 - LIEBERT AIR CONDITIONING UNIT
1 - LIEBERT CONDENSING UNIT
1 - TRANE TERMALOSALIOOLI CONDENSING UNIT, #6135KWL4F
- SOLAR THERMAL SYSTEM INCLUDING:
7 - MAZDON 30-TUBE SOLAR PANELS, 6 X 6' ON WALL MOUNTED

STEEL FRAME

2 - STORAGE TANKS, 150 GALLON CAPACITY

- MITSUBISIH SPLIT SYSTEM AIR CONDITIONER, 3 TON, ROOM 204 - PUMPS

EXTERIOR WALLS - SPLIT FACE MASONRY WITH BLOCK BACK UP, - BLOCK, 8"

- HORIZONTAL METAL SIDING

- INSULATED GLASS IN ALUMINUM FRAME 3 - OVERHEAD DOORS, ROLL UP WITH ELECTRIC OPERATOR, 16 X 15', 28 X 22', 13 X 10'

MISCELLANEOUS - FIRE PROTECTION SPRINKLERS

DATA/TELEPHONE/IT INFRASTRUCTURE

DIGITAL FLOORING SYSTEM

2 - CANOPIES, STEEL FRANE, SPLIT FACE MASONRY, STEEL

JOISTS, METAL DECK, STANDING SEAM METAL ROOF COVER,

13.5' X 14.5' X 10' HEIGHT

1 - SOLAR PV SYSTEM INCLUDING: 12 - BP SOLAR PANELS,

5 X 10'
- STEEL FRANE FOR PANELS, 42' WIDE 10' HEIGHT

2 - FRONIUS IG INVERTER
- WIRING
- SIMPLEX FIRE ALARM SYSTEM
1 - USA TANK MODEL 2520, WATER TANK STEEL,

25' DIAMETER X 20' HEIGHT, 66800 GALLON CAPACITY,

#150115100A WITH CRANE STAIRCASE, SAND FILTERS
- PRIZO FIRE SUPPRESSION SYSTEM FOR ROOMS 100 AND 204A

- ACCESS CONTROL SYSTEM 5 - CAMERA SECURITY SYSTEM

QUALITY OF CONSTRUCTION: GOOD

BUILT: 2000

Asset Acct.: NORTHWESTERN MICHIGAN COLLEGE Bldg.: NORTH HALL REAL ESTATE - BUILDING

FOUNDATION: 191,600.00

171,000.00 79,800.00 103,700.00 163,900.00 141,500.00 168,600.00 177,500.00 1,591,600.00 915,900.00 545,300.00 674,300.00 838,300.00 638,600.00 515,900.00 225,600.00 HEATING AND AIR CONDITIONING INTERIOR CONSTRUCTION BUILT-IN PIXTURES FLOOR COVERINGS FIRE PROTECTION ROOF STRUCTURE EXTERIOR WALLS MISCELLANEOUS ELECTRICAL ROOF COVER ELEVATORS CEILINGS PLUMBING FLOORS FRAME

Replacement Value New 7.571,700.00
Depreciation \$ 2\$
Sound Valuation 7,420.300.00

7,143,100.00

89

ARCHITECT'S PLANS AND SUPERVISION

TOTAL LABOR AND MATERIALS

R. A. SCHETTLER, INC. Appraisal Engineers

INTERIOR CONSTRUCTION - WOOD PARTITIONS, FEW MASONRY PARTITIONS PLUMBING - AN MODERN SYSTEM OF SANITARY FIXTURES CONSISTING OF:
47 - WATER CLOSETS
49 - LAVATORIES
1 - URINAL
3 - SANITARY SINK
3 - LOCHINVAR MODEL SIT1199, INDIRECT WATER HEATER,
119 GALLON CAPACITY
2 - ELECTRIC MATER COOLERS
48 - SHOWERS FLOOR COVERINGS - WOOD COMPOSITE, CERAMIS TILE, RUBBER BASE, CARPET, RESILIENT SHEET FLOORING NORTHWESTERN MICHIGAN COLLEGE ROOF COVER - SINGLE PLY MEMBRANE OVER RIDGID INSULATION CEILINGS - SUSPENDED ACOUSTICAL PANEL
- GYPSUM BOARD WITH KNOCKDOWN FINISH, PAINTED
- SUSPENDED WOOD SLAT PLANK CEILING SYSTEM FLOORS - 4" CONCRETE SLAB, VAPOR BARIER, INSULATION - WOOD TRUSSES, WOOD DECK - CONCRETE METAL PAN STAIRWAY BUILT-IN FIXTURES - LAMIMATE KITCHEN CABINETS - WOOD VANITY CABINETS - LAMINATE LAUNDRY CABINETS ROOF STRUCTURE - WOOD TRUSSES, WOOD DECK - STEEL JOIST, METAL DECK NAME OF BUILDING: NORTH HALL TOTAL SQUARE FEET = 46,730 OCCUPANCY: STUDENT HOUSING KIND OF BUILDING: CLASS REAL ESTATE - BUILDING NO. OF STORIES: THREE FOUNDATION: CONCRETE FRAME - STEEL SUPERSTRUCTURE:

NORTHWESTERN MICHIGAN COLLEGE

NORTH HALL: continued

ELECTRICAL - AN APPROVED SYSTEM OF WIRING ALL IN CONDUIT WITH NECESSARY WALL PLUGS AND SWITCH BOXES

HEATING AND AIR CONDITIONING
1 - LOCHINVAR MODEL FTX850, GAS FIRED TUBE BOILER, #239797

40 - CLIMATE MASTER HEAT PUMPS

6 - RENEMAIRE MODEL HEIXRT, ROOF TOP ENERGY RECOVERY UNITS

1 - LOCHINVAR MODEL FTX850, GAS FIRED TUBE BOILER, #216336

1 - LOCHINVAR MODEL FTX850, GAS FIRED TUBE BOILER, #216523

1 - GUNTNER MODEL GFH080, ROOFTOP DRY COOLER

MISCELLANEOUS - ACCESS CONTROL SYSTEM

6 - CAMERA SECURITY SYSTEM

EXTERIOR WALLS - HORIZONTAL CEMETITIOUS SIDING PANELS

- CEMENTITIOUS LAP SIDING - ALUMINUM CURTAIN WALL

- ALUMINUM STOREFRONT - BUILT-UP EYEBROW TRIM

ELEVATOR - KONE 3 STOP PASSENGER ELEVATOR, 4000 LB. CAPACITY, #9960649

YEAR BUILT - 2017

QUALITY OF CONSTRUCTION - GOOD

R.A. Schettler, Inc.

24634 W. FIVE MILE RD.

Industrial - Commercial

RAS

NOVEMBER 1, 2020

ASSOCIATED GROUP UNDERWRITERS, INC.

LIVONIA, MICHIGAN 48152 39111 W. SIX MILE ROAD

TO WHOM IT MAY CONCERN:

AUTHORITY, WE SUBMIT HEREWITH OUR CERTIFIED APPRAISAL OF LIBRARY HOLDINGS BELONGING TO NORTHWESTERN MICHIGAN COLLEGE, 1701 E, FRONT STREET, TRAVERSE CITY, MICHIGAN. THIS APPRAISAL INCLUDES MEDIA. AS REQUESTED BY THE MICHIGAN COMMUNITY COLLEGE RISK MANAGEMENT CENTER COLLECTIONS ONLY.

AN UNBIASED STATEMENT OF VALUES. VALUES STATED ARE REPLACEMENT VALUE NEW, WHICH ARE DEFINED AS THE COST THAT WOULD BE INCURRED IN ACQUIRING AN EQUALLY DESIRABLE SUBSTITUTE FOR PROPERTY, WHICH IS DETERMINED IN ACCORDANCE WITH MARKET PRICES PREVAILING AT THE DATE THIS APPRAISAL IS REPORTED IN A NUMBER OF CATEGORIES AND FURNISHES OF THIS APPRAISAL AND REPRESENTS THE COST TO REPLACE NEW, THE

IN THIS ANALYSIS, WE HAVE RELIED ON THE BOWKERS ANNUAL GUIDE TO PROVIDE AVERAGE UNIT PRICES FOR COMMUNITY COLLEGE LIBRARY COLLECTIONS. WE HAVE MET WITH YOUR MEDIA DIRECTOR OR OTHER STAFF TO DISCUSS THESE VALUES AND TO MAKE ADJUSTMENTS FOR ANY SPECIAL CIRCUMSTANCES OR COLLECTIONS. WE HAVE NOT EXAMINED THE LEGAL TITLES OF PROPERTY. THEREFORE WE DO NOT ASSUME RESPONSIBILITY REGARDING THE OWNERSHIP OF PROPERTY IN THIS APPRAISAL.

VERY TRULY YOURS,

R.A. SCHETTLER, INC.

A RECOGNIZED AUTHORITY SINCE 1935

R.A. Schettler, Inc.

24634 W. FIVE MILE RD. REDFORD, MI. 48239

Industrial - Commercial

Residential - Institutional

NOVEMBER 1, 2020

NORTHWESTERN MICHIGAN COLLEGE TRAVERSE CITY, MICHIGAN 49684 1701 E. FRONT STREET

TO WHOM IT MAY CONCERN:

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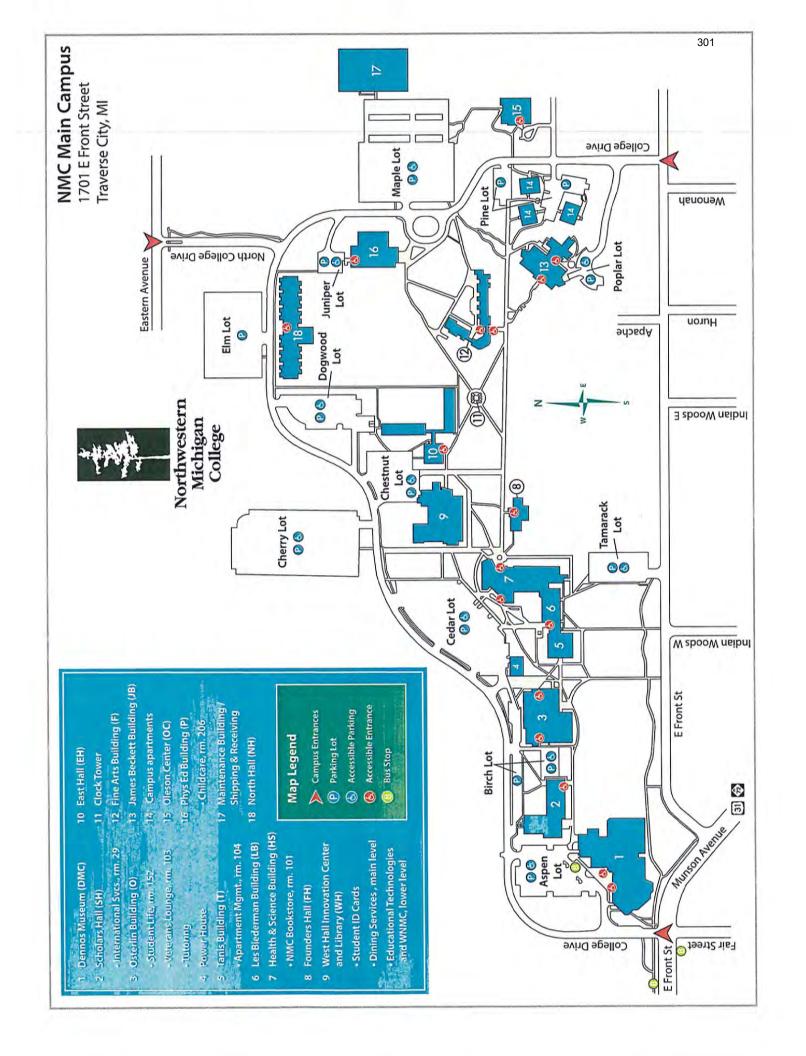
R. A. Schettler, Inc. Appraisal Engineers

