Frederick Community College

FACILITIES MASTER PLAN 2012-2017

FACILITIES PLANNING
September 2012

FREDERICK COMMUNITY COLLEGE

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Source Documents

Building Assessment – EMG
Periodic Review Report
Facilities Master Plan – 2007
FCC Strategic Plan – External Environmental Scans
Learning Program Analysis
Academic Master Plan
FCC Technology Strategic Plan
Annual State CIP Bond Bill

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PREFACE

The Facilities Master Plan (FMP) is developed to support the institution's role and mission by establishing a plan to manage the growth and change of Frederick Community College. The outline of required plan contents is provided by the Code of Maryland Regulations (COMAR), Title 13B Maryland Higher Education Commission, Subtitle 07 Community Colleges, Chapter 4 Construction Procedures, Regulation 02 Facilities Master Plan, and in general must include a narrative highlighting any facility deficiencies or needs, the responsibilities of the college, background data on campus facilities, facility user data, an evaluation of existing facilities, a description of programs and services at the college and any changes to these programs, an evaluation of the adequacy of the facilities to meet current and projected needs, proposals to address the assessed needs and a prioritized list of recommended projects based on the assessed needs. This process will lead to the development of sound capital planning to guide the physical development of the college's facilities. Institutions are to consider developing a 20-year land use plans as well.

The plan should be treated as a fluid document and comprehensive guide for making decisions regarding the College's physical resources. These plans are to be updated every five years after the submittal date of the original plan (every 10 years). However, whenever major changes occur in role and mission statements or in other plan elements that have significant facilities implications, the submittal should be made sooner.

METHODOLOGY

The report was developed by collecting and analyzing demographic data, data from government, the Academic Master Plan, enrollment data from the College, the Technology Strategic Plan and a facilities condition assessment.

- Demographic data was taken from the College's 2011 Environmental Scan and enrollment data.
- Program and Services data was taken from the College's 2012 -2013 Catalog with additional information from the College's Learning and Learning Support Divisions.
- Space and infrastructure data was provided by a facilities condition assessment conducted by EMG Corp., F.C.C. Facilities Planning CIP data, the 2012-2015 Technology Strategic Plan and the Learning Division.

The demographic, program, services, and space data was evaluated to determine what areas were experiencing growth, decline and changes. The space and infrastructure data was evaluated for current physical condition and adequacy of continued use.

Based upon the evaluation information proposals have been listed to meet demands impacting campus facilities.

Recommended projects were prioritized based on the overall impact to the campus, funding and demand.

A. EXECUTIVE SUMMARY

The Facilities Master Plan will guide the expansion and improvement of the campuses building inventory. The current inventory of buildings on the main campus is composed of 15 buildings totaling 435,717 GSF and 279,317 NASF. This includes; an offsite property, Advanced Workspace Training Center (AWTC), with 38,663 NASF; eight existing academic buildings with a NASF of 159,753; a Library with a NASF of 37,920; two existing administrative buildings with a NASF of 28,226; a Child Care Center with a NASF of 6,150; four other-non-academic buildings making up the remaining square footage and a recently completed parking garage and student services building.

Frederick Community College's main campus, located at 9732 Opossumtown Pike totaling 98.2 Acres is limited in the amount of open space for future development. This is further compounded by the fact that there are no properties adjacent to the main campus that are available for acquisition at this time.

SUBSTANDARD INSTRUCTIONAL SPACE -This Master Plan study has identified one of our biggest deficiencies is that of bringing the older academic building spaces and classroom technology up to current standards. This is necessary to compete with local counterparts at neighboring community colleges and address the student demand for more STEM related and general classroom space utilizing current space planning and updated technology. This is also being driven by enrollment increases in courses generally required in most of our degrees, such as English, Math, Allied Health, Communications, IT, PE and Social Sciences. The buildings that these requirements will have the biggest impact on are Academic Hall Building B, Field House Building D and the Library Building L.

CENTRAL PLANT CAPACITY - The capacity of FCCs Central HVAC Plant and its ability to handle new buildings and expansion projects that are added to the campus is of concern. The central plant building load and capacity analysis study as well as the condition assessment was part of the building assessments portion of this Master Plan process. This study determined that the existing plant has surplus capacity of 160 TR (Chiller Refrigerant Tons) Cooling and 737 MBH (Equal to 1,000 BTU/Hour) Heating. This is adequate to provide heating and cooling for the Building C project currently under design and proposed existing Building renovations. However, upgrading of the plant should be accomplished either separately or in conjunction with the next new building. This would currently be necessary in the FY16 time frame. A more in depth design capacity study of the central plant and its piping distribution system should be performed in support of that eventuality. This could include the addition of chiller(s), Boiler(s) and cooling tower upgrades /additions as well as a possible plant building expansion. There is also the option to design standalone MEP systems into new buildings that would not require central plant up grading of capacity. This approach was recently utilized in the Building J Enrollment Services project. This approach is adequate for smaller structures but may not be operationally cost effective for larger buildings. The condition assessment of the existing plant equipment found the existing chillers to be in good condition, cooling towers were in fair condition,

while the boilers, with the exception of #1 installed in 2012, are in poor condition. The heated and chilled campus distribution system was in fair to poor condition with recent additions and replacements in the good category. The various water circulating pumps were determined to be in good to fair condition. A Replacement Reserves Report was prepared to assist with suggested ongoing replacement and repairs to assist with central plant maintenance budgeting.

WAY FINDING - FCCs way finding system has become outdated and inadequate for assisting vehicular and pedestrian traffic as it approaches and circulates through the main campus. A Traffic and Parking Analysis as part of the assessment process provides recommendations for additional signage around and on the buildings that are more easily readable and instructive. Suggested improvements are included in RECOMMENDATIONS / SECTION F VEHICULAR AND PEDESTRIAN CIRCULATION. An internal FCC team headed by Risk Management has been requested to further review on campus signage and develop a comprehensive plan. Suggested options to improve turn lanes from Opossumtown Pike on to campus were developed. These are as delineated in Section E. As the campus continues to grow these will be developed in detail during the permitting process.

PARKING - There is a 339 parking space shortfall projected for 2021. This shortfall is expected to occur even with the recent addition of the new 345 space (net of 280 spaces) parking garage outside of the Conference Center and the Science & Technology Building. While there are some opportunities for redesigning some of the surface parking lots and adding more parking, structured parking appears to be best way to add a significant amount of parking to the campus. There are few places on the campus where land is undeveloped. The parking garage has been planned to accommodate additional structured parking. With an expected steady increase in enrollment, additional structured parking will be considered on a three - four year cycle.

A site wide public accommodations Abbreviated Accessibility Check list was utilized and found that the site appears to be accessible as stated within the defined priorities of Title III of the Americans with Disabilities Act.

RECOMMENDED PROJECTS

PHASE ONE (2013 -2018)

Building F vacant Space Conversion
Science / Tech Hall Renovation / Addition
Central Plant Renovation/Expansion
Technology Upgrades – PeopleSoft
Classroom Technology Upgrades
Building B Reconfiguration / conversion
Allied Health Building
Parking Deck

PHASE TWO (2019 -2032)

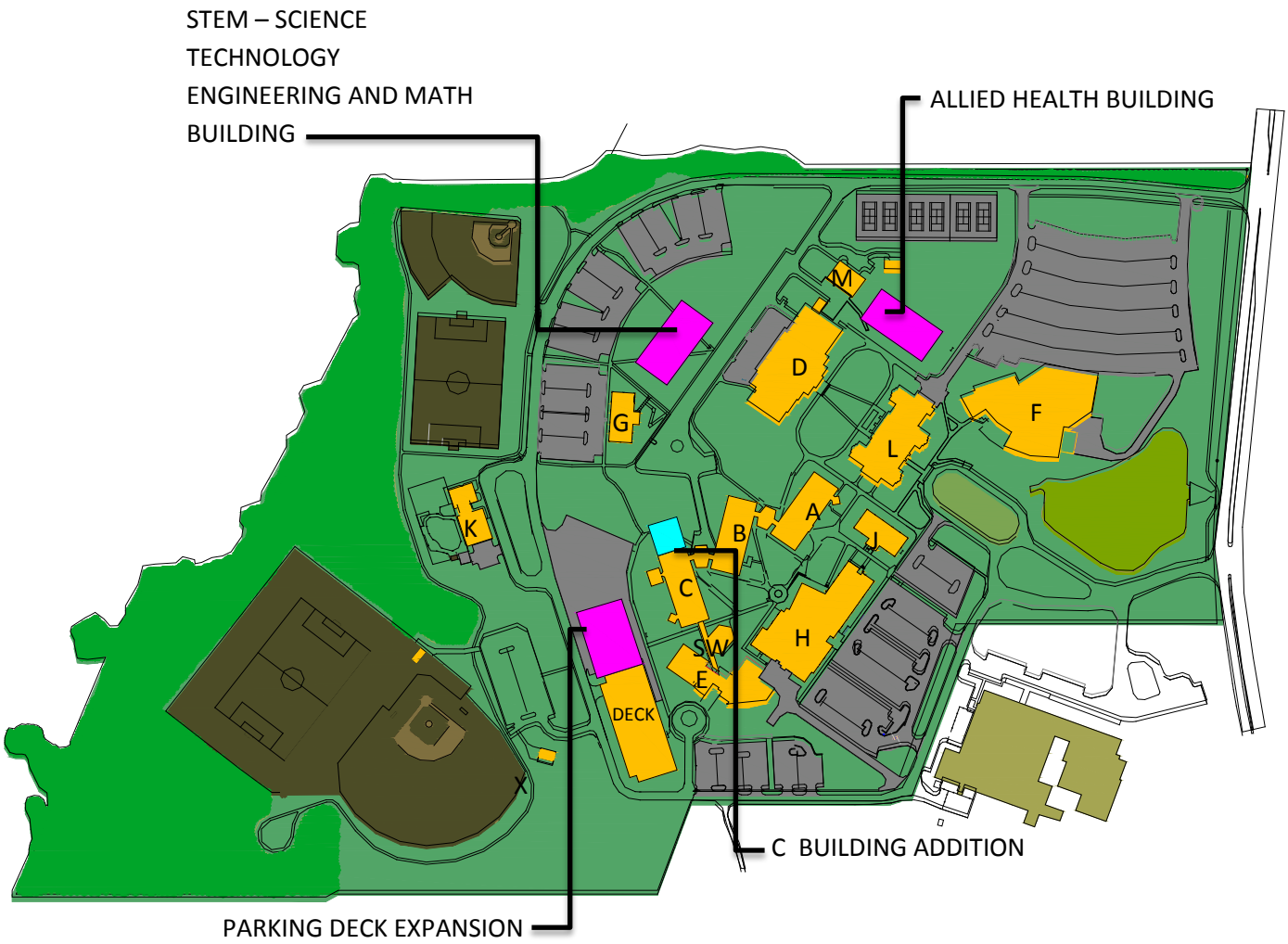
STEM Building
Building L reconfiguration / Conversion
Building D Gymnasium Conversion and addition
Interior Renovations (Building A, E, F, K & M)
Roof Replacements – Flat Roof Areas
Parking and Walkway Replacement and Overlay
Window and Door Replacement (Most buildings)
Interior Renovations (Building C, G, & H)

PROPOSED CAMPUS DEVELOPMENT FROM 2012 - 2022

Existing Buildings

Structures in Design Phase

Proposed New Structures



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OVERVIEW OF FREDERICK COMMUNITY COLLEGE

B. OVERVIEW OF FREDERICK COMMUNITY COLLEGE

Frederick Community College was founded in 1957. FCC moved from Frederick High School to a facility on North Market Street, and finally, in 1970, to its permanent location, a 94 acre-site at 7932 Opossumtown Pike, Frederick, MD. In its 55-year history, Frederick Community College has grown from 77 students to more than 18,000 students registered each year in credit and noncredit (Continuing Education) programs.

The College has seven academic departments which offer degrees in Associates of Arts, Associates of Science, Associates of Arts in Teaching, Associates of Applied Sciences, Certificates and Letters of Recognition in more than 80 fields of study.
The Mission of FCC is to be a student centered, community focused, learning college.

Frederick County was home to over 233,000 in 2010 and the projected annual growth rate for the County is third highest at 2.19% annually, in the State of Maryland.

1. MISSION, VISION AND VALUES

Mission

With teaching and learning as our primary focus, FCC prepares an increasingly diverse student body to complete their goals of workforce preparation, transfer, career development and personal enrichment with quality, innovative lifelong learning. In traditional and alternative learning environments, we anticipate and respond to the needs of our local, regional and global communities.

Values

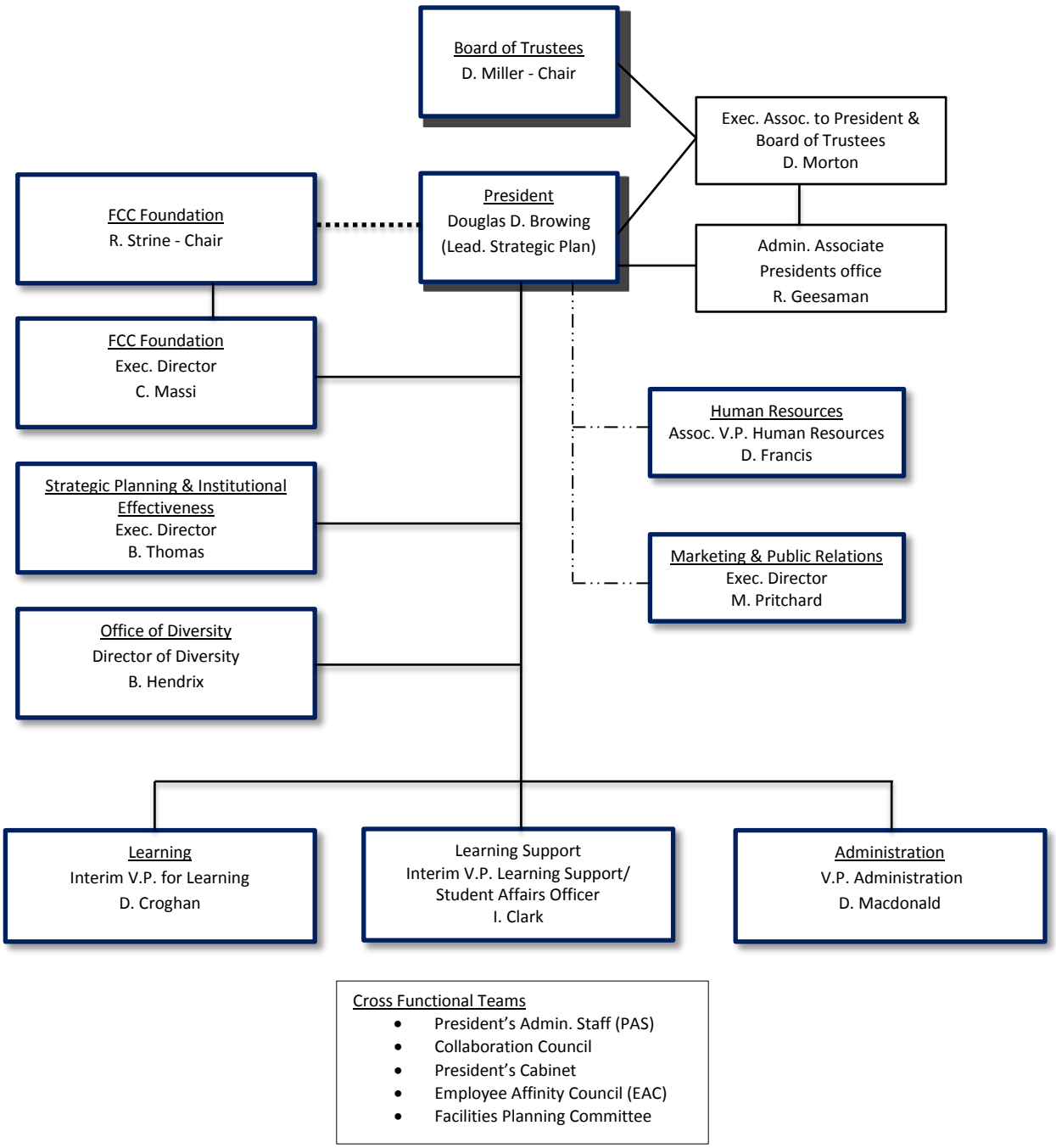
Learning: Lifelong acquisition of knowledge and skills
Innovation: Creative Thinking and approaches that enhance learning and support continuous improvement
Diversity: Visible and invisible human differences that affect the success of students, staff, and members of the community
Excellence: Upholding high academic standards by providing a quality educational environment
Community: Encouraging the engagement of all internal and external stakeholders through communication and collaboration
Integrity: Fair and ethical standards in all policies, procedures, and practices

Vision

We transform individuals and communities through learning

2. INSTITUTIONAL UNITS

FCC ORGANIZATION CHART



Frederick Community College operates 15 buildings on it's main campus. The main campus buildings house all or some portion of the College's academic programs, student support services and auxiliary services. A single building at Monroe Avenue, 3.5 miles from the main campus is where continuing education instruction and workforce development instruction exist and a shared facility in Mt. Airy Md. is where several of the College's Allied Health courses are held.

Learning

Under the V.P. of Learning there are seven academic departments provided:*

- Allied Health and Wellness
- Communications
- Humanities and Arts
- Computing and Business Technology
- English/ESL
- CHA
- Math
- Science
- Social Science
- Library
- Honors
- Continuing Education and Workforce Development
- Writing Center
- Testing Center
- Tutoring

- Academic Facilities Planning
- Academic Program Completion
- Catalog Content
- Facilities Use and Scheduling

Learning Support

Under the V.P. of Learning Support the following services are provided:

- Welcome and Registration
- Admissions
- Counseling and Advising
- Financial Aid
- Student Records and Transcript Services
- Adult Services
- Services for Students with Disabilities
- Career and Transfer Services
- Marketing/ Public Relations
- Center for Student Engagement
- Multicultural Student Support Services
- IT

Administrative Services -

Under the Executive V.P. for Administration the following services are provided:

- Budget
- Fiscal Services
- Auxiliary Services
- Human Resources
- Facilities Planning
- Plant Operations
- Purchasing
- Risk Management/ Public Services

*(See the table on the following page for a list of specific programs provided by each academic department in the Learning Division)

2012-2013 ACADEMIC PROGRAMS

Allied Health & Wellness	Construction Management & Supervision	English/Literature
A.A.	Culinary Arts & Supervision	**Mathematics**
General Studies Fire Science	Information Technology: Information Technology Specialist	A.S.
General Studies Therapeutic Massage	A.S	Mathematics
Physical and Health Education	Computer Science	**Science**
New - Personal/ Fitness Trainer	Information Systems Management	A.S.
A.S.	Certificates	Biology
Associate Degree Nursing	Business Accounting	Chemisry
Pre-Nursing	Business Enterprise	Engineering
A.A.S	Business Studies	A.A.S.
Nuclear Medicine Technology	Architectural Computer Aided Design	Bioprocessing Technology
Respiratory Care	Building Trades Technologies: HVAC	New -Medical Laboratory Technology
Surgical Technology	Building Trades Technologies: Welding	Certificates
Certificates	Building Trades Technologies: Carpentry	Bioprocessing Technology
Nuclear Medicine Technology	Building Trades Technologies: Electrical	**Social Sciences**
Practical Nursing	Building Trades Technologies: Plumbing	A.A
Surgical Technology	Computer Science Studies	Criminal Justice
Letter of Recognition	Computerized Accounting	Economics
Physical Education, coaching	Computer Aided Design Operator	Government & Politics
Communications, Humanities & Arts	Construction Management & Supervision	History
A.A	Construction Technology Academy	Human Services (Gerontology, Social Work Transfer, Developmental Problems,
Art	CPA Exam Qualification	Psychology
Communications (Speech)	Culinary Arts	Sociology
Digital Media Design	Entrepreneurship	A.A.S.
Drama	Hospitality Supervision	Early Childhood Development
Music	Information Technology: Software Specialist, Computer Studies, Infromation Security & Assurance, Personal Computer, Software	Paralegal
Philosophy	Management	Police Science
Certificates	Medical Administrative Specialist	A.A.T.
American Sign Language Studies	Medical Assistant	Education (Elementary)/Elementary Special Education
Computer Graphics	Supervision	Mathematics (Secondary)
Television Production	Letter of Recognition	Spanish (Secondary)
Computing & Business Technology	Accounting	Early Childhood Education/Early Childhood Special Education
A.A.	Building Trades Technologies: HVAC	Certificates
Business Administration	Building Trades Technologies: Welding	Addictions Counseling
International Business	Building Trades Technologies: Carpentry	Child Care Preschool and School Age Teacher Training
A.A.S.	Building Trades Technologies: Electrical	Civil War
Accounting	Building Trades Technologies: Plumbing	Corrections
Architectural Computer Aided Design (CAD)	Construction Management Basics	Early Childhood Development
Building Trades Technologies: HVAC	Geographic Information Systems Basics	Gerontology
Building Trades Technologies: Welding	Information Technology: Database Administration	Paralegal
Building Trades Technologies: Carpentry	Medical Coding Basics	Letter of Recognition
Building Trades Technologies: Electrical	Medical Transcription Basics	Child Care Preschool Teacher
Building Trades Technologies: Plumbing	**English**	Gerontology
Business Management	A.A.	**Honors**
		Continuing Education

3. INSTITUTIONS PERFORMANCE

As a measure of institutional performance the **Frederick Community College 2011 Performance Accountability Report** looked at several areas: Quality and Effectiveness, Access and Affordability, Diversity, Student-Centered Learning and Economic Growth and Vitality.

FREDERICK COMMUNITY COLLEGE
2011 ACCOUNTABILITY REPORT

Student Characteristics *(not Benchmarked)*

These descriptors are not performance indicators subject to improvement by the college, but clarify institutional mission and provide context for interpreting the performance indicators below.

