Bay de Noc Community College

Escanaba, Michigan

Fiscal Year 2018
Capital Outlay Plan &
Project Request

BAY COLLEGE

Office of the President

October 23, 2017

President's Letter:

This plan is intended to outline projects which will support the very best learning and working environment possible for our students, faculty, staff and community. Each project and associated capital expenditure is intended to improve and enhance, not just maintain, the delivery of education, and enhance the College's presence in the community. The document focuses on opportunities to develop not only the traditional physical learning environments, but the extended campus as well. This extended dynamic campus is one of distance learning, online services and outreach campus satellites in surrounding counties.

Each of these projects formally represents continuing discussions regarding developments that will move the College's teaching and learning environment further into the future.

Sincerely,

Laura L. Coleman, Ph.D.
President

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Bay College Mission Statement

Section I. Overall Mission of Bay College

Located in the heart of Michigan's beautiful Upper Peninsula, Bay de Noc Community College (commonly known as Bay College) has provided quality higher education for more than 50 years. Founded in 1962, Bay College is known in the region for its superior teaching and abundant learning. The campus is situated on 150 acres and serves approximately 2,500 credit students each year, including those completing baccalaureate and master degree programs sponsored by partnering universities.

From its modest beginning with a limited curriculum, Bay College has expanded its offerings in response to the needs of the local communities served. The College continues its tradition of providing occupational programs aimed at giving students the skills to enter the work force, community service, and transfer programs, which are designed to allow students to begin their postsecondary education and explore career interests at Bay College, later applying their degree at a major college or university.

Home of the first Michigan Technical Education Center (M-TEC) to open its doors in the State of Michigan, the Center provides a variety of customized and technical skill training and professional development opportunities for working age adults across the Upper Peninsula. The College and M-TEC together host more than 40,000 visits each year in a variety of education, conference, training and meeting activities.

Co-located on the College's campus, the local YMCA provides recreational and wellness opportunities, as well as child care for local residents, college employees and students.

Since the early 1970's, Bay College has had a presence in Dickinson County, where in those early years courses were offered to assist students enrolled in nursing degree programs. Facility limitations severely restricted course offerings through the early years. However, enrollment increases supported the notion that interest in higher education in Dickinson County remained strong. The voters in Dickinson County approved a one mill tax increase to support the construction, maintenance and operation of a new 67,000 sq. ft. facility, matching the State of Michigan's construction funds of $6 million. Groundbreaking was held in the spring of 2006 and the facility opened in the fall of 2007. Through a unique contractual relationship with the Dickinson County Board of Commissioners, the College has been able to move forward in offering a strong core of transfer degrees and occupational programs to support the local workforce.

Bay College has a strong history of dedicating itself to offering academically excellent and affordable public education in our region. The College prepares students to be continuous learners who succeed upon transfer, work effectively in the contemporary workplace, and function as citizens and leaders in their communities.

MISSION OF THE COLLEGE

Student Success, Community Success, Culture of Success.

VISION

The regional college of choice where people thrive, workforces excel, communities connect, and lives transform.

VALUES

- Student Focus
- Quality Commitment
- Collective Accountability
- Collegial Relationships
- Community Engagement
- College Vitality
- Data Informed
- Diversity
- Financial Stability

II

Instructional Programming

Section II. Instructional Programming

DESCRIPTION OF EDUCATIONAL PROGRAMS:

Bay College offers students educational programs in various areas and levels. The Associate of Arts degree and the Associate of Science degree are designed for students planning to transfer to baccalaureate institutions. The Associate of Applied Science degree and Certificate programs provides students with an occupational-focused terminal award. The following is a list of academic programs and areas of study provided by Bay College in Fall 2017.

Students can graduate with a certificate or a degree in the following areas:

Certificate Programs
Accounting
Computer Applications
Corrections Officer
Early Childhood Care & Education
Emergency Medical Technician (EMT)
Entrepreneurial Small Business
Health Careers
Mechatronics
Office Assistant
Practical Nurse
Private Security
Sustainability
Welding

Associate in Applied Science
Accounting
Automotive Technology
Business
Computer Information Systems: Programming & User Support
Computer Information Systems: Software/Network Support
Computer Network Systems & Security
Corrections
Early Childhood Care & Education
Environmental Management
General Studies
Geographic Information Systems
Human Services
Law Enforcement
Marketing
Mechatronics and Robotics Systems
Nursing
Office Systems/Administrative Assistant
Office Systems/Medical Office Specialist
Paramedic
Water Resource Management
Water Resource Management 1+1

(Transfer)
Associate in Arts
Associate in Arts, concentration in:
Art & Design
Business Administration
Criminal Justice
Network Administration

Associate in Science
Associate in Science, concentration in:
Pre-Engineering
Pre-Molecular Biotechnology
Pre-Natural Resources
Pre-Professional Health

Transfer Areas of Interest
Associate in Arts (AA)
Anthropology
Art, Art and Design
Athletic Training

Associate in Arts (AA) cont
Automotive Engineer Technology
Automotive Management
Communication
Computer Science
Construction Management
Early Childhood Education
Education
- Elementary
- Secondary
- Special

Engineering Management
Engineering Technology
- Electrical
- Industrial
- Manufacturing
- Mechanical

English
Entertainment/Sports Promotion
Environmental Health/Safety/ Management
Fire Science
Geography
Geology
History
Information Systems
International Relations
Journalism
Law, Pre-Professional
Legal Studies
Liberal Arts
Mathematics
Music
Nursing
Philosophy
Political Science
Psychology
Public Administration
Public Relations
Recreational Management
Social Work
Sociology
Speech Communication
Surveying
Theater
Welding
Women's & Gender Studies

AA – Art & Design

AA - Business Administration
Accounting
Business
Business Administration
Business Management

AA - Business Administration cont.
Computer Information Systems
Economics/Finance
Health Care Administration
Hospitality & Tourism Management
Human Resource Management
Management
Management Information Systems
Marketing

AA - Criminal Justice
Corrections
Homeland Security
Law Enforcement

AA - Network Administration
Computer Network & Systems
Network Computing

Associate in Science (AS)
Architecture
Biology
Botany
Chemistry
Forensic Chemistry
Physics
Zoology

AS - Pre-Engineering
Chemical
Civil
Computer
Electrical
Mechanical
Paper

AS-Pre-Biotechnology
Biochemistry
Biotechnology
Genetics
Molecular Biology

AS - Pre-Natural Resources
Ecology
Environmental Science
Fisheries & Wildlife Management
Forestry
Natural Resources

AS - Pre-Professional Health
Dentistry
Medicine
Occupational Therapy
Optometry
Pharmacy
Physical Therapy
Veterinary Medicine

Articulation Agreements

The College has formal articulation agreements which provide a value-added component to a traditional transfer guide. In some cases, these articulated agreements allow for students to have a seamless admission into their chosen transfer degrees.

Bay College has formal agreements with the following colleges and universities:

Davenport University – Grand Rapids, Michigan
Finlandia University – Hancock, Michigan
Kennebec Valley Community College – Fairfield, Maine
Lake Superior State University – Sault Ste. Marie, Michigan
Michigan State University – East Lansing, Michigan
Northern Michigan University – Marquette, Michigan
Palmer College of Chiropractic – Davenport, IA

Articulation agreements/Transfer Guides have also been established between the following Michigan Community Colleges and Bay College for entry into our A.A.S. in Water Resource Management:

Alpena Community College – Alpena, Michigan
Glen Oaks Community College – Centreville, Michigan
Gogebic Community College – Ironwood, Michigan
Grand Rapids Community College – Grand Rapids, Michigan
Kalamazoo Valley Community College – Kalamazoo, Michigan
Kellogg Community College – Battle Creek, Michigan
Lake Michigan College – Benton Harbor, Michigan
Lansing Community College – Lansing, Michigan
Macomb Community College – Warren, Michigan
Montcalm Community College – Sidney, Michigan
Muskegon Community College – Muskegon, Michigan
North Central Michigan College – Petoskey, Michigan
St. Claire County Community College – Port Huron, Michigan
West Shore Community College – Scottville, Michigan

University Programs at Bay de Noc Community College

The following university programs offer courses toward completion of their degrees on Bay's campus in cooperation with Lake Superior State University.

BACHELOR DEGREES
Bachelor of Science Accounting
Bachelor of Science Business Administration-Entrepreneurship
Bachelor of Science Business Administration-Generalist w/a declared minor
Bachelor of Science Business Administration-Generalist w/a declared minor (West Campus)
Bachelor of Science Business Administration-International Business
Bachelor of Science Business Administration-Management
Bachelor of Science Criminal Justice-Corrections with Law Enforcement Minor
Bachelor of Science Criminal Justice-Generalist
Bachelor of Science Criminal Justice-Law Enforcement Certification
Bachelor of Science Early Childhood Education with Sociology Minor
Bachelor of Science Early Childhood Education ZS Endorsement
Bachelor of Science/Bachelor of Arts-General Studies
Bachelor of Science Nursing Completion

Workforce Development Activities

The Certified Nursing Assistant program is currently our most popular workforce development program, due primarily to the high demand for CNAs and CNA training across the Upper Peninsula. We also regularly offer training for Microsoft Office, team building, leadership, communication, DiSC profiling, human resources, digital photography, and safety in the workplace.

Bay College has articulated agreements with International Brotherhood of Electrical Workers (IBEW) and the International Brotherhood of Boilermaker Unions to accept and award apprenticeship program curriculum for Advanced Standing credit and blends their curriculum with college courses to complete an Associate Degree in General Studies.

We serve as a testing site for ASE, ServSafe, and PAN testing. We can also custom-design many training programs to fit the unique needs of any company or organization, many times offering these trainings directly at the employer's site. Lastly, the M-TEC has a wide variety of rooms available for rental to assist local industry with training events or meeting activities.

Adult Education Focus

In 2011, Bay College was a founding member of a group that created an Adult Literacy Council. The focus of this group is to help adults prepare for the reading, writing, and math requirements associated with attending college. Additionally, we have an ongoing partnership with the local adult basic education/GED provider and Michigan Works, to provide intensive enrollment and advising services for those recently obtaining GEDs. This partnership received a state award in 2012 attributed to doubling the number of GED recipients attending Bay College. We are also active participants in the Veterans Council and have been named a Military Friendly School.

Continuing or Lifelong Educational Programming

Bay College provides many continuing or lifelong educational programming opportunities. These include digital photography, computer classes, Lego robotics, and a wide variety of lifelong education courses available online from Ed2Go. Bay College also delivers continuing education seminars, workshops and conferences for small- to medium-sized businesses including dental, optometry, healthcare, and safety.

Partnerships with Intermediate School District

Bay College is a founding member of the Delta County College Access Network (DCCAN). DCCAN is a network of educators, business leaders, community agencies, and philanthropic institutions, all interested in creating a culture within the county where young people expect to attend education beyond high school, and are positioned to succeed in post-secondary education. The College’s leadership in DCCAN has led to stronger partnerships with K-12 districts, and many opportunities for students to learn more about higher education.

We have multiple articulation agreements with the Delta Schoolcraft ISD and provide on campus learning experiences for K-12 students including summer robotics camp, art camp, College nights, Financial Aid nights, Career Day at Bay, 5th grade Friday visits, 8th grade Career Exploration visits, College 101, Bay is the Way Day, and admission visits to 25+ area high schools.

Area high schools continue to seek out Bay College for dual enrollment opportunities. The number of dual enrolled students continues to increase each year. We now have students enrolled from 24 local and regional high schools, and this enrollment is over 20% of our fall student population.

The development of several Early College partnerships has strengthened our relationship with local districts. We now have Early College partnerships with the Delta Schoolcraft Intermediate School District, the Dickinson Iron Intermediate School District, Gladstone High School, Rapid River High School, and Bark River High School. There are also several schools interested in applying for Early College status in the future. We currently have over 50 students enrolled in the Early College program from seven local schools. We have had approximately 10 students complete an award program since this program started three years ago.

Community Activities

The Escanaba and Bay West campuses host a senior citizens educational and social program. Additionally, the college hosts a Math/Science Colloquia Series designed to promote STEM opportunities. Speakers address current topics in the STEM field. The Marquette Symphony Orchestra performs six times a year at Bay College's Besse Art Center. Theater productions are provided in the Besse Center each year. Bay College supports Strings on the Bay, which consists of local musicians.

The College sponsors a film series and student art shows annually. The Besse Art Center and Hartwig Gallery have rotating art presentations from Bay College's art inventory and have 6 – 8 art shows per year highlighting regional artists promoted to students and the community in Escanaba. Bay West hosts 3 – 5 artist exhibits annually, as well as the Art for All event each June. Eight to ten entertainers a year are brought in for students and promoted within the community.

The Bay College soccer fields are used by the area youth soccer league and walking trails and labyrinth are available for public use. The YMCA is housed on the campus and is open to the public. The PTK student group is involved with community service experiences. Bay West serves as the polling site for the Iron Mountain Second Precinct special, primary, and general elections.

Bay College hosts a Career Closet on the Escanaba and Iron Mountain campus. The Career Closet is a community resource for career and interview apparel for students and community members, free of charge. The clothing is donated by the surrounding community to benefit students and community members who may not be able to afford proper interview or work apparel.

Economic Development Impact

An Economic Impact study completed in 2010 indicated Bay College has a $100 million annual impact on Delta County. This is due to the education that has been delivered to over 140,000 students in the past 50 years, allowing citizens to work in higher paying jobs requiring job skills attained at Bay College. Having an educated work force encourages employers to move to Delta and Dickinson County and to stay in Delta and Dickinson County. Additionally, the College is one of the biggest employers in the County.

Geographic Service Delivery Area(s)

Bay College serves Delta and Dickinson counties as well as surrounding counties in the Upper Peninsula. Many students from Northern Wisconsin also attend our campuses. Additionally, over fifty percent of enrolled students take online courses, allowing us to cover the entire Upper Peninsula and beyond.

III

Staffing and Enrollment

Section III. Staffing and Enrollment

a. Current full and part-time student enrollment by academic program

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Degree Seeking Students	***2,027***	***1,731***	***1,497***	***1,421***	***1,383***
By Degree Program					
Associate in Arts	654	550	464	401	436
Associate in Science	192	146	139	135	152
Associate in Applied Science	653	773	684	662	613
Certificate	528	262	210	223	182
By Enrollment Status					
Full-Time	1,146	829	711	689	730
Part-Time	881	902	786	732	653
By Course Location (Duplicated Count)					
Escanaba	1,383	1,121	1,125	996	911
West	571	484	414	308	337
Online	757	716	915	682	671
Other	71	64	66	45	26
By Age Range					
Less than 18	4	-	3	1	1
18 to 21	878	649	717	703	726
22 to 25	405	408	266	276	233
26 to 29	213	204	142	123	132
30 to 39	297	285	213	203	179
40 to 49	153	119	101	84	82
50 to 59	62	58	44	25	24
60 and over	15	8	11	6	6

Occupational

Enrollment and Access by Programs										
A	**Certificate Programs**	**D**	**MQ**	**SC**	**OL**	**2013**	**2014**	**2015**	**2016**	**2017**
1	Accounting	x			x	10	10	12	7	4
2	Computer Applications	x			x	8	4	2	2	1
3	Corrections Officer	x				8	4	13	5	5
4	Early Childhood Care & Education	x				42	34	36	46	27
5	EMT – Basic					0	5	14	3	9
6	Entrepreneurial/Small Business	x			x	5	7	6	5	4
7	Health Careers (including pre-nursing thru 2013)	x				277	27	6	12	13
8	Mechatronics	x				0	0	0	0	3
9	Office Assistant	x				7	5	11	6	3
10	Nursing-LPN	x				113	101	49	60	59
11	Sustainability	x				0	0	0	0	1
12	Welding	x				55	65	56	63	53

B	**Associate Degree**	**D**	**MQ**	**SC**	**OL**	**2013**	**2014**	**2015**	**2016**	**2017**
1	Accounting	x				0	0	0	0	22
1	Accounting/Computer Spec.	x				44	34	33	22	1
2	Automotive Technology	x				33	23	21	13	13
3	Business	x			x	74	79	68	51	49
4	Computer Information Systems: Programming and User	x				9	6	7	8	9
5	Computer Information Systems: Software/Network Support	x				14	16	12	13	7
6	Computer Network Systems & Security	x				91	87	59	50	35
7	Corrections	x				9	14	9	9	4
8	Early Childhood Care & Education	x				10	11	10	5	22
9	Environmental Management	x				2	3	2	2	2
10	General Studies	x				50	213	168	160	179
11	Geographic Information Systems	x				0	0	4	9	6
12	Human Services	x				64	49	32	33	26
13	Law Enforcement	x				28	25	32	26	22

B	Associate Degree–cont'd	D	MQ	SC	OL	2013	2014	2015	2016	2017
14	Marketing	x			x	18	11	6	11	3
15	Mechatronics and Robotics Systems	x				0	0	0	15	18
16	Nursing	x				91	99	116	158	132
17	Office Systems/ Administrative Assistant	x				22	17	11	10	3
18	Office Systems/Medical Office Specialist	x				58	57	54	32	25
19	Paramedic	x				0	0	8	8	13
20	Water Resource Management	x				31	36	42	40	22

All programs available in Delta County
D = Dickinson County
MQ = Marquette County
OL = Online
SC = Schoolcraft County
Above includes current occupational program offerings only.