Northwestern Michigan College Library Holdings by Building

NOVEMBER 2020 DATE

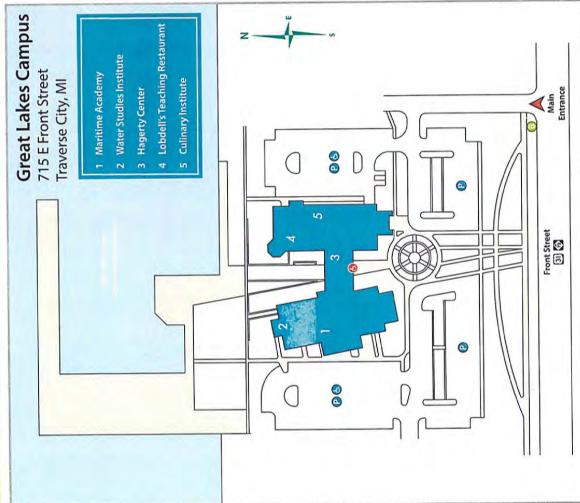
uliding	Circulating Books	Reference Books	Periodicals	Videotape	CD Rom	Sound	Other	Building Total
fibrary	1,533,950	255,590	70,350	201,495	0	0	0	\$2,061,385

Appendix L Map of Parking and Roads

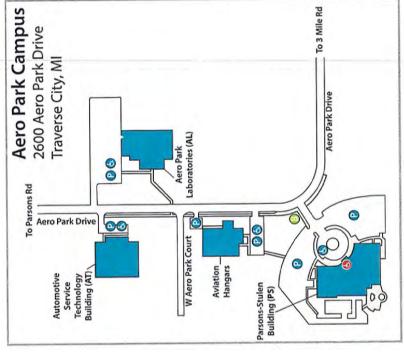












Appendix M Energy Audit Report





Energy & Water Conservation Audit Report for

Northwestern Michigan College

July 22, 2010



-Tab 1

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College Description

Northwestern Michigan College (NMC) was founded in 1951 and is located near Traverse City, Michigan. NMC was established to meet the needs of the citizens of Northwestern Michigan who wanted the benefits of higher education for their children and themselves. From the college's earliest home in borrowed facilities at the local airport, NMC moved in 1956 to a spacious 100-acre campus under the pines and today has facilities at four additional locations in the Grand Traverse area.

There are 4,500 students who use the campus daily and more than 10,000 people that participate in non-credit community education programs each year. Northwestern Michigan College is made up the Central Campus, University Center Campus, Great Lakes Campus, Aero Park Campus and Observatory. There are 25 buildings with a total of 773,067 square feet. Tab 2 provides the list of the buildings and their square feet. At the request of the Sodexo GM, we did not audit the Facilities Farm, Rogers Observatory or the Maritime Vessel.

Summary of Audit and Recommendations

This energy, lighting and water audit was conducted on May 4th through 6th, 2010. The audit team performed site interviews, inspections, billing data reviews and utility program reviews to become familiar with the college's buildings, energy issues, water issues and potential opportunities. This information was used to develop short range and long range energy and water cost reduction goals.

Pricing, Categories and Priorities

Pricing Methodology

Pricing provides cost estimates for all aspects of the total project solution provisioning including materials, labor, demolition, administration, project management, final design, engineering and risk mitigation. However, costs for items such as asbestos abatement, mold remediation and other environmental hazards not obvious during the audit are not included.

This "all in" pricing provides a budget for full implementation of the scope of work by Sodexo. Such arrangements are designed to limit risk and resource needs on the part of the owner.

Project Categories

There are three general categories for recommended projects.

- Category 1. Primarily applies to low cost and no cost solutions. Category 1 projects can be
 based on experience and rules of thumb, such as savings from an energy awareness program.
 They can also be based on turnkey pricing provided by manufacturers.
- Category 2. Applies to capital projects with pricing that is based on energy reductions that
 can be accurately calculated, such as a lighting retrofit, or turnkey pricing quotes obtained
 from appropriate vendors.
- Category 3. The third category is projects that require a more specific, detailed engineering
 review beyond the scope of this study and report. In this case, we have provided an
 estimated budget and savings only that will need to be verified during local contractor or
 engineering evaluations as final scopes are determined.

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Project Priorities

Recommendations are further sub-divided by recommended priority:

- Priority 1. Projects in this group generally are low/no cost or have very attractive returns on
 investment. Priority 1 is also recommended when equipment is at or close to its end of life
 and could fail unexpectedly.
- Priority 2. Capital projects that generally have a longer term return on investment than Priority 1 projects or the equipment is not in danger of imminent failure.
- Priority 3. Projects with a very long term return on investment or are provided so senior staff is aware of future opportunities to save energy. Priority 3 projects are frequently recommended for completion during building renovations.

Project Cost and Payback Summary

The audit team identified a total potential savings of \$250,316 in recommended Category 1 and 2 projects. This represents approximately 17.7% of the expected annual energy and water costs for Northwestern Michigan College. The total estimated cost for these projects is \$1,657,092. The average simple payback for all projects is 6.3 years after an estimated \$69,271 in utility rebates.

Additionally, there are two Category 3 projects that are recommended for more extensive evaluations. Because these projects deal with major building and system upgrades, we have not included them in the total above.

Most Significant Category 2 Projects

The three most significant Category 2 energy conservation opportunities at Northwestern Michigan College in order of priority are:

- BAS Improvements and Expansion
- Health Science VSDs and Exhaust Hood/VAV Recommissioning
- Install Vending Misers

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Project Recommendation Table

Energy Savings Committee/Faculty and Student Awareness	\$14,200	\$1,500	\$0	0.1	1
Controlling Plug Loads	\$7,100	\$4,000	\$0	0.6	1
0.7 gpm Pre-Rinse Spray Nozzle	\$1,320	\$840	\$0	0.6	1
Programmable & Light Based Thermostats	\$489	\$2,160	\$0	4.4	1
Air Curtains on Walk in Coolers and Freezers	\$450	\$1,500	\$0	3.3	1
Water Conservation (Lavatory Aerators)	\$820	\$2,000	\$0	2.4	1
Walk In ECMs	\$2,100	\$7,500	\$0	3,6	1
Sub Total/Average Category #1 Projects	\$26,479	\$19,500	\$0	0.7	

Category #2 Projects - Recommended Capital Energy/Water Projects

Project Name	Annual Savings	Turnkey Pricing	Estimated Known Rebate	Payback Years w/Known Rebates	Priority
BAS Improvements & Expansion	\$72,670	\$679,100	\$0	9.3	1
Health Science VSDs and Exhaust Hood/VAV Recommissioning	\$22,564	\$91,610	\$4,800	3.8	1
Vending Misers	\$6,800	\$17,580	\$0	2.6	1
Lighting Upgrade Projects with ≤ 7.5 Year Payback	\$38,960	\$275,214	\$37,776	6.1	1
Museum HVAC System Upgrades	\$22,000	\$95,000	\$3,900	4.1	1
Great Lakes Boiler & Static Air Pressure Controls	\$4,900	\$22,400	\$0	4.6	1
Kitchen Exhaust Hood MELINK System	\$36,080	\$189,700	\$0	5.3	1
VSDs in PE Building	\$3,250	\$14,030	\$1,800	3.8	2
Intellidyne Hot Water Boiler Controls	\$626	\$3,900	\$0	6.2	2
Lighting Upgrade Projects with > 7.5 Year Payback	\$15,989	\$249,018	\$20,995	14.3	3
Sub Total/Average Category #2 Projects	\$223,837	\$1,637,552	\$69,271	7.0	
Total of All Category 1 & 2 Projects	\$250,316	\$1,657,052	\$69,271	6.3	

Category #3 Projects - Projects Requiring A Detailed Engineering Evaluation

Project Name & Comments	Estimated Annual Savings	Estimated Budget Cost	Estimated Known Rebate	Priority
Tanis Renovation	\$2,000	\$350,000	\$0	3
Renovation of Physical Eduation Building	\$2,500	\$207,000	\$0	3
Sub Total/Average Category #2 Projects	\$4,500	\$557,000	\$0	
	SUMMARY			

Sustainability

This audit is one of many steps along the path of Sustainable Organizational Practices - or more simply put – sustainability. All we touch in life is about sustainability: energy, waste, attitude, infrastructure, productivity, transportation, community, life cycle assessment, product design, process flows, best practices, climate change, transparency, disclosure, accountability - the list goes on. Sustainability is not a destination but a process. People and organizations are either more or less sustainable in their approach to the consumption of natural, capital and human resources. The three core aspects of sustainability are:

- Economic Sustainability
- Environmental Sustainability
- Social Sustainability

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These are often referred to as the "Triple Bottom Line – TBL" of sustainability, or sometimes referred to as "people-planet-profit". Some of the largest global businesses and organizational operators have fully embraced sustainable practices for many years.

This audit encompasses portions of economic and environmental sustainability. In addition, it will introduce some aspects of social sustainability. Social sustainability is the essence of an individual's or organization's commitment to changing the values system of behavior that informs the trajectory or desire to reduce resource consumption and balance economic outcomes.

Carbon Footprint

A Carbon Footprint (CF) is the carbon consumption impact of an organization. It represents the total amount of greenhouse gas (GHG) produced to directly and indirectly support the organization's activities. A complete and comprehensive organizational CF includes three types of emissions:

- Direct Emissions From on-site consumption of energy, such as boilers, space conditioning systems, furnaces, owned vehicles and equipment, etc.
- Indirect Purchased Electricity Emissions Purchased electricity consumed at the facility.
- Indirect Operational Emissions Caused or influenced as a consequence of the activities of
 the organization. These may occur from sources not owned or controlled by the
 organization. Examples include faculty, staff and student commuting, air transportation,
 research, production, purchasing, waste streams, contractor-owned vehicles, outsourced
 activities and events.

According to the international standard Green House Gas Protocol, the hierarchy for reporting and taking action on GHG emissions is to:

- Measure and report climate-impacting emissions
- Reduce or eliminate GHG emissions by reducing or eliminating carbon consumption
- Replace, if possible, fossil fuel energy sources with renewable energy sources
- Neutralize unavoidable GHG emissions

If the CF is reduced, the organization has started down the path of greater sustainability: there is greater economic sustainability (costs are reduced, allowing reallocation of funds to higher value activities) and improved environmental sustainability (fewer fossil fuels are consumed). A CF is clear, concise and has a useable output. A change to sustainable behavior makes exceptionally good operational and capital sense. The organization and the environment both benefit.

All greenhouse gases (there are six types, including carbon dioxide) have a scientific "equivalency" to carbon dioxide. The total emissions are reported as "Carbon Dioxide Equivalent" (CDE) emissions, which is used interchangeably with equivalent carbon dioxide (ECO₂). CDE for an organization or business is recorded and reported annually in metric tons (tonnes, about 2,205 pounds), which is the international standard for reporting greenhouse gas emissions. Large organizations may report CDE as MTCDE (million-of-tonnes of CDE).

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Source Energy Carbon Footprint

As mentioned above, a complete CF would include all activities, such as employees driving to and from work (some may take the less carbon intensive public transportation), the amount and type of fuel used by vehicles and lawn equipment, the amount of solid waste sent to landfills, etc. For this report, we just used the total annual electricity and natural gas consumption to develop a Source Energy Carbon Footprint, or how much carbon was generated to produce and deliver the energy from all sources used by the campus in a year.

The values used to calculate the lbs CO₂ per kWh are different for each state and depend in large measure on the electrical generation mix in that state (e.g. coal, nuclear, natural gas, hydro, waste to energy, etc.).

- Based on the EPA's eGrid tables, Michigan's electric delivery is equal to 1,565 lbs CO₂/mWh (mega Watt hours or 1000 kWh).
- We used the Energy Information Agency's (an arm of DOE) conversion of 121 lbs CO₂/therm for natural gas, which is the same in every state.