		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	
A.	Percent of credit students enrolled part time	62.3%	62.4%	62%	62.9%	**Not Applicable**
B.	Students with developmental education needs	56.0%	56.4%	60.0%	59.5%	**Not Applicable**
		Spring 2004	**Spring 2006**	**Spring 2008**	**Spring 2010**	
C.	Percent of credit students who are first-generation college students (neither parent attended college)	44.3%	40.9%	39.2%	40.4%	**Not Applicable**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	
D.	Annual unduplicated headcount in English for Speakers of Other Languages (ESOL) courses	228	308	303	555	**Not Applicable**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	
E.	Financial aid recipients					
	a. Percent of credit students receiving Pell grants	8.6%	9.5%	10.7%	14.4%	**Not Applicable**
	b. Percent of credit students receiving loans, scholarships and/or need-based financial aid	18.8%	13.2%	14.3%	19.5%	**Not Applicable**
		Spring 2004	**Spring 2006**	**Spring 2008**	**Spring 2010**	
F.	Credit students employed more than 20 hours per week	72.0%	58.8%	57.0%	54.6%	**Not Applicable**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	
G.	Student racial/ethnic distribution					
	a. Hispanic/Latino	4.9%	4.7%	5.0%	4.2%	**Not Applicable**
	b. Black/African American only	10.1%	9.5%	9.5%	10.4%	
	c. American Indian or Alaskan native only	0.5%	0.6%	0.6%	0.5%	
	d. Native Hawaiian or other Pacific Islander only	N/A	N/A	N/A	0.2%	
	e. Asian only	4.1%	2.4%	2.4%	3.2%	
	f. White only	75.0%	74.3%	74.3%	73.6%	
	g. Multiple races	N/A	N/A	N/A	1.3%	
	h. Foreign/Non-resident alien	2.8%	5.8%	5.8%	4.8%	
	i. Unknown/Unreported	2.6%	2.6%	2.6%	1.8%	
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	
H.	Wage growth of occupational program graduates					
	a. Median income one year prior to graduation	$15,984	$23,638	$19,186	$22,078	
	b. Median income three years after graduation	$41,234	$43,636	$44,890	$48,554	

Goal 1: Quality and Effectiveness

		Alumni Survey 2000	**Alumni Survey 2002**	**Alumni Survey 2005**	**Alumni Survey 2008**	**Benchmark Alumni Survey 2014**
1.	Graduate satisfaction with educational goal achievement	96.0%	95.0%	95.2%	97.0%	**96%**
		Spring 2003 Cohort	**Spring 2005 Cohort**	**Spring 2007 Cohort**	**Spring 2009 Cohort**	**Benchmark Spring 2015 Cohort**

2.	Non-returning student satisfaction with educational goal achievement	70.0%	82.0%	82.0%	77.0%	**78%**
		Fall 2006 Cohort	**Fall 2007 Cohort**	**Fall 2008 Cohort**	**Fall 2009 Cohort**	**Benchmark Fall 2014 Cohort**
3.	Fall-to-fall retention					
	a. Developmental students	59.9%	68.5%	66.1%	61.8%	**64%**
	b. College-ready students	49.8%	49.4%	52.2%	50.8%	**51%**
		Fall 2003 Cohort	**Fall 2004 Cohort**	**Fall 2005 Cohort**	**Fall 2006 Cohort**	**Benchmark Fall 2011 Cohort**
4.	Developmental completers after four years	53.0%	57.0%	56.0%	61.5%	**58%**
		Fall 2003 Cohort	**Fall 2004 Cohort**	**Fall 2005 Cohort**	**Fall 2006 Cohort**	**BenchmarkFall 2011 Cohort**
5.	Successful-persister rate after four years					
	a. College-ready students	81.5%	87.6%	85.0%	83.3%	**85.0%**
	b. Developmental completers	75.4%	83.4%	89.0%	88.3%	**85.0%**
	c. Developmental non-completers	39.0%	37.3%	57.0%	51.1%	**Not Applicable**
	d. All students in cohort	73.5%	80.3%	83.0%	82.6%	**80.0%**
		Fall 2003 Cohort	**Fall 2004 Cohort**	**Fall 2005 Cohort**	**Fall 2006 Cohort**	**Benchmark Fall 2011 Cohort**
6.	Graduation-transfer rate after four years					
	a. College-ready students	76.4%	79.2%	78.0%	75.7%	**77%**
	b. Developmental completers	60.1%	57.3%	62.0%	60.4%	**60%**
	c. Developmental non-completers	31.2%	34.3%	42.0%	36.4%	**Not Applicable**
	d. All students in cohort	62.3%	62.3%	64.0%	62.4%	**63%**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
7.	Licensure/certification examination pass rates					
	a. Registered Nursing	93.3%	90.7%	98.6%	94.4%	94%
	Number of Candidates	45	86	70	72	
	b. Practical Nursing	94.4%	100.0%	100.0%	100.0%	100%
	Number of Candidates	18	19	19	21	
	c. Respiratory Care	92.6%	92.3%	90.9%	92.3%	92%
	Number of Candidates	27	13	11	13	
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
8.	Percent of expenditures					
	a. Instruction	48.3%	47.0%	47.2%	47.1%	46%
	b. Academic Support	6.7%	6.2%	5.9%	6.3%	7%
	c. Student Services	14.9%	13.6%	13.4%	13.6%	13%
	d. Other	30.0%	33.2%	33.4%	33.0%	35%
Goal 2: Access and Affordability						
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
9.	Annual unduplicated headcount					
	a. Total	17,236	17,794	18,258	18,323	**19,000**
	b. Credit students	7,045	7,650	8,580	9,087	**9,360**
	c. Continuing education students	10,837	10,905	10,450	9,937	**10,200**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
10.	Market share of first-time, full-time freshmen	56.0%	56.0%	56.1%	55.6%	**56%**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
11.	Market share of part-time undergraduates	73.5%	77.0%	77.1%	77.0%	**76%**
		AY 06-07	**AY 07-08**	**AY 08-09**	**AY 09-10**	**Benchmark AY 2014-15**
12.	Market share of recent, college-bound high school graduates	60.0%	61.0%	60.0%	61.2%	**61%**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
13.	Annual enrollment in online					

	courses					
	a. Credit	4,068	4,297	5,132	5,254	**5,300**
	b. Continuing Education	171	186	137	177	**200**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
14.	High school student enrollment	234	274	271	318	**274**
		FY 2008	**FY 2009**	**FY 2010**	**FY 2011**	**Benchmark FY 2015**
15.	Tuition and fees as a percent of tuition and fees at Maryland public four-year institutions Note: The goal of this indicator is for the college's percentage to be at or below the benchmark level.	43.2%	43.8%	44.9%	48.1%	**48%**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**BenchmarkFY 2015**
16.	Enrollment in continuing education community service and lifelong learning courses					
	a. Unduplicated annual headcount	2,883	2,484	2,592	2,886	**3,000**
	b. Annual course enrollments	4,752	4,071	4,694	5,116	**5,200**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
17.	Enrollment in continuing education basic skills and literacy courses					
	a. Unduplicated annual headcount	175	206	255	166	
	b. Annual course enrollments	215	267	319	196	**1,200**
Goal 3: Diversity						
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
18.	Minority student enrollment compared to service area population					
	a. Percent nonwhite enrollment	23.1%	24.9%	25.0%	25.3%	**25%**
	b. Percent nonwhite service area population, 18 or older	17.6%	18.1%	18.4%	19.6%	**Not Applicable**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
19.	Percent minorities of full-time faculty	8.6%	10.0%	11.6%	13.0%	**15%**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
20.	Percent minorities of full-time administrative and professional staff	15.4%	15.0%	19.0%	19.3%	**20.0%**
		Fall 2003 Cohort	**Fall 2004 Cohort**	**Fall 2005 Cohort**	**Fall 2006 Cohort**	**Benchmark Fall 2009 Cohort**
21.	Successful-persister rate after four years					
	a. African American	-	68.3%	-	-	**Not Applicable**
	b. Asian, Pacific Islander	-	-	-	-	**Not Applicable**
	c. Hispanic	-	-	-	-	**Not Applicable**
	Note: Not reported for groups with < 50 students in the cohort for analysis.					
		Fall 2003 Cohort	**Fall 2004 Cohort**	**Fall 2005 Cohort**	**Fall 2006 Cohort**	**Benchmark Fall 2009 Cohort**
22.	Graduation-transfer rate after four years					
	a. African American	-	55.0%	-	-	**Not Applicable**
	b. Asian, Pacific Islander	-	-	-	-	**Not Applicable**
	c. Hispanic	-	-	-	-	**Not Applicable**
	Note: Not reported for groups with < 50 students in the cohort for analysis.					
Goal 4: Student-Centered Learning						

		AY 06-07	AY 07-08	AY 08-09	AY 09-10	Benchmark AY 2014-15
23.	Performance at transfer institutions					
	a. Percent with cumulative GPA after first year of 2.0 or above	79.0%	84.0%	85.0%	83.7%	**83%**
	b. Mean GPA after first year	2.62	2.80	2.83	2.78	**2.76**
		Alumni Survey 2000	**Alumni Survey 2002**	**Alumni Survey 2005**	**Alumni Survey 2008**	**Benchmark Alumni Survey 2014**
24.	Graduate satisfaction with preparation for transfer Note: Response categories changed starting in 2008.	80.0%	94.0%	79.0%	79.0%	**80%**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
25.	Associate degrees and credit certificates awarded					
	a. Career degrees	207	233	226	237	273
	b. Transfer degrees	380	367	456	531	611
	c. Certificates	92	112	132	138	159
		Fall 2006 Cohort	**Fall 2007 Cohort**	**Fall 2008 Cohort**	**Fall 2009 Cohort**	**BenchmarkFall 2014 Cohort**
26.	Fall-to-fall retention					
	a. Pell grant recipients	64.6%	67.4%	57.9%	57.4%	**62%**
	b. Non-recipients	54.0%	59.6%	60.9%	58.0%	**58%**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark Fall 2015**
27.	Education transfer programs a. Credit enrollment	180	215	246	255	296
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
	b. Credit awards	12	10	19	23	**28**

Goal 5: Economic Growth and Vitality

		Alumni Survey 2000	Alumni Survey 2002	Alumni Survey 2005	Alumni Survey 2008	Benchmark Alumni Survey 2014
28.	Percent of full-time employed career program graduates working in a related field	91.0%	83.0%	85.5%	96.0%	**89%**
		Alumni Survey 2000	**Alumni Survey 2002**	**Alumni Survey 2005**	**Alumni Survey 2008**	**Benchmark Alumni Survey 2014**
29.	Graduate satisfaction with job preparation Note: Response categories changed starting in 2008.	83.0%	100.0%	83.1%	89.0%	**89%**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
30.	Enrollment in continuing education workforce development courses					
	a. Unduplicated annual headcount	8,132	8,195	7,913	7,172	**7,853**
	b. Annual course enrollments	12,321	11,763	11,643	10,127	**11,464**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
31.	Enrollment in Continuing Professional Education leading to government or industry-required certification or licensure					
	a. Unduplicated annual headcount	1,810	1,775	1,406	1,605	**1,649**
	b. Annual course enrollments	3,535	2,952	2,451	2,358	**2,824**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
32.	Number of business organizations provided training and services under contract	81	88	82	62	**78**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**

33.	Enrollment in contract training courses					
	a. Unduplicated annual headcount	4,208	5,181	4,868	4,278	**4,500**
	b. Annual course enrollments	6,870	7,875	7,272	6,093	**7,028**
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
34.	Employer satisfaction with contract training	100.0%	94.0%	98.0%	89.0%	**95%**
		Fall 2007	**Fall 2008**	**Fall 2009**	**Fall 2010**	**Benchmark FY 2015**
35.	STEM programs					
	a. Credit enrollment	1,334	1,459	1,563	1,673	1,800
		FY 2007	**FY 2008**	**FY 2009**	**FY 2010**	**Benchmark FY 2015**
	b. Credit awards	212	184	197	251	**271**

FREDERICK COMMUNITY COLLEGE
CECT Indicators Only 2011
ACCOUNTABILITY REPORT
2011 ACCOUNTABILITY REPORT

Goal 2: Access and Affordability

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
9. Annual unduplicated headcount					
a. Total	17,236	17,794	18,258	18,323	**19,000**
b. Credit students	7,045	7,650	8,580	9,087	**9,360**
c. Continuing education students	10,837	10,905	10,450	9,937	**10,200**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
16. Enrollment in continuing education community service and lifelong learning courses					
a. Unduplicated annual headcount	2,883	2,484	2,592	2,886	**3,000**
b. Annual course enrollments	4,752	4,071	4,694	5,116	**5,200**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
17. Enrollment in continuing education basic skills and literacy courses					
a. Unduplicated annual headcount	175	206	255	166	
b. Annual course enrollments	215	267	319	196	**1,200**

Goal 5: Economic Growth and Vitality

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
30. Enrollment in continuing education workforce development courses					
a. Unduplicated annual headcount	8,132	8,195	7,913	7,172	**7,853**
b. Annual course enrollments	12,321	11,763	11,643	10,127	**11,464**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
31. Enrollment in Continuing Professional Education leading to government or industry-required certification or licensure					
a. Unduplicated annual headcount	1,810	1,775	1,406	1,605	**1,649**
b. Annual course enrollments	3,535	2,952	2,451	2,358	**2,824**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
32. Number of business organizations provided training and services under contract	81	88	82	62	**78**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
33. Enrollment in contract training courses					
a. Unduplicated annual headcount	4,208	5,181	4,868	4,278	**4,500**
b. Annual course enrollments	6,870	7,875	7,272	6,093	**7,028**

	FY 2007	FY 2008	FY 2009	FY 2010	Benchmark FY 2015
34. Employer satisfaction with contract training	100.0%	94.0%	98.0%	89.0%	**95%**

Areas of the College's performance from the **Frederick Community College 2011 Performance Accountability Report** expected to impact facilities will be:

Goal 2- FY 2015 benchmark to increase enrollment in continuing education basic skills and literacy courses.

Goal 4 - FY 2015 benchmark to increase associate degrees and credit degrees awarded. FCC, along with all other MD community colleges, pledged substantially to increase the number of graduates by 2025.

Goal 4 – FY 2015 benchmark to increase fall to fall retention.

Goal 5 - FY 2015 benchmark to increase enrollment in continuing education workforce development courses

Goal 5 - FY15 benchmark to increase STEM program credit enrollment.

4. FACTORS INFLUENCING FUTURE PROGRAMS (ENVIRONMENTAL SCAN)

- ***ENROLLMENT GROWTH*** - Between 2000 and 2010, Frederick County was the third-fastest growing county in all of Maryland. The Asian population in the county grew 173% and the Hispanic population grew 267%. Accordingly, Frederick County's black population grew by 62%. The white population grew by only 9%. In the year 2000, Frederick County was 89% white. By the year 2010, Frederick County was 81% white.

County	Census 1990	% Growth 1980-1990	Census 2000	% Growth 1990-2000	Census 2010	% Growth 2000-2010	Census 2020	% Growth 2010-2020	Projected Growth 2030	% Projected Growth 2000-2030
Frederick	150,208	31%	195,277	30%	233,385	15%	267,650	14%	339,700	74%
Carroll	123,372	28%	150,897	22%	167,134	10%	183,600	10%	193,200	28%
Howard	187,328	58%	247,842	32%	287,085	11%	317,650	11%	321,100	30%
Montgomery	757,027	31%	873,341	15%	971,777	10%	1,065,600	10%	1,155,800	32%
Washington	121,393	7%	131,923	9%	147,430	11%	163,100	11%	189,800	44%
Source: MD Dept. of Planning										

- ***CONSTRAINED FISCAL ENVIRONMENT*** - Revenue shortfalls from state and county funds, are projected to occur in fiscal year 2012 and beyond. For FY 2011, state support is approximately 22% while county support is about 30% of the total budget. Tuition revenues make up about 38% of operating income, and a prior year surplus contributed another 7%. The future financial support is difficult if not impossible to project, the effects of budgetary challenges "may most strongly hinder progress toward improving the full-time/part-time faculty ratio, student services staffing, retention and goal completion activities, and certain technology and equipment upgrades." In response to these challenges, the College has increased tuition and fees from $96/credit hour in 2010, to $105/credit hour for FY 2011, with additional Capital Project and technology fees of $7/credit hour. A tuition increase of $7/credit hour is scheduled for FY2012. The College has also adopted a Budget Savings Plan, beginning in 2009 until present, which contracts unit budgets as necessary without affecting teaching or student learning. The Budget Savings Plan involves delayed filling of faculty and staff positions, elimination of cost-of-living increases, staff furloughs and/or early retirement options.

- ***STUDENT COMPLETION*** - Compete to Complete, Goal Three of Maryland Association of Community Colleges' 2012 Strategic Plan is for colleges to achieve significant increases in the number of graduates over the next decade. Consistent with the goal, the College has been experiencing a positive growth in graduations. During the past seven years, the number of graduates has increased 47%, from 652 in 2006 to 961 in 2012. In FY 2012, 309 more students graduated than in FY 2006. The growth rate during this time was 50% for degrees (561 vs. 839) and 34% (91 vs. 122) for certificates. Forty-eight graduates received multiple awards. FCC has implemented an Early Graduation Application initiative to assist students who apply for graduation but are found to be lacking one or more graduation requirements. This proactive outreach initiative allows students to modify their semester schedules and to complete the missing graduation requirement rather than waiting an additional semester to graduate or transfer without graduating.

- ***GENERAL EDUCATION*** requirements are moving away from a "distribution model" (where students are given a wide choice of courses) and returning to a more traditional "core requirements" model (where students are required to take specific courses).

- ***STEM*** – Four of the top six employers in Frederick County are Ft. Detrick, Frederick Memorial Hospital, Bechtel and SAIC. Frederick City and County are located at the northern end of the I-270 Technology Corridor and is home to Ft Detrick which will be directly impacted by the addition of approximately 1200 jobs due to the Pentagon's Base Realignment and Closure program. The County is also in close proximity to the Maryland Biotech Cluster (350 bioscience companies). In addition the major fiber optic networks supporting Washington DC are routed through Frederick County resulting in a plethora of supporting regional businesses supporting the IT companies.

MAJOR EMPLOYERS (2010) – Frederick County MD Division of Business Retention

Company	Industry	Employees
Fort Detrick Campus (Army, National Cancer Institute and other tenants	Army, National Cancer Institute and tenants	9,200
Frederick County Board of Education	Public Education	5,538
Frederick Memorial Healthcare System	Comprehensive Health Care	2,300
Frederick County Government	County Government	2,130
SAIC-Frederick	Medical Research	1,965
Bechtel Power	Global Engineering, Construction and Telecommunications	1,578
Wells Fargo Home Mortgage	Mortgage Loans & Service Center	1,881
Frederick Community College	Two-Year College	899
Frederick City Government	Municipal Government	852
United Health Care	Insurance	832
State Farm Insurance Co.	Regional Headquarters	793
Wal-Mart	Consumer Goods	700
National Emergency Training Center (US Fire Academy, FEMA, and other tenants	Federal Government	577
Wegman's	Grocery Store	550
Lonza Bio Science Walkersville, Inc	Biological Products	524
Mount Saint Mary's University	Four-Year College	511
Costco Wholesale	Wholesale Distribution Center & Retail Store	500
Home Call	In-Home Medical Services	480
NVR Building Products	Wood Building Products	450
Hood College	Four Year College	418
Plamondon Companies	Hospitality (Hotels, Restaurants & Management)	396
RR Donnelley	Business Documents	387
Stulz Air Technology Systems, Inc.	Manufacturer, Commercial Air Conditioners and Dehumidifiers	360
Frederick County Family YMCA	Recreation and Sports Center	350
Home Depot	Retail Stores	330
Homewood Retirement Center	Retirement Community	275
Richard F. Kline	Asphalt Contractors	275
Experient	Conference Services	270
Canam Steel Corporation	Steel Joists and Trusses	266
Maryland School for the Deaf	Educational Institution	266
Trans-Tech	Ceramic Components	260
Toys-R-Us	Toy Distribution Warehouse & Retail Store	260
Fountain Rock Management Group Corp	Restaurant Management Services	250
Fannie Mae	Home Loan Products - Data Center	250
Life Technologies	Biotech Research	250
MedImmune	BioTech Manufacturing	246
Tyler Companies	Real Estate, HVAC and Mechanical Contracting Services	245
BB&T	Full Service Community Bank	242
Verizon	Telecommunications	226
PNC Bank	Banking Headquarters & Regional Branches	226
Tamko Roofing Products	Asphalt Shingle & Coating Materials Mfg	213

Maryland Industry Projections - 2010-2020

	Employment			Percent Change
	2010	2020	Change	
Total All Industries	2,671,660	2,999,640	327,980	12.3
Self-Employed and Unpaid Family Workers, All Jobs	213,200	223,865	10,665	5.0
Total Wage and Salary Employment	2,458,460	2,775,775	317,315	12.9
Agriculture, Forestry, Fishing and Hunting	5,000	5,360	365	7.3
Crop Production	2,525	3,005	480	19.0
Animal Production	1,200	1,055	-145	-12.2
Forestry and Logging	180	120	-55	-31.8
Fishing, Hunting and Trapping	120	125	5	5.1
Support Activities for Agriculture and Forestry	975	1,055	85	8.5
Mining	1,385	1,385	5	0.2
Oil and Gas Extraction	D	D	D	D
Mining (except Oil and Gas)	905	905	0	0.1
Support Activities for Mining	D	D	D	D
Utilities	9,935	10,325	385	3.9
Utilities	9,935	10,325	385	3.9
Construction	143,355	163,075	19,720	13.8
Construction of Buildings	30,515	34,170	3,655	12.0
Heavy and Civil Engineering Construction	14,335	16,070	1,735	12.1
Specialty Trade Contractors	98,505	112,835	14,330	14.6
Manufacturing	113,850	105,375	-8,480	-7.5
Food Manufacturing	15,210	14,875	-335	-2.2
Beverage and Tobacco Product Manufacturing	3,385	2,920	-465	-13.7
Textile Mills	875	755	-120	-13.6
Textile Product Mills	845	735	-110	-13.1
Apparel Manufacturing	1,335	985	-350	-26.3
Leather and Allied Product Manufacturing	D	D	D	D
Wood Product Manufacturing	2,010	1,575	-435	-21.7
Paper Manufacturing	3,500	3,230	-270	-7.7
Printing and Related Support Activities	9,095	8,715	-385	-4.2
Petroleum and Coal Products Manufacturing	720	845	125	17.1
Chemical Manufacturing	11,985	12,145	160	1.3
Plastics and Rubber Products Manufacturing	6,320	6,150	-165	-2.6
Nonmetallic Mineral Product Manufacturing	3,550	2,840	-710	-20.0
Primary Metal Manufacturing	D	D	D	D
Fabricated Metal Product Manufacturing	8,445	9,115	670	7.9
Machinery Manufacturing	6,205	5,665	-535	-8.7
Computer and Electronic Product Manufacturing	20,710	18,420	-2,295	-11.1
Electrical Equipment, Appliance, and Component Manufacturing	1,820	1,670	-150	-8.1
Transportation Equipment Manufacturing	7,720	7,355	-365	-4.7
Furniture and Related Product Manufacturing	2,995	2,470	-525	-17.6
Miscellaneous Manufacturing	4,130	3,760	-370	-9.0
Wholesale Trade	85,510	87,970	2,455	2.9

Merchant Wholesalers, Durable Goods	42,810	40,670	-2,140	-5.0
Merchant Wholesalers, Nondurable Goods	28,240	28,655	415	1.5
Wholesale Electronic Markets and Agents and Brokers	14,465	18,645	4,180	28.9
Retail Trade	276,330	289,200	12,870	4.7
Motor Vehicle and Parts Dealers	32,385	30,655	-1,735	-5.4
Furniture and Home Furnishings Stores	9,590	9,655	60	0.7
Electronics and Appliance Stores	9,710	10,425	715	7.4
Building Material and Garden Equipment and Supplies Dealers	21,850	24,095	2,245	10.3
Food and Beverage Stores	64,080	69,420	5,335	8.3
Health and Personal Care Stores	17,655	19,580	1,925	10.9
Gasoline Stations	9,175	8,235	-940	-10.3
Clothing and Clothing Accessories Stores	26,540	28,795	2,255	8.5
Sporting Goods, Hobby, Book, and Music Stores	11,350	10,680	-670	-5.9
General Merchandise Stores	52,440	56,460	4,020	7.7
Miscellaneous Store Retailers	16,185	15,875	-310	-1.9
Nonstore Retailers	5,360	5,330	-30	-0.6
Transportation and Warehousing	66,145	77,405	11,260	17.0
Air Transportation	4,150	4,290	140	3.4
Rail Transportation	D	D	D	D
Water Transportation	1,105	1,385	280	25.3
Truck Transportation	13,675	14,585	910	6.7
Transit and Ground Passenger Transport	10,465	13,155	2,690	25.7
Pipeline Transportation	D	D	D	D
Scenic and Sightseeing Transportation	465	475	5	1.5
Support Activities for Transportation	9,765	11,825	2,065	21.1
Couriers and Messengers	11,740	14,175	2,435	20.7
Warehousing and Storage	10,640	13,440	2,800	26.3
Information	44,350	48,300	3,950	8.9
Publishing Industries	9,810	10,200	390	4.0
Motion Picture and Sound Recording Industries	4,145	4,500	350	8.5
Broadcasting (except Internet)	4,530	4,995	465	10.3
Telecommunications	18,840	20,385	1,545	8.2
Internet Service Providers, Web Search Portals, and Data Processing Services	5,695	6,680	990	17.4
Other Information Services	1,330	1,540	210	15.7
Finance and Insurance	96,595	99,720	3,125	3.2
Monetary Authorities - Central Bank	225	205	-20	-8.0
Credit Intermediation and Related Activities	46,190	47,680	1,490	3.2
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	15,180	17,730	2,550	16.8
Insurance Carriers and Related Activities	33,260	32,360	-900	-2.7
Funds, Trusts, and Other Financial Vehicles	1,735	1,740	5	0.2
Real Estate and Rental and Leasing	42,085	41,315	-770	-1.8
Real Estate	31,285	32,175	890	2.8
Rental and Leasing Services	10,500	8,820	-1,680	-16.0
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	305	325	20	6.3
Professional, Scientific, and Technical Services	225,415	273,670	48,255	21.4

Professional, Scientific, and Technical Services	225,415	273,670	48,255	21.4
Management of Companies and Enterprises	21,255	23,590	2,335	11.0
Management of Companies and Enterprises	21,255	23,590	2,335	11.0
Administrative and Support and Waste Management and Remediation Services	142,025	170,875	28,850	20.3
Administrative and Support Services	133,305	160,805	27,500	20.6
Waste Management and Remediation Service	8,720	10,070	1,350	15.5
Educational Services	249,045	283,540	34,495	13.9
Educational Services	249,045	283,540	34,495	13.9
Health Care and Social Assistance	326,930	415,565	88,635	27.1
Ambulatory Health Care Services	108,395	144,315	35,920	33.1
Hospitals	105,445	125,960	20,515	19.5
Nursing and Residential Care Facilities	68,605	89,055	20,455	29.8
Social Assistance	44,485	56,235	11,750	26.4
Arts, Entertainment, and Recreation	35,360	39,755	4,395	12.4
Performing Arts, Spectator Sports, and Related Industries	7,010	7,480	470	6.7
Museums, Historical Sites, and Similar Institution	1,640	1,650	15	0.9
Amusement, Gambling, and Recreation Industries	26,710	30,620	3,910	14.7
Accommodation and Food Services	194,385	215,845	21,460	11.0
Accommodation	23,310	25,300	1,990	8.5
Food Services and Drinking Places	171,075	190,545	19,470	11.4
Other Services (Except Government)	87,280	95,235	7,955	9.1
Repair and Maintenance	22,840	24,215	1,375	6.0
Personal and Laundry Services	30,315	32,255	1,940	6.4
Religious, Grantmaking, Civic, Professional, and Similar Organizations	25,260	29,610	4,350	17.2
Private Households	8,860	9,150	290	3.3
Government	292,230	328,275	36,040	12.3
Total Federal Government	140,120	160,155	20,035	14.3
State Government, Excluding Education and Hospitals	61,480	66,420	4,940	8.0
Local Government, Excluding Education and Hospitals	90,630	101,700	11,070	12.