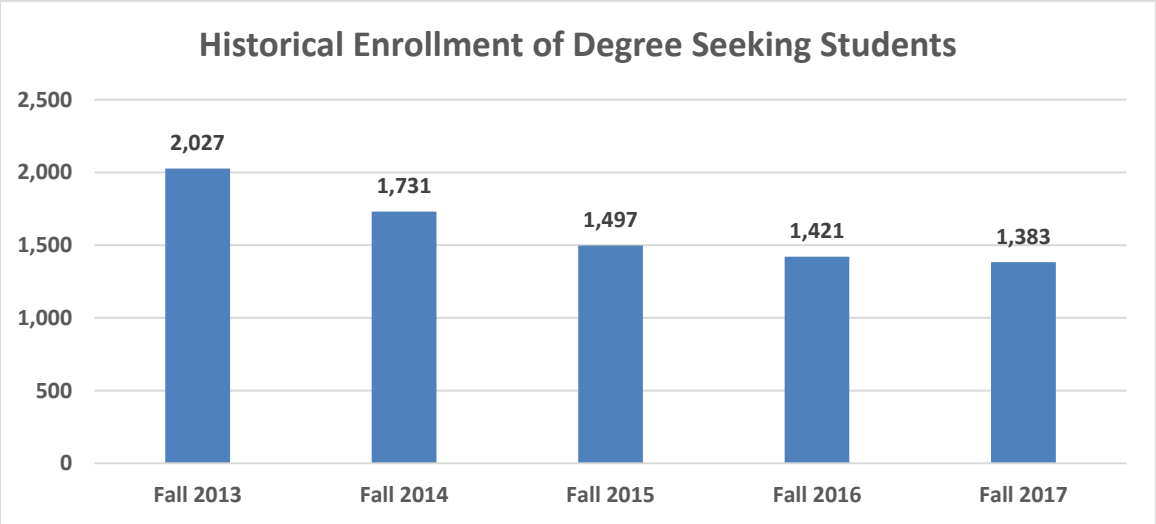
b. Project enrollment patterns over next five years

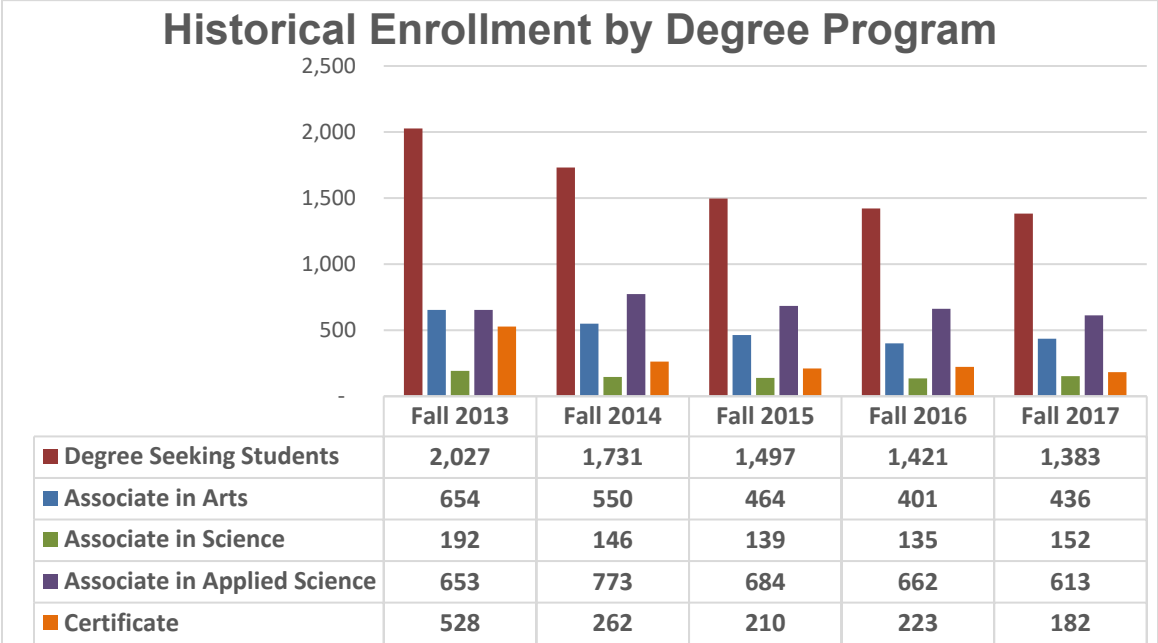
Overall, Bay College expects enrollment to decline another 2 to 5% in the next five years. Assumptions used for this analysis include smaller high school graduating classes and declining unemployment rates in our service area. This decline in incoming students will be partially offset by the continued expansion of the Early College programs, while Dual Enrollment of high school students is expected to remain stable.

Currently, more than 50% of Bay College's students take online classes, with more than 22% of students enjoying all of their courses delivered in a full online format.

New academic programs have not been added in the past academic year. We continue to focus on growing our existing programs and studying areas where new programs may be needed in our local service area. We are currently investigating two new program offerings: Associate in Applied Science – Magnetic Resonance Imaging Technology and a Certificate in Automotive Technology. We recently had an Economic Overview and a Program Demand Gap Analysis prepared by Emsi (www.economicmodeling.com) and will be analyzing those results in current and future program offerings.

c. Evaluate enrollment patterns over last five years





	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
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Associate in Arts	654	550	464	401	436
Associate in Science	192	146	139	135	152
Associate in Applied Science	653	773	684	662	613
Certificate	528	262	210	223	182

d. Provide instructional staff/student and administrative staff/student ratios

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Degree Seeking Students	***2,027***	***1,731***	***1,497***	***1,421***	***1,383***
by employee types					
Full-time Faculty	46	45	46	48	44
Part-time Faculty	160	106	85	76	87
Administrative Staff	98	98	90	90	87
Student to Faculty Ratio (IPEDS)	20 to 1	16 to 1	15 to 1	15 to 1	13 to 1
Student to Administrative Staff*	19 to 1	17 to 1	15 to 1	13 to 1	13 to 1

*Administrative staff includes tutors, SI Leaders and academic support staff

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

Bay expects to reduce current employee levels over the next five years using reallocation of resources as a model.

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

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Degree Seeking Students	***2,027***	***1,731***	***1,497***	***1,421***	***1,383***
Term Section and course data					
Number of Courses	186	168	208	197	201
Number of Sections	545	471	408	384	407
Average Class Size	16.0	16.6	14.0	13.1	12.6
Average Cr Hours/Student	10.7	10.4	10.2	10.5	10.5
Average Ct Hours/Student	11.7	11.4	11.4	12.2	12.1
Course Capacity %	76%	76%	64%	66%	69%

IV

Facility Assessment

Section IV. Facility Assessment

Bay de Noc Community College first opened its doors to students in the Fall of 1963 in downtown Escanaba. The College currently consists of two campuses located in Escanaba, Michigan and Iron Mountain, Michigan. The 150-acre main campus in Escanaba includes 12 buildings that total nearly 350,000 square feet with six major parking lots offering over 1,274 parking spaces and 42 handicap spaces. The 25-acre campus in Iron Mountain includes a core building with 66,700 square feet and a separate storage building and one major parking lot, providing 304 spaces, 8 for handicap accessibility.

A. Summary Description of Each Facility

1. MS 100 - Math and Science Building

Constructed in 1968, the Math and Science building was the first building constructed at the current Bay College site. A college greenhouse was added to the structure in a 1999 expansion. The building is currently 18,302 square feet and contains a greenhouse, three science laboratories, three classrooms, including two ITV classrooms, and 14 faculty offices. The building was renovated in summer 2016 to improve student circulation corridors, add collaboration areas, and improve classrooms. The exterior of the facility is brick and the overall condition of the building is good.

2. CB 200 - Catherine Bonifas Building

The Catherine Bonifas Building was constructed in 1970. Art and ceramics classrooms and administrative offices were added in 1999. The building is currently 28,428 square feet and contains an art classroom, a public art gallery, a ceramics classroom, nine general use classrooms, a board room, 16 administrative and support offices, and 20 faculty offices. The exterior of the facility is brick and the overall condition of the building is fair.

3. YMCA 300 - YMCA

The YMCA was constructed in 1970. A pool was added in 1989 and a fitness center in 1996. The building is currently 32,484 square feet including a basement to provide access to the pool mechanics. The building contains a gymnasium, pool, fitness center, 2 daycare rooms, and 6 administrative offices. The exterior of the facility is metal and brick and the overall condition of the building is good.

4. BHAT 400 – Besse Health and Technology, formerly known as HATC 400 - Health and Applied Technology Center

The Besse Health and Technology building was constructed in 1974. In 2002 the combined chemistry/water tech labs were renovated. In 2014 the nursing lab and lecture areas were renovated and 880 sq ft was added. In 2015 the computer networking and

security labs were renovated as well as a separating the chemistry lab from the water technology lab and providing Water Technology with its own dedicated space. The building is currently 50,565 square feet and contains automotive labs, a GIS lab, Water Technology lab and simulation area, nursing labs and simulation area, 3 computer networking and security labs, a large workroom for various lab activities, large lecture hall, chemistry labs, 6 administrative and support offices, 21 faculty offices, and 6 general use classrooms. The exterior of the facility is brick and the overall condition of the building is good.

5. SC 500 - Student Service Center

The Student Service Center was constructed in 1970. A book store was added in 1999 and a kitchen in 2008. The building is currently 25,832 square feet and contains a kitchen with a café open to the public, a book store, student support services, human resources suite, counseling services, a small meeting/conference facility, and 20 administrative and support offices. The exterior of the facility is brick and the overall condition of the building is good.

6. SA 600 - Student Apartments (North and South)

The student apartments were constructed in 1973. The north and south buildings total 21,100 square feet and consist of 21 four-person and 8 two-person apartments. The exterior of the facility is brick and the overall condition of the buildings is good. Bathrooms were upgraded in 2017.

7. BESSE 700 - Besse Center for Performing Arts

The Besse Center was constructed in 2008. A later addition connected the Learning Resource Center to the Student Service Center. The Besse Center is 13,343 square feet and contains a performing arts theatre, public art gallery, cashier's office, and an Art Coordinator's office. An additional 800 square feet was added in the summer of 2016 to expand a pinch point in a gallery corridor. The exterior of the facility is metal and the overall condition of the building is good.

8. HUB 800 (formerly known as LRC 800 - Learning Resource Center)

The HUB was constructed in 1987 and significantly renovated in 2016 at which time the building was renamed. The building is 37,457 square feet and contains a library, a computer classroom, the Student Success Center, Online Learning and Instructional Technology, Academic and Certification Testing, student gathering and study space, 19 support offices, art gallery storage, and a conference room. The exterior of the facility is metal and the overall condition of the building is good. In 2017 the exterior metal siding panel seals were replaced.

9. JHUC 900 - Joseph Heirman University Center

The Joseph Heirman University Center was constructed in 1999. The building is 40,600 square feet and contains a computer lab open to the public, a catering kitchen, 3 large multipurpose conference rooms, 2 small seminar rooms, 6 computer classrooms, 4 general use classrooms, a Mechatronics lab, 9 administrative and support offices, 12 faculty offices, and an onsite University partner office suite. The exterior of the facility is metal and the overall condition of the building is good.

10. SHIP/WELD 1000 - Shipping & Receiving and Welding

Originally used as a diesel shop, the Shipping and Receiving building was constructed in 1974. A welding laboratory was added in 1989 with the original addition renovated in 2015 doubling the size of the welding lab. The building is 26,250 square feet and contains two welding classrooms, two welding labs, 2 faculty offices, a large shipping and receiving area, and a large outdoor storage area. The exterior of the original facility is metal and the overall condition is fair, however the new addition is in very good condition.

11. MAINT 1100 - Maintenance Building (Building 1 and Building 2)

The 2 Maintenance Buildings were constructed in 1970. The buildings total 17,878 square feet and contains a mechanical lab, 1 conference room, 6 support offices, 3 cold storage bays, 1 warm storage bay, and an extensive fenced exterior storage area. The exterior of the building is metal and the overall condition of the building is fair.

12. M-TEC 2000 - Michigan Technological Educational Center

The M-TEC building was constructed in 1999. The building is 42,170 square feet and contains 4 classrooms, 3 computer labs, a nursing lab, an EMT/Paramedic lab, a safety training lab, a machine tool lab, 6 conference rooms, 2 industrial labs, 4 administrative and support offices, and 5 faculty offices. The exterior of the facility is aluminum and the overall condition of the building is good.

13. Extension Building

The Extension Building was constructed in 1972. The 5,000 square foot building is currently being leased by a private company. The exterior of the facility is wood and the overall condition of the building is very poor.

14. Bay College West Campus – Iron Mountain

The West Campus was constructed in 2006. The building is 66,700 square feet and contains a biology lab, a chemistry lab, a nursing simulation lab, a computer lab open to

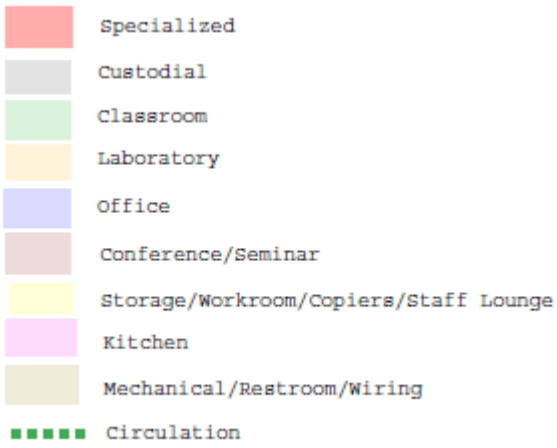
the public, a testing center, a large conference hall, 2 art galleries, 11 administrative and support offices, 19 faculty offices,10 general use classrooms, 3 ITV classrooms, a computer network and systems lab, and 4 computer classrooms. The exterior of the facility is metal and the overall condition of the facility is very good.

15. Bay College West Campus Maintenance

West Campus Maintenance Facility was constructed in 2009. The 1,800 square foot building is a storage and maintenance work area. The exterior of the building is metal and the overall condition is very good.

The following maps show room types in each building and a graph details the approximate percentage of each usage type per building as defined in DMB-Office of Design and Construction Major Project Design manual, appendix 7.

Facility Description Legend



MATH/SCIENCE BLDG. 100
18,302 SQ. FT.

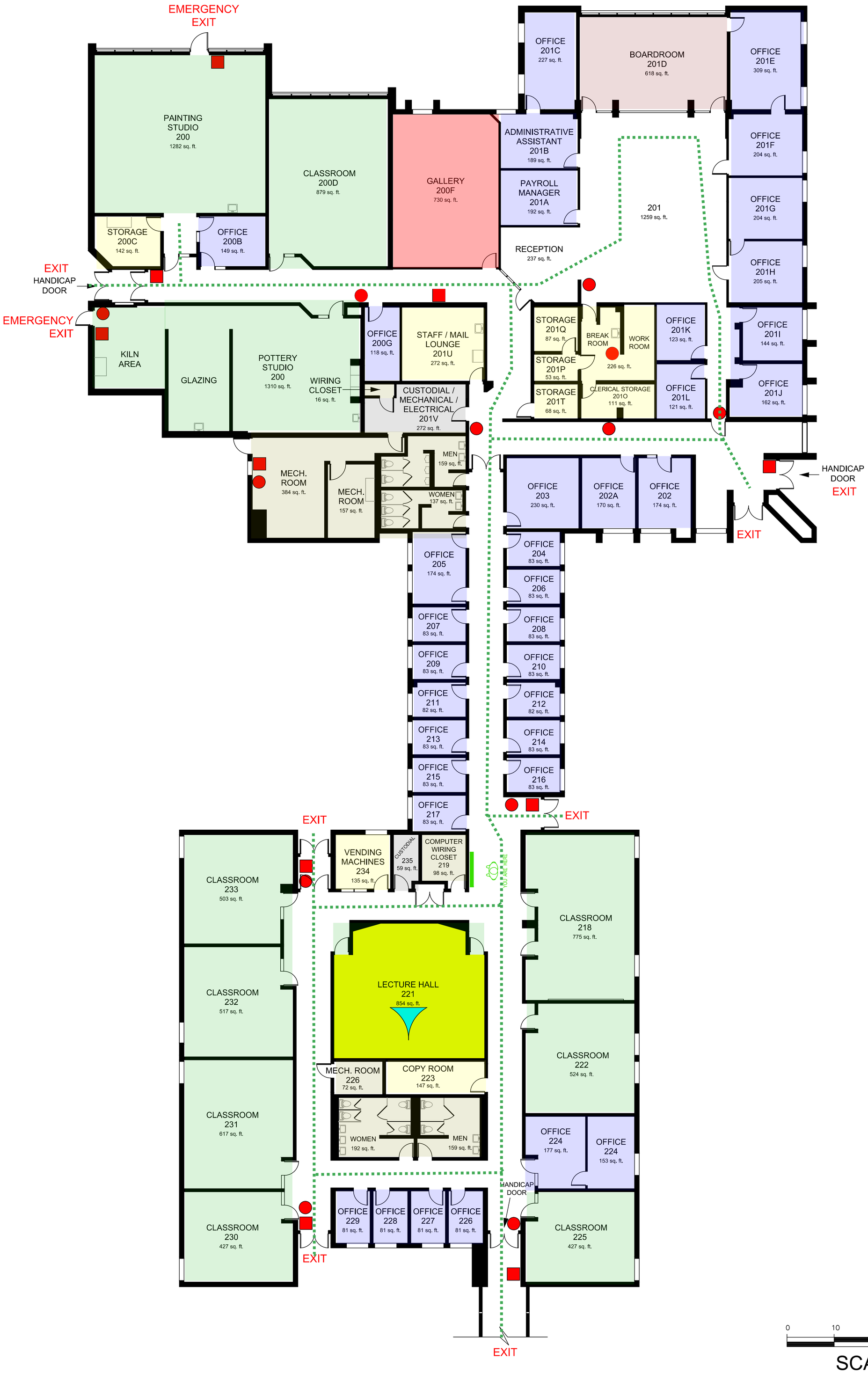
LEGEND

- = FIRE EXTINGUISHER
- = PULL ALARM
- = SEVERE WEATHER SHELTER
- = EMERGENCY EYE / SHOWER WASHER
- = AUTOMATED EXTERNAL DEFIBRILLATOR