The table below identifies the Source Energy Carbon Footprint reductions for the major energy projects recommended in this report. The table also provides some equivalent actions, such as the equivalent number of cars removed from the road as a result of a project.

The total energy Carbon Footprint for Northwestern Michigan College is 9,731 tonnes of CO₂. The projects recommended in this report will reduce the total Carbon Footprint by 1,758 tonnes, or 18.1% of the current tonnes.

Environmental Impact Table

Project Name	Estimated kWh Reduction	Estimated Natural Gas Therm Reduction	Tonnes CO ₂ Removed by Project	Project Equivalent: Number of Cars Taken off the Road Annually	Project Equivalent Acres of Trees Planted Annually
Energy Savings Committee/Faculty and Student Awareness	76,260	6,830	91	20	27
Controlling Plug Loads	95,320	0	68	15	21
0.7 gpm Pre-Rinse Spray Nozzle	0	160	1	0	0
Vending Misers	91,300	0	65	14	20
Air Curtains on Walk In Coolers and Freezers	6,040	1	4	1	1
Water Conservation (Lavatory Aerators)	0	30	0	0	0
Walk In ECMs	4,230	0	3	1	1
BAS Improvements & Expansion	292,700	40,770	431	95	130
Health Science VSDs and Exhaust Hood/VAV Recommissioning	90,880	12,660	134	30	40
Lighting Upgrade Projects with ≤ 7.5 Year Payback	523,070	0	371	82	112
Museum HVAC System Upgrades	88,610	12,340	130	29	39
Great Lakes Boiler & Static Air Pressure Controls	19,740	2,750	29	6	9
Kitchen Exhaust Hood MELINK System	217,980	15,910	242	53	73
Programmable & Light Based Thermostats	1,970	270	3	1	1
VSDs in PE Building	43,630	0	31	7	9
Intellidyne Hot Water Boiler Controls	0	500	3	1	1
Lighting Upgrade Projects with > 7.5 Year Payback	214,660	0	152	34	46
Grand Total Reductions & Equivalents	1,766,390	92,221	1,758	388	531

Money Is Not All You Are Saving

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Utility Cost Summary and Performance Metrics

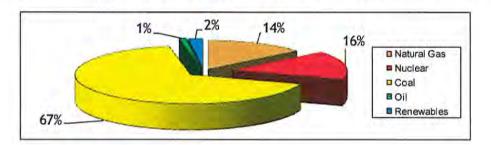
Utility data for electricity, natural gas and water was analyzed to identify opportunities for savings and to develop performance metrics for each utility. In addition, data for natural gas and electricity was combined to calculate the total energy performance metrics of total cost/ft² and total Btu/ft². These metrics were also compared to similar Educational Facilities managed by Sodexo to illustrate Northwestern Michigan College's position among its peers. These metrics do not take into consideration the differences in geographic location that affect drivers such as weather and commodity pricing. However, they are indicative of the relative energy effectiveness of the campus.

Electric

Northwestern Michigan College receives its electricity from Traverse City Light & Power. On all of the campuses, the audited buildings receive their energy through 54 meters. The electricity billing history date range provided to the audit team for this report is August 2008 to August 2009. During that period, the audited buildings used 9,562,184 kWh at a total cost of \$712,219. The average cost of electricity was \$0.074/kWh.

Michigan - Generation Fuel Mix

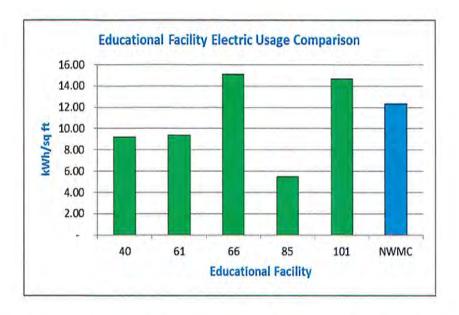
The graph below shows the generation fuel mix for Michigan. Fuel mix information is a breakdown of how the electricity supplied to the campus has been generated. This blend has a significant impact on the Carbon Footprint of a facility. It shows what percentage of each fuel source is used to generate electricity and includes hydro, coal, natural gas/petroleum and nuclear energy.



Electricity Consumption Benchmarking

Using the annual consumption, the electricity usage (kWh/ft²) performance metric of Northwestern Michigan College and of similar Sodexo Educational Facilities was calculated. The college uses 12.37 kWh/ft², which is approximately 15.0% above the average electricity usage of 10.75 kWh/ft² for similar Educational Facilities. The following chart shows the electricity usage per square foot performance metric for similar Educational Facilities in the database.

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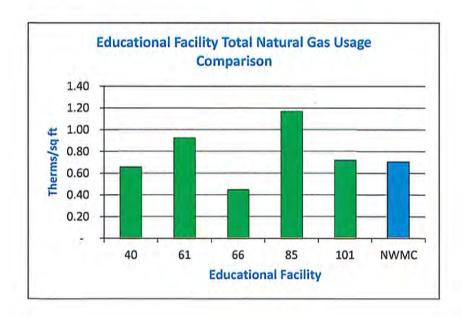


Natural Gas

DTE Energy provides natural gas to the campus via Integrys Energy Services Inc. Each of the audited buildings at the Northwestern campuses is metered separately. The natural gas billing history date range provided to the audit team for this report was from September 2008 to August 2009. Northwestern Michigan College used roughly 538,476 therms during that twelve month period at cost of \$671808. The average cost for natural gas was \$1.25 therm.

Natural Gas Consumption Benchmarking

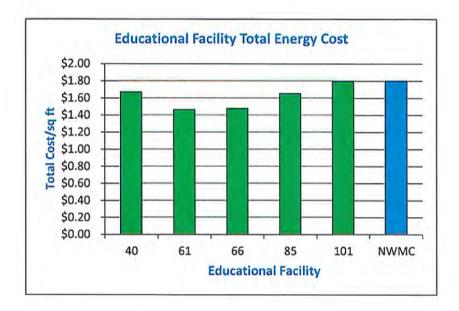
Using annual consumption, the natural gas usage per square foot performance metric of Northwestern Michigan College and similar Educational Facilities was calculated. Northwestern Michigan College uses approximately 0.70 therms/ft² which is 10.8% below the average natural gas usage of 0.78 therms/ft² at similar Educational Facilities. The following chart shows the natural gas usage per square foot performance metric for similar Educational Facilities in the database.



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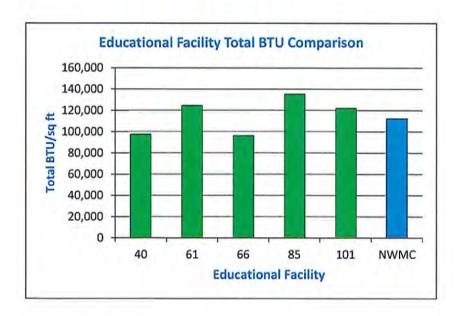
Total Energy Cost - Combined Electricity and Natural Gas

The following chart compares Northwestern Michigan College's total cost/ft² energy performance metric of \$1.79/ft² to other similar Educational Facilities. Northwestern Michigan College ranks approximately 1.61% above the average cost of \$1.61/ft² for similar Educational Facilities.



Total Energy Use (Btu/ft²) - Combined Electricity and Natural Gas

The following chart compares Northwestern Michigan College's total Btu/ft² energy performance metric of 111,871 Btu/ft² to other similar Educational Facilities. Northwestern Michigan College ranks approximately 2.5% below the average of 114,760 Btu/ft² for similar Educational Facilities.



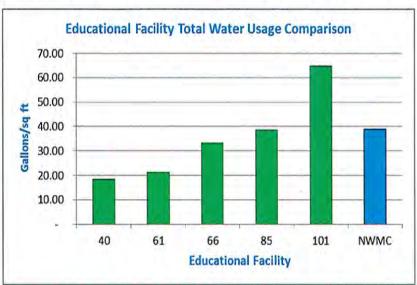
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Water/Sewer

The water/sewer billing history date range provided to the audit team for this report was from April 2009 to March 2010. During that period, the campus used 6,363,000 gallons at a cost of \$31,793. The combined water/sewer cost for Northwestern Michigan College is \$5.00/kgal.

Water/Sewer Benchmarking

The following chart compares Northwestern Michigan College's total gal/ft² water/sewer usage performance metric of 38.89 gal/ft² to other similar Educational Facilities. Northwestern Michigan College ranks approximately 10.6% above the average of 35.18 gal/ft² for similar Educational Facilities.



Utility Rebates

A comprehensive review of incentive and grant programs available to Northwestern Michigan College has been performed. The incentives listed below are prescriptive measures available for lighting retrofits through Detroit Edison. Program details can be found through the following link: https://websafe.kemainc.com/ProjectCenter/Default.aspx?tabid=2244

Variable Speed Drives (VSDs)

\$60 / hp installed drives.

Compact Fluorescents & LEDs

CFL - \$1.50 (screw-in <=31 Watts) or \$8.00 (screw-in > 31W), per lamp

CFL reflector flood lamps - \$8 per lamp

CFL fixture - \$22/fixture

42W 8 lamp high bay CFL fixture - \$35/fixture

Linear fluorescents

Energy Star qualified LED recessed down light - \$20/fixture

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Standard Linear Fluorescent Retrofit (T12 to T8 or T5): Ranges from \$4 per fixture to \$13 per fixture

High Output (HO) Linear Fluorescents (T12 to T8HO or T5HO): Ranges from \$5/fixture to \$18/fixture

High Performance (HP) and Low Wattage (LW) 4-foot Linear Fluorescents:

- Ranges from \$0.75/lamp to \$25/fixture.
- Interior High-Intensity Discharge (HID) to Fluorescent Fixtures:
- Ranges from \$30/fixture to \$160 per fixture.
- Exterior High-Intensity Discharge (HID) Conversion:
- Ranges from \$45/fixture to \$120/fixture.
- Garage High-Intensity Discharge (HID) Conversion:
- Ranges from \$100/fixture to \$180/fixture.

Controls

Occupancy Sensors (≤ 500 Watts Controlled) - \$20/sensor
Occupancy Sensors (> 500 Watts Controlled) - \$50/sensor
Central lighting control - \$600/10,000 sq. ft
Daylight sensor controls - \$900/10,000 sq. ft
Exterior lighting bi-level control w/ override, 15W to 1000W HID - \$50/fixture
Light tube - \$35/tube

De-lamping:

Ranges from \$3 per lamp removed to \$10 per lamp removed

7/22/2010

Heating, Ventilation and Air Conditioning - HVAC

Northwestern Michigan College buildings range vastly in age and size. There are several different methods of providing heating, cooling and domestic hot water heating, as shown in the table below.

Heating is primarily provided to the campus via natural gas boilers and industrial sized electric heat pump cycles. In these industrial heat pumps, hot water is used to supplement the heat pump cycle in extreme cold conditions as opposed to electric resitive coils in more domestic applications.

Cooling is provided on campus primarily by central chilled water systems and medium sized DX units. Despite the mild climate, cooling is used on campus as a means of dehumidification.