5. POLICY PROGRAM AND SERVICE CHANGES

Academic Master Plan

The Academic Master plan reflects the goals, objectives, and priorities of the Learning division. It was developed over an eighteen-month period and involved a team representing each area of the Learning Division. The Academic Master Plan is essentially a list of priorities determined through a participatory process and informed through analysis of internal workshops, conversations and surveys of Learning's faculty and staff, focus group conversations with students, and external data. It represents what Learning sees as important initiatives, practices, and modifications to how The Learning Division operates.

Frederick Community College has recently completed in March of 2012. The plan established the following Goals and Objectives:

Goal 1 Learner Success – Challenge learners from both existing and emerging student populations to succeed.

- *Objective 1* - Student success

Goal 2 Staffing -Faculty and Staff – Ensure staffing levels within the Learning Division support college growth while continuing to promote excellence.

- *Objective 1* - Full-Time Faculty
- *Objective 2* - Staffing

Goal 3 Curriculum – Provide programs and coursework designed to meet the learning goals and needs of students and the community.

- *Objective 1* - Implement a program review process that reinforces a wide variety of students' completion goals such as personal enrichment, continuing education, certification, degree attainment, transfer, and/or employment.
- *Objective 2* - Strengthen campus-wide understanding of course, curriculum, and program goals.
- *Objective 3* - Promote opportunities that reinforce learning outcomes and lifelong learning.

Goal 4 Pedagogy – Promote excellence and student engagement

- *Objective 1* - Active Learning: Integrate active learning strategies in all courses.
- *Objective 2* - Professional Development**:** Create and provide professional development courses for faculty to support the goals and objectives identified in the AMP.

Goal 5 Learning Environments - Provide appropriate learning environments

- *Objective 1* - Appropriate Learning Environments that allow for flexible learning opportunities and experiences while ensuring students, faculty, and staff have adequate support to implement and access learning opportunities afforded by current and emerging technologies.
- *Objective 2* - Adequate Support

Of the five **Academic Master Plan** goals, goal 5 will have a significant impact on the college's capital needs. The focus of goal five is:

1) To allow for flexible learning opportunities and experiences while ensuring students, faculty, and staff have adequate support to implement and access learning opportunities afforded by current and emerging technologies.
2) To make assessments of learning environments a part of ongoing institutional effectiveness planning. While the campus has added one new general education classroom building the demand for technologically current general education spaces has already exceeded the new spaces. General Education classroom spaces are mainly in our older buildings B, D and L.

Academic Degree Program Review

In the fall of 2010 a faculty led committee worked to create a program review process that outlined how each program would complete a rigorous assessment of student learning outcomes, author a detailed self-study, conduct a site visit, and work with administration to develop an action plan based on results. The primary purpose of the periodic comprehensive academic program review is for faculty to **self-reflect** upon, **evaluate**, and **improve** the education provided by their program.

In Spring 2011, Frederick Community College formed the Program Review Support team to implement suggestions made by the Committee. Programs were each given a detailed Discipline Analysis Report by the Assessment and Research Department which described essential performance indicators for each program and prepared faculty program managers for the review process.

On November 17, 2011, Middle States accepted the college's periodic review.

Frederick Community College
New and Discontinued Programs
SPRING 2011 - SUMMER 2012

Course/Program/Certificate Description	Dept.	Category	Curriculum Action	Type	Effective Date
Histology Technology AAS	SCI	New	New Program	Program	Spring 2011
Medical Assistant AAS	CBT	New	Current Medical Assistant Certificate moving to AAS	Program	Fall 2011
Information Security & Assurance Cert	CBT	New	Certificate	Certificate	Fall 2011
Banking and Financial Management Certificate	CBT	Removal	Certificate Discontinuance	Certificate	Fall 2011
Banking and Financial Management AAS	CBT	Removal	Program Discontinuance	Program	Fall 2011
Emergency Management LOR	CECT	New	LOR - combines all previous LORs under one with different modules	LOR	Fall 2011
Fitness/Personal Trainer Certificate	AHW	New	new Certificate under PE AA	Certificate	Spring 2012
Physical Education, Coaching LOR	AHW	New	new LOR under PE AA	LOR	Spring 2012
AAT English	SS	New	New AAT Program in English	Program	Fall 2012
GIS LOR	CBT	Removal	Discontinue GIS LOR	Program	Summer 2012
Therapeutic Massage AA	AHW	Removal	Remove AA program	Program	Summer 2012
AAS Building Trades Plumbing & Carpentry tracks; Certificate; LOR	CECT	Suspension	AAS track plumbing & carpentry; Building Trades Technology Certificate, LOR	Program	Summer 2012

Learning Division Program Analysis

In conjunction with the development of this Facilities Master Plan Learning Support conducted an analysis of the space needs for academic programs and their associated courses offerings. This was presented by department and broken down by degree offerings. Three major trends emerged:

TREND #1 - The Allied Health and Wellness (AHW) programs facility requirements need to be more fully evaluated in light of the suspended application for the Allied Health Building that FCC requested.
TREND #2 - The increased demand on general classrooms. From FY 2007 to FY 2011 the colleges overall enrollment has increased by 22%.
TREND #3 - The need to explore, in conjunction with IT and Learning Technologies, a plan to increase 1) the electrical and networking infrastructure in our buildings and 2) explore and adapt smarter more efficient forms of technology that are, at minimum on par with our local counterparts, to include FCPS .
Portions of the findings and recommendations from this study have been incorporated into this Master Plan.

F.C.C. Strategic Plan

The College began a comprehensive Strategic Plan initiative February 25, 2011. Campus wide workshops were held. Teams were established to investigate a variety of environmental scans. From the scans trend statements were developed by each team. An Implications Workshop was then held with all teams participating. External community leaders were also included in this process. The first draft of a Strategic Plan was developed. Planning Sessions were held and cross-divisional objectives are being developed. The College is in the final stages of completion of the plan as this Master Plan is being completed. Information gathered from environmental scans have been incorporated into this document.

Mt Airy Center College for Healthcare Education

Frederick Community College recently partnered with Carroll and Howard Community Colleges to lease space and develop programming at Mt Airy, MD to support Allied Health programs. This is a fiscally responsible approach for thee colleges to offer greater access to healthcare programs to more students in a central location. The site was officially opened in August 2012.

The site provides:

- Lecture and lab classes in same location
- More square footage
- State of the art equipment
- Able to simulate patient care settings
- Centrally located between three colleges
- Proximity to healthcare corridor – practicum sites
- Access to variety of healthcare instructors

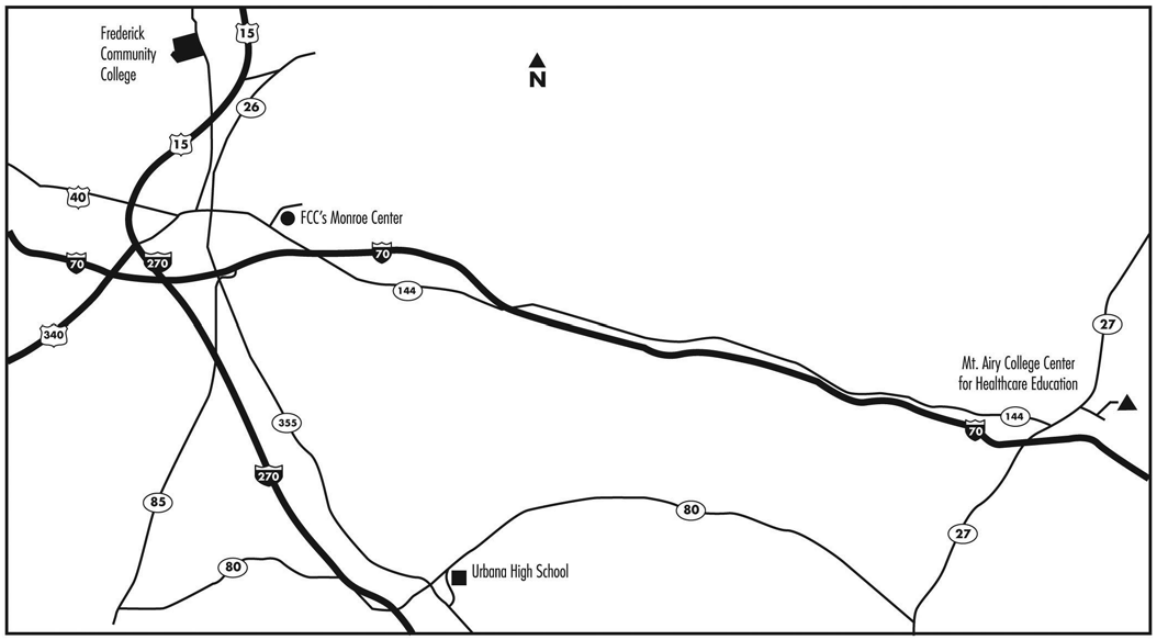
Programs offered by each College include:

FREDERICK COMM. COLLEGE	CARROLL COMM. COLLEGE	HOWARD COMM. COLLEGE
CREDIT PROGRAMS		
Medical Laboratory Technology	Health Information Technology	EMT / Paramedic
Respiratory Care		
NON-CREDIT PROGRAMS		
Pharmacy Technician	Dental Assisting	EKG Technician (Basic)
CPR-Healthcare Provider	Dental Radiology	Certified Nursing Assistant
CPR - Basic	Nurse Refresher	Delegating Nurse
	Medical Billing	Patient Care Technician
	Medical Coding	
	Medicine Aid	
	Medical Aide Update	

COLLEGE BACKGROUND DATA

1. OVERVIEW OF COLLEGE

LOCATION MAP



FCC moved from Frederick High School to a facility on North Market Street, and finally, in 1970, to its permanent location, a 94 acre-site at 7932 Opossumtown Pike, Frederick, MD[i]. In its 55-year history, Frederick Community College has grown from 77 students to more than 18,000 students registered each year in credit and noncredit (Continuing Education) programs.

The 97-acre campus has mirrored the growing student population. Two major construction projects are underway in spring 2012: a new Enrollment Services Building, and a three story, 350-space parking deck. Both projects will be finished by summer. The campus also includes a Visual & Performing Arts Center that has an art gallery and a 400-seat theater; the Library Building; Field House and gymnasium; several classroom buildings with faculty offices, administrative space, science and computer laboratories; lecture hall; Conference Center; Children's Center; and Administrative Services Building. A new Classroom Student Center opened in January 2010 that includes the Cougar Grille, bookstore, classrooms, offices, and other student services.

The Monroe Center on Monroe Avenue houses the building trades, culinary arts programs and student-run 200 Monroe restaurant that is open on a limited basis. FCC also recently partnered with Howard and Carroll Community Colleges to open the Mount Airy College Center for Health Care Education in fall 2012.

(A) Administration Hall
(B) Academic Hall
(C) Science-Technology Hall
(D) Field House
(E) Conference Center
(F) Visual & Performing Arts Center
(G) Administrative Services Building
(H) Classroom/Student Center
(J) Enrollment Services Building
(K) Children's Center
(L) Library Building
(M) Maintenance Building
(SH) Sweadner Hall
(X) Mercer-Akre Kiln
Parking Deck

Main Campus Facilities

7932 Opossumtown Pike, Frederick, Maryland

Administration Hall (A)
Adult Services, Adult Education, Services for Students with Disabilities, Presidents Office, Vice President for Administration, Marketing & Public Relations, FCC Foundation, Mail Room, Other Administrative Offices

Academic Hall (B)
Math Learning Center, Classrooms, Faculty Offices

Science-Technology Hall (C)
Science Labs, Computer Labs, Classrooms, Faculty Offices, Vice President for Learning

Field House (D)
Gymnasium, Weight Room, Classrooms, Athletics, Faculty Offices, Locker Rooms

Conference Center (E)
Large and Small Meeting Rooms, Technology Labs, Continuing Education & Customized Training

Visual & Performing Arts Center (F)
JBK Theater, MCH Art Gallery, Music Classrooms & Practice Rooms, Art Classrooms, Mac Classroom & Lab, Faculty Offices

Administrative Services Building (G)
Human Resources, Purchasing, Finance, IT Services, Other Administrative Offices

Classroom/Student Center (H)
Cougar Grille, Bookstore, Multicultural Student Services, Center for Student Engagement, Security, Student Government Association, Honors College, Writing Center, Tutorial Services, Classrooms, Faculty Offices, Student Lounges

Enrollment Services Building (J)
College Information Center, Welcome Center, Admissions, Registration, Cashiers, Financial Aid, Counseling & Advising, Career & Transfer Center, Veterans, Enrollment Management, Vice President for Learning Support

Children's Center (K)
Child Care Center

Library Building (L)
Library, Testing Center, Allied Health/Nursing Labs, Video Lab, Language Lab, Faculty Offices, Student Lounge

Maintenance Building (M)
Plant Operations

Sweadner Hall (SH)
Lecture Hall

Mercer-Akre Kiln (X)
Wood-fired

Parking Deck

Adequacy of Main Campus Utilities

The existing utilities that service the site were reviewed as part of the assessment process

SITE UTILITIES		
UTILITY	SUPPLIER	CONDITION AND ADEQUACY
Sanitary Sewer	Frederick County	Good
Storm Sewer	City of Frederick	Good
Domestic Water	City of Frederick	Good
Electric Service	Potomac Edison	Good
Natural Gas Service	Washington Gas (WGES)	Good
Internet Service	Comcast or Verizon	Good

The campus has no unique on-site systems such as septic systems or waste water treatment plants. All buildings, except buildings “G”, “K”, “J”, “M” and the Parking Garage, are on the central heated and chilled water supply system fed from Central Plant boilers, chillers and cooling towers.

According to FCC’s HVAC maintenance contractor the property’s chillers and the central plant building are in good condition, however a pressure loss occurs in chiller #3, installed in 2009, when three circulator pumps are operating so that the system does not maintain the proper water flow. Based on the estimated useful life of the chillers they will all require replacement over the evaluation period and an engineer should be retained to analyze the pressure loss problem.

The two cooling towers are reported in fair condition and based on the estimated useful life of the chillers they will all require replacement over the evaluation period.
Boiler B-01, installed in 2010 appears to be in good condition and boilers B-02 and B-03 are reported in poor condition. Both boilers are reported to be antiquated and have significant rusting. B-02 was off line during the assessment due to leaking. Based on the estimated useful life of boilers 2 and 3 they will require replacement over the evaluation period.

The vast majority of the hot and cold water distribution system is approximately 42 years old. Replacement of some sections of the underground loop was done approximately three years ago. Photos of the replaced sections indicate rusting and deterioration which could be indicative of the condition of the remaining sections of the loop. Based on the estimated useful life of the hot and cooled water loop piping much of it will require replacement over the evaluation period.

In general circulating pumps for chilled water, heat reclaim water and condenser water are in fair condition but will require replacement over the evaluation period along with 27 year old air compressors. Electrical systems for central HVAC equipment appear adequate for demands however, replacement of the original 1,200 amp switchboard should be anticipated over the evaluation period.

In general most buildings have Cat 3 low voltage cabling for telephone lines and Cat 5/5e cabling for data lines upgrading both the phone and data to Cat 6 would be needed to be able to download and e-mail gigs.

TECHNOLOGY STRATEGIC PLAN

FCC’s Information Technology (IT) department recently completed its draft of the TECHNOLOGY STRATEGIC PLAN 2012 – 2015. Part of Facilities Planning’s site assessment process by EMG included recommendations on upgrading the IT infrastructure in each building. These recommendations are included in the IT Technology Strategic Plan.

A copy of the TECHNOLOGY STRATEGIC PLAN 2012 – 2015 is attached in Appendix A

2. USER DATA – STAFF AND STUDENT BODY CHARACTERISTICS

STAFF DATA

	Actual Fall 2007	Actual Fall 2008	Actual Fall 2009	Actual Fall 2010	Actual Fall 2011	# Projected Growth for 2016	# Projected Growth for 2020	% Projected Growth for 2020
Full-time Faculty	88	94	97	98	98	127	144	47%
Part-time Faculty	383	427	425	440	450	572	649	48%
Full-time Staff	194	236	230	239	240	311	352	47%
Part-time Staff	178	162	191	192	180			

Fall 2011: Actual Data

Fall 2016: Projected based on Fall 2020

Fall 2020: MHEC Projection - CC Table 3

Assessment and Research, February 29, 2012 for the Facility Master Plan

Percentage of Total Employees Minority and Status as of Fall 2011							
Minority		White		Unknown		Total Employees	
Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
15%	14%	84%	84%	1%	2%	32%	68%

Employee data taken from MDACC.org/PDFs/Publications/Databook/FY2012/Databook2012_4_Personnel

STUDENT DATA

STUDENT ENROLLMENT									
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	% of change 07-12	% of change 11-12	% of change 12-15	Benchmark FY 2015
Total	17,794	18,258	18,323	18,323	18,177	2%	-2%	5%	19,000
Credit	7,650	8,580	9,087	9,087	9,012	18%	-1%	3%	9,360
Continuing Education	10,905	10,450	9,937	9,937	9,823	-10%	-3%	4%	10,200

Frederick Community College Enrollment Report 2008 - 2012

STUDENT HEADCOUNT PROJECTIONS												
	Fall 11 FY 12 Actual	Fall 12 FY 13 Projected	Fall 13 FY 14	Fall 14 FY15	Fall 15 FY 16	Fall 16 FY 17	Fall 17 FY 18	Fall 18 FY 19	Fall 19 FY 20	Fall 20 FY 21	Fall 21 FY 22	% change 11-21
Full-time	2,299	2,308	2,366	2,454	2,533	2,598	2,654	2,736	2,770	2,873	2,972	29%
Part-time	3,970	4,022	4,062	4,111	4,161	4,204	4,243	4,283	4,283	4,326	4,369	10%
Total Headcount	6,269	6,330	6,428	6,565	6,694	6,802	6,897	7,019	7,053	7,199	7,341	17%

Enrollment Projection 2012 – 2020, Maryland Public Colleges, Maryland Higher Commission Report July 2012

The facilities condition assessment did not include a condition assessment of off-site campus facilities. The off-site facilities include The Monroe Center and Mt. Airy College Center for Health Care Education (a shared health care educational training facility).

Monroe Center

The Monroe Center was recently purchased by the College and houses FCC's Building Trades programs, Culinary Arts program.

The Construction Management program had 40 majors listed with 13 graduates and 233 total course enrollments for FY 2011, with a graduate to major ratio of 32.5%. Enrollments have fluctuated over the last five years in relation to the construction industry.

The A.A. Building Trades programs have 32 majors listed with 3 graduates and 137 total course enrollments for FY 2011, with a graduate to major ratio of 9.38%. Credit Building Trades enrollments have fluctuated over the past few years depending upon the availability of grant funding. The program also delivers courses through Continuing Education.

The courses are taught mainly at our Monroe Center and have ample space for instruction.

Mt. Airy College Center

The Mt. Airy College Center will be shared between Carroll Community College, Frederick Community College and Howard Community College. FCC will hold credit courses in Medical Laboratory Technology and Respiratory Care

The A.A.S. Medical Laboratory Technology program is a new program that will be offered at the new Mt. Airy Center when it opens in Fall 2012. The program is in demand and will have sufficient facilities at the Mt Airy Center.

The A.A.S. , Respiratory Care program had 67 majors listed in Fall 2011, with 27 FY 2011 graduates and 385 total course enrollments. The program will be moving to the new Mt. Airy Center in fall of 2012, so no further on campus resources are needed in the next year. However, if we increase the number of cohort groups to accommodate our Carroll Community College and Howard Community College Consortium partners, we will require additional office space for increased teaching faculty.

In addition to the above the following courses will also be taught at the new Mt. Airy College Center: Advanced Cardiac Life Support (ACLS) (noncredit), Assisted Living Management (noncredit), Cardiopulmonary Resuscitation (CPR) (noncredit), Medicine Aid (noncredit), Pediatric Advanced Life Support (PALS) (noncredit), Pharmacy Technician (noncredit)

See Appendix B for additional information on the Advance Workforce Training Center at Monroe Avenue and Appendix C for additional information on the Mt. Airy College Center for Health Care Education.

3. EVALUATION OF EXISTING FACILITIES

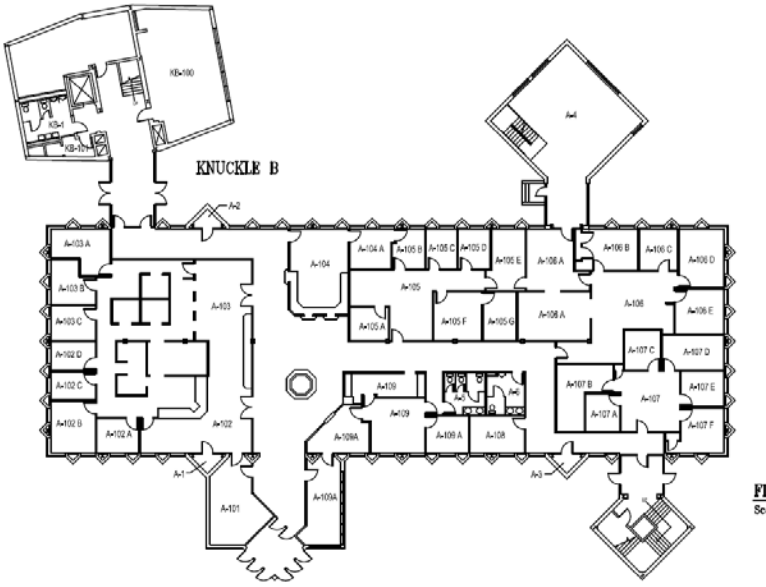
The following building evaluations is a summary of the findings from the Condition Assessment. The complete catalog of assessment information is available through F.C.C. Facilities Planning. The evaluation period the condition assessment covers, to determine the longevity of campus facilities, is from 2011 to 2030.