0 10 20 30 40 50

SCALE IN FEET

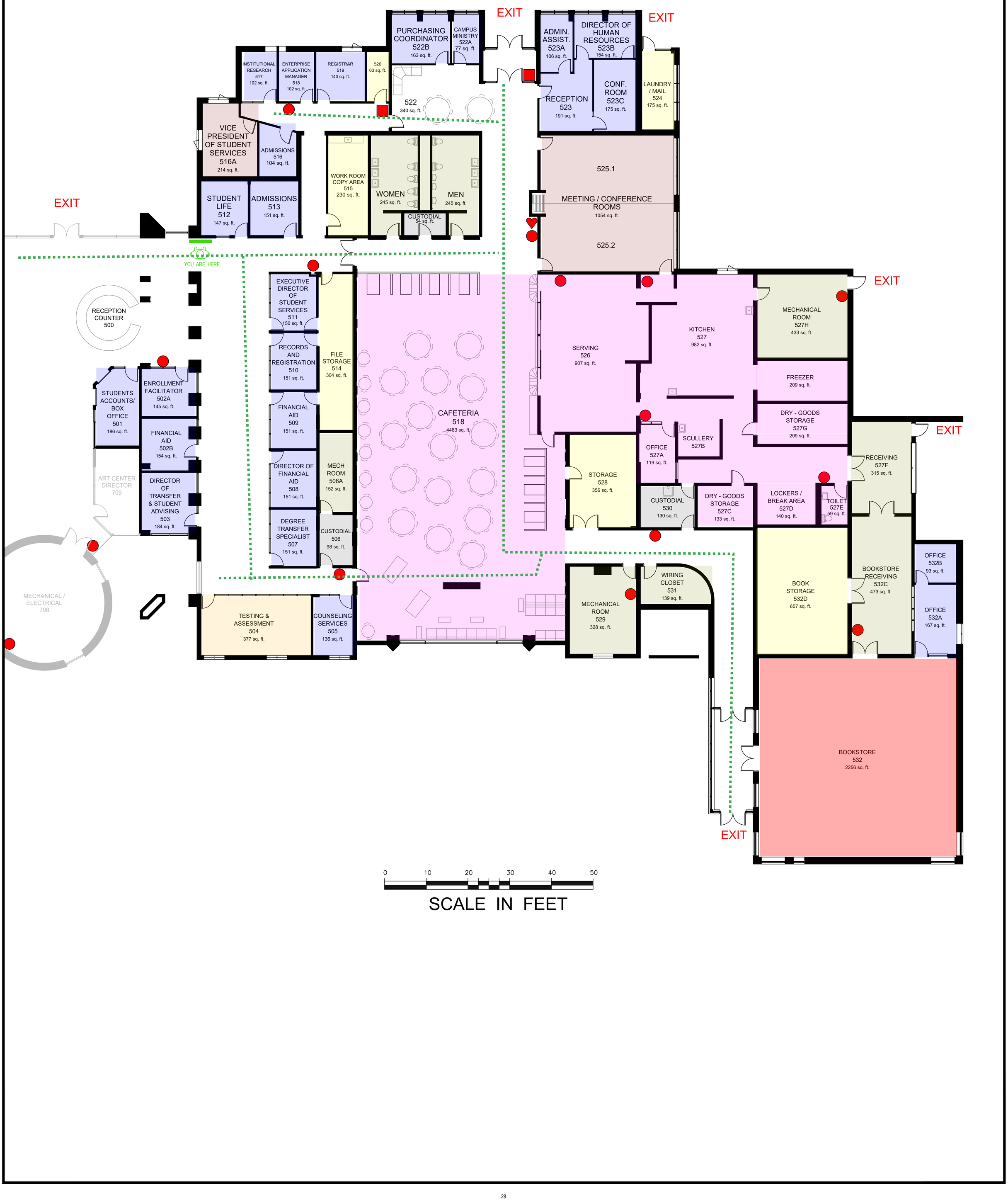
Catherine Bonifas / Administrative Services CB 200



Besse Health and Technology (BHAT)

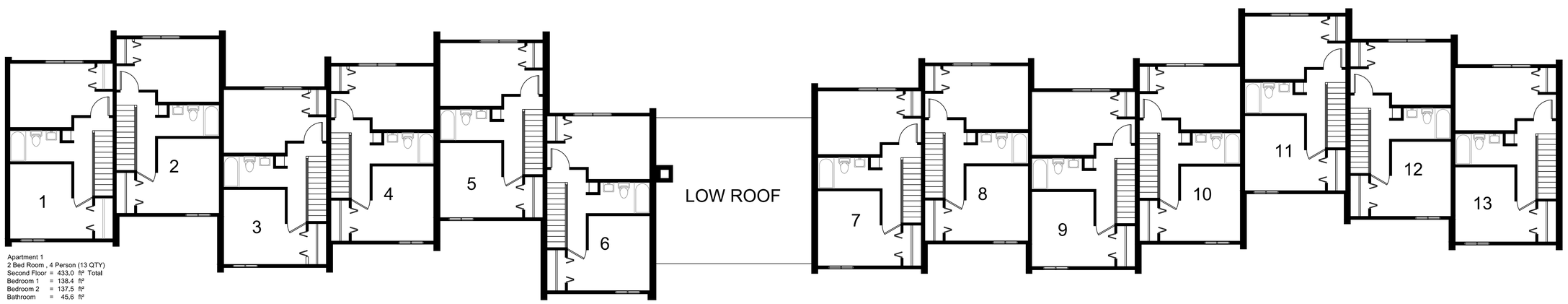
Building 400 - Square Footage

Student Center
SC-500



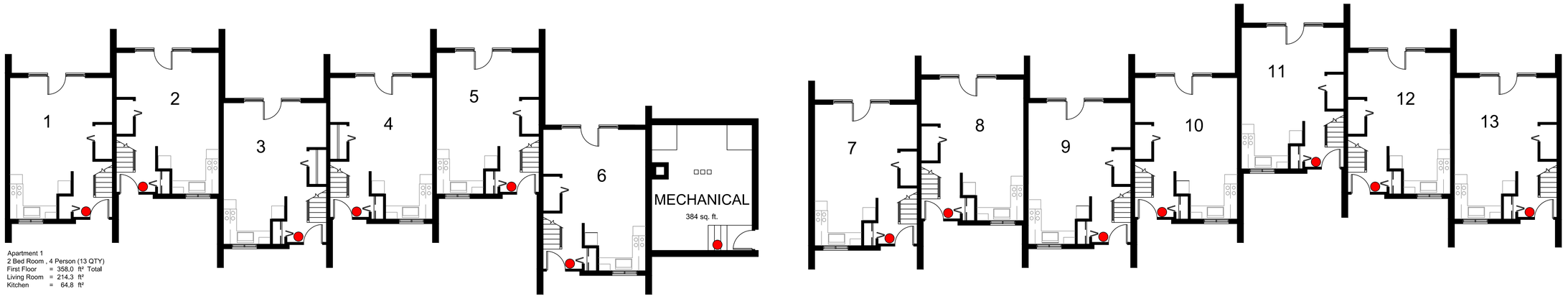
STUDENT APARTMENTS

SQUARE FOOTAGE



Apartment 1
2 Bed Room , 4 Person (13 QTY)
Second Floor = 433.0 ft² Total
Bedroom 1 = 138.4 ft²
Bedroom 2 = 137.5 ft²
Bathroom = 45.6 ft²

SECOND FLOOR - NORTH UNIT

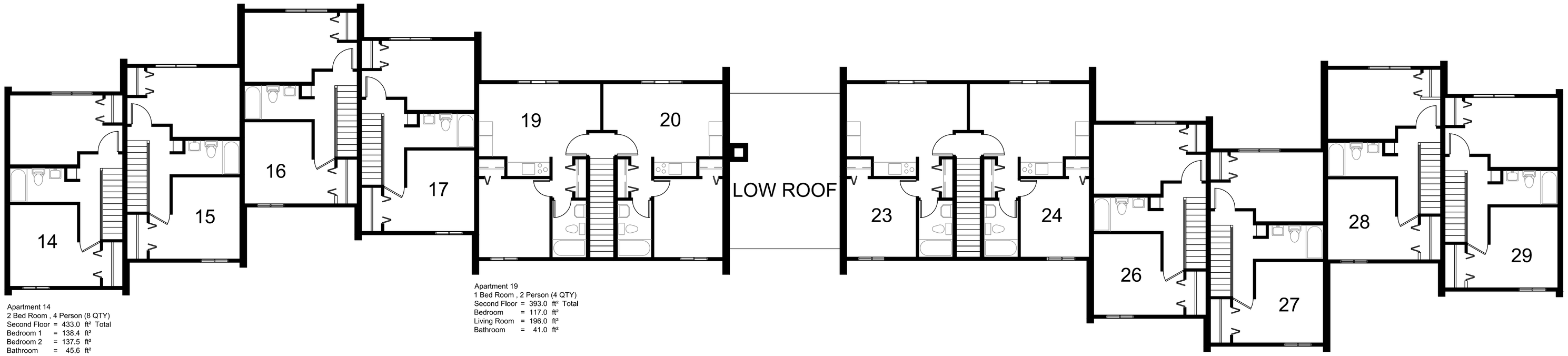


Apartment 1
2 Bed Room , 4 Person (13 QTY)
First Floor = 358.0 ft² Total
Living Room = 214.3 ft²
Kitchen = 64.8 ft²

GROUND FLOOR - NORTH UNIT

STUDENT APARTMENTS

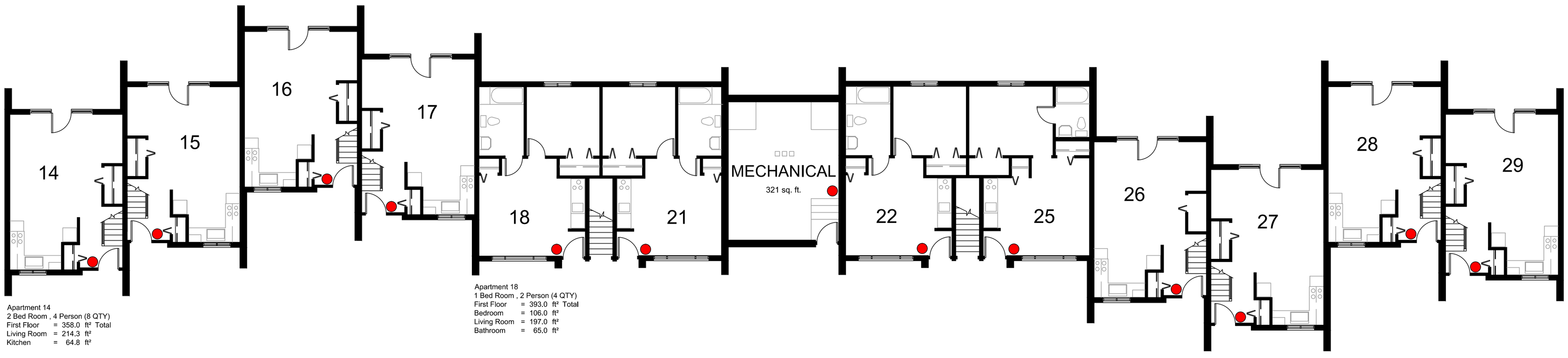
SQUARE FOOTAGE



Apartment 14
2 Bed Room , 4 Person (8 QTY)
Second Floor = 433.0 ft² Total
Bedroom 1 = 138.4 ft²
Bedroom 2 = 137.5 ft²
Bathroom = 45.6 ft²

Apartment 19
1 Bed Room , 2 Person (4 QTY)
Second Floor = 393.0 ft² Total
Bedroom = 117.0 ft²
Living Room = 196.0 ft²
Bathroom = 41.0 ft²

SECOND FLOOR - SOUTH UNIT



Apartment 14
2 Bed Room , 4 Person (8 QTY)
First Floor = 358.0 ft² Total
Living Room = 214.3 ft²
Kitchen = 64.8 ft²

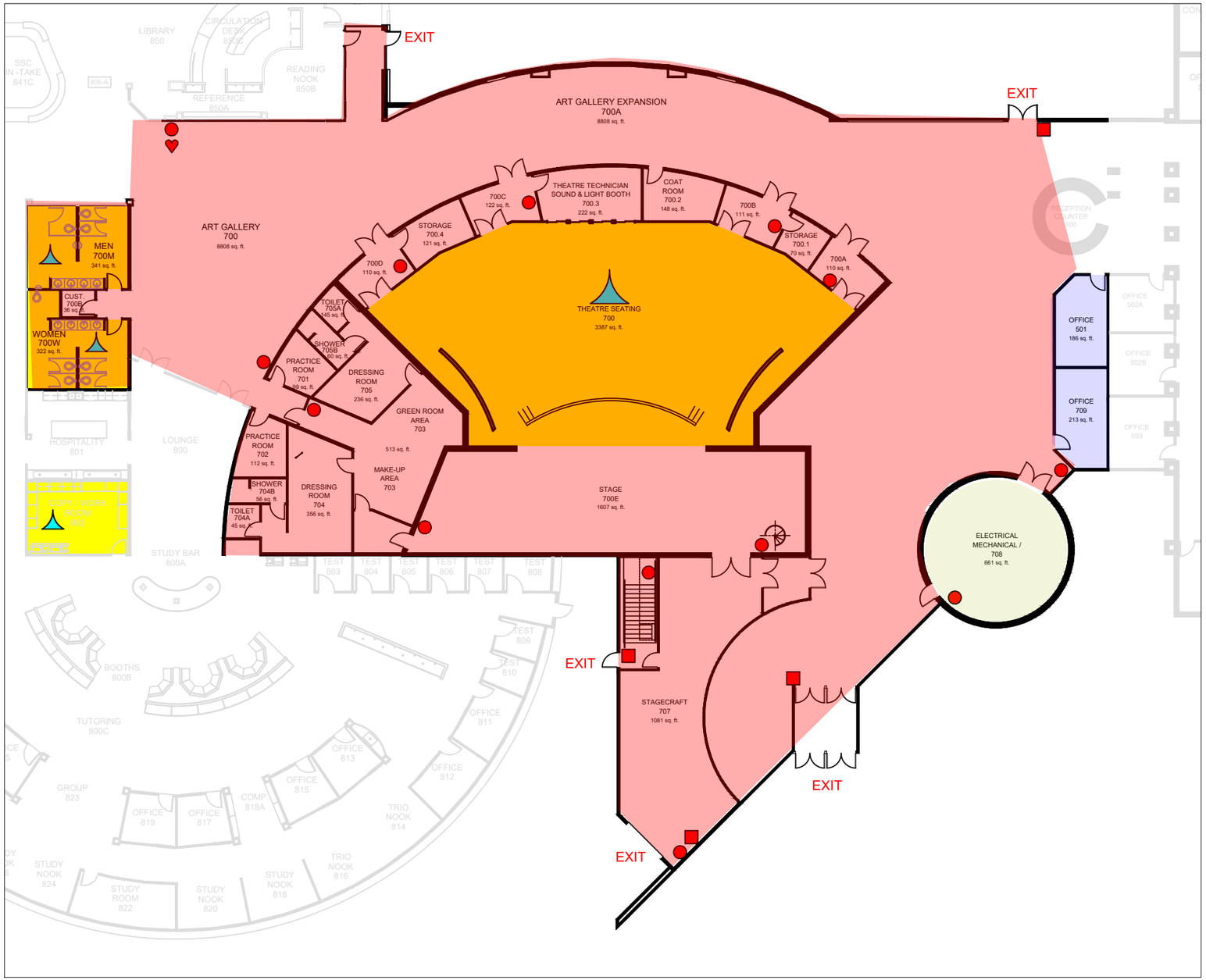
Apartment 18
1 Bed Room , 2 Person (4 QTY)
First Floor = 393.0 ft² Total
Bedroom = 106.0 ft²
Living Room = 197.0 ft²
Bathroom = 65.0 ft²

GROUND FLOOR - SOUTH UNIT

Besse Center

700 Building

13,343 SQ. FT.



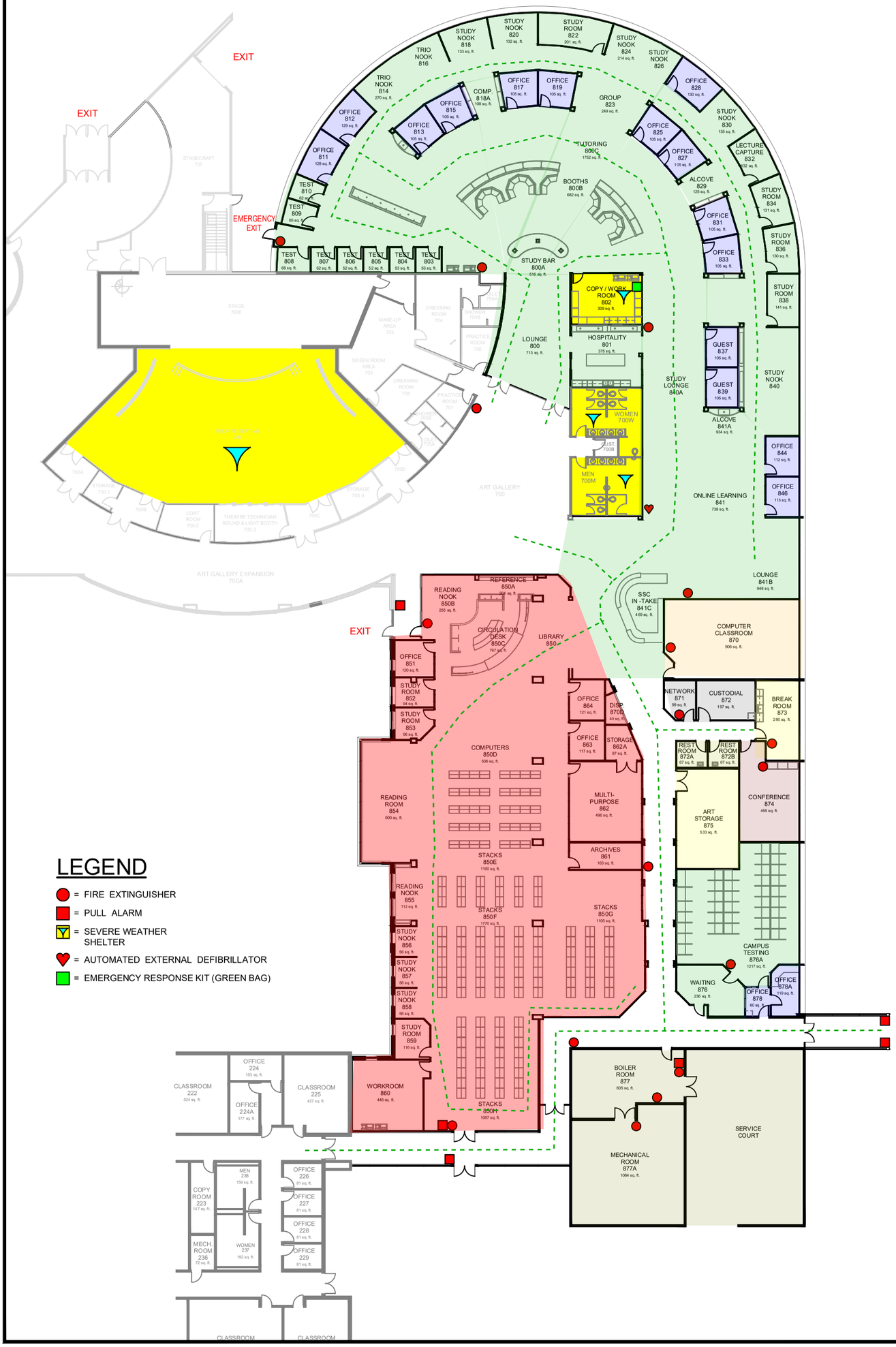
LEGEND

- = FIRE EXTINGUISHER
- = PULL ALARM
- = SEVERE WEATHER SHELTER
- = AUTOMATED EXTERNAL DEFIBRILLATOR

HUB

Building 800

37,457 SQ. FT.