Heating & Cooling Summary Table

Building Name	Heating Equipment	Cooling Equipment	Domestic Hot Water	
Apartment A	Boiler Radiant Heat, Open and Close Solenoid Valve, 1 Boiler in Each	No	Electric	
Apartment B	Boiler Radiant Heat, Open and Close Solenoid Valve, 1 Boiler in Each	No	Electric	
Apartment C	Boiler Radiant Heat, Open and Close Solenoid Valve, 1 Boiler in Each	No	Electric	
Appel Property	Gas Furnace Forced Air	No	On Demand Electric	
AutoTech/Shipping & Rec.	Roof Top Package Unit & Gas	Limited Cooling Via Package Unit	Electric	
Aviation	Blast Furnace, Forced Air Furnace	None for Hanger, Split for Offices	Electric	
Biederman	HW off Central Steam Powerhouse	Air Cooled Scroll System	Electric	
University Center	HW VAV Boxes	Forced Air Cooling and Chiller Mix	Small Gas	
East Hall	HW Radiant off Central Steam Powerhouse	Limited Cooling in Common Areas, Split Systems	Off Central Steam Powerhouse & Summer Gas	
Facilities	Gas Furnace & Large Gas Space Heaters	Split System in Office Space	Electric	
Fine Arts	Hot Water Boilers, Forced Air Distribution	Chiller and 1 Split	On Demands & Small Electric	
Founders Hall	Package Units	Package Units	Small Gas	
GLMA / Conference Center / CA	Hot Water Boilers	Air Cooled Chillers on Roof	Off Main Boilers	
Health & Science	HW off of Central Steam Powerhouse	Air Cooled	Off Central Steam Powerhouse	
James J. Beckett	Hot Water Boilers, Little Radiant & Heat Pump Supplement	Water Cooled (Shared Heat Pump Cycle)	120,000 Btu	
Osterlin Library	HW off of Central Steam Powerhouse	Air Cooled Chiller, Partial VAV, Partial MultiZone	Electric	
Dennos Museum Center	Boilers Currently Being Replaced	Chiller Barrel w/Air Cooled Condenser	199,000 Btu	
Oleson Center	Gas Fired Package Units	DX Package Units	200,000 Btu	
Parsons (MTEC)	Heat Pump w/HW Supplement	Cooling Tower in Conjunction w/Heat Pumps	333,000 Btu	
Powerhouse	Steam Boilers	None	None	
Rajkovich Physical Education	Hot Water Boilers, Mainless AHUs, limited Perimeter	Limited DX Cooling	Off Main Boilers	
Scholars Hall	HW off Central Steam Powerhouse, AHUs and perimeter	screw compressor chiller barrel, cw	3 x Electric DHW Heaters	
Tanis	Package Units	Package Units, VVT System	Off Biederman	
West Hall	HW off Central Steam Powerhouse	100 Ton Chiller, Air Handlers have cooling coiling, Air Cooled	199,000 Btu	

General HVAC Recommendations

V-Belts on Drive Systems

When on campus a mix of standard V-Belts and notched V-Belts was observed, though an effort is currently being made to use V-Belts where possible.

Recommendation

During the next maintenance, replace the standard V-belts with notched V-belts, which slip less than traditional smooth belts on the drives. An improvement in efficiency of roughly 2% can be expected by changing to notched V-belts.



Standard V-belt



Notched V-belt

Building Automation System (BAS)

BAS Overview

Northwestern Michigan College is equipped with several BAS systems including Trane, Johnson Controls, and some local providers. Some buildings are dedicated DDC or pneumatic systems while others are a mix of the two. The combination of these systems allows most of the spaces on campus to be scheduled. Despite the lack of a common BAS front end, the maintenance staff has been very proactive as far as scheduling the buildings on campus with the exceptions of East and West Halls. There is no current justification to install a common front end given the number of buildings maintained by the school; however, there are opportunities to expand the existing systems.

The table below summarizes the suggested changes required to effectively control the HVAC systems on the campus. If a building has unique properties, it will be covered in the *Specific Building Recommendations* section later in the report.

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BAS Recommendations Summary Table

Building	Existing Controls	Add System, Network, or Recommission	EMS Notes
Apartment A	No	No	Cost Prohibitive to Control, No AC, Central Heating
Apartment B	No	No	Cost Prohibitive to Control, No AC, Central Heating
Apartment C	No	No	Cost Prohibitive to Control, No AC, Central Heating
Appel Property	No	No	Cost Prohibitive to Control
AutoTech/Shipping & Rec.	Yes	No	On Existing Programmable Tstat
Aviation	No	Yes	Add Programmable Tstats in Office and Hallways
Biederman	Yes	Yes	Older Johnson Control, VAV, Pneumatics
University Center	Partial	Yes	Some DDC, Some Pneumatics, No Night setbacks
East Hall	Yes	Yes	Not Scheduled, Unbalanced Heating in Zones, Needs Recommissioning
Facilities	No	Yes	Add Programmable Tstats in Office & Schedule Tstat in Supply/Shop Area
Fine Arts	Yes	No	Fully Automated, Aggressively Scheduled
Founders Hall	Yes	No	Existing Programmable Stats Are Set Correctly
GLMA / Conference Center / CA	Yes	Yes	Manually Staging Boilers Currently, Recommission, Add Static Pressure Reset
Health & Science	Yes	Yes	Will Rework VFD and Phoenix Exhaust System
James J. Beckett	Yes	No	Fully Automated, Aggressively Scheduled
Osterlin Library	Yes	Yes	Upstairs Has Pressure Issues, Needs Recommissioning
Dennos Museum Center	Yes	Yes	Some DDC, Some Failing Pneumatics
Oleson Center	Yes	No	Fully Automated, Aggressively Scheduled
Parsons (MTEC)	Yes	No	
Powerhouse	Yes	No	Excellently Maintained and Scheduled
Rajkovich Physical Education	No	Yes	Existing Pneumatics, Not on BAS
Scholars Hall	Yes	Yes	Antiquated Pneumatics
Tanis	Yes	Yes	Current VVT System, Needs Complete Renovation
West Hall	Yes	Yes	Not Scheduled

General BAS Recommendations

Several spaces have deviated from their initially designed engineering specifications. This is a result of both equipment replacement and repair as well as typical controls aging that is to be expected with many of the pneumatic systems that are in place at Northwestern Community College.

Recommendation

Standard mechanical retro-commissioning of these buildings should include the necessary practices to ensure a system is operating at the designed engineering specifications. Some examples of common retro-commissioning practices include actuator and damper repair or replacement and a system air balance. In some instances, retro-commissioning alone cannot fully meet the ever changing conditions of a space and so equipment replacements and upgrades should be considered as part of a capital planning budget. The following table reflects some of the general opportunities available for such projects. A specific example of retro-commissioning includes setting the minimum outside air damper position in the Fine Arts building down to zero since some of the air handlers are controlled by CO₂.

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General BAS Recommendations Table

Building	Recommissioning Cost	Pneumatic Conversion Cost	Total Cost	Savings	Payback
Biederman	\$17,200	\$93,400	\$116,600	\$7,932	14.7
University Center (Basement & Main Floor of South Wing)	\$34,900	\$130,100	\$179,000	\$20,092	8.9
East Hall	\$18,000	\$0	\$31,000	\$8,059	3.8
Dennos Museum Center	\$17,900	\$75,500	\$93,400	\$6,374	14.7
Fine Arts	\$7,800	\$0	\$9,800	\$1,196	8.2
Scholars Hall	\$22,500	\$148,300	\$170,800	\$11,824	14.4
Osterlin Library	\$18,300	\$24,800	\$48,100	\$9,123	5.3
West Hall	\$20,400	\$0	\$30,400	\$8,070	3.8
Total	\$157,000	\$472,100	\$679,100	\$72,670	9.3

Specific Building Comments

Health & Science Building

The Health & Science Building is served by one large air handler unit equipped with (2) 40 hp supply motors which are outfitted with inlet guide vanes which account for 55,760 CFM at maximum capacity. Cooling is provided by air cooled units on the roof and heating is provided by HW exchanged from the central steam plant.

An estimated 80% of the usable space in the building is for lab purposes and so 100% makeup air is used to meet air quality standards. The lab exhaust hoods are controlled by a Phoenix exhaust system which controls two of the three exhaust fans in the building. These exhaust fans are each connected to VSDs and were never commissioned correctly since their installation around the year 2000. The VSDs run constantly at 60 Hz, indicating the demand based controls are not functioning as intended.

The building is served by a series of VAV boxes with hot water reheats. Currently, there are several boxes that require hot water to be circulated through them in the summer time to combat unbalanced cooling loads throughout the building.

The maintenance staff reduces the amount of air circulated through the building by manually shutting down one of the lab exhaust fans at night, on weekends, and on holidays; however this is far from an ideal solution.

Recommendation

Install VSDs on the supply fans and fully commission the entire building with special emphasis on the Phoenix exhaust controls. A VSD slows the motor speed down when full load speed is not required. Because most motors are oversized when installed, the VSD "right sizes" the motor load and reduces energy. An example would be when full fan speed is not needed in a vacant classroom. Energy costs and motor heat are reduced and motor life is extended.

The savings per motor is significant because power is the cube of the fan speed. For example, an AHU fan motor connected to a VSD with its speed reduced by 20% will use 50% less energy compared to the motor running at full speed.

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Instead of shutting off one of the exhaust fans entirely, allow the system to run in a completely automated mode and reduce the number of air changes in the building during unoccupied times. The expected cost to resolve the issues in the Health & Science building is \$91,610. This will provide an anticipated annual savings of \$22,564.

Rajkovich Physical Education

The Rajkovich Physical Education_building is served by two 800,000 Btu boilers which provide hot water to the building for both HVAC and DHW purposes. The primary distribution of air is through two AHUs, one of which accounts for the majority of the usage as it heats the gymnasium. The building is not air conditioned by any central system; however there are two cooling only RTUs that each service small fitness areas. The field equipment in this building is all pneumatically controlled and the building is not on the central BAS.

Recommendation

Given the age of the existing systems, it is advised that improvements be broken up into marginal near future upgrades and long term capital improvements.

- In the near future, the best opportunities that exist are the installation of VSDs on the supply and return motors for the large gymnasium AHU and the addition of setback capable low voltage thermostats on the cooling systems, which will be discussed later in this report. The installation of VSDs is estimated to be \$14,030 and will provide an annual electricity savings of \$3,250.
- 2. For future capital planning, it is recommended that the pneumatics in the PE Building be converted to DDC and be properly commissioned. Since the building is not on the BAS it can only be manually scheduled, which creates an opportunity for much more aggressive setback periods. However, the scope of the project is extensive and energy savings alone cannot significantly offset the cost of the renovation. The cost of this project is estimated to be as much as \$207,000 and will only yield \$2,500 dollars in annual savings from fully scheduling this building.

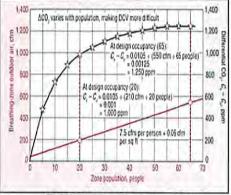
Museum

The museum is currently served by three (cooling only) AHUs that receive chilled water from an air cooled system. Heating is provided to the building via hot water VAV reheat boxes. Due to the nature of the contents of the museum, relative humidity is kept between 30-50% year round. This requires sub-cooling the makeup air coming into the building to drive out moisture, then reheating it

to more acceptable room conditions. In order to accomplish this, the museum is currently running its hot water boilers even in the summer time.

Recommendations

As with the PE Building, there are sources of savings for the museum that are more immediate than long term. The pneumatic to DDC conversion along with building retrocommissioning has been accounted for in the *General BAS Recommendations Table* earlier in this report. The more immediate sources of opportunity at this building are as follows:

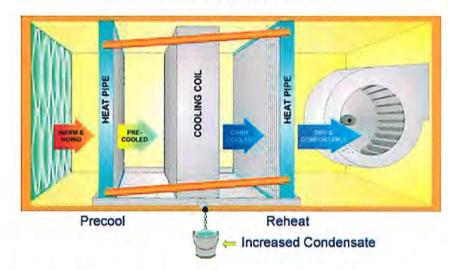


DCV Strategy Implementation

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- 1. Implement Demand Control Ventilation strategies within the HVAC equipment serving the auditorium in the Museum. Demand Control Ventilation (DCV) can reduce the cost of operating an HVAC system by matching the (unconditioned) outdoor air intake to the actual needs of the space. ASHRAE standard 62.1 allows for the use of Carbon Dioxide (CO₂) sensors to evaluate the space need and then to reset the outside air dampers using a building's automation system. We recommend that sensors be installed and programming put in place to implement this strategy.
- 2. Outfit the supply and return fans on each of the three AHUs with VFDs.
- 3. Install heat pipes around the cooling coils of the three AHUs. ¹Heat pipes may be described as having two sections: pre-cool and reheat. The first section is located in the incoming air stream. When warm air passes over the heat pipes, the refrigerant vaporizes, carrying heat to the second section of heat pipes, placed downstream. Because some heat has been removed from the air before encountering the evaporator coil, the incoming air stream section is called the pre-cool heat pipe.