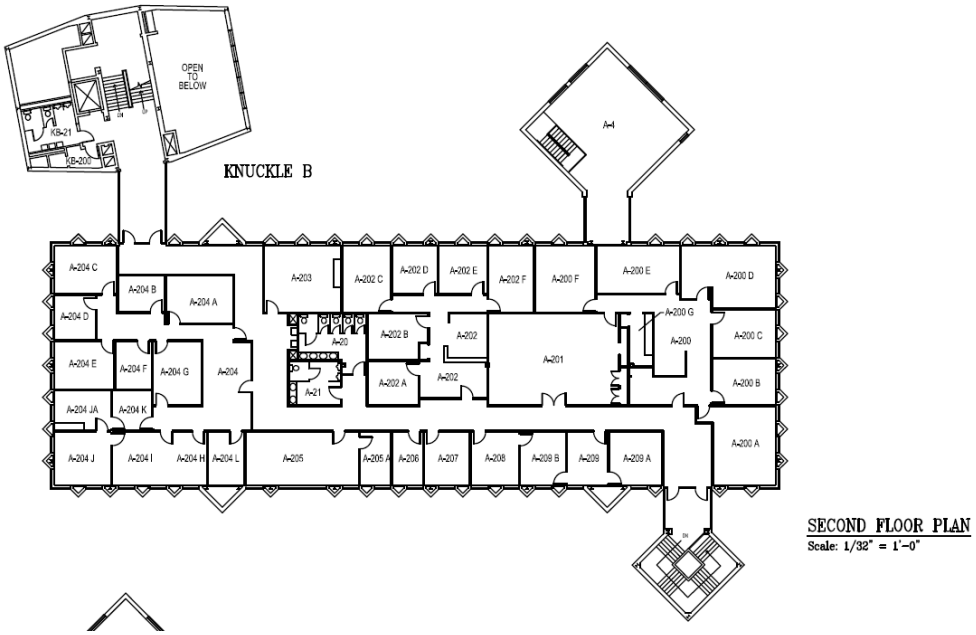
ADMINISTRATION HALL - BUILDING A

Year constructed:	Original construction drawings November 14, 1968 Main entrance addition drawings July 25, 1994 Mechanical room addition in 1994 Renovated building in 1995
Building type:	**Administrative/Office** - Office space = 15,621 s.f. – Services for Students with Disabilities, Adult Services, Adult Basic Education, Veterans Services, VP of Learning, President, Other Administrative Offices. General Use space = 1,752 s.f. Support Space = 277 s.f.
Building square footage:	17,650 Net SF and 32,131 Gross SF per the HEGIS code listing issued to state August 31, 2011 - Approximate occupancy load for Business type facility based on 100 sf per occupant = 185 occupants
Number of residential units:	None
Number of stories:	Two
Building construction:	Primary building - steel frame with cast in place concrete upper floor and concrete slab on grade with steel framed roof. Addition - masonry bearing walls and pre-cast pre-tensioned concrete planks. Main entrance addition – masonry bearing walls with concrete topped metal decks supported by open web steel joists.
Roof construction:	Primary - hipped roofs with standing seam metal panels. Secondary - flat roofs with built-up membrane and gravel aggregate.
Exterior Finishes:	Primary building - brick veneer with EIFS fascia, soffit and spandrel panels. Addition – brick veneer with metal spandrel panels.

Heating and/or Air-conditioning:	The building is supplied heated and chilled water from the central system at the Central Plant building. Common areas: High capacity air handling units, VAV boxes, cabinet heaters and baseboard heaters supplied with heated and/or chilled water by the central system. Offices: VAV's and baseboard heaters served by the high capacity air handling units noted above. LAN Hub Room: One split system with roof-mounted condenser. Room A-110: One split system air-conditioning unit. Attic/Penthouse: Unit heaters supplied hot water from the central system.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, security cameras and emergency phones
Dates of visit:	September 27, 2011

FLOOR PLAN


KNUCKLE B
FIRST FLOOR PLAN
Scale: 1/32" = 1'-0"


OPEN TO BELOW
KNUCKLE B
SECOND FLOOR PLAN
Scale: 1/32" = 1'-0"

SITE AND EXTERIOR

Two large trees flanking the main entrance addition have outgrown the concrete encased steel grates. Both are exhibiting heaving at the concrete slabs. Removal of the concrete surround and grates is a possible solution so as not to harm the tree growth. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.

Signage and Exterior Lighting:

- A lack of identification signage was observed by EMG and mentioned by the POC. EMG noted that there is minimal to no signage located at the parking lots to direct foot traffic to the buildings and additional signage is recommended. This will be further addressed in the parking analysis report. Additionally, due to the close nature of the buildings, it is somewhat difficult to discern which building signage belongs to which building. EMG recommends additional signage on the building addressing main entrances and the name of the building.
- Based on the estimated Remaining Useful Life (RUL) and condition, some of the light fixtures will require replacement immediately to provide necessary levels of night lighting for security.

Roofing

- Both types of roof finishes are approximately 16 years old. According to the POC, both types of roofs are covered by a 20 year warranty. A copy of the flat roof warranty only is attached in Appendix C. The roofs are maintained by the in-house maintenance staff and an outside contractor as needed.
- According to the POC, there are isolated active roof leaks in the flat roofing. There is evidence of active roof leaks such as moisture stained ceiling tiles. It was reported that the roof over the main entrance is leaking at the roof drain**.** A second roof leak was observed; although, it was reported that it has been repaired.

Exterior Walls, Stairs, Windows, and Doors:

- The sealant is flexible, slightly cracked and in fair condition. Based on the estimated Remaining Useful Life (RUL), the sealant will require replacement over the evaluation period. In addition to the sealant at changes of material, windows and doors, the sealant will require replacement at soffit to fascia joint and at the downspout penetration in the fascia.

ADA CONDITIONS

Building A - Administration Hall is located in the center of the Campus. The building is generally accessed from sidewalks from the east between Building H - Student Center and Building J (under construction) or sidewalks from parking lots to the northwest.

- Signage directing to accessible parking or accessible building entrances to the facility are not provided. Existing carpeting is not securely attached or has a pile thickness exceeding 1/2". An isolated area of carpeting in front of the counter in A-103 is failing at the seams.
- Stair handrails do not extend beyond the top and bottom risers and baluster spacing requires modification.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces. Men's restroom A-6 is missing part of the insulation.
- In Kitchenette/ lounge areas knee space beneath sink at 30" wide and 27" high. Modify cabinetry for compliant knee space and drain pipe protection in A-203 lounge.

BUILDING HEATING VENTILATING AND AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

A Building Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

- According to the renovation drawings, the building had major HVAC upgrades during the renovation in 1995. This work is evident based on the information gathered and observations during the site assessment.
- An indoor air quality issue has been reported by an employee on the first floor. A consultant was hired to test the air and the results of the test did not show air quality issues at the area of complaint. No further action is necessary at this time.
- The building has undergone an energy savings project within the past five years by "Johnson Controls" and is respectably energy efficient by today's standards.
- An abandoned split system air-conditioning unit is located adjacent to the penthouse catwalk. The condensing unit for the air-conditioning unit is mounted to the roof. Previously these units provided cooling to a hub room which has been relocated to the penthouse. Removal and proper disposal of the split system air-conditioning unit components can be accomplished as part of the property's routine maintenance operations.

Plumbing:

- The water heater appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period.

Electrical:

- The building is not equipped with an emergency generator. The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and the electrical power appears to be adequate for the buildings demands.
- Low voltage wiring is Cat 3, 5 and 5e and could use upgrading in order to allow downloading of gigs of data.
- No cell antennas or cell towers are located within the building. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

Fire Alarm and Security Systems:

- Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms.
- The central fire alarm panel is located in the penthouse and monitors the pull stations, smoke detectors, and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.
- Site Security is provided by full-time on site Campus Security Personnel. Surveillance is assisted by a "CCTV" (close circuit television) security system. Additional security systems in place at the building include emergency phones located in the corridor. The emergency phones are utilized to contact the on site Campus Security Personnel in times of emergencies.

- The building is equipped with a security system monitored by Pegasus. The system includes card readers at the building entrance doors for use by campus staff after hours. The main security central panel is located at the Central Plant Building in the electrical room.
- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads. .
- Based on its estimated Remaining Useful Life (RUL), the fire alarm panel will require replacement over the evaluation period.

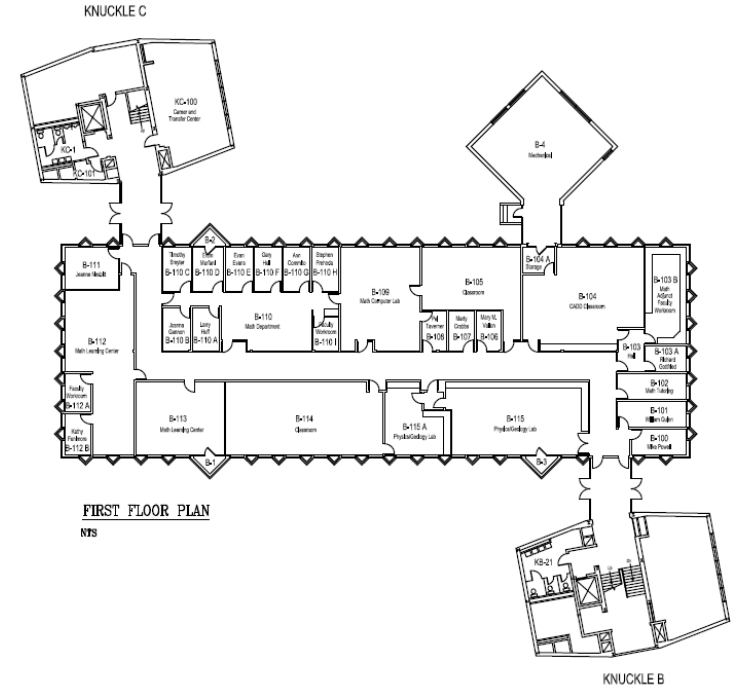
INTERIOR FINISHES AND FF & E

- The interior was gut renovated in 1994 in which all interior partitions were removed and replaced in a configuration with interior corridors rather than around the perimeter. The lobby finishes were replaced in 2007 and the northwest quadrant finishes including interior partition modifications were replaced in 2010.
- The interior finishes are in good condition. Based on estimated Remaining Useful Life (RUL), the area carpet, paint and wall finish and ceiling tiles will require replacement during the assessment period.

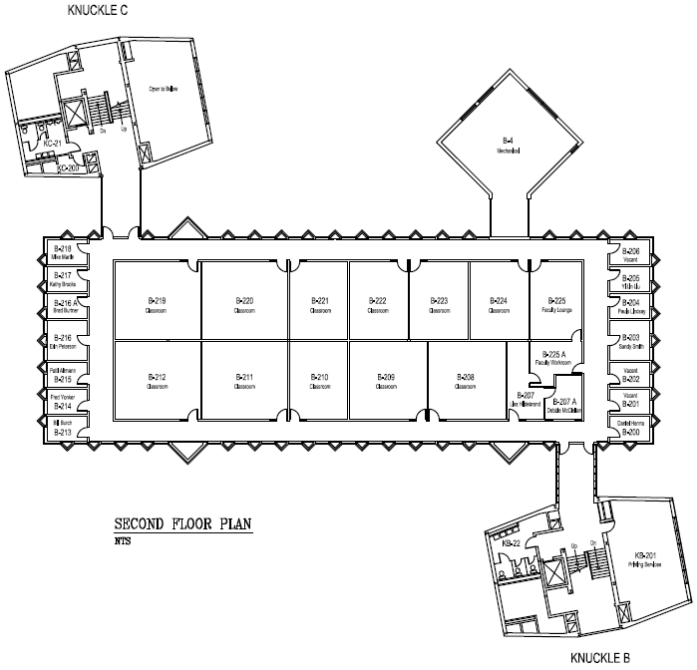
ACADEMIC HALL - BUILDING B

Year constructed:	1969. Renovated in 1989 and an addition of the mechanical room in 1994.
Building type:	**Academic** – Mathematics, Communications, Computing and Business Technology Classrooms and Labs &, Faculty Offices. Classroom space = 6446 s.f., Lab space = 2763 s.f., Office space = 7438 s.f., Study space = 540 s.f., Support space = 789 s.f.
Building square footage:	17, 976 NASF and 34,592 GSF per the HEGIS code listing issued to state March 30, 2011 Approximate occupancy load for Classroom and Business type facility based on 20 and 100 sf per occupant = 611 occupants.
Number of residential units:	None
Number of stories:	Two
Building construction:	Primary building - steel frame with cast in place concrete upper floor and concrete slab on grade with steel framed roof. Addition - masonry bearing walls and pre-cast pre-tensioned concrete planks. AB knuckle – masonry bearing walls with concrete topped metal decks supported by open web steel joists.
Roof construction:	Primary - hipped roofs with standing seam metal panels. Secondary - flat roofs with built-up membrane and gravel.
Exterior Finishes:	Primary building and AB knuckle - brick veneer with stucco fascia, soffit and spandrel panels. Addition – brick veneer with metal panel spandrel panels.
Heating and/or Air-conditioning:	Common areas: Cabinet and unit heaters, perimeter hot water radiators, split system heat pumps, and VAV boxes supplied with heated and chilled water from central system. Classrooms: Large capacity air handling units with VAV boxes supplied with heated and chilled water from central system with local thermostats, building automation system.

Fire and Life/Safety:	Battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, strobe light alarms, fire sprinklers, and smoke detectors.
Dates of visit:	August 11, 2011



FIRST FLOOR PLAN
NTS



SECOND FLOOR PLAN
NTS

SITE AND EXTERIOR

The Building B - Academic Hall is located in the center of the Campus. The building is generally accessed from walking paths from the main visitor parking lot to the southeast or the standard parking to the southwest. A service road with ADA parking is located at the rear of the building. The parking lot is paved with asphalt.

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of erosion or major ponding other than an isolated depressed area with evidence of ponding along the concrete paver access sidewalk to the terrace at the front of the building. This issue is addressed in a separate Site report.
- One large tree was observed to have overhanging branches at the mechanical addition. The leaves could cause problems to the roof membrane and drainage. The tree should be trimmed through routine maintenance.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period. A lack of identification signage was observed by EMG and mentioned by the POC. EMG noted that there is minimal to no signage located at the parking lots to direct to the buildings and additional signage is recommended. This will be further addressed in the parking report. Additionally, due to the close nature of the buildings, it is somewhat difficult to discern which building signage belongs to which building. EMG recommends additional signage on the building labeling addressing main entrances and name of building.
- The exterior building light fixtures are in good (80 percent) to poor (20 percent) condition requiring routine maintenance. Damaged fixtures are located at the exterior of the mechanical room. Based on the estimated Remaining Useful Life (RUL) and condition, some of the light fixtures will require replacement immediately to provide necessary levels of night lighting for security. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Superstructure and Foundations:

- Isolated separation of the chase wall was observed in the storage room next to KB22. The chase walls have large gaps where they meet the exterior walls. The settlement does not appear to be structural since the chase walls do not extend to the structure. Patching of gaps is recommended and monitoring of further settlement. No cracking was observed in these slabs. The mechanical room addition slab is exhibiting isolated cracking at the stairwell railing attachments. The slab appears to be structurally sound; although, should be epoxy sealed. This work can be performed through routine maintenance.

Roofing:

- Both types of roof finishes are approximately 16 years old. According to the POC, both types of roofs are covered by a 20 year warranty. Copies of the warranties are attached in Appendix C. The flat roof warranty only covers the knuckles. The roofs are maintained by the in-house maintenance staff and an outside contractor as needed.

Exterior Walls, Stairs, Windows, and Doors:

- The exterior finishes are in good to fair condition. The exhaust grill on the rear of the AB knuckle is rusted and the downspouts leading from the gutter and penetrating the fascia are both staining the stucco. Painting and patching will be required over the evaluation period.
- The sealant is in fair to poor condition. The window sealant is cracked and dry in some locations including the missing or gapped sealant joint at the printing shop in KB-200. Based on the estimated Remaining Useful Life (RUL), the sealant will require replacement over the evaluation period. The wide horizontal joint between the soffit and the fascia has been filled in with a sealant and some is missing or cracked. In addition to the sealant at changes of material, windows and doors, the sealant will require replacement at soffit to fascia joint and at the downspout penetration in the fascia.
- The exterior stair is in good condition other than an isolated crack along the top landing which is in poor condition. This will require cutting and patching so that a surface patch does not spall during freeze/thaw cycles and create more of a tripping hazard.

ADA CONDITIONS

- Stair handrails do not extend beyond the top and bottom risers and baluster spacing requires modification.

Restrooms

- Modify existing lavatory faucets to paddle type faucets. Push faucet requires constant pressure to remain on at ADA lavatory. Adjust or replace to paddles.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces. Women's restroom off Landing 1B-B is missing the insulation.

BUILDING HEATING VENTILATING AND AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition & Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

- According to the contractor, they maintain the property's chillers at the campus central plant. Information provided are as follows: the property chillers typically have an estimated useful life (EUL) of 20 years, however, with the good maintenance provided, chillers can last as long as 30 years. The property has a maintenance plan in place to overhaul chillers every ten years which extends the EUL of 20 years to 30 years for each chiller. Chiller #3 is a newer chiller, chiller #2 was recently overhauled and chiller #1 is scheduled for a major overhaul in 2012. Costs for any chiller overhauls or replacements can be found in the Building "D" Field house report.
- The BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- According to the renovation drawings, the building had major HVAC upgrades during the renovation in 1995. This work is evident based on the information gathered and observations during the site assessment.
- The building has undergone an energy savings project within the past five years by "Johnson Controls" and is respectably energy efficient by today's standards.
- The office room B-100 was reported to have inadequate heating at times during the cooler months. This room may have an undersized VAV heating coil. In order to provide proper heating to the space, replacing the existing VAV terminal will be required. The cost for this work is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.
- Some duct insulation may require replacement or additional installation based on the areas of moisture stained ceiling tiles. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Plumbing:

- The water heater appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period. The cost to replace the water heater is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

Electrical:

- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended. Additionally, the building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building
- The telephone system and data network system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling and Cat 5 and 5e for the data network cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones and download and send gigs. Based on these observations, upgrading the telephone and data network systems and cabling will be required over the evaluation period.
- There is a low voltage electrical junction box with exposed wiring with the cover taken off, located adjacent to the main building switch, at mechanical space B-2. To prevent injury or unauthorized personnel to this area, re-attaching the cover will be required immediately. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

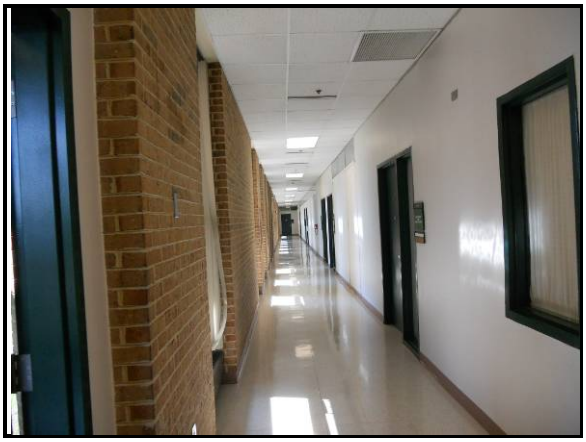
Elevators and Conveying Systems:

- According to the POC, the elevator, and its responsiveness, provides adequate service. The elevator is serviced by ThyssenKrupp Elevator on a routine basis. The elevator machinery and controls were upgraded in 1995. Based on the estimated Remaining Useful Life (RUL), the elevator equipment will require replacement over the evaluation period. The finishes in the elevator cab appear to be in fair condition with the carpeting being worn. Based on the estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement over the evaluation period.

Fire Protection Systems:

- Some of the fire sprinkler heads were manufactured by Central. These heads are potentially defective and were subject to a nationwide recall. The sprinkler heads will require replacement immediately.

INTERIOR FINISHES FF AND E

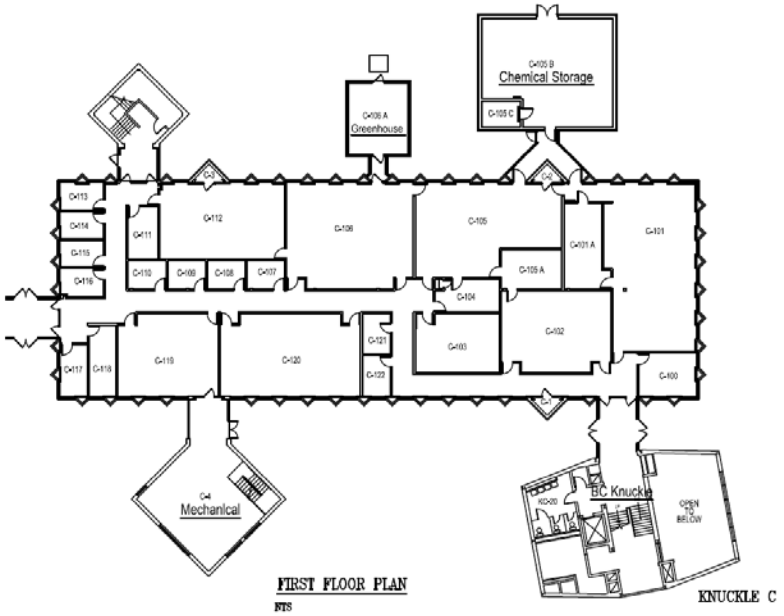


- The interior was last renovated over 20 years ago other than some minor alterations to classrooms such as B-113 and B-114 in which a wall was moved. Based on estimated Remaining Useful Life (RUL), the carpet painting, wall covering, ceiling tiles and vinyl tile will require replacement during the assessment period.

SCIENCE TECHNOLOGY HALL - BUILDING C

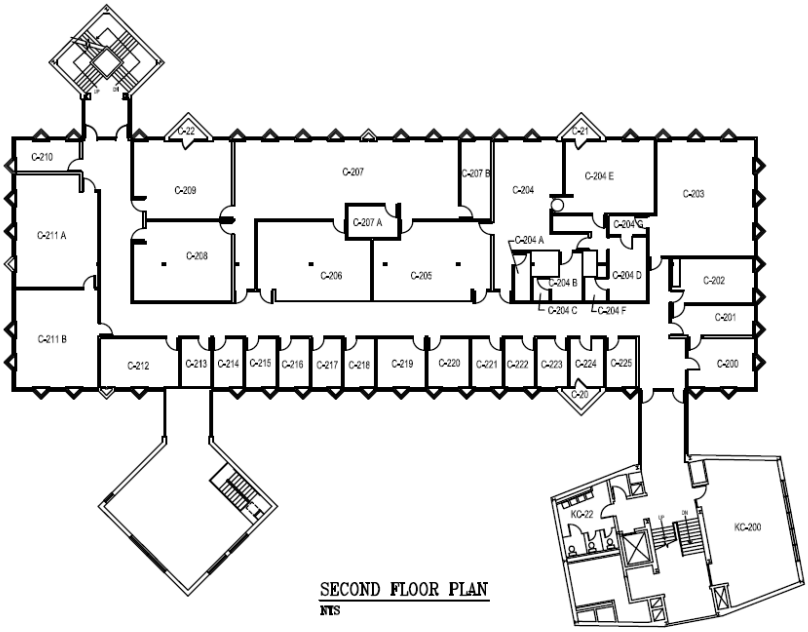
Year constructed:	1969 Renovations and additions in 1989, 1991 (chemical storage and greenhouse addition), 1995 (mechanical room addition) and 2000 (finishes)
Building type:	**Academic** – Physical Science Labs, Computer Science Labs, General classroom space and Faculty Offices. Classroom space = 1, 866 s.f., Lab space = 12,242 s.f., Office space = 3,490, Special Use space = 343, General Use space = 657 s.f., Support space = 748 s.f.
Building square footage:	19,346 Net SF and 32,794 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Classroom /Business type facility based on 20 abd 100 sf per occupant = 757 occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	Two
Building construction:	Primary building - steel frame with cast in place concrete upper floor and concrete slab on grade with steel framed roof. Addition - masonry bearing walls and pre-cast pre-tensioned concrete planks. BC knuckle – masonry bearing walls with concrete topped metal decks supported by open web steel joists. Greenhouse – aluminum frame on concrete masonry unit knee walls.
Roof construction:	Primary - hipped roofs with standing seam metal panels. Secondary - flat roofs with built-up membrane and gravel. Tertiary – gothic arch frame with glass panels at integral wall and roof

Exterior Finishes:	Primary building and BC knuckle - brick veneer with stucco fascia, soffit and spandrel panels. Additions – brick veneer with metal panel spandrel panels at link to mechanical room and storefront link at chemical storage with stucco fascia. Greenhouse – brick veneer at base with glass walls and roof.
Heating and/or Air-conditioning:	The building is supplied heated and chilled water from the central system at Building "D". Common areas: High capacity air handling units, VAV boxes, cabinet heaters and baseboard heaters supplied with heated and/or chilled water by the central system. Classrooms: VAV's and baseboard heaters served by the high capacity air handling units noted above. Sara Lee Sandwich Shoppe: One split system with roof-mounted condenser. LAN Hub Room: One split system with roof-mounted condenser. Chemical Room C105B: One package rooftop unit. Greenhouse: One propane-fired furnace and unit heaters supplied hot water from the central system. One pad-mount, evaporative cooler. Attic/Penthouse: Unit heaters supplied hot water from the central system.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, security cameras and emergency phones.
Dates of visit:	August 12, 2011



FIRST FLOOR PLAN
NTS

KNUCKLE C



SECOND FLOOR PLAN
NTS

KNUCKLE C

SITE AND EXTERIOR

The property slopes steeply down from the northeast entrance sidewalk along the BC knuckle towards the entrance into the link to Building B. The property is relatively flat at the southwest and then slopes slightly away from the building around the chemical storage addition at the northwest corner of the building. Steep sloping down from the building occurs on the north end to the west rear BC knuckle entrance.