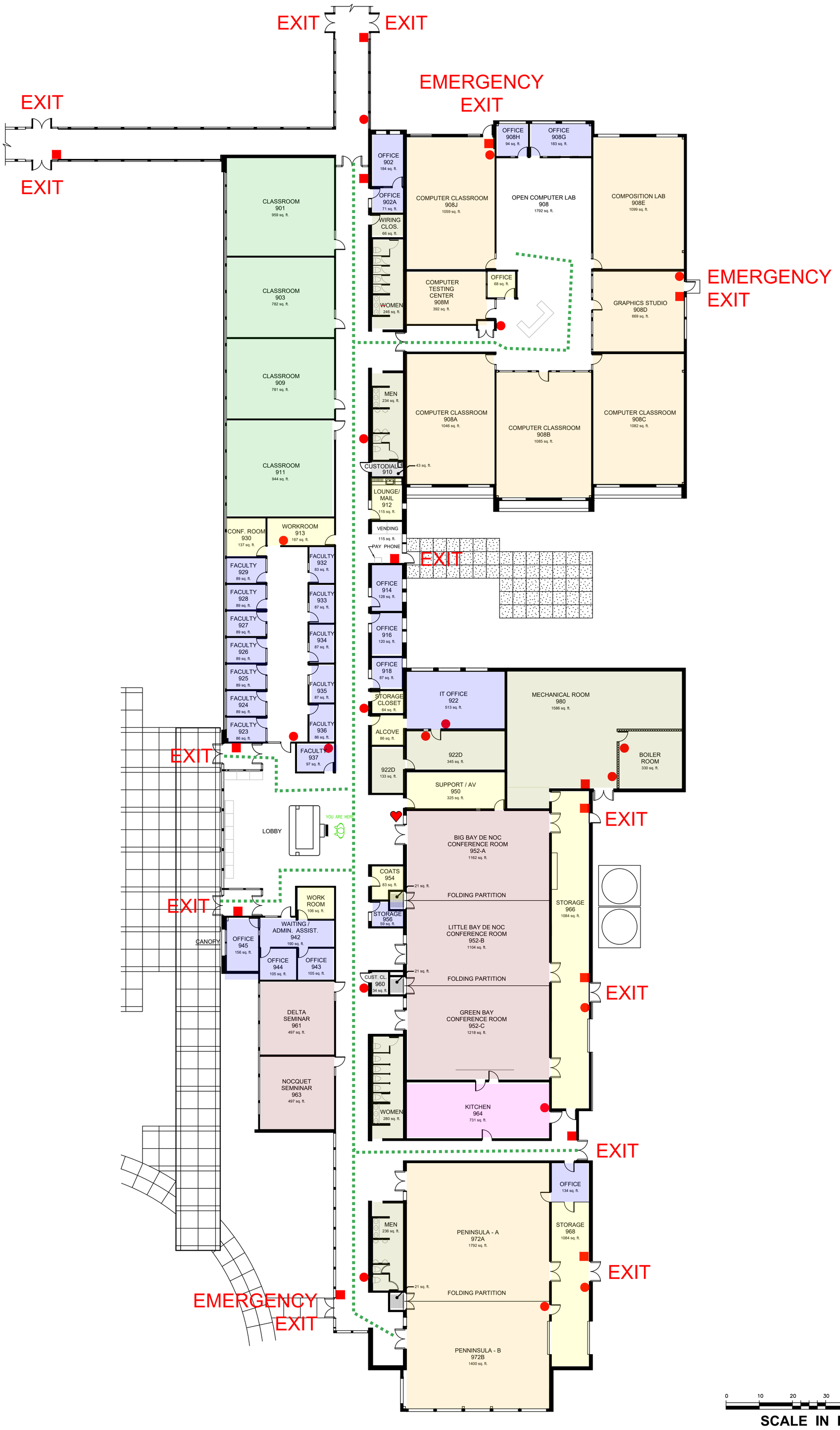
LEGEND

- = FIRE EXTINGUISHER
- = PULL ALARM
- = SEVERE WEATHER SHELTER
- = AUTOMATED EXTERNAL DEFIBRILLATOR
- = EMERGENCY RESPONSE KIT (GREEN BAG)

Joseph Heirman University Center(JHUC)

Building 900

Square Footage



34" CLEAR
170 CAP

79 OCC.

LABORATORY
298 SF
100 GROSS
3 OCC.

SUPPLY
152 SF
300 GROSS
1 OCC.

OFFICE
109 SF
100 GROSS
2 OCC.

JAN 54 SF
1 OCC.

OFFICE
109 SF
100 GROSS
2 OCC.

WOMEN

MEN

EQUIP CRIB
460 SF
300 GROSS
2 OCC.

WORK
172 SF
50 NET
4 OCC.

WELDING SHOP
3402 SF
50 NET
69 OCC.

56 OCC.

34" CLEAR
170 CAP

34" CLEAR
170 CAP

79 OCC.

34" CLEAR
170 CAP

55 OCC.

46" CLEAR
230 CAP

38 OCC.

CLASSROOM
915 SF
20 NET
46 OCC.

CLASSROOM
978 SF
20 NET
49 OCC.

EQUIP CRIB
384 SF
300 GROSS
2 OCC.

WORK
172 SF
50 NET
4 OCC.

WELDING SHOP
3578 SF
50 NET
72 OCC.

38 OCC.

34" CLEAR
170 CAP

OFFICE
534 SF
100 GROSS
6 OCC.

1
A202

**SHIPPING &
RECEIVING**
6858 SF
100 GROSS
69 OCC.

34" CLEAR
170 CAP

38 OCC.

MEN

WOMEN

STORAGE
128 SF
300 GROSS
1 OCC.

38 OCC.

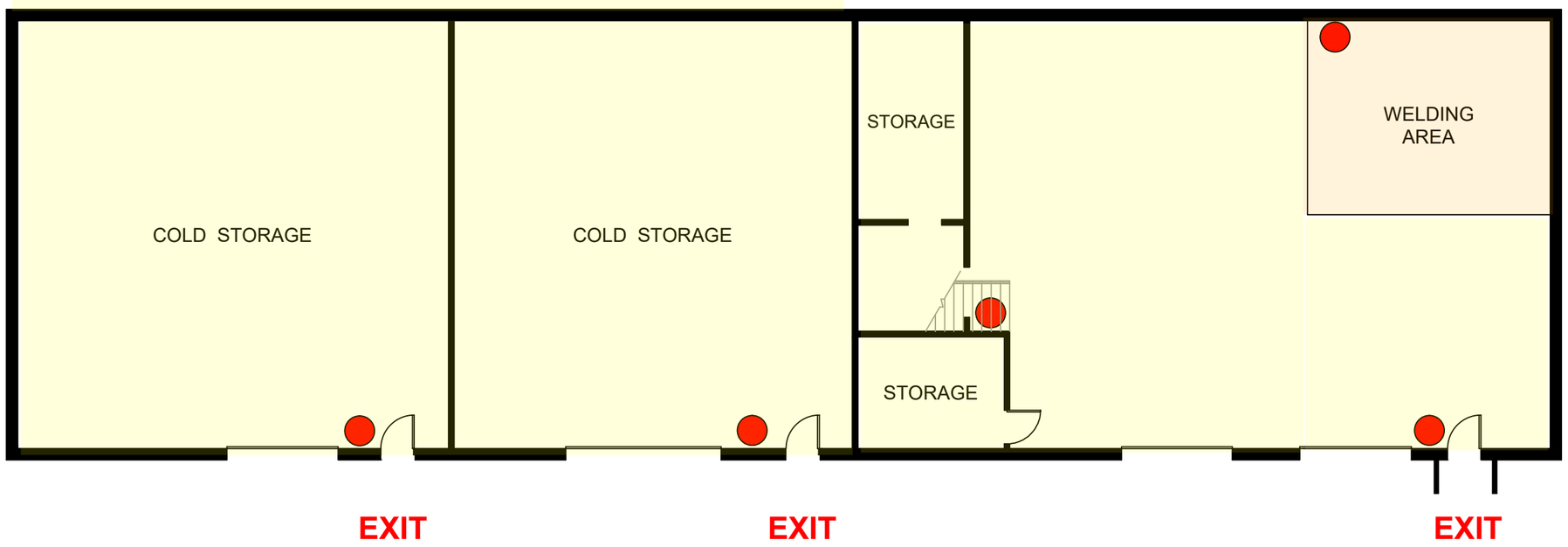
34" CLEAR
170 CAP

34

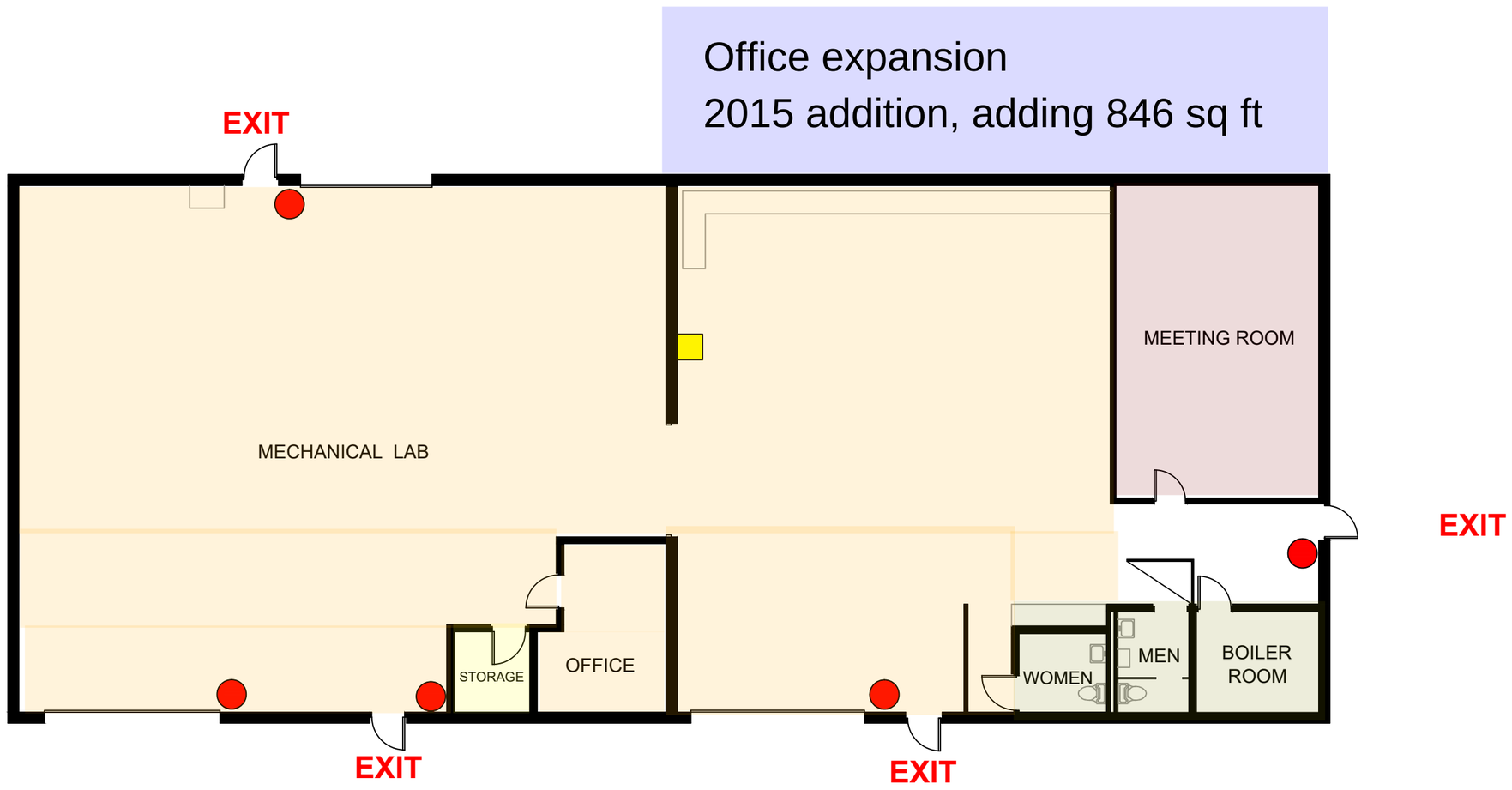
Maintenance

Building 1100

Cold Storage expansion
2015 addition, adding 1600 sq ft



Office expansion
2015 addition, adding 846 sq ft



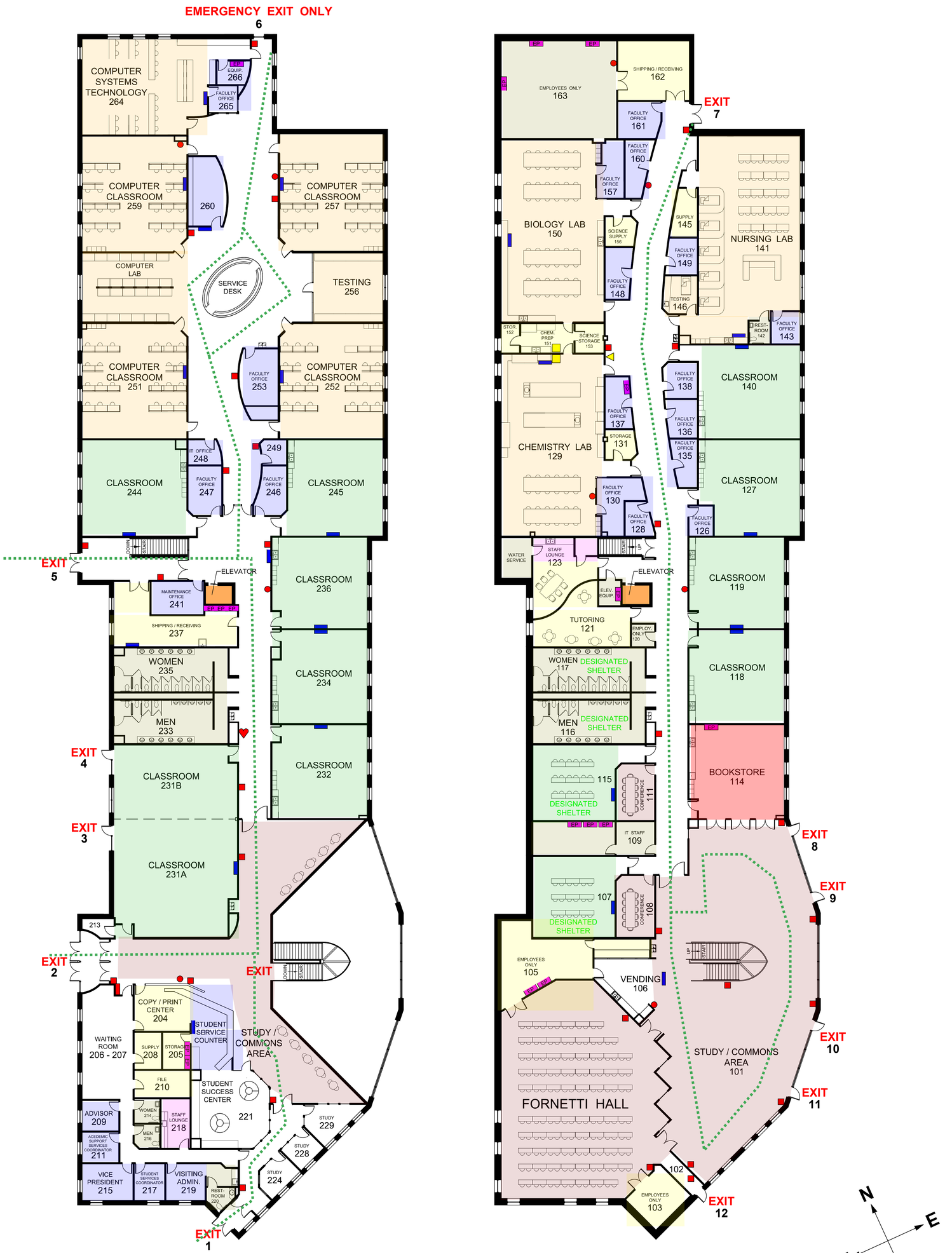
LEGEND

● = FIRE EXTINGUISHER

M-TEC CENTER

Building 2000

Square Footage



UPPER LEVEL

LOWER LEVEL

LEGEND

- = POINT OF ORIGIN
- = FIRE EXTINGUISHER
- = PULL ALARM
- EP = ELECTRICAL PANELS
- = EMERGENCY EYE SHOWER / WASHER
- = NATURAL GAS LINE SHUT OFF VALVE
- = WATER SHUT OFF
- = MESSAGE BOARDS
- = AUTOMATED EXTERNAL DEFIBRILLATOR

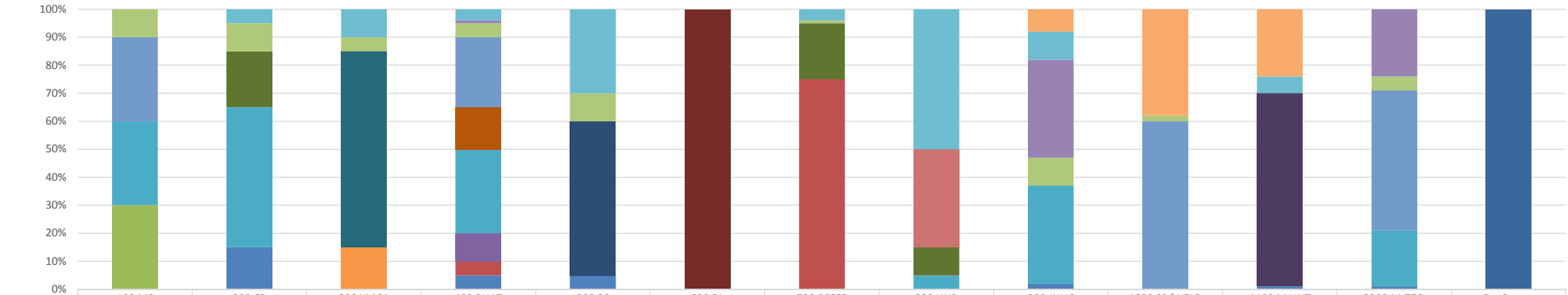
0 10 20 30 40 50

SCALE IN FEET

Bay College West Campus

B. Building and/or Classroom Utilization Rates

The 2017 fall semester classroom utilization rates are presented here. Reports are gathered from Bay's Academic Scheduling system and represent a reporting period from the first day of class, August 28, 2017 to the date the report was run October 10, 2017. Only classrooms and academic events are represented. Peak utilization represents M-F 10:00AM – 3:00PM, Off Peak utilization covers M-F 3:00PM – 5:00PM and 8:00AM – 10:00AM, and evening is represented by any class taught from 5:00PM – close. Bay college offers very few weekend classes.