Air passing through the evaporator coil is assisted to a lower temperature, resulting in greater condensate removal. The "overcooled" air is then reheated to a comfortable temperature by the reheat heat pipe section, using the heat transferred from the pre-cool heat pipe. This entire process of precool and reheat is accomplished with no additional energy use. The result is an air conditioning system with the ability to remove 50 to 100% more moisture than regular systems.



Typical Heat Pipe Operation

The estimated cost to incorporate all the above mentioned improvements in the museum is \$95,000 which provides an annual savings of \$22,000.

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GLMA (Great Lakes Campus)

The Great Lakes Campus is currently equipped with six staged boilers which provide both DHW and HW for the forced air system. Air conditioning is provided by air cooled chillers. In 2009, the controls for the boiler ceased to function properly and so the Northwestern Michigan College staff has been manually controlling them each day. Additionally, the staff manually changes the static duct pressure depending on the season.

Recommendation

Repair the controls for the staged boilers and automate the static duct pressure as a first stage building retro-commissioning project to more effectively control the dynamic environment of the GLMA. There will most likely be a significant improvement from these changes alone that will help to isolate future savings opportunities. The estimated cost to implement this project is \$22,400 with a potential annual savings of \$4,900.

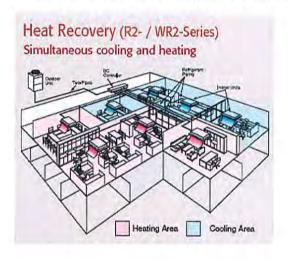
Tanis Building

The Tanis Building is currently served by two new heating and cooling package units. The older units were replaced due to complete failure. Distribution to the office spaces is via a Variable Velocity Terminal (VVT) system of which the controls algorithm is based on a voting principle. For example, if there are three rooms on a common circuit where two rooms call for heating and one room calls for cooling, then all three rooms will receive heating, overheating the one space.

Recommendation

Dramatically improve the occupant comfort within the building by installing a variable refrigerant flow system such as the Mitsubishi City Multi Units. Energy savings alone cannot justify the cost of installing the City Multi Units and so this project should be considered as part of a capital improvement should the building be renovated in the near future. The estimated annual savings with the new technology is conservatively estimated to be \$2,000. The estimated cost to implement the solution for 50 spaces is \$350,000.

The City Multi Units provide excellent individual space comfort with the added ability to heat and cool various spaces at the same time from one common running condensing unit. To further improve system efficiency, one space can be heated or cooled from heat energy recovered from another zone in the same system. City Multi Units are ductless and operate entirely with small refrigeration lines typical of any outdoor split system, and are not unlike what you may see at home. This system has outdoor compressor units that can serve up to 50 indoor units (see drawing below).



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Outdoor Unit

The indoor units come equipped with their own programmable thermostats. This energy efficient system eliminates the need for boilers, chillers and pumps. It also eliminates the need for large ductwork and large air handler rooms, making it a cost effective option for upgrading older buildings. The indoor units come in various mounting arrangements including, ceiling mounted, wall mounted and floor mounted (see pictures below). There are other options for flush mounted units when completely renovating a space.



City Multi Units offer variable refrigerant flow zoning which allows the system compressor to vary its speed according to the load demand from the served space. All the units can be scheduled independently and monitored remotely via a networked PC on the same platform as the BAS system.

City Multi Units are ideal for renovation in older brick buildings that do not have the physical structure to cost effectively run ductwork throughout the building. The system modular design facilitates future expansion by simply adding more outside condensers and tying into the original controls network.

More information on this technology can be reviewed at: http://www.mehvac.com/products/technology.asp?TechnologyID=628295

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Domestic Hot Water Boilers

There are multiple gas-fired hot water heaters and boilers for DHW on the Northwestern Michigan College campus (see Heating & Cooling Summary Table above). Some of the larger units provide hot water 24 hours a day when the demand is not always there.

Intellidyne Boiler Controllers

Intellidyne is an energy management control device for hot water generating equipment that monitors system load and delays boiler firing under low load conditions, essentially adding accuracy and intelligence to less than accurate thermostats that come with the boilers.

Intellidyne was independently tested by New York State (NYSERDA) at the Tarrytown, NY Marriott. It reduced boiler cycling by 34% and reduced natural gas use by 12% during the test (some end users report a 24% reduction in gas use). This product could reduce gas costs as much as 10-20% without compromising system performance.



http://www.intellidynellc.com/

Recommendation

Install Intellidyne controls on the boilers in the buildings listed below.

Intellidyne Boiler Controls Table

Building	Domestic HW Heater Size	Estimated Annual Savings	Estimated Project Cost	Simple Paybackin Years
Parsons (MTEC)	333,000 Btu	\$166	\$975	5.9
Oleson	200,000 Btu	\$88	\$975	11.0
West Hall	199,000 Btu	\$200	\$975	4.9
East Hall	199,900, Btu	\$171	\$975	5.7
Total		\$626	\$3,900	6.2

Small Split Systems and Single Zone Unit

There are several areas on campus with smaller HVAC systems. There is no means of scheduling or setting back temperatures in these buildings, so the heating and cooling units can run 24/7 unless manually changed by local thermostats. Adding these systems to the recommended BAS structure would be cost prohibitive.

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Lightstat

Recommendations

We recommend that these smaller systems be equipped with the Lightstat in conjunction with a lighting occupancy sensor, or a simple programmable thermostat if the building is always occupied such as the security offices. The Lightstat is preprogrammed to set back HVAC when the lighting is off (it can be programmed for different light levels depending on the location of the existing stat).

Lightstat Recommendation Table

Building	Light Stats	Heating Savings	Cooling Savings	Savings Total	Project Cost	Payback
Aviation	2	\$165	\$35	\$200	\$1,310	6.6
Facilities Office	1	\$271	\$18	\$289	\$850	2.9
Total	3	\$436	\$53	\$489	\$2,160	4.4

Note: When the audit team was on site it was observed that some spaces, such as the warehouse area of the facilities building, were equipped with programmable thermostats. However, they were not set correctly. Savings for these units were not claimed for this report because the space is not cooled, but winter savings for a large volume of air like this would be around \$400.

Lighting

General Overview

The lighting at Northwestern Michigan College consists mostly of T8 and T5 linear fluorescent lamp fixtures with electronic ballasts. There are T12 linear fluorescent fixtures with magnetic ballasts and incandescent lamps in a small number of buildings. The Exit Signs being used throughout the campus have either been replaced or retrofitted with LED replacement lamps. There are a number of occupancy sensors in use throughout the buildings in spaces such as offices, classes, etc. as well as corridors and stairwells. The maintenance staff has been very pro-active in replacing energy inefficient lighting with newer high efficiency lamps and ballasts. Several buildings also have EMS systems in place with on/off scheduling for the lighting.

Lighting Technology Update

The following is an overview of current lighting technology that will be recommend in this report.

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CFL

Compact fluorescent lamps are now in the mainstream with excellent color rendering, new coating technologies and less mercury to dispose of once the lamp is replaced. Additional benefits include:

- Besides saving energy, these lamps are instant on and last 8,000 to 25,000 hours, depending
 on the lamp specified (compared to the A lamps currently used that last 1,000 hours).
- CFLs come in a wide variety of shapes and colors (referred to as color temperature in degrees Kelvin). Color temperatures are available from a very warm 2,700 K, which is the same as incandescent lamps, to a very blue 5,100 K.
- CFLs can be specified for dimmable applications or in 3 way where needed.
- For CFL lamps we recommend either Literonics (http://www.litetronics.com/) or TCP (http://www.tcpi.com/corp/corporateHome.aspx). Also, large companies like Phillips, Sylvania and GE may have some other options and should be evaluated as well.

Fluorescent Lamps Ballasts - Why Convert to Electronic from Magnetic?

This section will explain some of the justification for retrofitting T12 linear fluorescent lamps with magnetic ballasts to a T8 system with electronic ballasts.

Ballast flicker

- A Magnetic ballasts operate at 60Hz (cycles per second), the frequency of the AC voltage
 they run on. This means that each lamp switches on and off 120 times per second, resulting
 in a barely perceptible flicker and a noticeable hum (sounding like a buzzing low 'A' note on
 a piano).
 - O About 25% of the population is sensitive to magnetic ballast flicker and hum and actually can become physically ill, with symptoms such as headaches, nausea, itching and burning eyes, tension, eye fatigue, and general fatigue.
 - Operating at 60Hz, magnetic ballasts may cause a stroboscopic effect with any machinery which has parts, such as pulleys or gears, running at speeds that are a multiple of 60Hz. The stroboscopic effect will cause the machine to appear motionless, which could be a hazard.
- Electronic ballasts work on high frequency, around 25,000 Hz, which eliminates bothersome
 flicker and hum and improves the work or classroom environment.

Linear Fluorescent Lamp Lumen Depreciation

Lumen depreciation is the amount lumen output is decreased over the life of the lamp. A major advantage of converting to high efficiency T8 lamp systems is they only lose 5% to 10% of light output (lumen depreciation) over their life expectancy compared to a T12's typical 30% lumen deprecation. As a result, normal failures will tend to be close together for future re-lamping purposes.

Fifth Generation Linear Fluorescent Lamps

Fifth generation reduced-wattage T8 Lamps are designed to replace the old 34 W/T12 lamps in fluorescent luminaire retrofits where standard 32 W/T8 lamps would provide more light than is needed. They are available in 25, 28 and 30 W models and, in a majority of the cases, can replace the original 32 W lamps without noticeable effect.

- Potentially 24% lower energy consumption than standard 32 W/T8, but lumens are reduced only 6%
- Have longer life than standard T8 lamps (as much as 40,000 hours quoted from some manufacturers)

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General Lighting Recommendations

T8 Replacements

Replace current T8 lamps with reduced wattage Fifth Generation lamps (the existing ballasts do not need to be replaced). Mock up several rooms with both 25W and 28W lamps and allow the students and staff to experience the lighting prior to deciding on the final lamp. These replacements should be part of a group re-lamping when the current T8's light output has depreciated to unacceptable levels or when maintenance is starting to replace multiple lamps. Because the original lamps were installed at the same time, they will fail around the same time.

We registered high lighting levels in various areas throughout the campus. Classrooms were typically over 50 fc (foot candle). IESNA (Illuminating Engineers Society of North America) lighting level guidelines for classrooms is no less than 30 fc and no more than 70 fc at any desk. For AV mode, the guideline is 10 fc at any desk.

The bottom line is to conduct mockups of rooms and get feedback from teachers and students. Frequently, the higher foot candle is not the preferred level. Because of the current high fc readings, we do not expect any problems with 28 W T8 lamps so they will be the basis for savings calculations. Below is a chart of random foot candle readings taken on campuses.