The landscaping consists of trees, shrubs, and lawn. Flowerbeds are located south of the greenhouse on the west side of the building.

A brick veneered retaining wall is located at the steep grade change at the rear entrance to the BC knuckle at the north side of the building. The retaining wall has a stone coping.

- The topography and adjacent uses do not appear to present conditions detrimental to the property. The landscape materials are in good condition and will require routine maintenance over the evaluation period.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period. A lack of identification signage was observed by EMG and mentioned by the POC. EMG noted that there is minimal to no signage located at the parking lots to direct visitors to the buildings and additional signage is recommended. This will be further addressed in the parking report. Additionally, due to the close nature of the buildings, it is somewhat difficult to discern which building signage belongs to which building and the size of the lettering is not possible to see from the parking lot. EMG recommends additional signage on the building addressing main entrances and name of the building.
- The exterior building light fixtures are in good (60 percent) to poor (40 percent) condition requiring routine maintenance. Damaged fixtures are located at the exterior of the mechanical room and missing lamps noted at the exterior wall facing the parking lot. Based on the estimated Remaining Useful Life (RUL) and condition, some of the light fixtures will require replacement immediately to provide necessary levels of night lighting for security. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Superstructure and Foundations:

- The superstructure is exposed in some locations, allowing for limited observation. Isolated separation was observed in the storage room next to KC22. The chase walls have large gaps where they meet the exterior walls. The settlement does not appear to be structural since the chase walls do not extend to the structure. Isolated settlement cracking was observed above the exterior door in the chemical storage addition on the interior side. The stair tower at the southwest corner has settlement cracking in the concrete masonry units on the interior on all walls at the upper level. Some isolated separation and misaligned bricks were observed on the exterior.
- Patching of gaps is recommended and monitoring of further settlement.

Roofing:

- Both types of roof finishes are approximately 16 years old. According to the POC, both types of roofs are covered by a 20 year warranty. Copies of the warranties are attached in Appendix C. The flat roof warranty only covers the knuckles. The roofs are maintained by the in-house maintenance staff and an outside contractor as needed.
- The fields of the sloped roofs are in good condition. Based on the estimated Remaining Useful Life (RUL), the roof panels will require replacement over the evaluation period.
- It was reported that the snow guard system is ineffective for heaving snows. The snow sheets over the rail system and falls to the ground. A possible remedy is to install an additional rail system near any entrance areas further up the roof at approximately three to four feet from the edge to match the newer systems. Sloped roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- The flat roof flashings are in fair condition. Cracking was observed at the joints. Flashing will be replaced in conjunction with the roof membrane replacement. Routine maintenance will also be required throughout the evaluation period.
- The parapet walls and copings at the flat roofing are in good condition and will require routine maintenance over the evaluation period.
- Roof drainage appears to be adequate at the flat roofing. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.

Exterior Walls, Stairs, Windows, and Doors:

- The exterior finishes are in good to fair condition. The exhaust grill on the rear of the BC knuckle is rusted staining the stucco. Painting and patching will be required over the evaluation period.
- The sealant is in fair to poor condition. The window sealant is cracked and dry in some locations. Based on the estimated Remaining Useful Life (RUL), the sealant will require replacement over the evaluation period.
- The wide horizontal joint between the soffit and the fascia has been filled in with a sealant and some is missing or cracked. In addition to the sealant at changes of material, windows and doors, the sealant will require replacement at soffit to fascia joint and at the downspout penetration in the fascia.

ADA CONDITIONS

- Stair handrails do not extend beyond the top and bottom risers and baluster spacing requires modification.

BUILDING HEATING VENTILATING AND AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

- According to the property's HVAC maintenance contractor, they maintain the property's chillers at the campus central plant. Information provided are as follows: the property chillers typically have an estimated useful life (EUL) of 20 years, however, with the good maintenance provided, chillers can last as long as 30 years. The property has a maintenance plan in place to overhaul chillers every ten years which extends the EUL of 20 years to 30 years for each chiller. Chiller #3 is a newer chiller, Chiller #2 was recently overhauled and Chiller #1 is scheduled for a major overhaul in 2012. Costs for any chiller overhauls or replacements can be found in the Building "D" Field house report.
- According to the property's Service Technician, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- According to the renovation drawings, the building had major HVAC upgrades during the renovation in 1995. This work is evident based on the information gathered and observations during the site assessment.
- The hot and chilled water circulating pumps appear to be in good (4) to fair (2) condition. Based on its estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The evaporative cooler appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the evaporative cooler will require replacement during the evaluation period. The cost to replace the unit heaters is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The rooftop package unit is in poor condition. According to the POC, a new package unit, to replace the existing unit, is on order and will be installed upon delivery. The cost of this work is not included in the cost tables. Additionally, based on its estimated Remaining Useful Life (RUL), the package unit will require replacement during the evaluation period.

- The mechanical ventilation system and equipment appear to be in fair condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program. However, in conversation with the on site point of contact, the exhaust ventilation currently in place for the science lab classrooms needs improvements. No testing of the exhaust ventilation systems was performed as part of this Facility Condition Assessment. There were seven exhaust ventilation units located on top of the pitched metal roof that were not accessed due to not having the proper fall gear required to access this area of the building. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs.
- Additionally, the computer classroom C206 was reported to have inadequate cooling at times when the classroom is full and all computers are operating. This room may have an undersized VAV box or originally was not factored in as a computer lab classroom. In order to provide proper cooling, replacing the existing VAV terminal or adding an additional VAV will be required. The maintenance personnel are aware of this condition and are currently investigating the VAV for this room. This work can be performed as part of the property management's routine maintenance program.
- Some duct insulation may require replacement or additional installation based on the areas of moisture stained ceiling tiles. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Plumbing:

- The plumbing systems appear to be well maintained and in good condition.
- Some piping and valve replacements may be required based on the leak evidence referenced in Section 1.2. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Gas:

- The building is not supplied with natural gas.
- There is one 2,487-gallon underground storage tank (UST) and a distribution system that supplies propane gas to science lab classrooms and the greenhouse. The propane tank is located in the vicinity of the main entrance to the building. According to the original construction drawings, the underground storage tank is 332.5 cubic feet, which converts to 2,487 gallons. The condition of the underground storage tank (UST) could not be determined. Reportedly the UST is original to the building construction. Based on the National Fire Protection Standards, the typical Estimated Useful Life is between 15 and 20 Years. The Marshal & Swift Valuation Guide indicates that USTs have an Estimated Useful Life between 12 to 20 Years. As such, an Estimated Useful Life of 20 to 30 years is typically utilized depending on design and build. Based on the Estimated Useful Life, replacement is recommended early in the evaluation period.

Electrical:

- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended.
- Additionally, the building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.

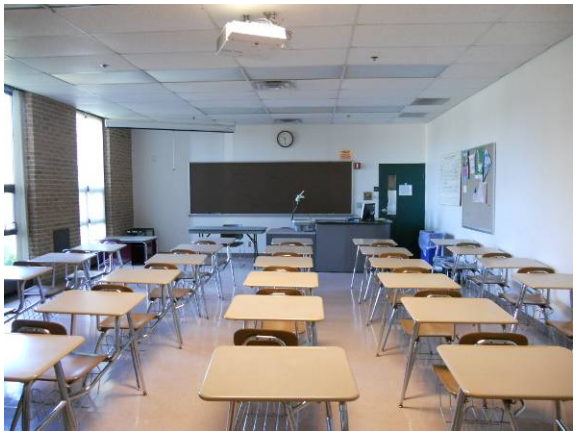
Elevator and Conveying Systems:

- The elevators, and their responsiveness, appear to be adequate. The elevator is serviced by ThyssenKrupp Elevator on a routine basis. The elevator machinery and controls were upgraded in 2004. Based on the estimated Remaining Useful Life (RUL), some of the elevator equipment will require replacement over the evaluation period.
- The finishes in the elevator cab appear to be in fair condition with the carpeting being worn. Based on the estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement over the evaluation period. The cost to replace the finishes is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

Fire Protection Systems:

- The property's fire sprinkler inspection contractor is not aware of any recalled sprinkler heads.
- Some of the fire sprinkler heads were manufactured by Central. These heads are potentially defective and were subject to a nationwide recall. The sprinkler heads will require replacement immediately.

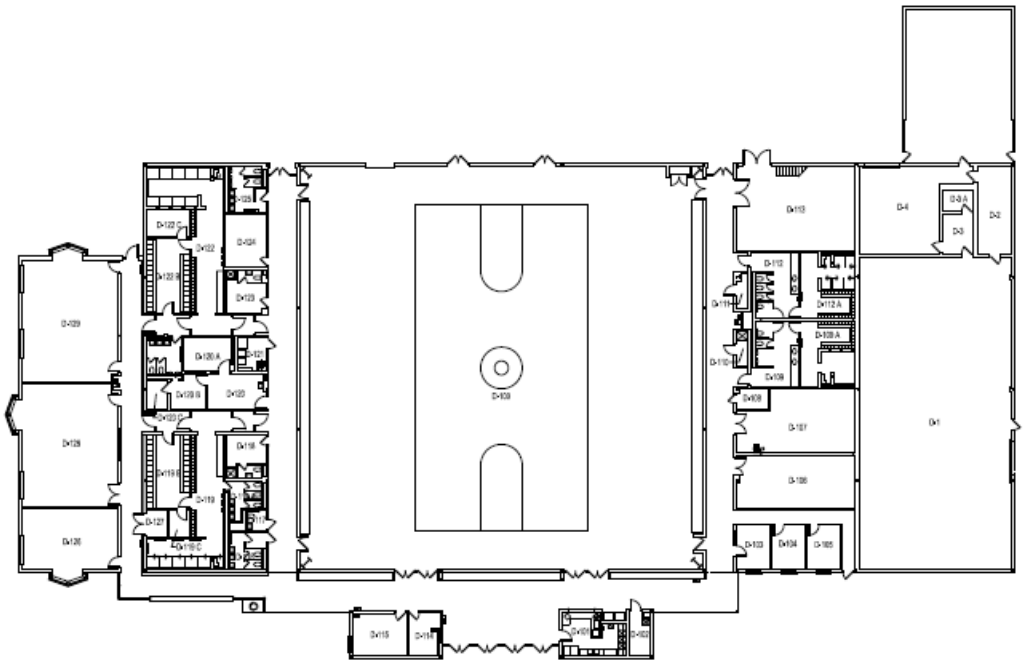
INTERIOR FINISHES AND FF&E



- The interior finishes were last renovated approximately eleven years ago in 2000.
- The interior finishes are in good condition. Based on its estimated Remaining Useful Life (RUL), the area carpet will require replacement during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.

FIELD HOUSE - BUILDING D

Year constructed:	1969 Renovation and Addition 2001
Building type:	**Gymnasium, physical education classrooms, aerobics room and offices -** Classroom space = 502 s.f., Office space = 1,154 s.f., Special Use (Gym) = 20,215 s.f., General use space = 204 s.f. and Support space = 797 s.f.
Building square footage:	22,872 Net SF and 35,872 Gross SF subtracting Central Plant 4,936 SF = 30,936 SF per the HEGIS code listing issued to state March 30, 2011 not including the Central Plant. Approximate occupancy load for Classroom/ Assembly /Business type facility based on 20 and 100 sf per occupant = 2102 occupants (Not including Central Plant)
Number of buildings:	One attached to Central Plant Building
Number of stories:	One
Building construction:	Steel frame with concrete-topped metal decks. Masonry walls.
Roof construction:	Four-Hipped standing seam metal roof Flat roofs with built-up membrane
Exterior Finishes:	Brick and cement stucco
Heating and/or Air-conditioning:	The building is supplied heated and chilled water from the central plant building, which is attached to the north side of this building. The building is equipped with high capacity air handling units, variable air volume (VAV) boxes and fan coil units (FCU) supplied with heated and chilled water by the central system.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, building security door card readers and an emergency phone.
Dates of visit:	August 31, 2011 and September 1, 2011



SITE AND EXTERIOR

The property slopes mildly down from the west rear side of the building to the east portion of the campus with the main detention pond landscaping.

The landscaping consists of expanses of lawn with well maintained trees and shrubs concentrated around the building entrances. The rear is abutted by asphalt paving.

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

Signage and Exterior Lighting:

The building identification signs are in good condition.

- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.

Superstructure and Foundations:

- The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There is little significant sign of deflection or movement.
- There is exterior cracking at the northeast corner of the front corridor. There is glazing on two sides with a corner column. The foundation wall below this window has concrete cracks and water intrusion, which may be subject to freeze thaw. Maintenance is required to confirm seals of the window frame above this wall failure. All walls and glazing must be carefully inspected. Cracks and pipe penetration should be caulked with elastomeric materials.

Roofing:

- The standing seam metal roof was installed in 1995. The lower flat roofs were installed in 1995 and have a twenty year warranty ending in 2015. The classroom addition roof was installed in 2001 and appears to match the other flat roofs in general condition.
- According to the Wes Merchant a recent active roof leak in the side wall corridors relates to main roof snow and gutter overflow issues and not an actual leak in the membrane. Refer to bullet below for further discussion.
- The sloped roof flashings are in good condition and will require routine maintenance over the evaluation period.
- The parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- The integral metal gutters at the sides off the hipped roofs have been damaged by snow melt and have overflowed with rainwater in major storms. The snow fences have not been effective in controlling snow melt, allowing damaging snow discharge that has damaged gutters. In addition, the single downspout at the side of the main roof has not been adequate to accept larger rain storms, which causes occasional roof leaks at flashing over the side corridors. Gutter and downspout modification can be accomplished as routine maintenance.
- There are broken dome covers on the internal roof drains that could allow stone aggregate or landscape debris to clog roof drains. Maintaining all roof drain covers is a routine maintenance necessity. Since drains have been open, verifying that no clog exists should be accomplished.

Exterior Walls, Stairs, Windows, and Doors:

- The exterior brick veneer is in good condition and the sealant is flexible, smooth, and in good condition and will require routine maintenance over the evaluation period
- The exterior and interior stairs, balusters, handrails and catwalks are in good condition and will require routine maintenance over the evaluation period.
- The exterior doors and door hardware are in good condition and will require routine maintenance over the evaluation period.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

- On site personnel maintain the HVAC equipment or a contractor is retained when required.
- Boland, the property's HVAC maintenance contractor stated they only maintain the property's chillers at the campus central plant building. Refer to the EMG 2011 Central Plant Building report for more discussion on the chillers at the central plant.
- Johnson Controls, the property's Service Technician for the Building Automation (BAS) stated the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls. Additionally, a defective controller part that operates chiller #2 was placed on order and should arrive in the next two days which will then be immediately installed. The contractor visits the campus two times each month to conduct routine maintenance procedures and as needed during emergencies.
- The air handling units, variable frequency drives (VFD), variable air volume boxes (VAV), fan coil units (FCU) and hot and chilled water circulating pumps appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), this equipment will require replacement over the evaluation period.
- Abandoned through-the-roof ventilation units were noted at the gym. According to the POC, the ventilations units are no longer operational. Removal and proper disposal of the ventilation units can be accomplished as part of the property's routine maintenance operations.

Plumbing:

- The plumbing systems appear to be well maintained and in good condition.
- The pressure and quantity of hot water appear to be adequate.

- The accessories and fixtures in the common area restrooms are in good condition requiring routine maintenance. Based on the estimated Remaining Useful Life (RUL), the original urinals will require replacement during the evaluation period. Replacements of the fixtures with low-flow type fixtures will help save on water usage in the building.

Electrical:

- The electrical power appears to be adequate for the building's demands.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. The telephone cabling in the building is supplied from the main telephone interface at the Central Plant building, which is reportedly CAT 3. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The lightning arresting grid system appears to be in good overall condition requiring routine maintenance over the evaluation period; however, there are some areas that have unattached cabling (approximately 60 LF) along the parapet walls. Re-setting and properly attaching the lightning cabling system on the parapet walls will be required. The cost of replacement is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.
- The lights are energy efficient fixtures in good condition and PA system are reportedly in good condition. Routine maintenance will be required over the evaluation period.
- The building is respectably energy efficient by today's standards.

Elevators and Conveying Systems

- There are no elevators in the building.
- There are wooden retractable bleachers manufactured by Husey which are 42 years old. The maintenance staff perform inspections twice each year of all mechanical and structural components and make any necessary repairs or adjustments. Every other year a registered structural engineer inspects and certifies the bleach system
- Two of the ten bleacher sections have had wooden bench planks replaced. All parts and components are available from the manufacturer. All bench surfaces are in good to fair condition. In recent years the bleacher system was upgraded with automated power drives. The power systems have been performing without failure. **The bleacher systems will require the continued maintenance routines and biannual structural certification over the evaluation period.**
- A compliant assessable ramp designed for a portable stage is stored in an area adjacent to the gym.

Fire Protection Systems:

- According to the property's contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- The fire extinguishers are serviced annually, the pull stations and alarm horns appear to be in good condition and the security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF&E

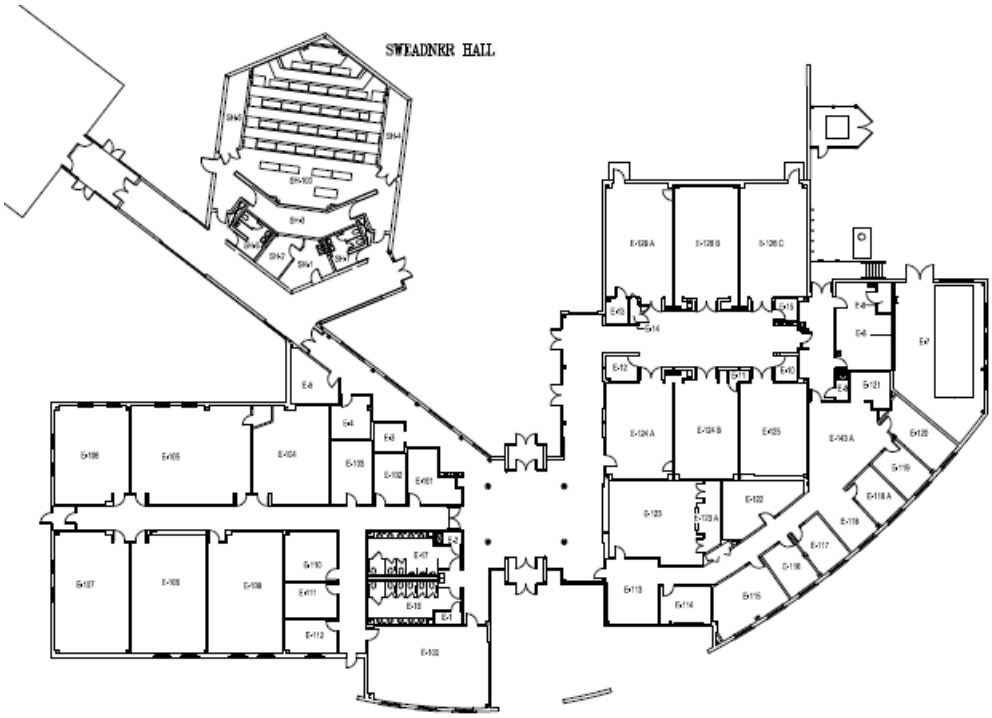
- The Fieldhouse was renovated ten years ago when the south classroom addition was constructed and has been well maintained.
- The interior floor finishes are in good condition. The floor is currently in good to fair condition. According to the POC the 1969 floor has been refinished twice and cannot be sanded again. Based on its estimated Remaining Useful Life (RUL), the Gymnasium (D100) wood floor will require replacement. The Fitness Classroom (D129) wood floor will require refinishing during the assessment period.
- The interior paint, suspended ceiling tiles and the interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.

Commercial Kitchen Equipment:

- A concession kitchen serves food for sale during gymnasium events. The kitchen appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement over the assessment period.
- The washers and dryers appear to be in good condition and will require routine maintenance over the assessment period. Replacement with high efficiency Energy Star Rated washer and moisture sensing dryer is recommended. Based on their estimated Remaining Useful Life (RUL), the washer and dryer will require replacement over the assessment period.

CONFERENCE CENTER BUILDING E

Year constructed:	Original construction 1998 - 1999
Building type:	**Conference center, classroom and office** - Classroom space = 5,257 s.f., Office space = 3,380 s.f., General Use (Meeting rooms) = 4,644 s.f., Support 284 s.f.
Building square footage:	13,565 Net SF and 22,939 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Classroom /Business type facility based on 20 and 100 sf per occupant = 565occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	One
Building construction:	Steel frame with concrete-topped metal decks
Roof construction:	Flat roofs with built-up membrane
Exterior Finishes:	Brick veneer at lecture hall Exterior insulation and finish system (EIFS). Brick and stone veneer
Heating and/or Air-conditioning:	Conference Rooms: Air handling unit fed from central plant, variable air volume boxes with local thermostats Server Room: Split system air-conditioning unit
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, annunciator panel, fire department connection, strobes, illuminated exit signs



SITE AND EXTERIOR

The Building E - Conference Center is located on the south side of the Campus. The building is generally accessed from the center of campus or from parking lots to the south and west. The parking lots are paved with asphalt. A service drive is located to the southeast of the building.

The property slopes gently down from the northeast side of the property to the southwest portion of the campus. The landscaping consists of trees, shrubs, and lawn. Flower beds are concentrated around the southwest side of the building.

- The topography and adjacent uses do not appear to present conditions detrimental to the property. The landscape materials are in good condition and will require routine maintenance over the evaluation period.
- Parking, site improvements, and surrounding areas are included in the overall site report under separate cover. A cursory assessment of areas surrounding the building was performed to identify potential safety hazards or site items which may be negatively impacting the building. No areas were observed.
- The sprinkler testing is causing erosion at the southeast corner of the office wing. Stones have been placed to help with the erosion; although, it does not appear to be adequate. It was discussed that a drainage catch basin may be required with underground piping to the storm water system. Design considerations for the strength of the water being ejected will be required.
- The bottom few treads of the loading dock stairs are spalled, possibly due to lack of sealant at the railing posts. Water is allowed to collect and during freezing/thawing cycles may have caused the spalling. Repairs are required. The cost of this work is relatively insignificant and can be performed through routine maintenance.
- The ground-level patio slabs are in good to fair condition. There are isolated signs of movement, settlement, and spalling at the entrances from the east. It was reported that the slabs did not extend below the frost line or were not tied to the building slab. The isolated areas have been replaced. Any further movement should be monitored.