	100 MS	200 CB	300 YMCA	400 BHAT	500 SC	600 SA	700 BESSE	800 HUB	900 JHUC	1000 SR/WELD	1100 MAINT	2000 M-TEC	Ext Center
Leased													100%
Warehouse	0%								8%	38%	24%		
Service	0%	5%	10%	4%	30%		4%	50%	10%		6%		
Conference				1%					35%			24%	
Office	10%	10%	5%	5%	10%		1%		10%	2%		5%	
Library								35%					
Lab	30%			25%						60%		50%	
Nursing				15%									
Gym			70%										
Garage											69%		
Arts		20%					20%	10%					
Dorms						100%							
Dining					55%								
Daycare			15%										
Classroom	30%	50%		30%				5%	35%			20%	
Chemistry				10%									
Biology	30%												
Auditorium				5%			75%						
Admin		15%		5%	5%				2%		1%	1%	

Bay De Noc Community College

Reporting Period: MTWThF, 8/28/2017 thru 10/10/2017 M-F Peak Utilization (32 days)

All figures are percentages

Besse Health and Technology (BHAT - 400)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
400 GIS Classroom				22	22										
402E Lab						34		34							
402F Lab				68		81	74	74	34						
403 WaterTech Classroom				41	34	18	59	34							
405 Automotive Classroom				81	68	41	81	81	81						
408 Classroom				68	68		52	41	41						
410 Classroom				44	36	41	56	22	18						
413A Chemistry Lab					19	16		81	78						
413C Water Chemistry Lab					19	19	19	19	16						
421 Lecture Auditorium				128	107		59	44	40						
423 Lecture Classroom				81	55	19	34	22	18						
424C Nursing Lab				41	41	41	41	34							
424N Nursing Lab				81	81	81	81	68	41						
426 Nursing Lab				44	44	44	44	36							

Catherine Bonifas Building (CB - 200)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
200 A Painting Classroom				41	34										
200 D Classroom				61	81	20		41	10						

200E Ceramics Classroom															
218 Classroom				41	74	44		41	41						
221 Classroom				74	34	59	34								
222 Classroom				68	68	19	16	63	32						
225 Classroom				16	22	16	16								
230 Career Closet															
231 Classroom				27	41	51	61	52	46						
233 Classroom				16	81	61	61		20						

HUB - 800

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
870 Computer Lab					68	20	41	14							

Joseph Heirman University Center (JHUC - 900)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
901 Classroom				68	41	10	22	22	18						
903 Classroom				64	34	81	68	41	10						
908A Computer Classroom					41	10									
908B Computer Classroom				14	41	10		41	68						
908C Computer Classroom				30	34	30	45	41	10						
908D Graphics Design Lab				41	34			41	34						
908E Computer Classroom				28	19	48	14	19	5						
908J Computer Classroom				41	34	41	10								
909 Classroom				61	52	34	68								
911 Classroom				61	68	34									

961 Classroom															
963 ITV Classroom															
972A High Bay North Mechatronics						41		34							

Math Science Building (MS - 100)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
110 Physics Classroom/Lab						49		38	31						
112 Life Science Lab				19	16	19	16	38	31						
116 Biology Lab				16				63	56						
123 Classroom				27	49	41	27								
124 ITV Lecture Classroom				34	74	27	19	34	19						
125 ITV Lecture Classroom				68	49	71	16								

M-TEC Building (MTEC - 2000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
2013 Classroom				38	38	38	38	38	38						
2023 Machine Shop							41	41	34						

Welding (WELD - 1000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
1010 Welding Classroom															
1011 Welding Classroom				30											
1015 Welding Lab				34			81	81	68						
1020 Welding Lab				41	41	34									

West Campus

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
107 ITV Classroom				49	71	16									
114 Art Classroom				41	34										

115 ITV Classroom		41	10	19	34	19	19	
119 Lecture		41	51	74	10	78	28	
127 Lecture		41	34	81	68	41	10	
129 Chemistry Lab		22	18		22	18	22	
140 Lecture		122	102	22	56	41	34	
141 Nursing Lab		38	38	19	59	59	59	
150 Biology Lab		59	49		34	38	31	
231 Lecture Room (both sections)								
231 Lecture Room (side A)								
231 Lecture Room (side B)								
232 Lecture (M-TEC)								
236 Lecture		41	10		41	74	10	
245 Lecture				68		81	20	
251 Computer Classroom		100	60	34			16	
257 Computer Classroom			9	55	10	41	56	
258 Open Computer Lab								
264 CNSS Computer Classroom				41	34	41	34	

Bay De Noc Community College

Reporting Period: MTWThF, 8/28/2017 thru 10/10/2017 M-F Off Peak Utilization 8AM-10AM (32 days)

All figures are percentages

Besse Health and Technology (BHAT - 400)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
400 GIS Classroom			22	22											
402E Lab															
402F Lab			81	68											
402H Lab															
403 WaterTech Classroom				41											
405 Automotive Classroom		81	81	81											
408 Classroom		20	54	68											
410 Classroom			44	44											
413A Chemistry Lab															
413B Chemistry Computer Lab															
413C Water Chemistry Lab															
414 Automotive Lab															
421 Lecture Auditorium		88	88	128											
423 Lecture Classroom			84	81											
424C Nursing Lab		41	41	41											
424N Nursing Lab		81	81	81											
426 Nursing Lab		44	44	44											

Catherine Bonifas Building (CB - 200)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p

200 A Painting Classroom				41
200 D Classroom			41	61
200E Ceramics Classroom				
218 Classroom		41	34	41
221 Classroom		41	54	74
222 Classroom		41	27	68
225 Classroom			11	16
231 Classroom			41	27
232 Classroom				
233 Classroom		63	27	16

HUB - 800

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
870 Computer Lab			68												

Joseph Heirman University Center (JHUC - 900)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
901 Classroom			34	68											
903 Classroom			61	64											
908A Computer Classroom															
908B Computer Classroom			9	14											
908C Computer Classroom			31	30											
908D Graphics Design Lab				41											
908E Computer Classroom		19	23	28											
908J Computer Classroom				41											

909 Classroom			41	61											
911 Classroom			41	61											
961 Classroom															
963 ITV Classroom															
972A High Bay North Mechatronics															

Math Science Building (MS - 100)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
110 Physics Classroom/Lab		41	27												
112 Life Science Lab		38	31	19											
116 Biology Lab			19	16											
123 Classroom			74	27											
124 ITV Lecture Classroom		20	54	34											
125 ITV Lecture Classroom		81	27	68											

M-TEC Building (MTEC - 2000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
2013 Classroom		38	38	38											
2021 EMT Classroom															
2023 Machine Shop															

Welding (WELD - 1000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
1010 Welding Classroom			68												
1011 Welding Classroom			37	30											
1015 Welding Lab			41	34											
1020 Welding Lab				41											
Total	0.0	0.0	36.4	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

West Campus

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
107 ITV Classroom		14		49											
114 Art Classroom				41											
115 ITV Classroom		41	34	41											
119 Lecture			34	41											
127 Lecture				41											
129 Chemistry Lab		19	16	22											
140 Lecture		22	81	122											
141 Nursing Lab		38	38	38											
150 Biology Lab		19	16	59											
231 Lecture Room (both sections)															
231 Lecture Room (side A)															
231 Lecture Room (side B)															
232 Lecture (M-TEC)															
236 Lecture				41											
245 Lecture															
251 Computer Classroom			19	100											
257 Computer Classroom															
258 Open Computer Lab															
264 CNSS Computer Classroom															

Bay De Noc Community College

Reporting Period: MTWThF, 8/28/2017 thru 10/10/2017 M-F Off Peak Utilization (32 days)

All figures are percentages

Besse Health and Technology (BHAT - 400)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
400 GIS Classroom															
402E Lab										22	18				
402F Lab									34						
402H Lab															
403 WaterTech Classroom															
403A WaterTech Dry Lab															
405 Automotive Classroom									81	27	41				
408 Classroom									41	34					
410 Classroom									18	41	34				
411 Classroom															
413A Chemistry Lab									78	52					
413B Chemistry Computer Lab															
413C Water Chemistry Lab									16						
421 Lecture Auditorium									40	18					
423 Lecture Classroom									18	19	38				
424C Nursing Lab															
424N Nursing Lab									41	41	41				
426 Nursing Lab										11	22				

Catherine Bonifas Building (CB - 200)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
200 A Painting Classroom															
200 D Classroom									10						
200E Ceramics Classroom											20				
218 Classroom									41	38	22				
221 Classroom															
222 Classroom									32	16					
225 Classroom															
231 Classroom									46	36	7				
233 Classroom									20	30					

HUB - 800

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
870 Computer Lab										41	34				

Joseph Heirman University Center (JHUC - 900)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
901 Classroom									18						
903 Classroom									10						
908A Computer Classroom															
908B Computer Classroom									68						
908C Computer Classroom									10	41	23				
908D Graphics Design Lab									34						
908E Computer Classroom									5						
908J Computer Classroom										22	18				

909 Classroom															
911 Classroom															
961 Classroom															
963 ITV Classroom															
972A High Bay North Mechatronics									34	19	16				

Math Science Building (MS - 100)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
110 Physics Classroom/Lab									31						
112 Life Science Lab									31						
116 Biology Lab									56	18					
123 Classroom										41	34				
124 ITV Lecture Classroom									19	19	16				
125 ITV Lecture Classroom															

M-TEC Building (MTEC - 2000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
2013 Classroom									38	31					
2021 EMT Classroom															
2023 Machine Shop									34						

Welding (WELD - 1000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
1010 Welding Classroom															
1011 Welding Classroom															
1015 Welding Lab									68	41	41				
1020 Welding Lab															

West Campus

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
107 ITV Classroom											41				
114 Art Classroom															
115 ITV Classroom									19	16					
119 Lecture									28	81	61				
127 Lecture									10	41	10				
129 Chemistry Lab									22	18					
140 Lecture									34	81	68				
141 Nursing Lab									59	56	20				
150 Biology Lab									31	41	24				
231 Lecture Room (both sections)															
231 Lecture Room (side A)															
231 Lecture Room (side B)															
232 Lecture (M-TEC)															
236 Lecture									10	59	29				
245 Lecture									20	41	44				
251 Computer Classroom									16						
257 Computer Classroom									56	59	34				
258 Open Computer Lab															
264 CNSS Computer Classroom									34	41	41				

Bay De Noc Community College

Reporting Period: MTWThF, 8/28/2017 thru 10/10/2017 M-F Off Peak Utilization 5PM-10PM (32 days)

All figures are percentages

Besse Health and Technology (BHAT - 400)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
400 GIS Classroom															
402E Lab											18				
402F Lab															
402H Lab															
403 WaterTech Classroom															
405 Automotive Classroom											41	41	34		
408 Classroom															
410 Classroom											34				
411 Classroom															
413A Chemistry Lab															
413B Chemistry Computer Lab															
413C Water Chemistry Lab															
421 Lecture Auditorium															
423 Lecture Classroom											38	22	18		
424C Nursing Lab															
424N Nursing Lab											41	41	41	41	34
426 Nursing Lab											22	22	11		

Catherine Bonifas Building (CB - 200)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p

200 A Painting Classroom															
200 D Classroom															
200E Ceramics Classroom											20	41	14		
218 Classroom											22	22	18		
221 Classroom															
222 Classroom												22	22	16	
225 Classroom															
231 Classroom											7	44	44	35	
232 Classroom															
233 Classroom															

HUB - 800

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
870 Computer Lab											34				

Joseph Heirman University Center (JHUC - 900)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
901 Classroom															
903 Classroom												41	34		
908A Computer Classroom															
908B Computer Classroom															
908C Computer Classroom											23	22	22	18	
908D Graphics Design Lab															
908E Computer Classroom															
908J Computer Classroom											18				

909 Classroom															
911 Classroom												22	22	18	
961 Classroom															
963 ITV Classroom															
972A High Bay North Mechatronics											16				

Math Science Building (MS - 100)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
110 Physics Classroom/Lab															
112 Life Science Lab															
116 Biology Lab													19	16	
123 Classroom											34	81	68		
124 ITV Lecture Classroom											16	38	18		
125 ITV Lecture Classroom												41	34		

M-TEC Building (MTEC - 2000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
2013 Classroom															
2021 EMT Classroom															
2023 Machine Shop															

Welding (WELD - 1000)

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
1010 Welding Classroom															
1011 Welding Classroom															
1015 Welding Lab											41	74	81	68	
1020 Welding Lab															

West Campus

Location	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p
107 ITV Classroom											41	34			
114 Art Classroom															
115 ITV Classroom															
119 Lecture											61	27			
127 Lecture											10				
129 Chemistry Lab															
140 Lecture											68				
141 Nursing Lab											20				
150 Biology Lab											24	22	18		
231 Lecture Room (both sections)															
231 Lecture Room (side A)															
231 Lecture Room (side B)															
232 Lecture (M-TEC)															
236 Lecture											29	19	16		
245 Lecture											44	41	34		
251 Computer Classroom															
257 Computer Classroom											34				
258 Open Computer Lab															
264 CNSS Computer Classroom											41	34			

C. Mandated Facility Standards for Specific Programs

Bay College meets general space requirements as noted in federal accreditation standards. This includes meetings higher levels of space and equipment standards for specific programs such as Nursing, Automotive, Biology and Chemistry laboratories, EMT/Paramedic, Welding, Water Technology, and Mechatronics. Bay College is at capacity for meeting programmatic needs and will require additional space for program growth.

D. Functionality of Existing Structures and Space Allocation to Program Areas Served

1. MS 100 - Math and Science Building
Serves academic division Math and Sciences and contains a greenhouse that supports both academic and community activities.

2. CB 200 - Catherine Bonifas Building
Serves primarily the Arts & Letters and Social & Behavioral Sciences academic divisions. Administration is also located in this building.

3. YMCA 300 - YMCA
Supports students in providing physical activities and wellness opportunities. Supports college athletics.

4. BHAT 400 – Besse Health and Technology
Serves academic divisions Allied Health & Wellness, Applied Science, Technology, Math & Science, and provides general use of several classrooms.

5. SC 500 - Student Center
No academic divisions have specific space allocations in this building. It serves students in a support capacity and houses Human Resources, the Café, and Bookstore.

6. SA 600 - Student Apartments
Provides student housing, no direct academic allocations.

7. BESSE 700 - Besse Center for Performing Arts
Serves Arts & Letters academic division, mostly Theater, as well as Music.

8. HUB 800 (formerly known as LRC 800 - Learning Resource Center)
No academic divisions have specific space allocations in this building. It serves students in a support capacity and provides one general use computer classroom. Academic and certification testing as well as the Library reside in this building.

9. JHUC 900 - Joseph Heirman University Center
Serves Business & Technology academic division and provides general use of several classrooms, and Mechatronics program.

10. SHIP/WELD 1000 - Shipping & Receiving and Welding
Serves Technology division, specifically the Welding program.

11. MAINT 1100 - Maintenance Building

No academic divisions have specific space allocations in this building. It serves students in a support capacity.

12. M-TEC 2000 - Michigan Technological Educational Center
Serves the Allied Health & Wellness academic division, specifically the EMT/Paramedic program, and general use of classrooms and labs for all academic divisions on an as-needed basis.

13. Extension Building
No academic divisions have specific space allocations in this building. This is a leased building.

14. Bay College West Campus – Iron Mountain
Single campus building serves all academic divisions.

15. Bay College West Campus Maintenance
No academic divisions have specific space allocations in this building. It serves students in a support capacity.

E. Replacement Value of Existing Facilities

The replacement value for each building is shown below.

Building	Building Value
MS 100	4,766,600
CB 200	7,081,000
YMCA 300	7,347,000
BHAT 400	13,835,700
SC 500, BESSE 700, HUB 800	26,788,400
SA 600 # 1	2,209,200
SA 600 # 2	2,628,600
SHIP/ WELD 1000	3,334,500
MAINT 1100	1,212,000
JHUC 900	11,013,300
MTEC 2000	4,405,900
West Campus	12,442,000
West Campus Maintenance	88,900
Extension Center Building	983,100
Soccer Fields Building	60,200
Salt Storage	25,900
Total	**98,222,300**

F. Utility System Condition

The condition of each building is communicated below.