Foot Candle Readings

Building	Room	Foot Candles (fc)	Height (ft)	Fixture
Auto-Tech	Classroom	85	- 8	2x4, 3L, T8
Auto-Tech	Warehouse	43	22	400W MH
Aviation	Hangar	44	22	400W MH
	1st Classrooms (6)	66	10	2x4, 3L, T8 PB
Beckettt	1st Kitchen/Work Rm	69	10	2x4, 3L, T8 VO
	2nd Computer Rms (5)	39	10	8'IND4Lx4'-T8 Total
Disalesanas	Office 1st Fir	68	8	2x4-2L-T5HO
Biederman	Open Office 1st Fir	55	8	2x4-2L-T5HO
	Breakroom	94	8	2x4, 4L, T8
CWat	Offices (7)	65	8	2x4, 4L, T8
Facilities	Open Office Area	56	8	2x4, 4L, T8
	Warehouse	58	25	400W HPS
Great Lakes	Classroom 211	97	10	8'IND6Lx4'-T8
lealth/Science	Classroom	73	10	8'IND6Lx4'-T8
	Classrooms (11)	64	10	2x4-2L-T5HO
MTox	Corridors	39	20	250W MH
M-Tec	Machine Rm 151	79	1422	400W MH
La Pallina	Shop Rm 157	79	1422	400W MH
	2nd Fir Classrooms (4)	38	10	2x4, 2L, T8
Osterlin	2nd Fir Conf Rm	39	10	1x4, 1L, T8 Cont.
Osteriin	Book Stack Area	33	10	1x4, 1L, T8 Cont.
	Open Office Areas	55	10	12W LED RC
	1st Classrooms (7)	80	10	2x4-2L-T5HO
Scholars Hall	1st Lounge	87	8	2x4-2L-T5
	2nd Lecture Rm	48	816	2x4-2L-T5
University Ctr.	Bsmt Corridors	87	8	2x4, 4L, T8

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A number of buildings use a mixture of T5 28Watt and 54Watt lamps. It is suggested that the T5 54Watt fixtures be converted to the 28Watt T5 lamps and ballasts as they begin to fail to streamline the ordering and maintenance process while still maintaining IESNA lighting levels and saving up to 50% in additional utility savings.

T12 to T8 Retrofits

Replace any T12 lamps and magnetic ballasts with newer T8, 28 Watt lamps and electronic ballasts.

Incandescent Lamps

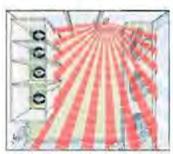
Replace any existing incandescent lamps in the dorm rooms, offices, restrooms and mechanical/storage areas with CFLs.

Lighting Occupancy Sensors

As mentioned earlier, a number of lighting occupancy sensors have been used throughout the campus in areas such as classrooms, offices, restrooms, corridors and stairwells. There are still many spaces that would benefit from adding additional wall switch and/or ceiling mounted occupancy sensors.

Recommendation

- Add lighting occupancy sensors to spaces that have intermittent occupancy such as classrooms, labs, meetings rooms, offices, exercise rooms, bathrooms and "back of the house" spaces.
- 2. It is recommended that dual technology occupancy sensors that respond to both movement and noise (infrared and ultrasonic) be installed so there is little chance of accidentally turning the lights off in occupied spaces. The picture at right shows how a dual technology occupancy sensor can hear behind stall doors while seeing movement and/or heat in the remainder of the space.



Bathrooms (WSD-PDT-V)

- · Senses partitioned spaces
- Most inexpensive sensor approach
- Voice sound activation prevents lights out condition.

Dual technology sensors make the installations "bullet proof" for any space type and ensure that lights are always on when needed. They are not appropriate for mechanical spaces such as the electrical room. Twist timers are a cost effective alternative for janitor's closets or other small, infrequently used spaces.

- Develop an inventory of all occupancy sensors and test each one for performance during the summer break.
 - Have the appropriate staff member(s) trained by the manufacturer to do maintenance on the units.

Exit Signs

All exit signs currently use LED technology.

Exterior Pole Lamps

All site poles are currently HPS. The campus is investigating upgrading these fixtures to LED and has ordered 4 sample fixtures to be installed for testing purposes. Another option for upgrading

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these fixtures using induction fluorescent technology has been incorporated in this proposal for comparison.

Light fixture run hours used for analysis

- Administration: Based on a run time of 10 hours per day for 250 days per year.
- Academic: Based on a run time of 13.2 hours per day for 250 days per year.
- Mechanical spaces: Based on a run time of 3 hours per day for 300 days per year.
- Library: Based on a run time of 13.2 hours per day for 250 days per year.
- Resident Halls: Based on a run time of 18 hours per day 250 days per year.

Specific Building Observations and Recommendations

Osterlin Library, Scholars Hall, Health & Science Bldg, and M-TEC

These buildings all have lobby or vestibule lighting that is exposed to significant daylight throughout any given day. Fixtures used in these areas are on nearly all the time and include fixture types such as 4-lamp T8 indirect to 400W MH floods. The use of a daylight control such as a programmable daylight sensor and contactor combination is recommended to reduce the duty cycle of these fixtures significantly. Such a device is currently in use in the atrium of West Hall.





Rajkovich P.E. Bldg.

This building houses the gym and fitness center. It is unclear at this time if the building will be remodeled or replaced, according to staff. Lighting over the gym floor consists of (25) 400W MH high bay fixtures that are operational. There are an additional (11) 400W HPS fixtures still hanging but not in operation that should be removed. These fixtures should be replaced with a 6 lamp T8 HO high bay linear fluorescent fixture with cage, reducing energy consumption by more than 50% percent and improving color rendering and uniformity across the gym floor without the harsh glare that exists now. Other benefits of using this type of fixture include zero re-strike time should power service be interrupted.



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M-TEC, Facilities, Aviation, Great Lakes Bldg., and Auto-Tech

These buildings all use a variation of the above mentioned 400W MH or HPS high bay fixtures in classrooms, garages, and aircraft hangars that would also benefit from being replaced by the 6 lamp T8 HO high bay linear fluorescent fixture. Most of these areas are used for detailed mechanical and machine work applications which require a certain degree of detail to be noticeable, such as small parts or workmanship defects. These new fluorescent high bay fixtures will significantly improve the quality of lighting conditions in these spaces to perform this level of detailed work more efficiently.







Apartments

There are (3) three story apartment buildings on campus that utilize several 60 watt incandescent globe ceiling fixtures in each unit. It is recommended that these fixtures be replaced with new CFL ceiling fixtures for energy and maintenance savings. These fixtures would also update the look of the units.





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Health & Science, Oleson, Dennos, and Great Lakes Bldg.

These buildings all utilize various fixtures with MR16 50 watt halogen lamps for track and recessed lighting. Replace with 5 watt MR16 LED which provides significant energy savings as well as 50,000 hr lamp life, reducing maintenance costs.





The following tables provide a project savings analysis and the buildings involved. We assumed outside labor for replacing fixtures, new ballasts, etc. and no outside labor for screw in lamps. These numbers are good for budgeting purpose only and are not based on detailed counts or firm product pricing.

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Lighting Retrofit Project Descriptions & Benefits

Lighting Project Number	Lighting Project	Existing	Proposed	Benefits
L1.2	T8 to High Efficiency or "Super" T8	Any Fluorescent luminaires with existing electronic ballasts and 4'T8 32W lamps	Relamp and clean existing luminaires using new high efficiency 28W or 25W T8 lamps and existing electronic ballasts and fixture.	Energy savings, Maintenance savings on longer life equipment, improved or maintained light levels and appearance, New lighting components with w arranties.
L1.3	T12 to T8 Lamp and Ballast	Any Fluorescent luminaires with magnetic ballasts and T12 lamps (2',3',4',8' or u-bents)	Retrofit and clean existing luminaires using new high efficiency electronic ballasts and new T8 lamps	Energy savings, Maintenance savings on longer life equipment, improved or maintained light levels, improved color rendering and lumen depreciation and better space aesthetic appearance, New lighting components with warranties.
L1.4	T12 to T8 Retrofit Delamp	Any Fluorescent luminaires with magnetic ballasts and more than two 4T12 lamps	Retrofit and clean existing luminaires using new high efficiency electronic ballasts and new 28w or 25w T8 lamps. Delamp the fixture from 3 or 4 iamps down to 2 lamps with a customized specular reflector kit with new brackets and lamp sockets.	Energy savings, Maintenance savings on longer life equipment, improved or maintained light levels, improved color rendering and lumen depreciation and better space aesthetic appearance, New lighting components with warranties, Brand new "Internal guts"
L1.9	T12 to T8 Conversion Kit	Any Fluorescent luminaires with magnetic ballasts and T12 lamps (2',3',4',8' or u-bents)	Retrofit and clean existing luminaires using new high efficiency electronic ballasts and new T8 lamps and ballast and conversion kit with new brackets and lamp sockets.	Energy savings, Maintenance savings on longer life equipment, improved or maintained light levels, improved color rendering and lumen depreciation and better space aesthetic appearance, New lighting fixture and components with warranties.
L2.0	CFL Hardwire	Incandescent Fixtures	Retrofit or replace with fixtures having electronic ballasts and hardwired CFL lamps (compact fluorescent lamps)	Energy Savings, Maintenance savings on longer life equipment, Longer life lamps (10,000 hours versus 1500 hours), New lighting components with warranties, New fixtures.
L2.2	CFL Screw-in	Incandescent Fixtures	Retrofit with screw-in replacement CFL lamps (compact fluorescent lamps)	Energy Savings, Maintenance savings on longer life equipment, Longer life lamps (10,000 hours versus 1500 hours).
L3.0	Wall Mounted Occupancy Sensor	Standard toggle wall switch	New dual technology with passive infrared and ultrasonic wall switch with occupancy detection and automatic shutoff after a preset timeout	Energy savings by reducing the run time of light fixtures when there is no occupancy.
L3.1	Ceiling Mounted Occupancy Sensor	Standard toggle wall switch with wall or partition obstructions	New dual technology with passive infrared and ultrasonic ceiling sensor with occupancy detection and automatic shutoff after a preset timeout	Energy savings by reducing the run time of light fixtures when there is no occupancy.
L3.2	Lighting Controls	All Fixtures, especially outdoor lighting	Install a lighting control panel to be integrated with the HVAC EMS system to shut off lights during unoccupied times and control outdoor lighting signage on a more rigid time schedule	Energy Savings, Eliminate and remove old mechanical time clocks, Better control over outdoor lighting by eliminating inaccurate mechanical time clocks thus reducing maintenance costs for resetting time clocks due to power outages, daylight savings and cha
L4.0	Exit Signs	Exit signs with incandescent lamps	Replace with new LED exit signs with battery backup	Energy Savings, Maintenance savings on longer life equipment, Longer life lamps (100,000 hours versus 1500 hours).
L5.0	New T8 Fixture	Incandescent or T12 Fixtures	New T8 wall vanity fixture	Energy savings, Improved or maintained light levels, Improved color rendering and luman depreciation and better space aesthetic appearance, New lighting components with warranties.
L5.2	New T-8 High-Bay Fixture	HID Metal Halide or High pressure Sodium Fixtures	Replace with new high efficiency T8 High-Bay fixtures having high power electronic ballasts and up to 6 - T8 lamps and customized specular reflector, power cord whip, and cable hangers.	Energy savings, Improved or maintained light levels, Improved color rendering and luman depreciation and better space aesthetic appearance, New lighting components with warranties.
L6.0	New HPS or MH Wall Pack	Incandescent, Mercury Vapor, or Quartz Fixture	New MH Flood or Wall pack	Energy savings, Improved or maintained light levels, Improved color rendering and luman depreciation and better space aesthetic appearance, New lighting components with warranties.
L6.1	New Induction Fixture	HID Metal Halide or High pressure Sodium Fixtures	Replace with new high efficiency induction fixtures having generators, phosphorus lamps, an electromagnetic inducer and customized specular reflector, power cord whip, and mounting hardware.	Energy savings, Improved or maintained light levels, improved color rendering and lumen depreciation and better space aesthetic appearance, Maintenance savings on longer life equipment, Longer life lamps (100,000 hours versus 1500 hours), New lighting com
L9.0	LED Lamps	incandescent or Halogen lamps.	Replace with new LED lamp.	Energy savings, improved or maintained light levels, improved color rendering and lumen depreciation and better space aesthetic appearance, Maintenance savings on longer life equipment, Longer life lamps (25,000 - 45,000 hours versus 4000 hours), New ligh

There are two tables – one representing lighting projects with paybacks of less than 7.5 years and the second representing projects with paybacks greater than 7.5 years. The longer payback projects generally involve entire fixture replacements where there is no energy efficient retrofit option. These projects would be good to implement when the buildings are renovated.