Signage and Exterior Lighting:

- The building name is displayed on the signage adjacent to the building entrances.
- Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls.
- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.
- Signage directing to accessible parking or accessible building entrances to the facility is not provided. Entrance off of parking area is accessible and highly visible.
- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.

Superstructure and Foundations:

- The building has structural steel columns, which support the roof diaphragms. The roofs are constructed of metal decks which are supported by steel beams and open web steel joists.

Roofing:

The primary roofs are classified as hipped. The sloped roofs are factory finished standing seam metal panels. The roofs have sheet metal flashing elements. The floors of the attic are insulated with loose fiber. The attics are not insulated. The sloped roofs drain over the eaves to concealed sheet metal gutters which are connected through the building to underground piping to the storm drainage system. The attics are ventilated by continuous ridge vents. The attics do not have draft stops. Attic access is not provided.

The secondary roofs are classified as flat. The roofs are finished with stone aggregate over a four-ply bituminous built-up membrane. The roofs are insulated with rigid insulation boards.

The exterior perimeter walls extend above the surface of the flat roofs, creating parapet walls. The roof membrane turns up the sides of the parapet walls and terminates at sheet metal flashing and cast stone copings. The roofs have sheet metal flashing elements and built-up base and edge flashing.

There are no attics in the flat roofing.

- The roof finishes are original at approximately 13 years old. The fields of the sloped roofs are in good condition and will require routine maintenance over the evaluation period.
- According to the POC, there are no active roof leaks and there is no evidence of active roof leaks in the sloped or flat roofing.

- There is no evidence of roof deck or insulation deterioration in the sloped or flat roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used in the sloped or flat roofing.
- The sloped roof flashings are in good condition and will require routine maintenance over the evaluation period.
- Sloped roof drainage does not appear to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program. There appears to be no or inadequate sloping to the gutters causing standing water which may contribute to early deterioration. Reinstallation is required to achieve the minimum slope necessary for positive drainage to the downspouts. In addition, some seams have missing sealant or damaged joints causing leaking on to grade or the window sill below. **Repairs are required**.
- The sloped roof vents are in good condition and will require routine maintenance over the evaluation period.
- The fields of the flat roofs are in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the built-up roof membranes will require replacement over the evaluation period.
- Flat roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.

Exterior Walls, Stairs, Windows, and Doors:

The majority of the exterior walls are finished with brick masonry veneer. The soffits are concealed and are finished with painted exterior grade gypsum board. Portions of the exterior walls are finished with a factory painted, metal sandwich panel system. The exterior finishes are in good condition.

- The sealant is from good to poor condition. Some areas were smooth and flexible, while other areas were cracked and deteriorated
- According to the structural drawings, the foundations consist of cast-in-place concrete perimeter wall footings with masonry foundation walls. The foundation systems include reinforced concrete column pads and slabs on grade.
- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.
- and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.
- the cost of this work is relatively insignificant and can be performed through routine maintenance.
- According to the POC, the property does not experience a significant number of complaints regarding window leaks or window condensation. There is isolated evidence of broken seals at the entrance lobby near the conference room wing. The windows and screens are in good to fair condition. Some storefront glass units will require replacement.
- The exterior doors and door hardware are in good condition and will require routine maintenance over the evaluation period. Based on their estimated Remaining Useful Life (RUL), automatic openers will require replacement during the assessment period.
- It was reported that high winds swing the doors open abruptly and can damage the openers or frame. Sliding doors may be the solution during the next scheduled door replacement.

ADA CONDITIONS

- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

The building is supplied heated and chilled water from the central system, located at Building “D”.

Cooling is also provided to the telecommunications room by one split-system air conditioner. The unit has a nominal capacity of 1.5 tons. The fan coil unit is located above the server equipment. The condensing unit is located outside of the building near the telecommunications room. The cooling equipment uses R-22 as a refrigerant.

Heating is provided to entrance vestibules by small capacity electric cabinet heaters. In addition, the mechanical room is equipped with a hydronic unit heater located above the entrance door.

Natural ventilation is provided by operable windows. The restrooms and other areas are ventilated by mechanical exhaust fans.

- According to the contractor, they only maintain the property’s chillers at the campus central plant building. Refer to the Central Plant Building report for more discussion on the chillers at the central plant.
- According to the BAS contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- The air handling unit, variable frequency drives, hydronic fan coil unit heaters, electric heaters, hot and chilled water circulating pumps, HVAC air compressor, mechanical ventilation system and split system fan coil unit and condenser appears to be in good condition. Based on its estimated Remaining Useful Life (RUL), the air handling unit will require replacement over the evaluation period.

Plumbing:

- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.
- The pressure and quantity of hot water appear to be adequate.
- The catering kitchen and restroom water heaters appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period.

Gas:

- Not applicable. The property is not supplied with natural gas.

Electrical:

- The electrical power appears to be adequate for the building's demands.
- The switchgear, motor control center, circuit breaker panels, electrical meter, lighting, PA system and lightening arresting grid system appear to be in good condition and will require routine maintenance over the evaluation period.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 6, Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

Fire Protection and Security Systems

The fire protection system consists of a wet-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations, alarm annunciator panel, and alarm horns. Siamese connections are located on the exterior of the building. Hard-wired smoke detectors are located throughout the common areas.
A booster fire alarm panel, located in this building, monitors the pull stations, smoke detectors, and flow switches. The central fire alarm panel is located in Building A. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.
Site Security is provided by full-time on site Campus Security Personnel and a security system monitored by Pegasus.

- According to the sprinkler contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.

- Exit sign and emergency light replacement is considered to be routine maintenance.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- The security systems, such as the cameras and related monitoring equipment, are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF&E

- The conference room, some classrooms, corridors and office areas were last renovated approximately three to five years ago. Some classrooms and part of the corresponding corridor finishes are original.
- The interior finishes are in good to fair condition. It was reported that there had been a leak in the E-118 office area from the exterior and all affected drywall and insulation was removed and replaced. No further issues were observed in this area.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles, folding partitions and carpet tiles will require replacement during the assessment period. Interior painting and wall finish replacement will also be required during the assessment period.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.
- The ceramic tile in both restrooms is not fully adhered in the open areas between the stalls and lavatories and under the lavatories. Heaving and missing grout was observed. The affected areas will require removal and properly installed replacement tile. Due to the small areas affected, this work can be performed through routine maintenance.

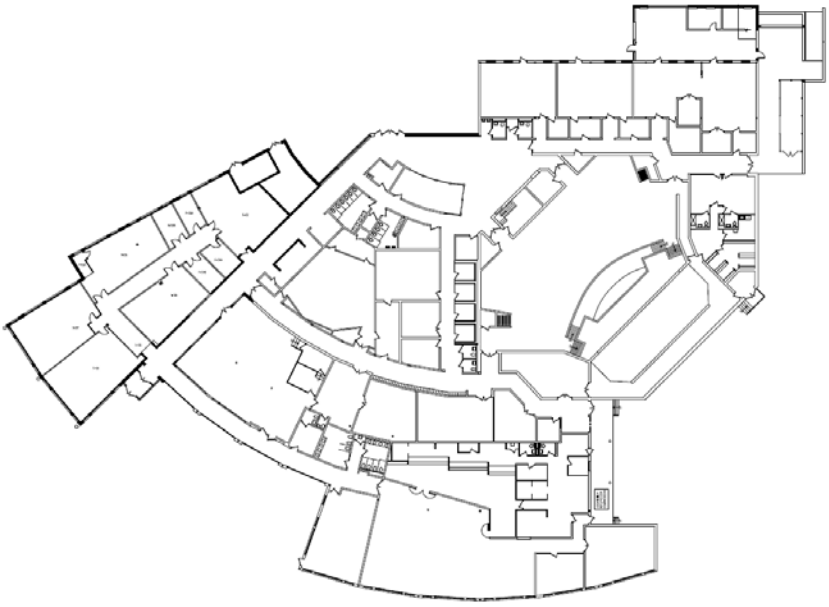
Commercial Kitchen Equipment:

A catering kitchen serves the conference rooms.

- The kitchen appliances appear to be in good condition. It was reported that the catering kitchen is rarely used. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement over the assessment period.

COMMUNICATIONS, HUMANITIES AND ARTS - BUILDING F

Year constructed:	1988 Addition in 2002 Renovation of rooms F102-F104 in progress (2011) Renovation of rooms F105-F108 planned for 2012 Kiln Building constructed in 2011
Building type:	**Music and art labs and classrooms, Communications media labs theatre and offices** - Classroom space = 1,373 s.f., Lab space = 6,528 s.f., Office space 1,777 s.f., Special Use, 67 s.f., General Use, 6,884 s.f. Support 418 s.f., Under Renovation 15,843 s.f.
Building square footage:	32,890 Net SF and 51,676 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Auditorium, Classroom and Business type facility = 1502 occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	One
Building construction:	Steel frame with concrete-topped metal decks. Masonry walls.
Roof construction:	Flat built up roof. Hipped standing seam metal on addition.
Exterior Finishes:	Brick veneer
Heating and/or Air-conditioning:	The building is supplied heated and chilled water from the central system at Building "D". The building is equipped with high capacity air handling units, variable air volume (VAV) boxes and fan coil units (FCU) supplied with heated and chilled water by the central system. Control Room: One split system unit ventilator with roof-mounted condenser. Electric Rooms: Unit heaters supplied hot water from the central system.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, security cameras, building security door card readers and an emergency phone



Building F is in phase II of renovations to a large portion of it's area

SITE AND EXTERIOR

The Visual and Performing Arts Center is located on the northeast side of the Campus. The building is generally accessed from a parking lot to the north, from walking paths to the south, and from a staff parking lot to the east of the building. The parking lot is paved with asphalt. A service drive is located to the east of the building.

The property slopes mildly down from the north rear side of the building to the south portion of the campus with the main detention pond landscaping.

The landscaping consists of trees, shrubs, and lawn.

A brick veneered retaining wall is alongside the receiving ramp towards the northeast side of the building. In addition, brick veneer planters are found surrounding elevated landscaped areas near the north entrance of the building.

- The topography and adjacent uses do not appear to present conditions detrimental to the property. The landscape materials are in good condition and will require routine maintenance over the evaluation period.
- The brick planters are in good condition. Routine maintenance will be required over the evaluation period.
- The brick veneer retaining wall is in fair condition. Missing bricks were observed on the portion of the retaining wall at the bottom of the ramp and midway up the ramp where the wall makes a 90 degree turn towards the receiving area. The missing bricks will require replacement. Due to the insignificant cost of this work, the work can be performed as a part of the property's routine maintenance program
- The storage enclosure is in fair to poor condition. The wood board fencing portion of the enclosure shows signs of significant wood deterioration and is not standing completely vertical (tilting away from the enclosure). Due to the current condition, the wood board fencing will require replacement immediately. The work can be performed as a part of the property's routine maintenance program.
- Isolated walkway paving near the north building entrance exterior stairs and near the chain link and wood board fenced enclosure on the east side of the building are in fair to poor condition. Sections of concrete paving sidewalk will require replacement immediately in areas with cracking, exposed aggregate, and spalling.
- The concrete paving near the loading dock is in fair condition showing signs of concrete spalling. Based on its estimated Remaining Useful Life and condition, the concrete paving will require replacement over the evaluation period.
- The patio adjacent to the south entrance reportedly has ponding issues near the southwest corner of the patio. In order to solve this issue, re-grading of the affected area will be required within the year to adequately drain the water to the nearby storm inlet. The nearest drain inlet is within 30 feet of the ponding location and this work can be performed as a part of the property's routine maintenance program.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- The exterior building light fixtures are in good (85 percent) to poor (15 percent) condition requiring routine maintenance. Two damaged light fixtures are located at the south side exterior wall. Based on the estimated Remaining Useful Life (RUL) and condition, some of the light fixtures will require replacement immediately to provide necessary levels of night lighting for security. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

Superstructure and Foundations:

The building has concrete masonry unit (CMU) exterior and interior bearing walls and partitions. The building has structural steel frame, which support the roof diaphragms. The roofs are constructed of metal decks, which are supported by steel beams and open-web steel joists. The roof corrugated metal decks are insulated with tapered insulation for drainage.

- Minor cracking was observed in the concrete masonry units on the interior in rooms F-1 (west corner of room), the mechanical space above room F-120D (southeast corner of room), F-108 (by acoustic ceiling tile on south wall), and room F-15 (west corner of the room). No evidence of exterior wall cracking was observed on exterior walls of affected areas. These areas can be repaired as a part of the property's routine maintenance program.

Roofing:

- The roof finishes are original and approximately 23 years old. Information regarding roof warranties or bonds is not available. The roofs are maintained by the in-house maintenance staff and an outside contractor as needed.
- The fields of the flat roofs are in fair to poor condition. There is evidence of ponding, vegetation, and exposed felts throughout the fields of the roof. Some of the ponding corresponds to some of the active roof leaking observed throughout the facility. Based on the estimated Remaining Useful Life (RUL) and condition, the roof membranes will require replacement early in the evaluation period.
- Roof drainage generally appears to be adequate; although, due to the standing water conditions, re-sloping is required. All sections should slope to existing roof drains. This work will be completed as a part of roof replacement. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- The fields of the sloped roofs are in good condition. Based on the estimated Remaining Useful Life (RUL), the roof panels will require replacement over the evaluation period.
- The parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used.
- The roof flashings and coping edge are in good condition and will require routine maintenance over the evaluation period.

Exterior Walls, Stairs, Windows, and Doors:

The exterior brick work is in good condition. Routine inspection and maintenance will be required over the evaluation period.

The sealant alongside the base of the building's perimeter wall is loose and susceptible to water penetration. In addition, no sealant exists between the kiln room addition's exterior wall and sidewalk. To prevent water penetration and potential damage from water freeze thaw cycles caulking and re-caulking is recommended.

A catwalk constructed of metal equipped with metal handrails and balusters is located above the theatre's suspended acoustic tiles to provide access to overhead stage equipment and theatre lighting. This catwalk is also used to access the mechanical room above room F-125D. A second catwalk of similar construction is located adjacent to the stage and provides access to a mechanical space (above room F-126) and the corner stage balcony.

- The exterior stairs are in good to fair condition. Exposed aggregate conditions are found at the stairs leading into the north entrance. Concrete spalling is also evident on the exterior stairs. Based on the estimated Remaining Useful Life and current condition, the concrete exterior stairs will require replacement over the evaluation period.
- The interior stairs, balusters, and handrails are in good condition and will require routine maintenance over the evaluation period.
- The catwalks throughout the building are in good condition and will require routine maintenance over the evaluation period.

- The windows at the north and south entrances to the building are double paned aluminum storefront. The remaining building windows are aluminum-framed, double-glazed fixed and awning units with interior screens at the awning locations only.
- The main entrance doors and doors located at the north entrance are aluminum framed glass doors set into the storefront system. These doors and some interior rooms have been outfitted with push button auto opening devices. Exterior entrance doors contain cylindrical locksets with push pull hardware. Service doors storefront doors with metal panels in lieu of glass panels are found at mechanical room entry points. The door hardware is a lever handle.
- Three roll up doors are found at the loading dock area (1) and kiln room addition (2).

ADA CONDITIONS

- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces at restrooms near north entrance.
- The ADA automatic openers are in good condition. Based on their estimated Remaining Useful Life (RUL), the openers will require replacement over the evaluation period.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Washington Gas (WGES)	Good
Internet Service	Comcast or Verizon	Good

- According to the POC, the utilities provided are adequate for the property. The building is supplied heated and chilled water from the central system, located at Building "D". Heated and cooled air is distributed by high-capacity air handling units (AHU) equipped with heating and cooling coils.
- Circulating pumps provide hot and chilled water to each temperature-controlled space via a two-pipe distribution system for each consisting of one supply and one return for hot and one supply and one return for chilled. The hot and chilled water supplies the high-capacity air handling units, fan coil units (FCU), and variable air volume (VAV) boxes, and hot water is supplied to the unit heaters. Variable frequency drives (VFD) are utilized on supply and exhaust fans for the air handling units and Circulating pumps.
- The mechanical systems are controlled from a building automation system (BAS) by "Johnson Controls" for energy savings and more comfortable temperature control in the building. The HVAC air compressor is located at mechanical room F19.
- Cooling is provided to control room F125B by one split-system air conditioner with an indoor unit ventilator. The unit has a nominal capacity of three tons. The unit ventilator is floor-mounted in the control room. The condensing unit is mounted on the roof. The cooling equipment uses R-22 as a refrigerant.
- The janitor closets, kilns, bathrooms, and other areas are ventilated by mechanical exhaust fans.
- Although not part of the HVAC system, there are two gas-fired kilns and three electric kilns', located at Kiln room F121F. The gas-fired kiln's each have a rated input capacity of 220,000 BTUH. One of the electric kilns is rated at 6.7 KW and the other two each are rated at 9,144 watts.
- The BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated.
- The air handling units appear to be in good (2) to fair (7) condition. During the planned renovation, AHU's numbered BF3, BF4, and BF5 will be replaced with one unit. Based on their estimated Remaining Useful Life (RUL), the air handling units will require replacement over the evaluation period.
- Water stains on the ceiling tiles and in the T8 light fixtures were observed at the men's dressing room F126B. It appears to be from the air handing unit BF8 in the above mechanical room F32. The unit reportedly has a valve that leaks and sometimes the unit cooling coil freezes and causes the condensate pan to overflow to the below men's dressing room. AHU BF8 is an original unit and will be replaced as stated above.
- The variable frequency drives (VFD) and variable air volume boxes, appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the VFD's will require replacement over the evaluation period. Replacement of 40 percent of the VAV boxes should be anticipated over the evaluation period.
- The fan coil units (FCU) appear to be in fair (5) to poor (1) condition. FCU1F at the loading dock is reportedly non-operational. Based on their estimated Remaining Useful Life (RUL), the FCU's will require replacement over the evaluation period.
- The hot and chilled water circulating pumps appear to be in fair condition. The motor was replaced on pump P2S. Based on its estimated Remaining Useful Life (RUL), the hot and chilled water circulating pumps will require replacement over the evaluation period.
- The split system unit ventilator and condenser are in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the unit ventilator and condenser will require replacement over the evaluation period.
- The mechanical ventilation system and equipment appear to be in good to fair condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.
- The hydronic unit heaters appear to be in good condition and will require routine maintenance during the assessment period.
- The kiln's were installed during the building addition in 2002 and appear to be in good condition. Routine maintenance will be required over the evaluation period.
- The rooftop kitchen exhaust ventilation fans and refrigeration equipment for the walk-in coolers will be removed during the planned renovation.

- Fan coil unit FCU6F in coatroom F125C was found blocked by pictures which should be moved away from the unit to allow proper operation.

Plumbing:

- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The pressure and quantity of hot water appear to be adequate.
- The water heaters appear to be in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the water heaters will require replacement over the evaluation period. Replacement of the three small capacity water heaters can be replaced as part of routine maintenance.
- The accessories and fixtures in the common area restrooms are in good to fair condition. Based on the estimated Remaining Useful Life (RUL), some of the restroom fixtures will require replacement during the evaluation period. Replacements of the fixtures with low-flow type fixtures will help save on water usage in the building.

Gas:

- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter and regulator appear to be in good condition and will require routine maintenance over the evaluation period.
- Only limited observation of the gas distribution piping can be made due to hidden conditions. The distribution system appears to be in good condition and no gas leaks have been reported. The system will require routine maintenance during the evaluation period.

Electrical:

- The switchgear, circuit breaker panels and electrical meters appear to be in good condition and will require routine maintenance over the evaluation period.
- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended.
- Additionally, the building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground. The estimated cost of for this work cannot be accurately determined without an engineering study. EMG therefore recommends an engineering study be conducted to determine the feasibility and cost of installing a building wide lightning protection system.
- The generator is in fair condition and is reportedly tested on a weekly basis. Based on the estimated Remaining Useful Life (RUL), the generator will require replacement during the evaluation period.
- According to the original construction drawings, the underground storage tank is 550 gallons. The condition of the underground storage tank (UST) could not be determined. Reportedly the UST is original to the building construction. Based on the National Fire Protection Standards, the typical Estimated Useful Life is between 15 and 20 Years. The Marshal & Swift Valuation Guide indicates that USTs have an Estimated Useful Life between 12 to 20 Years. As such, an Estimated Useful Life of 20 to 30 years is typically utilized depending on design and build. Based on the Estimated Useful Life, replacement will be required over the evaluation period.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. A cellular antenna/repeater system should be installed in the building to enhance coverage.

- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 5 was observed for the telephone cabling in the main communications HUB room and a combination of Cat 5 and Cat 4 are in place at the secondary Hub room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 is required to download and email gigs. Cat 5 and Cat 5e is reportedly more prominent throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The charging stations and PA system appear to be in good condition and will require routine maintenance during the assessment period.

Fire Protection System:

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the fire alarm panel will require replacement during the evaluation period.
- The fire extinguishers and sprinklers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- However, the catwalk area above the auditorium is not equipped with an automatic sprinkler system for fire suppression. Installation of a complete fire suppression piped sprinkler system, throughout the catwalk areas above the auditorium, is recommended as a life safety issue. Additionally, some of the fire sprinkler heads were manufactured by Central. These heads are potentially defective and were subject to a nationwide recall. The sprinkler heads will require replacement immediately.
- The dry chemical extinguishing systems at the commercial kitchen was non-operational during our on site assessment. The commercial kitchen and equipment, including the commercial exhaust hood ventilation system, is planned for removal during the planned renovation.

INTERIOR FINISHES AND FF&E

- Based on its estimated Remaining Useful Life (RUL), the area carpet will require replacement during the assessment period. The carpet in rooms F-109 and F-108 is in fair to poor condition due to staining and wheel based objects being dragged across the carpet and will require replacement early in the assessment period. The area is to be renovated and the carpet will be replaced at that time. Ceiling tiles, Interior painting and wall finish replacement will also be required during the assessment period.
- The stage hard wood flooring is in fair to poor condition. The floor is worn with signs of streaking, scarring, and chipping and is nearing the end of its useful life. The chipping is reportedly caused by the piano wheels from the piano being wheeled across the floor.
- The ceramic tiles found throughout corridors are in good to fair condition. There are isolated areas of cracking and damaged tiles. Ceramic tiles repairs and replacements can be performed as a part of the property's routine maintenance program.
- The plastic trim found at the bottom of the walls in the dressing rooms (rooms F-126A and F-126B) is in fair to poor condition. Sections of the trim were found loose and damaged. Repair or replacement of this trim can be performed as a part of the property's routine maintenance program.
- Room numbers original to the building's construction are still found throughout the building. These room numbers no longer correlate to the current, actual room number displayed on floor plans. Removal of inaccurate room numbers is recommended and can be performed as a part of the property's routine maintenance program.

Commercial Kitchen Equipment:

A full-service kitchen serves the cafeteria. Within the next year the kitchen and kitchen equipment will be removed from the building as a part of the Vacant Space Conversion renovation.

- The kitchen appliances appear to be in good to fair condition. The kitchen is part of the planned renovation and since the kitchen appliances are no longer in use and will eventually be removed from the building, no costs have been associated with this section. No further action is required.