MS 100 - MATH AND SCIENCE BUILDING

Building Exterior	Description	Comments/Condition
Walls	Face brick on concrete block. Metal fascia (painted).	Sound condition of existing walls
Windows	Aluminum frames with insulating glass. Glazed greenhouse panels on aluminum frame with vent window system.	Need replacing and updating
Doors/Frames	Hollow metal doors and frames. Main entrances aluminum.	Fair condition
Roof	EPDM ballasted membrane	Replaced in 2016 during renovation project
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions. Face brick in vestibules.	Very good, repair and paint summer 2016
Floors/Coverings	Terrazzo tile and concrete in corridors. Ceramic tile in bathrooms. Vinyl tile in offices and carpet in classrooms.	Terrazzo tile is in good condition, concrete in excellent condition. Carpet in classrooms replaced in summer 2016
Doors/Frames	Hollow metal / wood.	Partial renovation in 2016 introduced several new doors/frames and repainting of existing door frames
Ceiling	Suspended acoustical throughout.	Fair in science labs. Excellent condition in corridors renovated in 2016
Comments: Air condition. Project upcoming	Completed project.	
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and main Transformer	Fed from 3 single phase 25kVA transformers in cabinet outside building.	Transformers are 30+ years old. Medium voltage cable into cabinet is about 25 years old. Condition of equipment is marginal. Should plan replacement in near future.
Building Service Equipment and Panels	Consists of one 400A, 3-phase 208Y/120V Cutler Hammer main panel board. Multiple branch panels.	Equipment is 30+ years old, and is satisfactory for the present. Needs to be upgraded if building usage changes.
General Receptacles		In 2016 renovated areas all receptacles upgraded
Interior Lighting	Fluorescent and LED	Upgraded corridor and classroom lighting to LED in summer 2016. Non-renovated spaces remain fluorescent.
Exterior Lighting	Over doors	Marginal
Emergency and Exit Lighting		Satisfactory - meets codes
Computer Wiring	CAT 6 wiring has been installed.	Good

Security and Special Systems	Fire Alarm panel updated	Good-Replaced 2010
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good condition
Piping/Valves/Fitting		Satisfactory. Some leak stains in mechanical areas.
Domestic Hot Water	Gas water heater	New in 2014
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	Hot water circulation	Needs replacement
Heating Type	Fin radiation, cabinet heaters, unit ventilators, and air handling units with heating coils.	Good
Ventilation	Outside air-thru unit ventilators and air handling units. Exhaust system in toilets, lab fume hoods, and greenhouse addition.	Good
Air Conditioning/ Coils	Cooling coils in unit ventilators.	Partial cooling - Good
Temperature Controls	Pneumatic controls	Satisfactory

CB 200 - CATHERINE BONIFAS BUILDING

Building Exterior	**Description**	**Comments/Condition**
Walls	Face brick on concrete block. Metal fascia.	Good
Windows	Aluminum sash	Need replacement in 83% of building, 17% replaced in 1999.
Doors/Frames	Wood / hollow metal	Excellent on new addition. Marginal on original building.
Roof	EPDM ballasted membrane	Year new: 2014
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions. Drywall in administrative. Brick in vestibules. Glass partition walls.	Fair
Floors/Coverings	Terrazzo in corridors. Ceramic tile in bathrooms. Carpet in administrative, faculty offices, classrooms. Vinyl tile in service areas.	Fair, dated and cracking
Doors/Frames	Wood / hollow metal	Fair
Ceiling	Suspended acoustical throughout	Fair

	Renovation/addition in 1999	Seating in large lecture hall needs replacement and redesign of room would benefit student learning environment.
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Fed from 3 single phase 25kVA transformers in cabinet outside building. MV connection from northernmost electrical vault.	Transformers and medium voltage cable is 35 years old. Should plan for replacement in the near future.
Secondary voltage and Building Main Service Equipment	Main panel is 400A, 3-phase, 208Y/120V ITE switchboard.	Equipment is 35+ years old, and is satisfactory for the present. Needs to be upgraded.
Branch and Distribution Panels	Most equipment is original (1970).	Satisfactory, but not much available breaker space for future expansions.
General Receptacles		Fair
Interior Lighting	T-8 fluorescent fixtures with electronic ballasts	Fair
Exterior Lighting		Marginal
Emergency and Exit Lighting		Satisfactory - meets codes
Computer Wiring	CAT 6 network cable has been installed throughout.	Excellent
Security and Special Systems	Fire alarm panel installed.	Replaced 2011
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Fair
Piping/Valves/Fitting		Satisfactory. Some water stains from leaks in mechanical areas.
Domestic Hot Water	Gas water heater	Satisfactory
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	Weil-McLain cast iron. 1078 MBW output. Gordon-Platt burners.	Replaced in 1999, need replacing
Heating Type	Fin radiation, cabinet heaters, air handling units with heating coils. Hot water - pumped distribution.	Needs updating
Ventilation	Fresh air-thru-air handling units. Exhaust systems-toilets, janitor room, kiln.	fair
Air Conditioning/ Coils	Chilled water coils added to air handling units in 1999.	fair
Temperature Controls	Original Honeywell pneumatic controls with Robert-Shaw used in recent renovation	fair

YMCA 300 - GYMNASIUM / YMCA / CHILD CARE

Building Exterior	Description	Comments/Condition
Walls	Face brick on concrete block 1st 7 ft. 26 gauge steel panels to gym height 30 ft. addition: Face brick on concrete block. Upper 4 ft. metal fascia.	Good
Windows	Aluminum sash/wood	Needs replacement
Doors/Frames	Aluminum frame entry with vestibule	Newer/good
Roof	Insulated PVC overlay on everything except pool addition	New in 2015, however pool addition needs replacement
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions throughout. Ceramic tile wall finish in locker rooms. Ceramic tile wainscot and textured concrete block in pool. Few gypsum board partitions.	Acceptable
Floors/Coverings	Upgraded tile in corridors and CR's. Ceramic tile in locker rooms, spa/sauna, corridor, and pool. Hardwood in gymnasium. Carpet in fitness center, child care center, offices. Rubber floor in weight room.	Acceptable interior finishes with a completed refinishing of the gym floor in summer 2017
Doors/Frames	Hollow metal / wood	Fair
Ceiling	Suspended acoustical throughout. Exposed tees in pool.	Good
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Consists of 3 single phase 50kVA transformers in cabinet outside 100 building.	Transformers and MV cable are 25-30 years old. Equipment shares cabinet with 100 building. Should relocate closer to YMCA and replace equipment in near future.
Secondary voltage and Building Main Service Equipment	Consists of 1-800A switch, underground secondary run, and 1-800A 208Y120V distribution panel.	Main underground feeder is quite long for the voltage. Main distribution panel has two empty breaker spaces left.
Branch and		All branch panels are full
General Receptacles		Good
Interior Lighting	Most are newer fluorescent with T8 lamps.	Satisfactory
Exterior Lighting		Marginal
Emergency and Exit Lighting		Satisfactory - meets codes
Computer Wiring	CAT 5 wiring throughout.	Satisfactory
Security and Special Systems	Fire alarm system needs updating	Okay
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Sewer drains slow outside of building

Piping/Valves/Fitting		Satisfactory
Domestic Hot Water		Satisfactory
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	High efficient	Replaced in 2008-2010
Heating Type	Fin radiation, cabinet heaters, convectors High efficient forced air in Gym	Satisfactory Good 2010-2012
Ventilation		Satisfactory
Air Conditioning/ Coils		
Temperature Controls	Pneumatic controls	Satisfactory
Comments: Pool dehumidification system by Dectron Company	Dectron unit is wearing out	Needs replacing

BHAT 400 – Besse Health and Technology (formerly known as HATC 400 - HEALTH AND APPLIED TECHNOLOGY CENTER)

Building Exterior	**Description**	**Comments/Condition**
Walls	Face brick on concrete. Metal fascia.	Satisfactory
Windows	Aluminum sash	Replaced
Doors/Frames	Hollow metal	Replaced
Roof	EPDM ballasted membrane	Year new: 2000
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions. Drywall partitions in office area. Interior drywall partitions - 1998	Good
Floors/Coverings	Terrazzo in corridors. Vinyl tile in classrooms. Ceramic tile in bathrooms. Carpet in offices and computer labs.	Good
Doors/Frames	Hollow metal / wood.	Replaced
Ceiling	Suspended acoustical in classrooms and offices.	New in hallways; Nursing replaced in 2013, South end replaced in 2015
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and main Transformer	Consists of 3 single phase 100kVA transformers in outdoor cabinet. MV cable comes from vault near 100 building.	Transformers and MV cable is 25 years old. Should plan on replacement in the near future.
Secondary voltage and building main service equipment	Have a 2000A main breaker in the 208Y/120V 3-phase switchboard.	No available space for expansion
Branch and distribution panels		Acceptable
General Receptacles		Good

Interior Lighting	Most are newer or upgraded fluorescent with T8 lamps.	Satisfactory
Exterior Lighting		Good
Emergency and Exit Lighting		Good - meets codes
Computer Wiring	CAT 5 wiring installed throughout.	Satisfactory
Security and Special Systems	Fire Alarm system updated 2010	Good
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer		Good
Piping/Valves/Fitting		Satisfactory
Domestic Hot Water	Natural gas water heater	Satisfactory

HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers		Needs replacement
Heating Type	Fin radiation, cabinet heaters, air handling units with duct heating coils.	Satisfactory
Ventilation	Fresh air-to-air handling units. Exhaust system for toilets, janitor room, automotive lab, chemistry fume hoods, and chemical storage	Satisfactory
Air Conditioning/ Coils	Direct expansion R-22 coils with remote condensing units on roof - 4 zones electronics and nursing lab.	Good – Replaced 2006
Temperature Controls	Pneumatic controls	Satisfactory
Comments:	Relatively good condition for 24 years old.	

SC 500 - STUDENT CENTER/Student Services/Café/Bookstore

Building Exterior	**Description**	**Comments/Condition**
Walls	Face brick on concrete. Metal fascia.	Good - Ongoing maintenance
Windows	Aluminum sash	Excellent north and northwest
Doors/Frames	Hollow metal/wood	Excellent - new
Roof	EPDM ballasted membrane	Good - newer 3-5 years
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions. Stack bond masonry block walls (partial vinyl surface drywall). Gypsum board partitions in administrative offices.	Good
Floors/Coverings	Vinyl tile in cafeteria and corridors; ceramic tile in bathrooms/kitchen; carpet in offices; flagstone in lounge area; ceramic/porcelain tile in kitchen and café.	Kitchen/cafeteria and TV and game room are new floors. Bathrooms are old.

Doors/Frames		New
Ceiling	Suspended acoustical. Exposed fiberglass in cafeteria.	Offices have new tile.
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and main Transformer	Fed from 3 single phase 50kVA transformers in an outdoor cabinet. Long primary feed from northern-most vault by 200 building.	Transformers and MV cables are 30+ years old. Replacement should be planned for in the near future.
Secondary voltage and building main service equipment	3 separate feeds into building. Have both a newer and older 600A panel (208Y/120V, 3- phase).	Satisfactory
Branch and distribution panels	Some newer panels and some old panels.	Should replace older panels as repair and replacement parts are becoming difficult to obtain.
General Receptacles		Good
Interior Lighting		Satisfactory
Exterior Lighting		Good
Emergency and Exit Lighting		Satisfactory
Computer Wiring	CAT 5 network cable throughout.	Satisfactory
Security and Special Systems	Fire Alarm System updated 2008	Good
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting	Pipe insulation-fiberglass	Satisfactory. Some joints require taping.
Domestic Hot Water	Gas water heaters	New water maker
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	Weil-McLain cast iron; 1007MBW output	Satisfactory
Heating Type	Fin radiation, cabinet heaters, heating coils. Hot water - pumped distribution.	Satisfactory
Ventilation	Fresh air-to-air handling units. Exhaust - toilets, kitchen hoods, locker room.	Satisfactory
Air Conditioning/ Coils	R-22 direct expansion cooling; zoned system including kitchen.	Satisfactory
Temperature Controls	Pneumatic controls	Satisfactory

SA 600 - College Apartments

Building Exterior	**Description**	**Comments/Condition**
Walls	Face brick on concrete block. Metal fascia.	Top half needs paint
Windows	Aluminum sash	Thermopane

Doors/Frames	Wood/wood	South side replaced (good); north side original (poor)
Roof	EPDM ballasted membrane	Year new: 1995
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block at unit walls. Wood frame with drywall.	Acceptable
Floors/Coverings	Vinyl tile throughout	Good - new
Doors/Frames	Wood with plastic laminate	Good
Ceiling	Drywall/Drop in	Good - new
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Fed from 1 single phase 50kVA transformer in a pad-mount cabinet. Utility connection and meter is on pole along railroad tracks. Underground primary.	The transformer and primary underground cable are 25+ years old. Replacement should be planned for in the near future.
Secondary voltage and building main service equipment	Each apartment complex has a 600A, single phase, 240/120V service.	All equipment is original (about 25 years old) and is adequate. Should consider equipment upgrades if any major renovation is planned or if the building usage changes.
Branch and distribution panels		
General Receptacles		Good
Interior Lighting		Marginal
Exterior Lighting		Marginal
Emergency and Exit Lighting		None
Computer Wiring		None
Security and Special Systems		Poor
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Satisfactory. Future faucet replacement.
Domestic Hot Water	Water maker	Good – New 2010
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	High efficient	Good – new in 2011
Heating Type	Fin radiation	Satisfactory
Ventilation	Toilets exhaust	Satisfactory
Air Conditioning/Coils	N/A	
Temperature Controls		Satisfactory
Comments:		

SA 600 - College Apartments

Building Exterior	Description	Comments/Condition
Walls	Face brick on concrete block. Metal fascia.	Top half needs to be painted
Windows	Aluminum sash	Thermopane
Doors/Frames	Wood	South side replaced (good); north side original (poor)
Roof	EPDM ballasted membrane	Year new: 1995
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block at unit walls. Wood frame with drywall.	Acceptable
Floors/Coverings	Vinyl tile throughout	Good - new
Doors/Frames	Wood with plastic laminate	Good
Ceiling	Drywall/Drop in	Good - new
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Fed from 1 single phase 50kVA transformer in a pad-mount cabinet. Utility connection and meter is on pole along railroad tracks. Underground primary.	The transformer and primary underground cable are 25+ years old. Replacement should be planned for in the near future.
Secondary voltage and building main service equipment	Each apartment complex has a 600A, single phase, 240/120V service.	All equipment is original (about 25 years old) and is adequate. Should consider equipment upgrades if any major renovation is planned or if the building usage changes.
Branch and distribution panels		Marginal
General Receptacles		Good
Interior Lighting		Marginal
Exterior Lighting		Marginal
Emergency and Exit Lighting		None
Computer Wiring		None
Security and Special Systems		None
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Satisfactory
Domestic Hot Water		Future faucet replacement

HVAC	Description	Comments/Condition
Fuel	Natural gas	Good
Boilers	High efficient	Good – new in 2011
Heating Type	Fin radiation	Satisfactory
Ventilation	Toilets exhaust	Satisfactory

Air Conditioning/Coils	N/A	
Temperature Controls		Satisfactory
Comments:		

BESSE 700 - Besse Theater and Art Galleries

Building Exterior	Description	Comments/Condition
Walls	Metal composite building panels. Concrete block at mechanical room.	Good
Windows	1" insulated clear glass in aluminum frame	Fixed - Non-operable. Good
Doors/Frames	Aluminum	Good
Roof	EPDM ballasted membrane	Year new: 1987
Building Interior	**Description**	**Comments/Condition**
Walls	Gypsum board partitions throughout. Demountable partitions in office areas.	Good
Floors/Coverings	Carpeting throughout auditorium, LRC, and offices. Quarry tile in bathrooms. Vinyl tile in service areas. Quarry tile vestibules and corridors.	Gypsum drywall bulkhead at skylight requires continual maintenance. Needs renovation.
Doors/Frames	Metal/wood	Good
Ceiling	Suspended acoustical throughout. Partial plaster on metal lath in stack area clerestory.	Good
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Fed from 3 single phase 167kVA transformers. Also have a fused S&C 15kV switch in the service cabinet.	Transformers were installed in 1986. Short run of underground primary to manhole is older and should be
Secondary voltage and building main service equipment	Main service is 480Y/277V	Good
Branch and distribution panels	Have a motor control enter for mechanical equipment. Also many branch panels.	Good
General Receptacles		Good
Interior Lighting	Indirect and fluorescent	Good
Exterior Lighting		Marginal
Emergency and Exit Lighting		Good - meets codes
Computer Wiring	CAT-5 network cable	Satisfactory
Security and Special Systems	Fire alarm tied to panel in Student Center (500) building	Good – Replaced in 2008
Comments:		

Plumbing	Description	Comments/Condition
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Satisfactory
Domestic Hot Water	Gas water heater	Satisfactory
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	High Efficient 2014 4 Weil-McLain Ultra 550	Excellent
Heating Type	Fin radiation, cabinet heaters, air handling unit heating coils, and duct booster coils. Hot water circulation.	Satisfactory
Ventilation	Outside air-to-air handling units. Exhaust systems in toilets and dark room.	Satisfactory
Air Conditioning/Coils	120 ton air cooled water chiller with pumps piped to cooling coils in air handling units.	Satisfactory
Temperature Controls	Johnson controls pneumatic	Good

HUB 800 – Student Success Center/Online Learning/Testing & Certification/Library (formerly known as the LRC 800 - LEARNING RESOURCE CENTER)

Building Exterior	Description	Comments/Condition
Walls	Metal composite building panels. Concrete block at mechanical room.	Good
Windows	1" insulated clear glass in aluminum frame	Fixed - Non-operable. Good
Doors/Frames	Aluminum	Good
Roof	EPDM ballasted membrane	New in 2016
Building Interior	**Description**	**Comments/Condition**
Walls	Gypsum board partitions throughout.	Excellent, repaired and replaced in 2016.
Floors/Coverings	Carpeting throughout all non-corridor areas. Corridors are a mix of carpet and polished concrete. Quarry tile in bathrooms. Concrete in service areas.	Excellent, replaced carpet in 2016, removed tile in corridors and polished concrete sub-strait.
Doors/Frames	Metal/wood	Excellent
Ceiling	Suspended acoustical throughout. Partial plaster on metal lath in clerestory area.	New ceiling in Excellent condition, while sky-light clerestory in good condition after repairs.
Comments:		
Electrical	**Description**	**Comments/Condition**

Medium Voltage Connection and Main Transformer	Fed from 3 single phase 167kVA transformers. Also have a fused S&C 15kV switch in the service cabinet.	Transformers were installed in 1986. Short run of underground primary to manhole is older and should be replaced.
Secondary voltage and building main service equipment	Main service is 480Y/277V	Upgraded in 2016
Branch and distribution panels	Have a motor control enter for mechanical equipment. Also many branch panels.	Upgraded in 2016
General Receptacles	Many with integrated USB	Upgraded in 2016
Interior Lighting	LED	upgraded in 2016
Exterior Lighting	LED	Upgraded in 2016
Emergency and Exit Lighting	Integrated	Upgrade in 2016, meets code
Computer Wiring	CAT-6 network cable	Upgraded in 2016
Security and Special Systems	Fire alarm tied to panel in Student Center (500) building	Good – Replaced in 2008
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Replaced in 2016
Piping/Valves/Fitting		Replaced in 2016
Domestic Hot Water	Gas water heater	Replaced in 2016
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	High Efficient 2014 4 Weil-McLain Ultra 550	Upgraded in 2016
Heating Type	Fin radiation, cabinet heaters, air handling unit heating coils, and duct booster coils. Hot water circulation.	Upgraded in 2016
Ventilation	Outside air-to-air handling units. Exhaust systems in toilets and dark room.	Upgraded in 2016
Air Conditioning/Coils	120 ton air cooled water chiller with pumps piped to cooling coils in air handling units.	Upgraded in 2016
Temperature Controls	Johnson controls pneumatic	Upgraded in 2016