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Lighting Retrofit Summary Table ≤ 7.5 Year Payback

Lighting Project ID	Building	Retrofit Quantity	Estimated kWh Savings	Estimated Cost Savings	Estimated Cost	Estimated Rebate	Simple Payback in Years
L1.3	Fine Arts, Osterlin, Biederman, Health/Science, Apartments, Aviation, Scholars Hall, PE Bldg, East Hall, West Hall, M-Tec, Dennos, Great Lakes	517	78,436	\$5,804	\$41,500	\$6,092	6.1
L1.4	Osterlin, Biederman, Facilities, Aviation, Auto-Tech, University Ctr., Beckett, PE Bldg, East Hall, West Hall, M-Tec, Dennos, Great Lakes	339	58,391	\$4,321	\$36,058	\$6,444	6.9
L1.9	Osterlin, Auto-Tech	27	4,505	\$333	\$2,452	\$342	6.3
L2.2	Fine Arts, Pow er House, Tanis, Biederman, Apartments, Oleson, PE Bidg, Dennos, Great Lakes	226	84,490	\$6,252	\$15,649	\$918	2.4
L3.0	Fine Arts, Pow er House, Osterlin, Tanis, Biederman, Health/Science, Facilities, Apartments, Aviation, Auto- Tech, University Ctr., Founders Hall, Scholars Hall, Beckett, PE Bldg, East Hall, West Hall, M-Tec, Dennos	534	102,485	\$7,584	\$66,868	\$10,680	7.4
L3.2	Osterlin, Health/Science, M-Tec, Scholars Hall	5	35,625	\$2,636	\$8,323	\$0	3.2
L4.0	Fine Arts	2	666	\$49	\$181	\$25	3.2
L5.2	Facilities, Aviation, Auto-Tech, PE Bldg, M-Tec, Great Lakes	177	156,774	\$11,601	\$101,031	\$13,275	7.6
L6.0	Fine Arts	9	5,108	\$378	\$3,151	\$0	8.3
Total	791 791 4 595	1,836	526,481	\$38,960	\$275,213	\$37,776	6.1

Lighting Retrofit Summary Table > 7.5 Year Payback

Lighting Project ID	Building	Retrofit Quantity	Estimated kWh Savings	Estimated Cost Savings	Estimated Cost	Estimated Rebate	Simple Payback in Years
L1.2	Fine Arts, Power House, Osterlin, Tanis, Biederman, Health/Science, Facilities, Aviation, Auto-Tech, University Ctr., Founders Hall, Scholars Hall, Oleson, Beckett, PE Bldg, East Hall, West Hall, M-Tec, Dennos, Great Lakes	3,589	107,038	\$7,921	\$89,182	\$7,589	10.3
L2.0	Apartments, East Hall	292	17,190	\$1,272	\$47,666	\$6,424	32.4
L3.1	Fine Arts, Osterlin, Facilities	6	1,152	\$85	\$1,749	\$120	19.1
L5.0	Osterlin	16	2,523	\$187	\$2,240	\$112	11.4
L6.1	Campus	150	72,900	\$5,395	\$96,195	\$6,750	16.6
L9.0	Health/Science, Oleson, Dennos, Great Lakes	112	15,260	\$1,129	\$11,987	\$0	10.6
Total		4,165	216,062	\$15,989	\$249,018	\$20,995	14.3

Lighting Maintenance

CFL, CCCFL and LED technologies are allowing building owners to improve light quality while significantly reducing energy costs. But, unlike the incandescent lamps found throughout the campus, the new technology lamps have a longer life expectancy. The old mindset - change lamps when they burn out - can be a costly error when used with the new technology lamps.

All new technology lamps have a warranty period from one to three years. But there is frequently no inventory of where the lamps should be installed, where they are installed or the date when a lamp is installed into a fixture.

Recommendation

With old incandescent lamps costing \$0.25 there was no warranty and little concern for the replacement cost. With today's technology lamps, and some LED lamps costing as much as \$60, a more rigorous inventory control and installation monitoring system should be employed. Today's technology lighting has electronic components and a small percentage of failures are expected in any given population of lamps within the first year or two, which is why the products have warranties and incandescent lamps do not. A simple inventory system that includes writing the installation date on the lamp's base should be sufficient.

Water Conservation

During the audit, several staff bathroom faucets were identified with 2.0-2.2 GPM aerators. It is estimated that there are roughly 200 aerators that need to be changed out across campus.

Recommendation

Replace the existing aerators with low flow 0.5 GPM aerators. The expected annual savings for this project is \$820. \$2,000 has been allocated for this project throughout the campus and yields a 2.4 year payback. The payback will improve if in house personnel install the aerators.

Dining Facility

Kitchen Exhaust Hoods

There are three dining/cooking facilities at Northwestern Michigan located in the Great Lakes Campus, Oleson Center, and West Hall.

The exhaust systems of the Great Lakes facility are supplied by eight paired MUA and exhaust systems. These 16 fans account for 79.5 hp and account for roughly 30,000 cfm (cubic feet per minute). For visualization, one cubic foot is about the size of a basketball. These motors waste large amounts of electricity when they are on for no reason (no cooking in process). Additionally, they draw conditioned air from the dining facility around the kitchen and discharge it to the atmosphere, creating additional work for the HVAC systems.

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Recommendation

It is recommended that the Melink Intelli-Hood variable speed control device, which slows the motor down when there is no cooking activity, be installed at the Great Lakes Campus Facility. Because most motors are oversized when installed, the variable speed drive (VSD) "right sizes" the motor based on its real time load. In addition to reducing energy costs, motor heat is reduced and motor life is extended.

The savings per motor is significant because power is the cube of the fan speed. For example, a fan motor connected to a VSD with its speed reduced by 20% will use 50% less energy compared to the motor running at full speed.



In a Melink system, optical and heat detecting sensors are installed to monitor the cooking activity and automatically adjust the motor speed to as low as 10% based on the amount of heat, steam or smoke present.

Melink visited Northwestern Michigan College to do a detailed study of the kitchen areas. We estimate a cost of \$189,700 to install the Intelli-Hood system. An annual savings of about \$36,080 is expected.

Walk-in Coolers and Freezers

There are nine walk-ins at Northwestern Michigan College. Most of the walk-ins have swinging air curtains behind the doors, as seen in the pictures below. When on campus, the audit team observed three units that did not have these air shields.



Curtain Doors Observed @ NWMC



Example of Typical Air Curtain Use

Additionally, the evaporator fans in each of the walk-ins appear to be powered by typical non shaded pole motors. Should this be the case, these motors can be replaced by Electronically

Commutated Motors (ECMs). ECMs are more efficient than typical induction motors and capitalize on the extended run hours of the walk-in evaporator fans.

Recommendations

- 1) Install air curtains on the three walk-in coolers and freezers without them. This will cost approximately \$1,500 and save the school \$450 in electricity.
- 2) Evaporator fans can be converted to high efficiency ECM type motors. The cost to replace 18 identified 1/20 hp motors on campus is \$7,500 and yields a 3.6 year payback with \$2,100 in annual electricity savings. Additional detail and sources for this equipment may be found at:

http://www.fishnick.com/publications/appliancereports/refrigeration/GE ECM revised.pdf.

Pre-Rinse Spray Nozzle

Three standard existing kitchen pre-rinse spray nozzles were identified as having flow rates of 1.6 gpm. A 0.70 gpm nozzle is available that passes the 22 second paste test better than most standard 1.6 gpm nozzles. This nozzle is manufactured by Bricor. Additional information can be found at http://www.bricor.com/prod.htm.

Recommendations

Install three 0.70 gpm pre-rinse spray nozzles at the dishwasher. The Food Safety Technology Pre-Rinse Spray Nozzle Calculator was used to estimate savings. Assuming three hours of operation a day, it is estimated that the kitchen will save about \$1,320 per year in natural gas and water/sewer cost.

Operational and Low Cost Opportunities

Energy Conservation/Sustainability Committee

Northwestern Michigan College does not have a firmly established energy conservation committee (aka Green Team, Sustainability Committee, etc) for the college itself. With volatile energy costs and increasing water costs forecasted, all opportunities to reduce cost should be considered. The amount that the maintenance staff can control is limited without the support of everyone on campus. Operational practices can reduce utility costs by as much as 5% (1% was estimated for this report).

Recommendation

Establish an energy conservation committee to develop a campus-wide plan to place emphasis on the importance of conservation and to educate everyone on campus.

- The committee should involve members from all staff departments, faculty and students in developing a written campus energy and water conservation policy. At monthly meetings, they should make recommendations and assess success of ongoing conservation efforts at Northwestern Michigan College.
- Look for a volunteer to become Northwestern Michigan College's energy champion and chairman of the energy committee, preferably a motivated student.
- Through the committee, develop a written energy policy specific to the campus.
- Through the committee, problems can be brought to light so not only do energy costs improve but occupant satisfaction will increase as well.

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- It is recommended that the President be present at the kick-off meeting to lend emphasis to the program.
- Tie the success of the program to the environmental impact of actions taken, such as the project impact examples in this report.

Staff/Student/Faculty Awareness

Energy conservation is the responsibility of everyone on campus, not just the facilities department. The best energy and water cost control program is only partly successful unless there is understanding and buy-in from everyone on campus.

Program Assistance

Several colleges and universities have implemented campus-wide education awareness programs that have reduced energy cost significantly. UC Berkeley, University of Buffalo and Cape Cod Community College have reported great success with these programs.

There are two organizations that, between them, have a wealth of information on campus conservation and sustainability issues. One is:



http://www.aashe.org/

The other is the U.S. Environmental Protection Agency's ENERGY STAR program. There are seven guideline steps to a successful energy management program based on best practices from experienced ENERGY STAR partners that can be found at http://www.energystar.gov/index.cfm?c=guidelines.guidelines.index.

The seven steps are:

- Make a commitment
- Assess performance
- Set goals
- Create an action plan
- Implement action plan
- Evaluate progress
- Recognize achievements

The chart below shows the process graphically. It is a process of continuous review and improvement.

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For this report, a cost of \$1,500 was estimated to fund the committee and awareness programs. It is conservatively estimated that these two programs will reduce energy and water costs a minimum of \$14,200 a year (about 1% of the total utility cost).

Controlling Office and Plug Load

Plug loads are often called "vampire" or "phantom loads" and can account for 15% or more of an office load.

Recommendations

There are several small steps to help reduce plug load drain.

- Many classrooms or offices have clocks, radios, refrigerators and microwaves and other
 electronic devices. Recommend that these units (except refrigeration) be unplugged at night
 and over the weekend. Refrigerators should be disinfected, unplugged and left with the door
 open during vacation periods.
- 2. Add timers to water coolers so they are not cooling water at night and over the weekend.
- 3. Space heaters are extremely large plug loads and even a modestly sized heater can use 1,000 Watts. Over the course of an 8 hour day that heater will use as much energy as a laptop does in a month. They can also be a fire hazard if left on in a vacant building overnight or for the weekend.

Recommend a policy banning electric space heaters. Repair and balance the heating system as the first step to removing the space heaters. If that cannot be accomplished, use alternative, personal heating devices that are safer and use much less energy than an electric space heater. Such a device is manufactured by Cozy Products http://www.cozy-products.com/cozy-legs-p-68.html. Their unit uses only 150 Watts, is safe to touch and can be purchased with a timer to automatically turn it off after the work day.