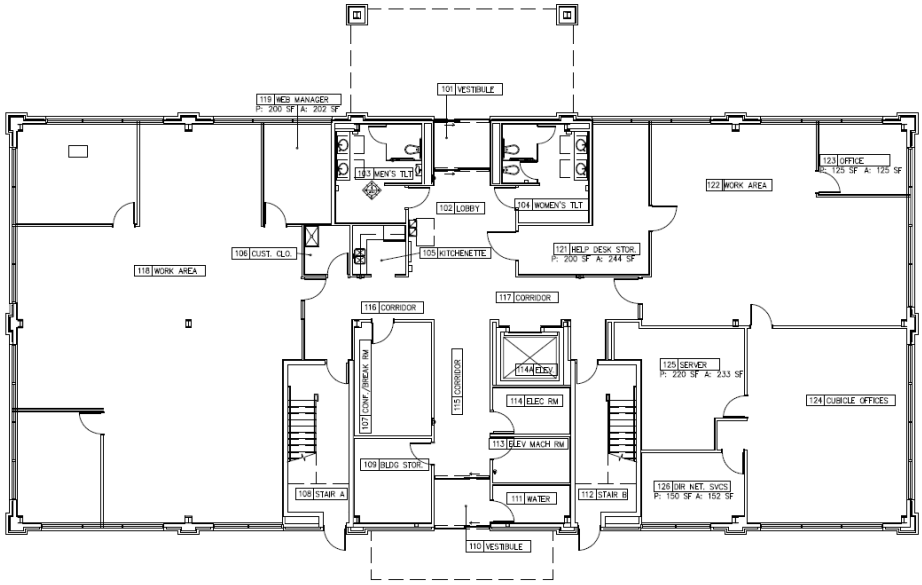
OTHER STRUCTURES

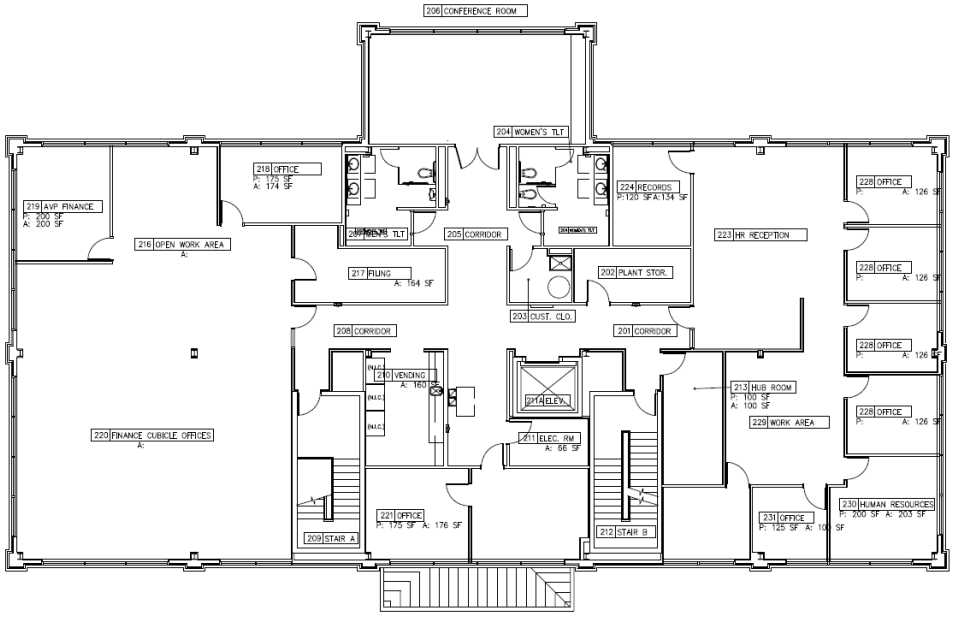
A Kiln building is located adjacent to the baseball field. The building is a wood-framed structure set on a concrete slab. The building has exterior metal siding and a standing seam pitched metal roof. The building is supplied with 200-amp service. The interior light fixtures are efficient T8 fluorescent light fixtures. Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls and T8 fixtures at the covered porch. The building is equipped with battery back-up exit lights, illuminated exit signs, portable fire extinguishers and an emergency phone. The building has a wood burning kiln and has through gable wall exhaust ventilation fans and louvers. No heating or cooling is provided for this building.

- The kiln building was constructed this year (2011) and is in good condition. Routine maintenance will be required over the evaluation period.

ADMINISTRATIVE SERVICES - BUILDING G

Year constructed:	2007
Building type:	**Administrative/ Office** - Office space 9,754 s.f., General Use 168 s.f., Support space 654 s.f.
Building square footage:	10,576 Net SF and 15,633 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Business type facility based on 100 sf per occupant = 139 occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	Two
Building construction:	Steel frame with concrete-topped metal decks
Roof construction:	Hipped roof with standing seam metal panels at perimeter. Sunken area in center for mechanical equipment with flat roof and single ply membrane.
Exterior Finishes:	Brick veneer with cast stone detailing. Exterior insulation and finish system (EIFS) at upper band.
Heating and/or Air-conditioning:	Common areas / Offices / Conference room: Air handling units circulate conditioned air to VAV boxes throughout the building. Each VAV box contains electric reheat and is controlled by local thermostats. Stairwells / Entrance vestibules: Unit heaters provide heat at these locations. Server / Hub room: Split system air-conditioning units with air cooled condensers mounted to roof.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, building security door card readers
Dates of visit:	September 26, 2011


119 WEB MANAGER P: 200 SF A: 202 SF
101 VESTIBULE
103 MEN'S TLT.
102 LOBBY
104 WOMEN'S TLT.
122 WORK AREA
123 OFFICE P: 125 SF A: 125 SF
106 CUST. CLO.
105 KITCHENETTE
121 HELP DESK STOR. P: 200 SF A: 244 SF
118 WORK AREA
117 CORRIDOR
116 CORRIDOR
144 ELEV.
125 SERVER P: 220 SF A: 233 SF
107 CONF. /BREAK RM
115 CORRIDOR
114 ELEC RM
124 CUBICLE OFFICES
113 ELEV. MACH RM
109 BLDG STOR.
108 STAIR A
111 WATER
112 STAIR B
126 DIR NET. SVCS P: 150 SF A: 152 SF
110 VESTIBULE


206 CONFERENCE ROOM
204 WOMEN'S TLT.
218 OFFICE P: 175 SF A: 174 SF
224 RECORDS P: 120 SF A: 134 SF
228 OFFICE P: A: 126 SF
219 AVP FINANCE P: 200 SF A: 200 SF
203 MEN'S TLT.
205 CORRIDOR
223 HR RECEPTION
216 OPEN WORK AREA A:
217 FILING A: 164 SF
202 PLANT STOR.
203 CUST. CLO.
208 CORRIDOR
201 CORRIDOR
210 VENDING A: 160 SF
214 ELEV.
213 HUB ROOM P: 100 SF A: 100 SF
229 WORK AREA
220 FINANCE CUBICLE OFFICES A:
211 ELEC. RM A: 66 SF
221 OFFICE P: 175 SF A: 176 SF
230 HUMAN RESOURCES P: 200 SF A: 203 SF
231 OFFICE P: 125 SF A: 100 SF
209 STAIR A
212 STAIR B

SITE AND EXTERIOR

The property slopes moderately down from the west to the east side of the property.

The landscaping consists of trees, shrubs, and lawn. Flower beds are located along the rear perimeter of the building and concentrated around the east signage. Most of the adjacent site is natural landscape. Gravel is used at the steep sloped areas around the ramp.

A split faced concrete masonry unit retaining wall is located at the grade changes along the site ramp to the east of the building. The retaining wall is capped with cast stone coping.

- The topography and adjacent uses do not appear to present conditions detrimental to the property. The landscape materials and retaining walls are in good condition and will require routine maintenance over the evaluation period.
- It was reported and observed that the asphalt landings of the site stair collect water and are a hazard during freezing temperatures. Replacement with concrete landings with proper sloping is recommended. This issue is addressed in the separate site report.

Signage and Exterior Lighting

- The building name is displayed on the signage within the site near the east and west parking lots. The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls. Recessed soffit lights are located at the east and west covered entrances. The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.

Superstructure and Foundations:

- The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

Roofing:

- The roof finishes are original at approximately four years old. According to the client supplied material, the flat roofs are covered by a 20 year warranty. A copy of the warranty is attached in Appendix C. The roofs are maintained by the in-house maintenance staff.

- The fields, vertical louver vents and flashing of the sloped roofs are in good condition and will require routine maintenance over the evaluation period. There is no evidence of active roof leaks or evidence of roof deck or insulation deterioration in the sloped roofing.
- There is no evidence of fire retardant treated plywood (FRT). According to the POC, FRT plywood is not used in the sloped roofing except where noted above in the floor of the attic.
- Sloped roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- There is no evidence of moisture, water intrusion, or excessive daylight in the attics. The insulation in the attic floor appears to be adequate.
- The fields of the flat roofs are in good to fair condition. According to the POC, there may be one active roof leak in the flat roofing. There is evidence of an active roof leak. The kitchenette 210 has a stained ceiling tile and standing water was observed above this area in the flat roof area. A repair is required and should be performed in conjunction with the repair or modification of the drainage of the rooftop unit condensing water drain lines. Water is ponding below and along side of both of the rooftop units with rust filled water. The standing water may deteriorate the roofing membrane faster than the standard estimated useful life. In addition to repairing the roof leak, re-sloping of the existing tapered insulation and replacing the membrane will be required during the next roof replacement.
- There is no evidence of roof deck or insulation deterioration in the flat roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used in the flat roofing.
- The flat roof flashings, vertical walls surrounding the flat roofing and flat roof vents are in good condition and will require routine maintenance over the evaluation period.

Exterior Walls, Stairs, Windows and Doors:

The exterior walls are finished with brick masonry veneer. Cast stone detailing is located along the window sill line. The soffits are concealed and finished with factory painted metal panels. The decorated roof brackets are finished with factory painted metal panels. The top band of the exterior walls is clad with an exterior insulation and finish system (EIFS) on metal stud-framed walls.

- The exterior finishes are in good condition. Patching will be required over the evaluation period through routine maintenance.
- The sealant is flexible, smooth, and in good condition. Based on the Remaining Useful Life of the sealant, it will require replacement.
- The interior stairs, balusters, and handrails are in good condition and will require routine maintenance over the evaluation period.
- The windows, exterior doors, door hardware and screens are in good condition and will require routine maintenance over the evaluation period.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Washington Gas	Good
Internet Service	Comcast or Verizon	Good

The building is supplied conditioned air from two gas-fired packaged air handling units mounted on the roof. Each air handling unit serves one side of the building (south and north). The air handling units contain nominal capacities of 6,500 CFM (16% outside air) and the cooling equipment uses R-22 as refrigerant.

The fans in the air handling units circulate conditioned air by ducts concealed above the ceilings to individual VAV boxes. Return air grilles are located adjacent to the VAV boxes. The VAV boxes are each equipped with electric reheats. The heating and cooling system are controlled by local thermostats.

Heating is provided to entrance vestibules and stairwells by electric unit heaters. The unit heaters in the stairwells are positioned on the ground near stairwell exit doors, whereas the vestibule unit heaters are positioned vertically in line with the acoustical ceiling tiles. Each of these unit heaters are rated at 4,500 watts.

Cooling is provided to the server room by two ductless split-system air conditioners. These units contain a nominal capacity of approximately four tons each. The condensing units are mounted on the roof.

Natural ventilation is provided by operable windows. The restrooms and mechanical/storage closets are ventilated by a mechanical exhaust fan located in the attic.

The air handling units are enclosed on the roof by the perimeter sunken roof walls.

- According to the contractor, the building is relatively new and has no issues to date.
- All equipment is original to the building's construction.

- The air handling units, variable air volume boxes (VAV), electric unit heaters, split system fan coil units, condensers and mechanical ventilation systems appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the systems will require replacement over the evaluation period. Based on their estimated Remaining Useful Life (RUL), replacement of 50 percent of the VAV boxes should be anticipated over the evaluation period.
- All of the variable air volume boxes throughout the building have been modified to provide maintenance easier access to the VAV box air filters except for one (located in first floor storage room G-109). EMG recommends upgrading the unchanged VAV box to match the others found throughout the building to provide consistency and easier access to the VAV box air filter. This operation can be performed as a part of the property's routine maintenance program.

PLUMBING:

- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.
- The pressure and quantity of hot water appear to be adequate.
- The water heaters, drinking fountains and accessories and fixtures in the common area restrooms, appear to be in good condition. Based on the estimated Remaining Useful Life (RUL), the water heaters will require replacement over the evaluation period.

GAS:

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator is located along the east exterior wall of the buildings. The gas distribution piping is malleable steel (black iron).

- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter and regulator appear to be in good condition and will require routine maintenance over the evaluation period.
- The distribution system appears to be in good condition and no gas leaks have been reported. The system will require routine maintenance during the evaluation period.

ELECTRICAL:

The main electrical service size to the building is 800-amp, 480/277 volt three-phase four-wire alternating current (AC). The electrical wiring is reportedly copper, installed in metallic conduit. Circuit breaker panels are located throughout the building.

The building is equipped with efficient T8 light fixtures, with some incandescent fixtures in storage rooms and mechanical spaces. Occupancy sensors are located in restrooms, some offices, storage rooms, and conference rooms.

The building is protected against lightning strikes by a lightning arresting grid system mounted on the roof.

An emergency gas-fired generator is mounted to the roof of the building. The generator has a rated capacity of 46.9 kW.

- The switchgear, circuit breaker panels and electrical meters appear to be in good condition and the electrical power appears to be adequate for the building's demands. Routine maintenance will be required over the evaluation period.
- The network and cabling system appears to be in good condition. Category 6 wiring is currently installed in all hub rooms. Routine maintenance will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. The property would like to upgrade to IP phones.

- The emergency generator is in good condition. Routine maintenance will be required over the evaluation period.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- The flush valve transformers are in good condition. According to the POC, the low voltage transformers installed on toilet fixtures are incorrect causing the toilets to flush on their own (even when not in use). EMG recommends replacing the current flush valve transformers with the correct transformers to prevent ghost flushes from happening. In turn, by eliminating the unnecessary flushes, the building's water consumption will be lowered. The cost of this work is relatively insignificant and can be performed as a part of the property's routine maintenance program.

Building Elevators and Conveying Systems

The elevators, and their responsiveness, appear to be adequate. The elevator is serviced by ThyssenKrupp Elevator on a routine basis. The elevator machinery and controls are original to the building's construction. Routine maintenance will be required over the evaluation period.

- The elevator is inspected on an annual basis by the municipality, and a certificate of inspection is displayed in the elevator cab.
- The emergency communication equipment in the elevator cab appears to be functional.

Fire Protection and SecuritySystems

The fire protection system consists of a fire alarm panel, wet-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations and alarm horns. Siamese connections are located on the exterior of the building. The nearest fire hydrant is located towards the south side of the building and is approximately 30 feet from the building. A chemical fire suppression system is provided for the server room G-123.

Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms.

The fire alarm panel is located in electrical room G-114 and monitors the pull stations, smoke detectors, and flow switches throughout the building. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.

Site Security is provided by full-time on site Campus Security Personnel and the building is equipped with a security system monitored by Pegasus. The system includes card readers at the building entrance doors for use by campus staff after hours. The main security central panel is located at the Central Plant Building in the electrical room.

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- The fire alarm panel is in good condition and is serviced regularly by the facilities maintenance staff. A copy of the most recent inspection is included in Appendix C. Equipment testing is not within the scope of a Facility Condition Assessment. Based on its estimated Remaining Useful Life (RUL), the fire alarm panel will require replacement over the evaluation period.
- The fire extinguishers are serviced annually and appear to be in good condition.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign and emergency light replacement is considered to be routine maintenance.
- The server room fire suppression system is in good condition. Routine maintenance will be required over the evaluation period.

- The security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF&E

The property is less than four years old and the common area finishes have not required replacement.

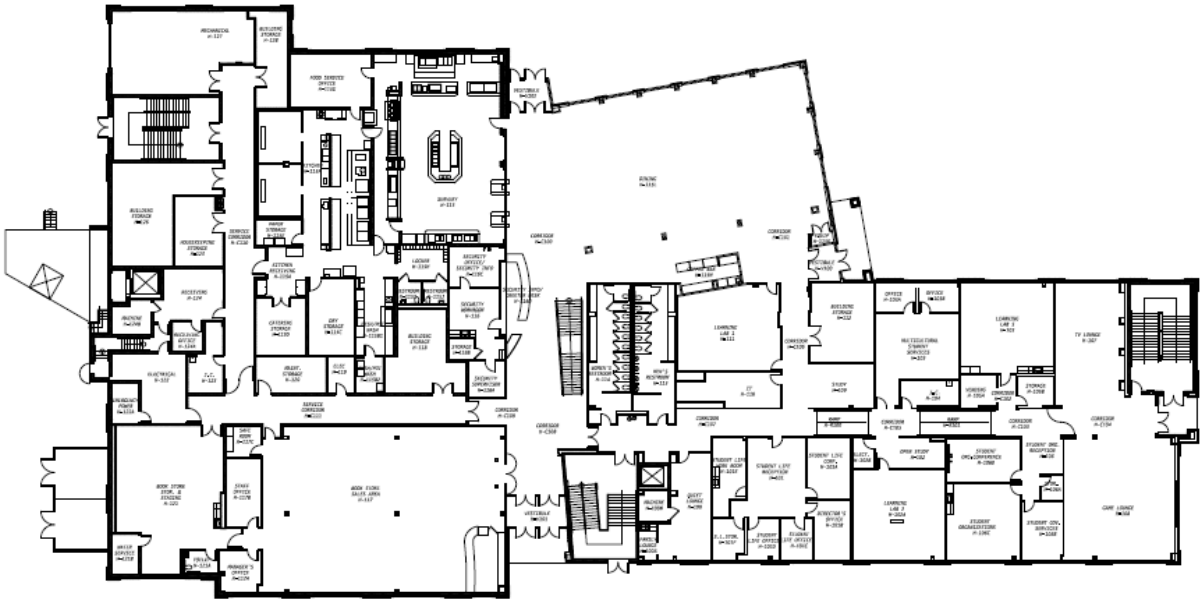
- The interior finishes are in good condition. Based on its estimated Remaining Useful Life (RUL), the area carpet, vinyl tile, interior doors and door hardware will require replacement during the assessment period. Interior painting and wall finish replacement will also be required during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.

COMMERCIAL KITCHEN EQUIPMENT

- The kitchenette appliances, cabinetry and countertops are in good condition. The appliances will require replacement during the evaluation period. The cost of this replacement work is relatively insignificant and can be performed through routine maintenance.

CLASSROOM - STUDENT CENTER – BUILDING H

Year constructed:	2009
Building type:	**Academic, Student Government, and Auxiliary Services -** Classroom space = 8.,314 s.f., Lab space 6,723 s.f., Office space 10,277 s.f., Study space 1,786 s.f., General Use space (Meeting rooms, Dining and Bookstore) 20, 636 s.f, Support space 3,252 s.f.
Building square footage:	50,989 Net SF and 76,987 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Classroom, Assembly and Business type facility = 2154 occupants.
Number of residential units:	None
Number of buildings:	One
Number of stories:	Two
Building construction:	Steel frame with concrete-topped metal decks
Roof construction:	Hip style perimeter roofs (one sloping side only used on Mansard style) with standing seam metal panels. Flat roofs with white coated built-up membrane in center of hip style perimeter roofing.
Exterior Finishes:	Brick veneer with cast stone detailing. Factory finished metal sandwich panels at entrances, window areas and perimeter band at upper level.
Heating and/or Air-conditioning:	The building is equipped with high capacity air handling units, variable air volume (VAV) boxes and fan coil units (FCU) supplied with heated and chilled water by the central system. In addition, split system air-conditioning units provide cooling to hub rooms, electrical rooms, and elevator rooms. An energy recovery ventilator provides conditioned air to the cafeteria. Make up air units are provided for the kitchen hood.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, illuminated exit signs, strobes, building security door card readers and an emergency phones



SITE AND EXTERIOR

The Building H - Classroom / Student Center is located on the south side to central section of the Campus. The building is generally accessed from the campus loop road. Parking lots are located on the east and south sides of the building. The parking lots are paved with asphalt. A service drive is located to the southeast side of the building accessing the loading dock at the southwest.

The property is relatively flat with gentle slopes from east to the west towards the drainage basin. The landscaping consists of trees, shrubs, and lawn. Flower beds are located in a curbed planter on the west side of the building. A split faced masonry block retaining wall with a cast stone cap was located at the north side of the terrace off the student dining area. The wall was topped with a metal railing.

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.
- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good to poor condition. Four dead trees were observed on the southeast corner of the building and dead shrubbery was observed along the south side of the building just west of the loading dock. Tall seed topped grasses are located too close to air intakes on the southwest corner of the building causing seeds to enter the building and get into the air distribution system. Removal of the grass at the air intakes, replacement of dead landscaping and redesign are required to address these issues.
- The retaining wall and railing are in good condition. Routine maintenance will be required over the evaluation period.
- The loading dock and equipment are in good condition. Based on the Remaining Useful Life, the leveler will require replacement.

Signage and Exterior Lighting:

- No building identification signs were observed at the building perimeter or on the building elevations. EMG recommends signage on the building and along the parking lots and campus courtyard addressing main entrances and the name of the building.
- The Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls and recessed in the soffits. The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.

FOUNDATIONS AND SUPERSTRUCTURE:

- Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

- An isolated area of settlement of the concrete masonry unit block back-up wall in the northeast stairwell was observed over the interior door. The masonry is not in a structurally bearing use. The cost of the repair is relatively insignificant and can be performed through routine maintenance.

ROOFING:

The primary roofs are classified as hipped. The front side only of the hipped roofs is used as mechanical equipment screens in a perimeter Mansard style. The sloped roofs are factory finished, standing seam metal panels over a felt underlayment and fire retardant treated plywood sheathing. The roofs have sheet metal flashing elements. The roofs are insulated with rigid insulation over the metal decking and with fiberglass batts at the soffit and fascia.

The secondary roofs are classified as flat. The roofs are finished with a mineral-surfaced cap sheet over a multi-ply bituminous membrane. The roofs are insulated with rigid insulation boards.

Storm water is drained from the roofs by internal drains and sheet metal scuppers. The scuppers empty to lower flat roofs. The drains discharge to the underground storm drainage system.

Curb-mounted skylights provide natural illumination in some of the upper floor common areas.

- The roof finishes are original at two years old. According to the POC and client supplied documentation, the sloped and flat roofs are covered by 20 year warranties. Copies of the warranties are attached in Appendix C. The roofs are maintained by the in-house maintenance staff.
- The fields of the sloped roofs are in good condition and will require routine maintenance over the evaluation period.
- According to the construction documents, there is evidence of fire retardant treated plywood (FRT) used in the sloped roofing. FRT plywood tends to deteriorate under conditions of extreme heat and humidity. These conditions or characteristics are not evident. The maintenance staff must routinely monitor and inspect the roof sheathing's condition. The FRT plywood must be replaced in conjunction with future roof finish replacement work. If the building code requires a fire rating of the roof construction on each side of the firewall, an alternative method of conforming to this requirement should be implemented as approved by the local building and fire departments.
- The sloped roof flashings are in good condition and will require routine maintenance over the evaluation period.
- Sloped roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- The fields of the flat roofs are in good to fair condition. Inadequate tapered insulation and lack of sloping appears to be the causes for excessive ponding around the roof drains and along some of the seams of the roofing membrane. The sloped roofing downspout discharge locations are too close to some of the roof access doors also experiencing excessive ponding at times. The insulation will require re-sloping as needed at the time of roof membrane replacement will be necessary. Based on the estimated Remaining Useful Life (RUL), the roof membranes are estimated to require replacement over the evaluation period earlier than normal lifespan.
- The flat roof flashings are in good condition and will require routine maintenance over the evaluation period.
- The parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- Flat roof drainage appears to be somewhat inadequate. Clearing and minor repair of drain system components should be performed often and regularly as part of the property management's routine maintenance program. See above for additional comments on the drainage issues.
- The skylights are in good condition and will require routine maintenance over the evaluation period.

EXTERIOR WALL, STAIRS, WINDOWS, AND DOORS:

The exterior walls are finished with brick masonry veneer with cast stone sills. The soffits are concealed factory finished metal panels. Additionally, the exterior walls around the windows, entrances and the upper band under the soffit are clad with a factory finished metal sandwich panel system on metal stud-framed walls.

The interior stairs are constructed of steel and have closed risers and concrete-filled steel pan treads at the fire stairwells and precast terrazzo treads at the main lobby stair in the center of the building. The handrails and balusters are constructed of metal at the fire stairwells.