JHUC 900 - JOSEPH HEIRMAN UNIVERSITY CENTER

Building Exterior	**Description**	**Comments/Condition**
Walls	Brick on 8" concrete block. Aluminum composite metal panels on 8" concrete block. Glazed aluminum curtain walls.	Column bases (rusting); deterioration

Windows	Aluminum sash	Good
Doors/Frames	Hollow metal/aluminum	Good
Roof	EPDM ballasted membrane	Good
Building Interior	**Description**	**Comments/Condition**
Walls	Concrete block partitions. Gypsum board partitions	Excellent
Floors/Coverings	Vinyl composition tile in support areas. Quarry tile in kitchen, lobby, and corridors. Carpet in offices and classrooms. Paver tile. Computer access flooring in data processing.	New floor covering materials installed. Broken quarry tile being repaired.
Doors/Frames	Hollow metal/wood	Good
Ceiling	Suspended acoustical ceilings throughout	Excellent
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Fed from a 500kVA pad-mounted transformer. Primary feeder is underground from newer switches near the 100 building.	Installed in 1997. Excellent condition.
Building main service equipment and panels and secondary voltage. Branch and distribution panels.	Main service consists of 3-1200A, 3-phase, 480V switches. Also have a motor control center. Have a 300kVA dry-type transformer that serves the 208Y/120V loads.	Excellent
General Receptacles	Have a variety of special receptacles in some rooms.	Excellent
Interior Lighting	Very elaborate dimmable lighting in some rooms.	Computer center lighting needs to be upgraded/replaced to eliminate glare on monitors. LED and Induction installed in large conference rooms.
Exterior Lighting		Satisfactory
Emergency and Exit Lighting		Good - meets codes
Computer Wiring	CAT-5 wiring throughout. Also have small raised-floor computer room with UPS.	Excellent
Security and Special Systems	EST fire alarm installed	Excellent
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Good
Domestic Hot Water		Good
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	High Efficient 2014 4 Weil-McLain Ultra 550	Excellent
Heating Type	Fin radiation along perimeter walls. Variable air volume terminal units with hot water heating coils and thermostats.	Good

Ventilation	Outside air-to-air handling units with toilet exhaust and zone exhaust system.	Good
Air Conditioning/Coils	Direct expansion R-22 coils in air handling units with roof-mounted condensing units.	Good
Temperature Controls	Johnson controls	Good
Comments:		

MAINT 1100 - MAINTENANCE BUILDING 1

Building Exterior	**Description**	**Comments/Condition**
Walls	Steel panels	Acceptable
Windows	Aluminum	Minimal; poor
Doors/Frames	Hollow metal/hollow metal	Acceptable
Roof	Metal roof	Good
Building Interior	**Description**	**Comments/Condition**
Walls	Few wood frame partitions	Fair
Floors/Coverings	Poured concrete on grade	Good
Doors/Frames	Wood/wood	Fair
Ceiling	Sprayed insulation	Fair
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Have 1 - 37.5kVA and 2 - 15kVA transformers in a pole-mount bank. Secondary is overhead to each building.	Satisfactory
Building main service equipment and panels and secondary voltage. Branch and distribution panels.	Each building has a 200A, 240/120V 3-phase delta service.	All panels are full - no room for future expansion.
General Receptacles		Satisfactory
Interior Lighting	Some is older, some has been upgraded. Mostly industrial fluorescent.	Satisfactory
Exterior Lighting		Marginal
Emergency and Exit Lighting		Good
Computer Wiring	N/A	N/A
Security and Special Systems	N/A	N/A
Comments:		

MAINT 1100 MAINTENANCE BUILDING 2 (former Paper Science Lab)

Building Exterior	**Description**	**Comments/Condition**
Walls	22 gauge steel panels	Good
Windows	N/A	N/A
Doors/Frames	Hollow metal/hollow metal	Fair
Roof	Metal roof	Good
Building Interior	**Description**	**Comments/Condition**
Walls	Few concrete block partitions. Steel panels	Acceptable

Floors/Coverings	Concrete on grade. Metal building type exposed.	Insulation blankets
Doors/Frames	Hollow metal/hollow metal	Entrance in poor condition
Ceiling	N/A	N/A
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer	Have 1 - 37.5kVA and 2 - 15kVA transformers in a pole-mount bank. Secondary is overhead to each building.	Satisfactory
Building main service equipment and panels and secondary voltage. Branch and distribution panels.	Each building has a 200A, 240/120V 3-phase delta service.	All panels are full - no room for future expansion.
General Receptacles		Satisfactory
Interior Lighting	Some is older, some has been upgraded. Mostly industrial fluorescent.	Satisfactory
Exterior Lighting		Marginal
Emergency and Exit Lighting		Good
Computer Wiring		Satisfactory
Security and Special Systems	N/A	N/A
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Water freezes
Piping/Valves/Fitting		Satisfactory
Domestic Hot Water	Gas water heater	Good
HVAC	**Description**	**Comments/Condition**
Fuel		
Boiler	High Efficient	New in 2009
Heating Type		
Ventilation		
Air Conditioning/Coils		
Temperature Controls		

M-TEC 2000 – Michigan Technical Education Center

Building Exterior	**Description**	**Comments/Condition**
Walls	Steel 26 gauge panel rib with insulation; concrete block first 4 feet.	
Windows		
Doors/Frames		
Roof	Built-up composition (membrane type).	
Building Interior	**Description**	**Comments/Condition**
Walls	8" concrete block painted; 2x4 steel studs with 5/8" gypsum board partitions.	
Floors/Coverings	Carpet in offices and classrooms; vinyl tile in bathrooms.	
Doors/Frames		
Ceiling	Suspended acoustical.	
Comments:		
Electrical	**Description**	**Comments/Condition**

Medium Voltage Connection and Main Transformer	Fed from a 500kVA pad-mount transformer with underground primary feeder to pole along North 30th Street.	
Building main service equipment and panels and secondary voltage. Branch and distribution panels.	Main switchboard is 1200A, 480Y/277V, 3 phase. Have a 300kVA dry-type transformer to serve 208Y/120V loads.	
General Receptacles		
Interior Lighting		
Exterior Lighting	A few lights on building exterior. No site lighting.	
Emergency and Exit Lighting		
Computer Wiring	CAT-5 network cable throughout	
Security and Special Systems	Fire alarm system installed. No pull stations at exits.	Horn Strobes
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Good
Domestic Hot Water		Good
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas	Good
Boilers	N/A	
Heating Type	Gas furnaces with cooling coils and condensing units for 14 zones. 3 gas heating-cooling units mounted on steel frames about 4 ft. above grade.	Satisfactory
Ventilation	Gas furnaces	Satisfactory. Relocation of machine shop equipment into this building will require an exhaust air system for fumes and make-up air to balance exhaust.
Air Conditioning/Coils		Satisfactory.
Temperature Controls	Residential thermostats	Verify occupancy time control for continuous fan operation with outside air damper.
Comments: Building is about ten years old. Gas infra-red heating at ceiling of shop.		

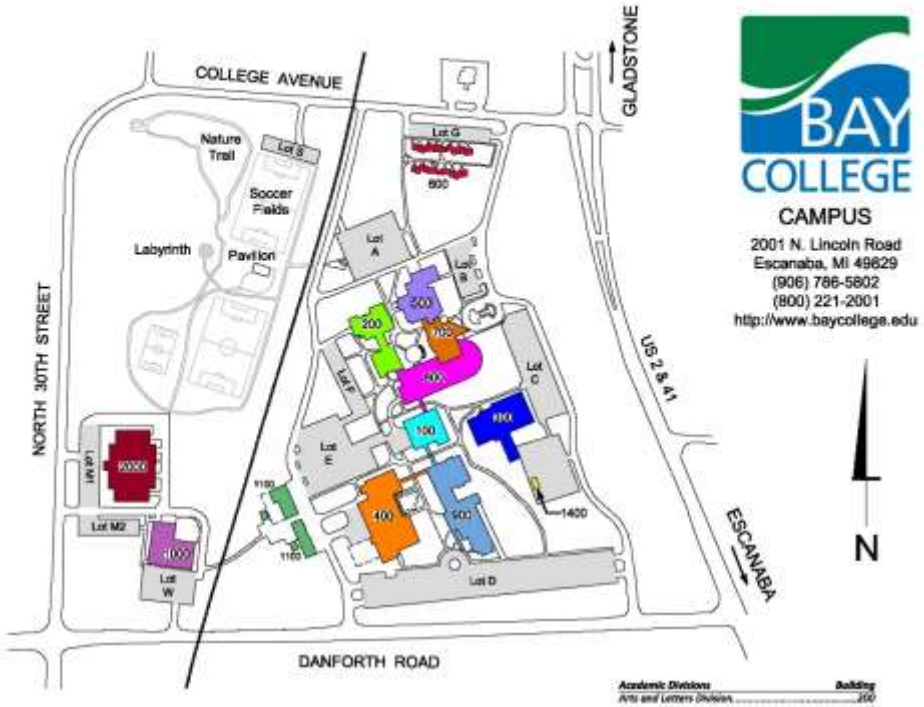
BAY WEST CAMPUS – IRON MOUNTAIN

Building Exterior	**Description**	**Comments/Condition**
Walls	Face brick on concrete block/ICF covered with aluminum panels	Excellent
Windows	Aluminum sash	Satisfactory

Doors/Frames	Aluminum frame with glass metal frames	Satisfactory
Roof		
Building Interior	**Description**	**Comments/Condition**
Walls	Sheetrock walls	Excellent
Floors/Coverings	Carpet in classrooms, offices, stained concrete in public spaces	Excellent
Doors/Frames	Wood/metal	Excellent
Ceiling	Suspended acoustical tile in classrooms	Excellent
Comments:		
Electrical	**Description**	**Comments/Condition**
Medium Voltage Connection and Main Transformer		Excellent
Secondary voltage and building main service equipment		Excellent
Branch and distribution panels		Excellent
General Receptacles		Excellent
Interior Lighting	Fluorescent lighting.	Excellent
Exterior Lighting	High pressure sodium.	Excellent
Emergency and Exit Lighting	All lighting as needed.	Excellent
Computer Wiring	CAT-5 network cable	Good
Security and Special Systems	Burglary alarm disconnect. Fire alarm with pull station sin hallways.	Excellent
Comments:		
Plumbing	**Description**	**Comments/Condition**
Water/Sewer	Municipal	Good
Piping/Valves/Fitting		Good
Domestic Hot Water	Water maker off boilers/hot water heater.	New
HVAC	**Description**	**Comments/Condition**
Fuel	Natural gas.	Good
Boilers	2 boilers.	New
Heating Type	Air handling units with heating coils.	Satisfactory
Ventilation	Exhaust fans in bathrooms.	Good
Air Conditioning/Coils		New
Temperature Controls	DDC Delta	New

G. Facility Infrastructure Condition

A map that shows the Escanaba parking lots and access roads is shown below.



BAY COLLEGE
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LEGEND

100	Math / Science Building (MS)
200	Catherine Bonifas / Administrative Services (CB)
300	YMCA / Gymnasium / Child Care
400	Besse Health and Technology (BHAT)
500	Student Center
600	Student Apartments
700	Besse Center
800	HUB
900	Joseph Heirman University Center (JHUC)
1000	Welding / Shipping and Receiving
1100	Maintenance Buildings
1400	Career Closet (CC)
2000	Michigan Technical Education Center (M-TEC)
	Parking Lots - A, B, C, D, E, F, G, M1, M2 ,S, W

Academic Divisions	Building
Arts and Letters Division	200
Business Division	900
Math/Science Division	100
Nursing/Allied Health and Wellness Division	400
Social and Behavioral Science Division	200
Technology Division	400
Academic Support and Services	
Accessibility	800
Admissions	500
Bookstore	500
Cafeteria	500
Cashier	500
Student Success Center	800
Event Coordinator	800
Conference Rooms	500, 800, 900, 2000
Financial Aid	500
Information Technology Services	900
Testing and Certification	800
Tutoring	800
Supplemental Instruction	800
Library	800
Online Learning and Instructional Technology	800
Registrar/Student Records	500
Safety and Security	200
TRIO	800
Veteran Support	500
Offices	
Business Office	200
College Advancement Office	200
Human Resources	500
President's Office	200
LSSU University Office	900
Other	
Art Galleries	200, 700
Besse Theatre/Gallery	700
Building and Grounds	1100
Shipping and Receiving	1000
Workforce Development	2000

All parking lots receive regular routine maintenance that includes crack filling and seal coating. Parking lots A, B, C, D, E, and F are in excellent condition due to a comprehensive refinishing in summer 2017. There are four primary campus access roads into the campus. The northwest access road was recently replaced. All of the roads are currently in good to excellent condition.

The Iron Mountain campus has one large parking lot with three entry points. The parking lot received crack filling and resealing summer of 2017. The two entry points onto and off of US 2 are one-way with the entry off of Frank Pipp Drive two-way.

H. Adequacy of Existing Utilities and Infrastructure Systems to Current and 5-year Projected Programmatic Needs

With the exception of the Catherine Bonifas building, existing facilities and infrastructure systems meet programmatic needs for the immediate future. Facilities and infrastructure systems in the Catherine Bonifas building have exceeded their useable lifespan. Infrastructure upgrades are detailed in Section V, Part A, Item 1 – Renovation of Catherine Bonifas Building.

The 5-year programmatic needs include the addition of a Sustainability Center to support growth in current programs as well as provide the impetus for new programming, see Section V, Part A, Item 2 – The Sustainability Center.

I. Goals of Enterprise-Wide Energy Plan

Facility-wide energy audits were conducted in 2001, 2012, and 2016. The 2012 audit calculated a 17.6% to 59.1 % reduction in energy use when compared to the 2001 audit for buildings on the Escanaba campus. The 2016 energy audit showed continued overall decrease in energy usage of 14.8% across both campuses. In 2017, the Iron Mountain Campus reduced its electrical consumption by 19%. Bay College continues to invest in energy savings projects and recognizes the importance of reducing consumption in addition to supporting energy saving devices. Bay will continue to plan, budget, and implement efficiency projects as recommended in the 2016 Energy Audit.

Bay College has three primary goals as a part of its current 5-year energy plan.

Goal #1: Implement an Energy Management System (EMS) on the Escanaba campus to integrate utility systems across disparate buildings and ultimately gain efficiencies in controlling systems with automation and integrate new systems with the current scheduling system for maximum efficiency.

Goal #2: Integrate solar into current and future buildings. This goal moves the college closer to meeting its goal of carbon neutrality as a signatory of the Climate Leadership Commitments.

Goal #3: Develop and implement plans to reduce energy consumption by 4% each year.

J. Land

Bay College owns two campuses. The Escanaba campus is 155 acres of land, with fourteen buildings and eight major parking lots. The campus also contains three soccer fields that occupy approximately 100 acres of the property. Several areas around the existing structures allow expansion opportunities. Larger areas for growth are located along the US2/US41 corridors, south of student housing, and southwest of the welding and M-TEC facilities. The Iron Mountain campus is 25 acres, with one 67,000 sq ft building, and one large parking lot. Expansion opportunities are available for the Iron Mountain campus by acquiring vacant land to the north.

K. Portions of Existing Building that are Obligated to the State Building Authority (SBA)

Bay College currently has four buildings obligated to the SBA. In 1997, the MS 100, CB 200, and SC 500 buildings all underwent general renovations. The total project cost was $3,715,000 in which the state contributed $1,857,500. The lease for this project will expire on 11/30/2034.

In 2005, Bay College West, Bay's second campus, was constructed in Iron Mountain, MI. The total project cost was $12,048,000 in which the state contributed $5,874,300. The lease for this project will expire on 11/30/2042.

V

Implementation Plan

Section V. Implementation Plan

A. Prioritize Major Capital Projects Requested from the State

1. Renovation of Catherine Bonifas Building

The Catherine Bonifas building

This project provides for a complete renovation of the Catherine Bonifas building. The building was built in 1970 with additions in 1999 that utilized existing infrastructure. The facility houses classrooms, including arts and ceramics, a large lecture hall, faculty and administrative offices, and an art gallery. The building has not received any significant improvements in its 46 years of service with the exception of a new roof in 2014. The scope of the renovation will include windows, doors, all new mechanical, plumbing, electrical and life safety systems, interior finishes, ADA compliance, wiring for automation, modernized classrooms and lecture hall, and enhanced exterior entrances including vestibules. The renovation supports the College's mission; Student Success. Community Success. Culture of Success.

Total Estimated Cost: $1,880,000 (28,428 SF x $66.13)

2. The Sustainability Center

The Sustainability Center will be located on the Escanaba campus. The project provides a 10,000 sq ft addition to the Math/Science building. The scope of the project includes 2 classrooms, 2 learning labs, 2 offices, restrooms (composting), conference/common room, outdoor learning environment, and native plant landscaping (watering from building gray water), while meeting the standards of a LEED certified building. The center will serve as an example of green building including the College's first solar installation highlighting renewable energy on campus. In addition to student activities at the center it will serve as a regional and local hub for community engagement through use of the facility in meeting sustainability programs and learning exhibits. The National Council for Science and the Environment's 2015 Community College Census confirmations a growth trend in sustainability degrees for AS, AA, and AAS programs with significant growth in jobs in areas such as water, solar, green manufacturing, green building, transportation, and environmental engineering. The center will provide resources for current and new academic programs in growth areas such as natural history, environmental issues, global change, renewable energy, construction and green building, aquaculture, hydroponics, wildlife education, plant/tree identification, and conservation science.

The center supports the College's mission and vision and shows an unwavering commitment to the college's mission; Student Success. Community Success. Culture of Success.

Total Estimated Cost $2,000,000 (10,000 SF x $200)

3. Campus-Wide Solar Energy Installation

Solar energy is one of the most promising renewable energy sources in the world, requires little maintenance, almost no supervision, and has a life span of 20-30 years with low overhead costs. This solar installation and clean/green battery storage* project for both campuses would eliminate electricity bills by generating 100% of our electricity needs from solar, a net savings of about $470,000 annually. Solar installation of monocrystalline panels on the Escanaba campus would cover 308,205 sq. ft. and the Iron Mountain campus would cover 52,501 square feet. Both campuses would include rooftop and covered parking installations. Smaller arrays for signs and outdoor lighting would be installed at or near ground level. Implementation of this project will provide the necessary infrastructure to integrate renewable energy concepts into current curriculum while engaging new and innovative academic and workforce development programming. The installation will include an online metering interface to engage the community and prospective businesses by allowing anyone to monitor and realize the benefits of solar energy in our regional area. This project will go hand-in-hand with an energy reduction campaign and awareness program aimed at reducing energy consumption on campus by 5% over 5 years.