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Low energy use personal heater

- 4. Even when turned off, many pieces of office equipment continue to use energy. This phantom load can range from a few watts to as much as 40 Watts. Use power strips for office equipment and turn the equipment off at night to remove standby power use.
- 5. When purchasing replacement office, classroom or IT equipment, purchase ENERGY STAR labeled equipment. This will guarantee you will purchase equipment that has been through a process (described in the link below) to ensure recommended products meet certain efficiency standards. They provide product recommendations across 32 different categories of equipment, so a quick check before purchasing any energy using equipment would be prudent. It is estimated that controlling the plug load could conservatively save 0.5% of your electricity expenses which is equivalent to \$7,100. \$4,000 has been allocated for the purchase of timers and other small, load controlling devices.

http://www.energystar.gov/index.cfm?c=prod_development.prod_development_spec_rev)

Vending Machines

Another way to reduce the building heat load and have an impact on the energy bill is to install Vending Misers on the 50 cold drink and 30 snack machines spread across the campus.

Vending Misers add occupancy based controls to turn off lights and allow the upper portion of the storage chamber to drift up in temperature, but maintain cold temperatures at the bottom 1/3 of the machine. If someone walks up to the machine, the lights will come on and the drink retrieved will be cold.



Vending Miser



Snack Miser

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Recommendation

Install Vending Misers on the campus cold drink machines. The estimated cost is \$17,580, yielding a total savings of \$6,800 per year.

More information on this solution can be found at:

http://www.usatech.com/energy management/energy vm.php

ENERGY STAR Partner

Implementing a plan to reduce utility costs will enable Northwestern Michigan College to remain viable in the future. As the ENERGY STAR slogan says: *Money is not all you will be saving*. Linking your conservation efforts to the impact on the environment will reflect positively on the college as a responsible and forward thinking institution.

It is recommended that Northwestern Michigan College join the ENERGY STAR Partnership, as many colleges and universities have. Arizona State University, University of Miami, Broward Community College, Harvard University, and Duke University are all ENERGY STAR Partners.



Conclusion

The recommended capital and low cost/no cost projects identified in this report have the potential to reduce Northwestern Michigan College's expected annual utility costs by 17.7%, improve the utility performance metrics and increase occupant satisfaction significantly.

Thank you for the opportunity to perform this energy audit. The audit team would welcome the opportunity to assist Northwestern Michigan College in their efforts to develop a program for further reducing energy and water consumption. Energy partner recommendations or a review of any proposals received from other vendors can be provided upon request.

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Appendix N Land Inventory

Northwestern Michigan College

Property Inventory and Values

October 1, 2021

NMC Property Inventory – List of Property Values

No.	Parcel	Size	Location/Campus	Restrictions/Status	Value / Sold
Main Cam	Main Campus Property Owned - Total Value Bui	Total Value Bui	ilding and Land		\$ 90,000,000
U-5	Beery Property	3.0 Acres	Main College Campus	None / Active	
U-4	City of Traverse City	0.2 Acres	Main College Campus	None / Active	
9-N	DeBruyn Property	2.8 Acres	Main College Campus	None / Active	
U-13	Eastern Ave. Orchard	54.42 Acres	Main College Campus	None / Active	
U-12a	Francis Hotel	3.1 Acres	Main College Campus	None / Active	
U-15	Hulet Property	3.5 Acres	Main College Campus	None / Active	
U-12b	Indian Woods	City Lots 47, 48, 62-65, 83, 84	Main College Campus	None / Active	
6 - N	Judge Property	0.7 Acres	Main College Campus	None / Active	
U-7	Leveque Property	52.9 Acres	Main College Campus	None / Active	
U-10	Pharo Property	0.3 Acres	Main College Campus	None / Active	
U-2	Porter-Mulder	4.9 Acres	Main College Campus	None / Active	
U-11	Roman Property	5.9 Acres	Main College Campus	None / Active	
8-N	Sarris Property	3.0 Acres	Main College Campus	None / Active	
U-17	Shadowland Property	0.4 Acres	Main College Campus	None / Active	
U-1	Traverse City Schools	14.6 Acres	Main College Campus	Yes / Active	
U-3	Traverse City Schools	1.2 Acres	Main College Campus	None / Active	;
	MDOT Parcel at Front St/ Munson Ave Intersection	135 sq. ft.	Main College Campus	None / Active	343

No.	Parcel	Size	Location/Campus	Restrictions/Status	Value / Sold
Main Cam	Main Campus, Eastern Avenue Property Owned		- Total Value Buildings and Land	pu	\$ 3,470,000
U-14	City of Traverse City	56.7 Acres	Main College Campus	Residential / Inactive	
Aviation C	Aviation Campus Property Owned - Total Value	d - Total Value	Buildings and Land		\$13,275,000
U-18	Airport Industrial Park	City Lot 13	Aviation Campus	Industrial / Active	
U-19	Site of M-TEC	City Lots 14,15	Airport Industrial Park	Industrial / Active	
U-20	FED EX	City Lot 4	Airport Industrial Park	Industrial / Active	TTL 7.04 acres
	Aero Park Laboratories		Airport Industrial Park	Industrial / Active	5.16 acres
University	Center Campus Prope	rty Owned - To	University Center Campus Property Owned - Total Value Buildings and Land		\$ 6,000,000
	Boardman Lake	31.03 Acres	University Center Campus	Industrial / Active	
Great Lak	Great Lakes Campus Property Owned - Total Val	wned - Total Va	lue Buildings and Land		\$ 18,250,000
U-16	Maritime/Tech	8.27 Acres	Great Lakes Campus	Commercial / Active	
Observato	ry Campus Property O	wned - Total Va	Observatory Campus Property Owned - Total Value Buildings and Land		\$ 206,000
A-8 Other Coll	A-8 Lautner-Tezak Gift Other College Owned Properties	5 Acres	Observatory	Residential / Active	\$ 157,000
A-5	Appel Gift	38 Acres	Blair Twp, Grand Traverse Co	Residential / Active	
A-4	Valleau Gift	60 Acres	Mayfield Twp, Grand Traverse Co	Title dispute w/State of MI	344
A-11	Tezak Gift	81.94 Acres	Inland Twp, Benzie Co	Cannot sell until year 2017	

Appendix O FCAP Schedule

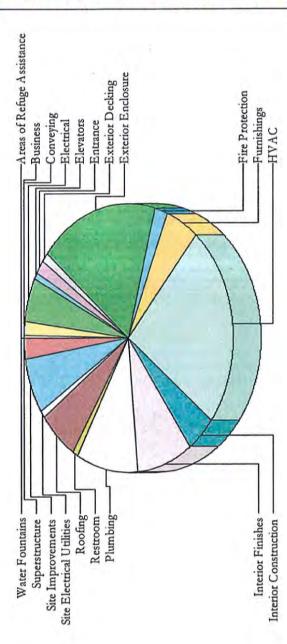
Facility Capital Action Plan (FCAP)

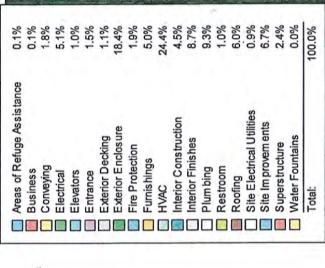
Northwestern Michigan College Traverse City 49686 W Postal Code State City

> 9/24/2014 8/17/2012 Print Date:

Date:

D.2 % COST BY BUILDING SYSTEM





Northwestern Michigan College Facilities Captial Funding Plan (Based on Sodexho Analysis)

Facility Index Range (FCI)	From	의
Excellent (E)	%0.0	2.0%
Good (G)	2.1%	2.0%
Fair (F)	5.1%	10.0%
Poor (P)	10.0%	

	Improve/	DM* -Repair/			Replacement	
Buidling Name	Function	Replace	Cyclical	Total	Value	FCI%
Dennos Museum	37,500	202,557	45,000	285,057	11,720,400	1.73%
Scholars Hall	7,050	125,988		133,038	13,772,400	0.91%
Oterlin Library		197,250	0	197,250	10,769,400	1.83%
Power House	45,000	120,900	12,000	177,900	1,909,000	6.33%
Tanis		252,750	10,050	262,800	3,523,751	7.17%
Health/Science	22,500	75,000		97,500	16,687,151	0.45%
Founders Hall		70,800	0	70,800	1,046,100	6.77%
East Hall	120,000	702,998	21,000	843,998	10,547,400	%29.9
West Hall		136,745	205,950	342,695	8,431,111	1.62%
Clock Tower	0			0	12,500	0.00%
Fine Arts	12,000	315,912	22,500	350,412	4,243,400	7.44%
Apartment A	0	271,592	61,125	332,717	1,581,900	17.17%
Apartment B	0	275,240	44,625	319,865	1,581,900	17.40%
Apartment C	28,500	179,715	51,150	259,365	1,581,900	11.36%
James J. Beckett	25,248	111,150	0	136,398	7,332,800	1.52%
Oleson Center	0	0	0	0	2,198,400	0.00%
Rajkovich Phys, Education	67,500	460,567	75,593	603,660	4,955,700	9.29%
Farm	0	0	0	0	20,900	0.00%
Facilities Maintenance	0	13,129	0	13,129	927,700	1.42%
University Center	218,250	340,185	24,750	583,185	11,866,700	2.87%
Great Lakes Campus	157,500	10,500	127,500	295,500	19,348,200	0.05%
Automotive Technology	0	43,403	143,850	187,253	2,888,300	1.50%
Rogers Observatory	174,750	154,450	0	329,200	345,100	44.76%
Aero Park				0	3,443,100	0.00%
Parsen-Stulen	0	116,569	0	116,569	13.326.000	0.87%

2,079,200 6.08%	134,900 7.23%	55,000 0.00%	0	1,639,000 0.00%	6,936,197 3.20%	164,935,510 2.79% F ALL	4,745,700		4,955,700	134,900	155,099,210 2.20% G
178,194	9,750	0	985'905	0	296,627	6,929,448	911,947	0	099'809	9,750	
51,750	0	0	271,785	0	75,000	1,243,628	156,900		75,593	0	3,405,857 1,011,135 5,404,091
126,444	9,750	0	67,500	0	221,627	4,602,721	726,547		460,567	9,750	3,405,857
0	0	0	167,301	0	0	1,083,099	28,500	0	67,500		660'286
Aviation	Appel	Athletic Fields	Campus General	Utility Tunnels	Biederman	TOTALS	Apartments- On Hold		Expenditures to Rajkovich	Appel	TOTALS

Deferred Need %	% E9
Total Deferred Need \$	3,405,857
Total Other Maintenance	1,998,234

		1,259,361 2,146,496		
		851,872 1,25		73/
FY17	72,999	851,872	74,776	999,647
FY16	72,999	851,872	74,776	999,647
FY15	72,999	851,872	74,776	1,099,647
FY14	72,999	851,872	74,776	999,647
Cost of 5-yr Plan	Improve/Functionality	DM Repair/Replacement	Cyclical	TOTAL

1.65%
1.65%
1.65%
1.65%
1.65%
Calculations F
cilites Index



MEMO

Systems & LAN Management

To: Dr. Nick Nissley, President

From: Todd Neibauer, Vice President for Student Services and Technologies

Date: October 25, 2021

Subject: Copier/Printer replacement

Board Authorization Requested

Authorize the administration to enter into a contract with Applied Imaging for the replacement of 11 copier/printer systems at a cost of \$73,543.

Background

NMC operates a pool of over 60 copier/printer systems across all campuses. We evaluate the systems annually to determine which are in need of replacement due to a higher level of service calls or the discontinuation of specific models and spare parts availability. We did not make any significant changes or replacements with the systems during the last 2 years due to Covid 19.

Cost Summary

The cost of the systems needing replacement is within the annual budgeted amount in the Technology Plant Fund for FY22.

Funding Source

This purchase will be funded by the Technology Plant fund.



MEMO

President's Office

To: Chris M. Bott, Chair

Board of Trustees

From: Nick Nissley, President

Date: October 6, 2021

Subject: Closed Session Request

Pursuant to the provisions of the Michigan Open Meetings Act (ACT 267, 15.268, Subsection 8[a]), I am hereby requesting that the 2021 Board's evaluation of my performance be conducted in closed session.