Total Estimated Cost: Escanaba Campus for panels and installation is $5,000,000 (gross). Iron Mountain Campus for panels and installation is $500,000 (gross).

4. Campus Wide Site Improvements

A number of site related improvements have been identified to enhance the student experience, maintain the facility's assets, expand recreational opportunities, promote a healthy lifestyle, and support future academic program needs and related facility expansions.

Student Service Center Outdoor Plaza $170,000
Includes a partially covered outdoor seating area that provides a place to eat and study outdoors.
Student Service Center Entry and Façade Enhancements..... $350,000
Improve the façade entry to the northeast entrance to the Student Center building, including an awning entrance with integrated solar panels to power lighting enhancements.
Campus Landscape/Site Improvements $350,000
Improve campus landscaping throughout campus including native plantings, prairie restoration, and entrance enhancements through vegetation, tree plantings, and lighting.
Walk/Bike/Ski Campus Path $350,000
Expand walking/biking/skiing trail around and through campus with 4 connectors to community trail systems.

Total Estimated Cost: $1,220,000

5. Native American Museum and Cultural Arts Center

Create a UP Native American Museum and Cultural Arts Center to promote greater awareness of Native American culture and heritage in the Upper Peninsula. This project will

fill a gap, give the College a stronger cultural dimension and strengthen community connections.

Total Estimated Cost: $2,500,000 (6,250 SF x $400)

B. Provide an Estimate Relative to the Institution's Current Deferred Maintenance Backlog

The College is carrying a $4,200,000 backlog in deferred maintenance. Fifty percent of the deferred maintenance consists of modernization projects. The remaining percent are shared among infrastructure and repair/maintenance of siding, roofs, and windows. A portion of the college's deferred maintenance is in the Catherine Bonifas building (see Capital Outlay Project Request).

C. Status of Ongoing Projects Financed with State Building Authority Resources

N/A

D. Identify a Rate of Return on Planned Expenditures

Renovation of the Catherine Bonifas Building

The Catherine Bonifas building renovation is an investment in existing facilities with life/safety and ADA deficiencies. The renovations will provide greater utilization of the existing square footage and will integrate energy efficiencies and optimization systems into the operations of the facility.

Renovation of the Catherine Bonifas building will not impact tuition and fees and will be partially funded through millage funds.

The Sustainability Center

Green jobs are an important part of our US economy and 6 booming job sectors are fueling growth in this sector. Currently 50% of jobs in the water industry are green jobs and we see our Water Technology program and the new Sustainability Center increasing opportunities for program growth and innovation in this area. Solar energy jobs are growing at a rate 10 times the national average and we see opportunity for our students to gain advantages by integrating programmatic work with real-world installation and management of our onsite solar installation. Manufacturing boasts 20.4% of all green jobs in the US and we see opportunity for our students by developing renewable energy programs, such as manufacturing of solar components. The construction industry is focused on the building-envelope to ensure sustainability and lower energy costs of new construction and renovations. The Sustainability Center will serve as a model building and provide hands-on, interactive learning for new programs in construction and renewable energies. The center will enhance Biology courses, revive the Timber Harvesting program, and add opportunities for Art, Design, and Cultural programs. In addition to academic programming, the Sustainability Center will enhance community education by teaching programs such as hobby farming, composting, hydroponic gardening, residential alternative energies, family recreation, digital outdoor photography, and nature as an Art form.

Construction of the center will have no impact on tuition or fees and will be funded through grants and community donations. The center will positively impact job creation in the state through program enhancements to include job readiness in growth areas.

Solar Installation Savings and Benefits

Renewable energy installations provide the college with fixed energy costs and remove fiscal stresses related to energy cost fluctuations. Fixed costs allow for improved planning and provide the college with resilience in the event of electrical grid/utility catastrophes or outages.

E. Considered Alternatives to New Infrastructure

N/A

F. Identify a Maintenance Schedule for Major Maintenance Items in Excess of $1,000,000

Maintenance of solar installations are minimal and maintenance of installed systems will be provided by current Facilities staff.

G. Amount of Non-Routine Maintenance and Sources of Financing

Bay College has budgeted approximately $630,000 for non-routine maintenance on the Escanaba campus and $130,000 for Bay College West Campus. The capital items below will be funded through the annual property tax millage.

Escanaba Campus:

Facility	Campus Security Cameras	$7,500
Advancement	Wayfinding system & kiosk mods in JHUC	$18,000
IT	Network upgrade	$30,000
IT	iTV Replacement MS125	$15,000
IT	New Video Conferencing Room	$15,000
IT	Datacenter UPS	$65,500
IT	Boardroom remote connection equipment	$5,000
IT	PC Replacements	$150,000
Administration	President Vehicle	$30,000
EMT/Paramedic & Nursing	SIM Baby	$45,000
Facility	wireless infrastructure in Student Apartments	$10,000

Academics	Automotive - Lift	$10,000
Academics	Thermo Scientific Nicolet iS5 Mid-infrared FT-IR Spectrometer with computer and accessories.	$20,596
Academics	Thermo Scientific Picospin 45 Series II NMR Spectrometer with computer and accessories (if same computer can be used as the other spectrometer, might be able to deduct some)	$25,299
Academics	Chemistry Instructional Lab Renovation - Add iTV capability and demonstration area to BHAT 408.	$5,000
Advancement	Upgrade tables in Bay's rooms	$29,000
Student Services	redo of old compass lab into meeting room	$20,000
Academics/Facility	Upgrade BHAT 400, offices in that room, and the attached patio to accommodate the new program	$100,000
	Chairs for Bays Room & Transport	$20,000
	Channel 190 upgrades	$14,105

West Campus:

IT	PC Replacement	35,000
IT	iTV Replacement WC 107, corresponding MS 125	15,000
IT	New Video Conferencing Room, corresponds to Esky room	15,000
Facilities	parking lot crack filling and striping	8,000
Facilities	funds to remedy the noise issue in 4 classrooms on the 2nd floor center of the building. There are three options we are working on and will use the funds to complete one	48,000

FISCAL YEAR 2019 CAPITAL OUTLAY PROJECT REQUEST

Institution Name: **Bay de Noc Community College (Bay College)**

Project Title: **Catherine Bonifas Renovation: Escanaba Campus**

Project Focus: _**X**_ Academic ___Research _**X**_Administrative/Support

Type of Project: _**X**_Renovation ___Addition ___New Construction

Program Focus of Occupants: **Classrooms, Labs, and support facilities for General Education, Criminal Justice, Early Childhood Education, Arts, Communication, English, First Year Experience, Human Services, History, Languages, Political Science, Social & Behavioral Sciences, and Transitional Studies.**

Approximate Square Footage: **28,428 sq ft**

Total Estimated Cost: **$1,830,000**

Estimated Start/Completion Dates: **The design work would begin immediately after notification of award with an estimated completion date of August 2020.**

Is the Five-Year Plan posted on the institution's public internet site? _**X**_Yes ___No

Is the requested project the top priority in the Five-Year Capital Outlay Plan? _**X**_ Yes ___No

Is the requested project focused on a single, stand-alone facility? _**X**_ Yes ___No

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

1. Describe the project purpose.

Bay de Noc Community College seeks funding through the capital outlay process to renovate and extend the useful life of one of its existing buildings on the Escanaba Campus. The proposed renovations in the Catherine Bonifas building will correct life/safety deficiencies, provide ADA compliant access, increase energy efficiencies, and promote greater occupancy through architectural improvements.

The Catherine Bonifas building was originally constructed in 1970. The building is primarily concrete block and brick with original windows, doors, lighting and plumbing fixtures. The purpose of this project is to provide a complete renovation of the interior including all new windows, mechanical, electrical, plumbing, life-safety systems, architectural elements, and classroom upgrades. Renovation of the building will allow for space where students and employees can gather and spend time, increasing occupancy and building utilization. Energy efficiencies will provide fiscal savings through reduced utility costs.

2. Describe the scope of the project.

The proposed project includes renovations throughout the building.

- Architectural improvements include replacement of carpeting and VCT tiles, replacement of acoustic ceiling tiles, refinishing terrazzo tile flooring, replacement of all windows, removal of

interior walls, widening of passageways, renovation of restrooms, new paint and cove base. Budget estimate $790,000.

- Mechanical and plumbing include installation of new air handler units, replacement of inefficient boiler systems (currently 75% efficient), addition of digital controls and smart software, installation of 35 variable air volume boxes for more efficient temperature control, reconfiguration of restroom plumbing and installation of low flush toilets and low flow faucets, and installation of additional ventilation and air filtration in ceramics lab. Budget estimate $530,000.

- Electrical upgrades include replacement of all existing light fixtures with high efficiency LEDs and provide improved user control and switching throughout the building. Installation of an individual utility meter will allow for energy optimization and swift identification of any equipment issues. Budget estimate $160,000.

- Installation of an automated sprinkler system for fire suppression. Budget estimate $120,000.

Conversion of an old movie theater room into a student and faculty collaboration space will provide desired space where students and faculty can come together for tutoring opportunities or students can rest and study. Installation of small niches in the main corridors will provide quiet contemplative space that students seek in other buildings across campus. Expansion of classrooms will allow instructors to more freely move within the space and engage students in more interactive learning. A small patio area outside of the Arts classroom will provide the space needed for students to draw and paint their natural surroundings.

To reduce air infiltration and lower utility costs all exterior entrances will be outfitted with vestibules.

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

By 2025, 6 in 10 jobs will require an education beyond high school. This means Bay College needs to educate more students than ever before. Several programs reside in this building with job creation and talent enhancement opportunities such as Human Services, Criminal Justice, Early Childhood Education, Art & design, and Education and Liberal Arts. The following tables shows job growth in Bay's regional sector (central Upper Peninsula and northern Wisconsin), taken from a recent Program Demand Gap Analysis report that highlight these program areas.

Title	2015 Jobs	2025 Jobs	Job Change	Median Hourly Wage
Sales Managers	855	956	101	$46.38
Social and Community Service managers	716	782	66	$28.30
Managers, General	2,192	2,418	226	$26.15

Title	2015 Jobs	2025 Jobs	Job Change	Median Hourly Wage
Computer Occupations (including Graphic Design and Gaming)	406	462	57	$26.88
Child, Family, and School Social Workers	744	807	63	$20.87
Probation Officers	347	355	8	$23.82
First-Line Supervisors of Correctional Officers	284	292	8	$28.69
First-Line Supervisors of Police and Detectives	305	312	8	$33.88
Correctional Officers and Jailers	1,826	1,888	63	$22.91
Detectives and Criminal Investigators	183	192	9	$31.73
Police and Sheriff's Patrol Officers	1,890	1,938	48	$25.93
Private Investigators	60	65	5	$19.49
Substance Abuse and Behavioral Disorder Counselors	744	807	63	$20.87
Mental Health and Substance Abuse Social Workers	384	462	78	$18.58
Social and Human Services Assistants	1,902	2,122	221	$12.03

Furthermore, with only 21% of Michigan's high school graduates being college ready an emphasis on transitional courses is a priority. Giving these students a sense of place in this building where transitional faculty reside will further lead to their success.

A number of students attend Bay College with the intention of transferring to a four-year college or university to receive a bachelor's degree. Though these students study any number of topics, a large number of them receive Associate of Arts degrees in general studies. Over the past four years, an average of 57 students have completed a liberal arts or general studies degree at the associate degree level, which composes 12% of the college's annual production of certificates and degrees. Once these students leave Bay College, their educational and career track is difficult to predict. They could attend a four-year college in the region or outside the region, and they could study any number of different programs that will ultimately determine their future career. What can be shown is that over the next 10 years, jobs that require a bachelor's degree are projected to be in high demand. In any given year between 2016 and 2026, 14,834 jobs will require a bachelor's degree and 43,341 will require a bachelor's degree or less, availing these students of 83% of all regional job openings. Bay College recognizes the value of general studies and identifies with business leaders who desire employees with soft skills such as interpersonal communication, writing, organizational, and leadership skills. The Catherine Bonifas building houses the delivery of these courses.

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

The mission of Bay College:

Student Success. Community Success. Culture of Success.

This project adds value to the college mission by focusing on improvements that will enhance our student's experience both in and out of the classroom, increase employee satisfaction, and encourage community use of the facility.

The renovations in this project will provide students with a place to study, meet in groups, and meet with advisors and will result in students staying in the building longer and feeling more connected to their academic programs. Creating these spaces in other buildings has helped to increase persistence from fall to fall by 4% (previous funded 2016 Capital Outlay Project – The Academic Success Center). Currently, students have to go to an adjacent building in order to work in a group or to find quiet study space. Furthermore, providing a more modern feel through lighting, flooring, and architectural features, as well as improving air quality will increase usage to the space. In addition, students with disabilities must use restrooms in adjacent buildings because current restrooms were designed with 90° walls at the entry points and are difficult to navigate. The renovations include 4 single use restrooms that will provide unencumbered access as well as unisex facilities.

Improving heating and cooling in offices, replacement of windows, and updated carpet and paint will increase employee satisfaction. Creating gathering spaces outside of faculty offices has been requested for years and this project would answer that need, resulting in faculty spending more time with students in a comfortable and productive setting. In addition, reducing management of the buildings systems by introducing automation and smart controls will improve the maintenance personnel's experience, all leading to an improved Culture of Success.

Removing physical barriers imposed by placement of roof drains in the original design will open up corridors and provide visually pleasing passageways in and around the building's art gallery. In addition, softening of a T-shaped intersection will provide soft seating opportunities for community members when they attend gallery shows and student events. It is anticipated that these improvements will expand cultural events that take place in this building, leading to improved Community Success.

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

Yes, the project is focused on the Catherine Bonifas building. Originally constructed in 1970. The building is stand-alone with a connecting corridor to an adjacent building.

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

Although the Catherine Bonifas building has been well-maintained since it was constructed in 1970 and a small portion of the building was renovated in 1999, the majority of its infrastructure is out of date and systems are inefficient. In addition, the original interior treatments are severely out dated and lack a modern higher education feel with no common spaces available. The exterior of the building is brick and is in good condition and the roof was recently replaced. The proposed renovations will assist the college in:

- Repurposing under-utilized space to create common areas for students to collaborate, study, and meet with faculty
- Improving pedestrian flow throughout the building by removing barriers created in the original design
- Repurposing an office suite to increase the size of an adjacent smaller classroom
- Repurposing an adjacent classroom into a larger Arts classroom and hands-on art studio
- Redesigning restroom facilities to meet the needs of students with disabilities

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

Yes, this project mitigates life/safety deficiencies. The Catherine Bonifas building is not outfitted with a fire suppression system. Included in the budget for this project is the installation of a fire suppression system throughout the building. In addition, the Ceramics classroom and lab facilities will be outfitted with improved air circulation, air quality sensors, and an air filtration system; improving air quality for students and employees in a program that generates substantial small particle dust. The project will also repurpose a non-ADA compliant classroom that had been converted from a 1970's style movie theater. Furthermore, restrooms in the building which are difficult to navigate for students with disabilities will become barrier free. Lastly, all exterior entries will be automated ADA compliant doors and approaches.

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

Bay College uses EMS software to track its course schedules and classroom utilization. College personnel from Facilities and the Registrar analyze utilization data annually and work together to make efficient changes to future schedules. As an example, the West Campus adjusted classroom assignments in conjunction with changes in a chemistry lab to reduce energy consumption, resulting in a 19% decrease in electrical utility costs for the academic year. In addition, the college invested in technology that allows for integration of updated HVAC systems into the college's scheduling software. This improvement provides more accurate control of heating and cooling based on actual usage of rooms. As HVAC and lighting systems are upgraded they are automatically integrated into this system.

In addition, the college participates in routine energy audits supported by the Department of Energy and the Michigan Agency for Energy. Energy audits were conducted in 2001, 2012, 2013, and 2016. These energy audits compare the *energy cost intensity* (ECI) of college buildings to similar types of buildings in the state of Michigan based on the EPA Energy Star Portfolio Manager benchmarking program. Based on the median ECI's of comparable buildings Bay College does well, exceeding performance in all but the YMCA and student apartment buildings. However, buildings with manual controls and antiquated systems do not perform at the highest level and without improved infrastructure, buildings such as the Catherine Bonifas will continue to drop in energy cost intensity. The previous renovation project funded through the Capital Outlay process (2016 Capital Outlay Project – The Academic Success Center) reduced energy use in the renovated building by 49%.

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

Bay College is a signatory of the Climate Commitment Agreement and as such has committed to becoming climate neutral. Integrating sustainability into all aspects of its business practices is paramount to achieving this goal. Renovations and new construction will comply with the U.S. Green Building Council's LEED Silver standard or equivalent and all appliances will be Energy Star certified. The Board of Trustees policy 1036 *Energy Policy* defines all new construction or renovations will pursue energy conservation measures and implement energy conserving systems and utilities.

10. 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?

The college match resources will be drawn from millage funds specifically allocated to renovations and/or new construction.

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

No, the college does not intend on reducing the state share from the amounts indicated.

12. 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.

This project will not increase operating costs to the institution. In fact, the college expects this project to result in cost savings due to energy efficiencies and will create long-term utility cost savings. In addition to fiscal savings the college anticipates greater satisfaction of facility use by students, employees, and community members.

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

This project will have no impact on tuition costs.

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

If this project is not authorized, the college will continue to offer academic courses and labs in the Catherine Bonifas building utilizing the current facilities. However, renovations outlined in this proposal will not be done and the benefits of this project will not be realized. With that said, the college will do what it can within operational budgets to make some of the energy efficiency enhancements, as there are energy savings to be gained, and those cost savings could fund some of the life-safety deficiencies.

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

Small capital projects have been considered in an effort to upgrade heating and cooling systems, in addition to minor changes to the restroom facilities to provide some relief for disabled students. The college would allocate staff resources to do some of the energy efficiency improvements, such as sealing of any wall penetrations and replacing door seals. Although these are viable alternatives to a small part of the project scope, they will take resources from other areas of the college, both fiscal and human.

The college seeks funding to renovate an existing building to gain efficiencies and increase occupancy. This project will provide long-term energy savings, create much needed collaborative and study space for students, enhance academic programming in several key areas, and improve employee satisfaction with and community usage of the building.