- The exterior finishes are in good condition requiring routine maintenance over the evaluation period.
- The interior stairs, balusters, and handrails are in good condition and will require routine maintenance over the evaluation period.
- The exterior concrete stairs have a thin coating which is in fair to poor condition. It is peeling in several locations. Removal and replacement with a stronger system is required. The cost of this work is relatively insignificant and can be performed through routine maintenance.
- The exterior doors and door hardware are in good condition and will require routine maintenance over the evaluation period. Based on their estimated Remaining Useful Life (RUL), automatic openers will require replacement during the assessment period.
- The roll-up doors are in good condition requiring routine maintenance during the evaluation period.
- The ground-level terrace slabs are in good condition. There are no significant signs of movement, settlement, or cracking.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Washington Gas	Good
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as septic systems, water or waste water treatment plants, or propane gas tanks.

The building is supplied heated and chilled water from the central plant building. Heated and cooled air is distributed by high-capacity air handling units (AHU) equipped with heating and cooling coils. Conditioned air is then distributed to various variable air volume (VAV) boxes and spaces throughout the building. Air distribution is provided by ducts concealed above the ceilings. Return air grilles are located in each space.

Circulating pumps provide hot and chilled water to HVAC equipment via a four-pipe distribution system. The hot and chilled water piping supplies the high-capacity air handling units, fan coil units (FCU), unit heaters, and variable air volume (VAV) boxes. Perimeter baseboard radiator heating is provided for the cafeteria area.

Two make up air units provide make up air for the kitchen hoods. These units are located on the roof (south end of building) with the makeup air being ducted adjacent to the kitchen hoods. Supply air vents for these units are located around the outside perimeter of the kitchen hoods.

An energy recovery ventilator provides conditioned air to the cafeteria. This units distributes 100% outside air to the space and is equipped with an air cooled condensing unit (18 tons cooling) for standalone cooling purposes.

Cooling is also provided to the hub rooms, electrical rooms, and elevator machinery rooms by split-system air conditioner units. Two of the condensing units have nominal capacities of four tons and the remaining unit is eight tons.

Variable frequency drives (VFD) are utilized on supply and exhaust fans for the air handling units (AHU-5 and AHU-6) and circulating pumps.

The mechanical systems are controlled from a building automation system (BAS) by Johnson Controls for energy savings and more comfortable temperature control in the building.

The restrooms and other areas are ventilated by mechanical exhaust fans. Ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

- According to the contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- The air handling units, variable frequency drives (VFD), variable air volume boxes (VAV), cabinet unit heaters and unit heaters, hot and chilled water circulating pumps, appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the air handling units will require replacement over the evaluation period.
- The appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The kitchen exhaust hood makeup air units (MUA) appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the MUA's will require replacement over the evaluation period.
- The energy recovery ventilator (ERV) appears to be in good condition requiring routine maintenance over the evaluation period.
- The split system condensing units and split system air-conditioning fan coil units appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the condensing units will require replacement over the evaluation period.
- The cafeteria perimeter baseboard heaters appear to be in good condition and will require routine maintenance over the evaluation period.
- The kitchen exhaust fan (Fan #4) located on the roof is not equipped with a grease catching filter. In addition, the power chord to the fan is set up in a position that prevents maintenance from cleaning the grease from underneath the fan. To allow maintenance to clean the grease from underneath the fan, the power chord should be either pulled out from the outside of the cover (the chord has slack and is not under a lot of tension on the inside of the cover) or replaced with a new, longer length power chord. Also, a grease catching filter should be installed onto the fan. The cost of this work is relatively insignificant and can be performed as a part of the property's routine maintenance program.

- Currently the fan coil unit in the second floor hub room is inaccessible (for maintenance to unit) due to not having enough clearance alongside the unit to access the unit's side components. A portion of the drywall at this area should be removed or widened to allow access to this unit. This work can be performed as a part of the property's routine maintenance program.

PLUMBING:

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. Domestic hot water is supplied to the building by a gas-fired domestic water heater located in mechanical room H-127. The heater has a rated input capacity of 199,999 BTUH and 100 gallons.

- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.
- As mentioned previously in the report, there have been issues of insufficient hot water at Smooth Joe's sinks near the cafeteria.
- The domestic water heater appears to be in good condition. Based on its estimated Remaining Useful Life (RUL), the domestic water heater will require replacement over the evaluation period.
- The accessories and fixtures in the common area restrooms are in good condition requiring routine maintenance.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The drinking fountains appear to be in good condition and will require routine maintenance over the evaluation period.

GAS:

- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter, regulator and distribution system appear to be in good condition and will require routine maintenance over the evaluation period.

ELECTRICAL:

The main electrical service size to the building is 1,600-amp, 277/480 volt three-phase four-wire alternating current (AC) with 480 Volt to 208Y/120 Volt Circuit breaker panels and step-down transformers for power conversion. The building is protected against lightning strikes by a lightning arresting grid. The building is equipped with efficient T8 fluorescent light fixtures and high intensity (HID) metal halide light fixtures.

The Communications LAN Hub room and server equipment are located in the second and first floor hub rooms (H-201 and H-110). A network of cabling and fiber optics is distributed throughout the building.

A natural gas-powered 125 kW emergency electrical generator is located on the south side of the building. The generator provides back-up power for elements of the fire and life safety systems.

- According to the POC, the electrical power is adequate for the property's demands.
- The switchgear, circuit breaker panels, electrical meters and generator appear to be in good condition and will require routine maintenance over the evaluation period.
- The network and cabling system appears to be in good condition. Category six (Cat 6) wiring is currently installed in all hub rooms. Routine maintenance will be required over the evaluation period.

BUILDING ELEVATORS AND CONVEYING SYSTEMS:

The two elevators were manufactured by Eastern Elevator. The main passenger elevator has a rated capacity of 3,500 pounds and a speed of 100 fpm. The other passenger elevator is designated as a service elevator and has a rated capacity of 4,000 pounds.

- According to the POC, the elevators, and their responsiveness, provide adequate service. The elevators are serviced by ThyssenKrupp Elevator on a routine basis. The elevators will require routine maintenance over the evaluation period.

- The finishes in the elevator cabs appear to be in good condition. Based on the estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement over the evaluation period.

Fire Protection and Security Systems:

The fire protection system consists of a wet-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations and alarm horns. Hard-wired smoke detectors are located throughout the building. Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms. A central fire alarm panel and monitors the pull stations, smoke detectors, and flow switches.

Site Security is provided by full-time on site Campus Security Personnel. Surveillance of exterior perimeter of the building is assisted by a "CCTV" (close circuit television) security system. The building is equipped with a security system monitored by Pegasus. The system includes card readers at the building entrance doors for use by campus staff after hours. The main security central panel is located at the Central Plant Building in the electrical room.

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- The property does not have a dedicated fire alarm inspection contractor. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- The central alarm panel appears to be in good condition and is serviced regularly by the facilities maintenance staff. Equipment testing is not within the scope of a Facility Condition Assessment. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement during the evaluation period.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.

Interior Finishes:

The property is less than two years old and the common area finishes have not needed replacement.

- The interior finishes are in good condition.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles, folding wall panels, interior doors and door hardware will require replacement during the assessment period.
- It was reported that the restrooms do not have adequate pitch to the floor drains and water can build up along the toilet walls if there is an overflow. The tile should be removed and adequate slope through a lightweight concrete compound needs to be applied. Floor finishing will need to be replaced.

Commercial Kitchen Equipment

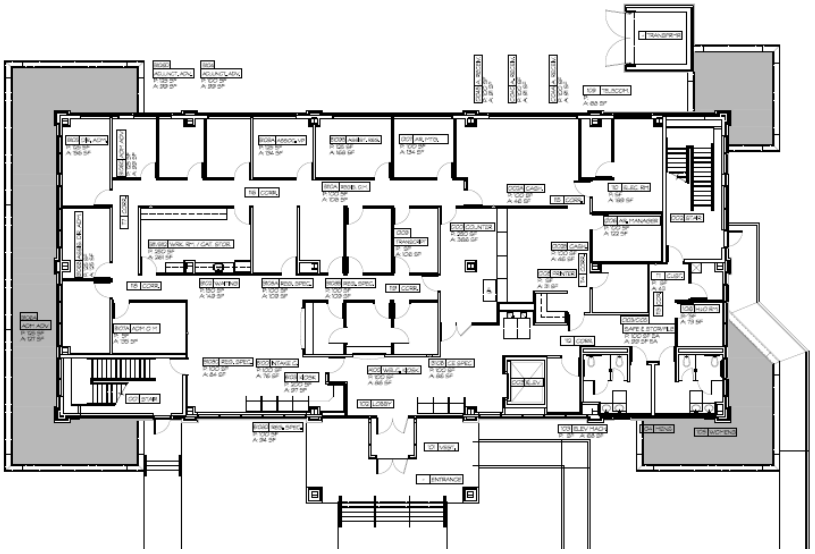
A full-service kitchen serves the dining rooms. A commercial laundry is located adjacent to the kitchen off the dishwasher room. The laundry has one, high efficiency, residential sized, commercial washing machine and has one, high efficiency, residential sized, commercial electric dryer.

- The kitchen equipment appears to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen equipment will require replacement over the assessment period.
- The commercial laundry washers and dryers appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the washer and dryer will require replacement over the assessment period.

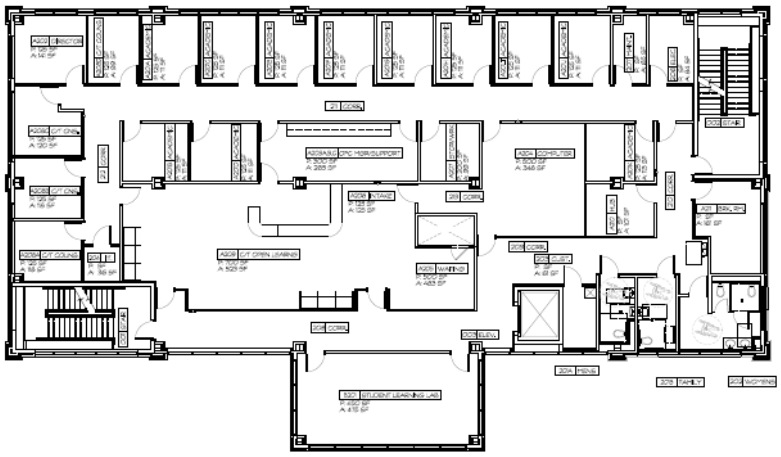
ENROLLMENT SERVICES BUILDING – BUILDING J

Building J was under construction during the period of the Facilities Condition Assessment. The information provided is from Facilities Planning records.

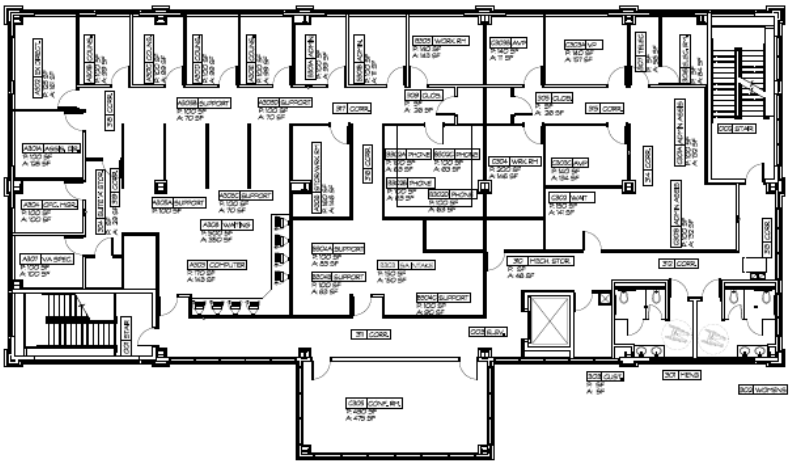
Year constructed:	Original construction 2012
Building type:	Office Building – Learning Support offices. Office space 14,850 s.f., General use space 335 s.f. , Support space 920 s.f.
Building square footage:	16,105 Net SF, Total Gross 24,000 SF. Approximate occupancy load for Business type facility = 247occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	Three
Building construction:	Steel frame with concrete-topped metal decks
Roof construction:	Flat roof and single ply membrane.
Exterior Finishes:	Brick veneer with cast stone detailing. Exterior insulation and finish system (EIFS) at upper band.
Heating and/or Air-conditioning:	Common areas / Offices / Conference room: Air handling units circulate conditioned air to VAV boxes throughout the building. Each VAV box contains electric reheat and is controlled by local thermostats. Stairwells / Entrance vestibules: Unit heaters provide heat at these locations. Server / Hub room: Split system air-conditioning units with air cooled condensers mounted to roof.
Fire and Life/Safety:	Fire sprinklers, hydrant, smoke detectors, alarms, extinguishers, exit signs, annunciator, key card entry, alarm system



J BUILDING FIRST FLOOR



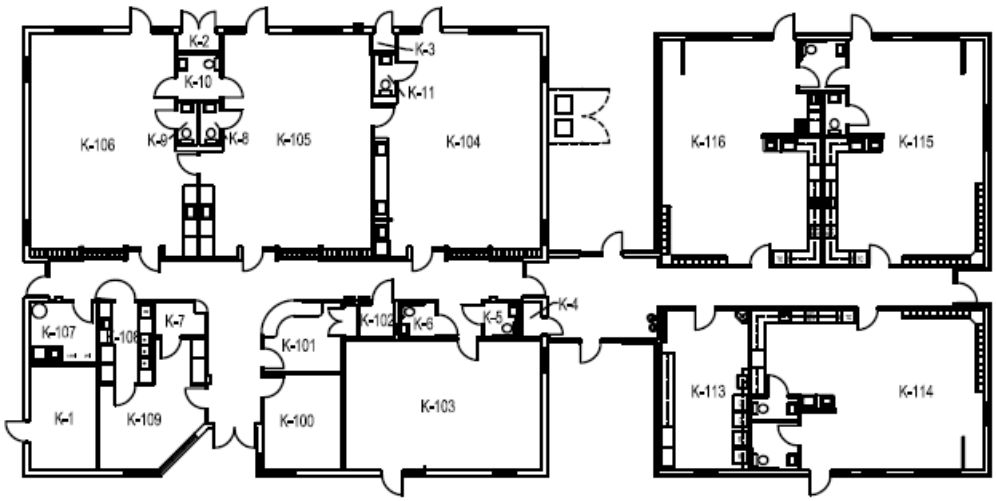
J BUILDING SECOND FLOOR



J BUILDING THIRD FLOOR

CHILDRENS CENTER – BUILDING K

Year constructed:	Original construction 1994 Addition and full renovation of original 2002 Shed construction 2009
Building type:	**Child Care Center -** Office space 311 s.f. and General use space 5,839 s.f.
Building square footage:	6,150 Net SF and 8,572 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Classroom /Business type facility = 269 occupants.
Number of residential units:	None
Number of buildings:	One main building with shed
Number of stories:	One
Building construction:	Original section - conventional wood frame structure on concrete slab and wood trussed roof. Addition - conventional metal stud frame structure on concrete slab and steel trussed roof.
Roof construction:	Hipped roofs with standing seam metal panels on majority of building with a flat roof with single ply membrane over link between original section and new addition
Exterior Finishes:	Brick veneer with exterior insulation and finish system (EIFS) on fascia and soffit
Heating and/or Air-conditioning:	Common areas: Air handling units, unit heaters Classrooms: Split system heat pumps with DX cooling / electric heat, energy recovery ventilators
Fire and Life/Safety:	Fire sprinklers, hydrant, smoke detectors, alarms, extinguishers, exit signs, annunciator, key card entry, alarm system



SITE AND EXTERIOR

The Building K - Children's Center is located on the west side of the Campus. The building is generally accessed from the main campus loop access road. The parking lot is located on the south side of the building. The parking lot is paved with asphalt.

The property is relatively flat with gentle slope from the north to the south. The landscaping consists of trees, shrubs, and lawn. Flower beds are located at the rear with timber curbs and at the front without curbs. Most of the adjacent site is natural landscape.

- The sidewalks are generally in good condition with isolated areas in fair to poor condition. The area along the parking stall near the dumpster enclosure exhibits vertical settlement creating a potential tripping hazard and also had a deteriorated surface exposing the aggregate. Other portions of the sidewalk along the south elevation also exhibit a deteriorated surface exposing the aggregate. Replacements of the affected areas will be required.
- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance over the evaluation period.

- The flower bed curbs are in fair to poor condition. Some sections will require replacement. Routine maintenance will be required over the evaluation period.
- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.
- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.
- The dumpster is owned and maintained by the refuse contractor. The dumpster enclosure, slab, and gates are in good condition and will require routine maintenance over the evaluation period.
- The concrete pavers are generally in good condition. One was observed to be broken. Replacement can be performed through routine maintenance.

SIGNAGE:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.

SUPERSTRUCTURE AND FOUNDATIONS:

- The original building is a conventional wood-framed structure and has wood stud-framed exterior and interior bearing walls, which support the roof diaphragms. The roof diaphragms are constructed of manufactured wood trusses and are sheathed with plywood.
- The addition is a conventional metal-framed structure and has steel stud-framed exterior and interior bearing walls, which support the roof diaphragms. The roof diaphragms are constructed of steel trusses supporting metal decking.
- The superstructure is concealed. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.
- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.

ROOFING:

The primary roofs are classified as hipped. The sloped roofs are factory finished standing seam metal panels over an ice and water shield with “DensGlass” sheathing.

The secondary roof over the link between the original section and the addition is classified as flat. The roof is finished with a single-ply EPDM membrane. The roof is insulated with fiberglass batts and rigid insulation boards.

- The roofs finishes vary in age. The south section is approximately 17 years old and both the flat section and hipped addition are original to the 2004 construction. According to the POC, the sloped and flat roofs for the addition are covered by a 20-year warranty. A copy of the warranty is attached in Appendix C. The roofs are maintained by the in-house maintenance staff.
- The fields of the sloped roofs are in good condition and will require routine maintenance over the evaluation period.
- According to the POC, there may be one active roof leak in the sloped roofing as referenced in Section 1.2. There is evidence of this leak in room K-104 which should be repaired immediately.
- There is no evidence of roof deck or insulation deterioration in the sloped roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used in the sloped and flat roofing.
- The sloped roof flashings are in good condition and will require routine maintenance over the evaluation period.
- The metal drip edges are in good condition and will require routine maintenance over the evaluation period.

- Sloped roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- The sloped roof vents are in good condition and will require routine maintenance over the evaluation period.
- The skylight is in good condition and will require routine maintenance over the evaluation period.
- The field of the flat roof is in good condition. Based on the estimated Remaining Useful Life (RUL), the roof membranes will require replacement over the evaluation period.
- There is no evidence of active roof leaks and there is no evidence of roof deck or insulation deterioration in the flat roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- The flat roof flashings, parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- Flat roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- Past leakage around the skylight was observed as evidenced by the moisture stained drywall. The area is small and the patchwork and repainting can be addressed through routine maintenance.

EXTERIOR WALLS, WINDOWS AND DOORS:

- The exterior walls are finished with brick masonry veneer. The soffits are clad with an exterior insulation and finish system (EIFS) on wood stud-framed walls.
- Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.
- The exterior finishes are in good condition. Painting and patching will be required over the evaluation period.
- The sealant is flexible, smooth, and in good condition. Based on the estimated Remaining Useful Life (RUL), the sealant will require replacement over the evaluation period.
- The windows and screens are in good condition and will require routine maintenance over the evaluation period.
- The exterior doors and door hardware are in good condition and will require routine maintenance over the evaluation period.

BUILDING HEATING, VENTILATING AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Washington Gas	Good
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property.

Heating and cooling are provided by eight split system heat pumps (electric heat, DX cooling). Halls and smaller rooms are provided heating and cooling from one furnace and one air handling unit. In addition, energy recovery ventilators are utilized to reduce energy consumption throughout the building. The heat pumps range from two and one half to four tons of cooling capacity and are rated for approximately 20 kW for heating. The common area corridors have electric unit heaters positioned near entrance doors. Room K-109A, which contains some of the telephone and computer server equipment, is equipped with a 4-ton split system air-conditioning (ACC-1).

The mechanical systems are controlled from a building automation system (BAS) by "Johnson Controls" for energy savings and more comfortable temperature control.

Air distribution is provided to supply air registers by ducts concealed above the ceilings. Return air grilles are located in each space. The heating and cooling system are controlled by local thermostats.

- The property does not have a dedicated HVAC repair and maintenance contractor for this building. On site personnel maintain the HVAC equipment or a contractor is retained when required.
- According to the renovation drawings, the building had major HVAC upgrades during the renovation in 2004. This work is evident based on the information gathered and observations during the site assessment.
- The air handling units, electric unit heaters, energy recovery units, split system air-conditioning condensers, heat pumps and matching fan coil units appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the air handling units will require replacement during the assessment period.
- The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

PLUMBING:

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil and vent systems are PVC.

Domestic hot water is supplied by one 50-gallon gas-fired water heater.

There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.

- The pressure and quantity of hot water appear to be adequate.
- The water heater appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.

- The drinking fountains, accessories and fixtures in the common area restrooms are in good condition and will require routine maintenance over the evaluation period.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces. The men's restroom K-5 is missing the drain pipe insulation.

GAS:

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior walls of the building. The gas distribution piping is malleable steel (black iron).

- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter and regulator appear to be in good condition and will require routine maintenance over the evaluation period.
- Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping is in good condition and, according to the POC, there have been no gas leaks.

ELECTRICAL:

The electrical supply lines run underground to a pad-mounted transformer, which feed an exterior-mounted electrical meter. The meter is mounted on the side of the main transformer on the southern side of the building.

The main electrical service size to the building is 800-amp, 120/208 volt, three-phase, four-wire alternating current (AC). The electrical wiring is reportedly copper, installed in metallic conduit. Circuit breaker panels are located throughout the building.

The building is protected against lightning strikes by a lightning arresting grid system mounted on the pitched metal roofing sections.

The building is equipped with efficient T8 fluorescent light fixtures.

The main Communications server is found in room K-109A. A network of cabling is distributed throughout the building.

The building is not equipped with an emergency generator.

The on site electrical systems up to and including the transformers and meters are owned and maintained by the respective utility company.

- The switchgear, circuit breaker panels and electrical meters appear to be in good condition and the electrical power appears to be adequate for the building's demands. Routine maintenance will be required over the evaluation period.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The lightning arresting grid system appears to be in good condition requiring routine maintenance over the evaluation period.
- The lights are energy efficient fixtures and appear in good condition. Routine maintenance will be required over the evaluation period.

- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

Fire Protection and Security Systems

The fire protection system consists of a wet-pipe (occupied areas) and dry-pipe (attic areas) sprinkler systems, fire alarm annunciator (near entrance), portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Siamese fire hose connections are located on the exterior of the building. Hard-wired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the property's drive aisles and are approximately 50 feet from the building.

Fire sprinkler risers are located in mechanical room K-107.

Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms.

A central fire alarm panel is located in mechanical room K-107 and monitors the pull stations, smoke detectors, and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble. An annunciator panel is located in the lobby.

Site Security is provided by full-time on site Campus Security Personnel. In addition, the building is equipped with an alarm system maintained in-house.

The building is equipped with a security system monitored by Pegasus. The system includes card readers at the building entrance doors for use by campus staff after hours. The main security central panel is located in mechanical room K-107.

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required. A copy of the most recent inspection is included in Appendix C. Equipment testing is not within the scope of a Facility Condition Assessment. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement during the evaluation period.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign and emergency light replacement is considered to be routine maintenance.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- The security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF & E

It appears that the interior finishes in the classrooms and corridor of the addition are original at seven years old.

It appears that the vinyl tile in the classrooms and corridor of the original section are original. The carpet appears to be over five years old.

- The interior finishes are in good to fair condition. Based on its estimated Remaining Useful Life (RUL), the classroom and office area carpet will require replacement during the assessment period. Interior painting and wall finish replacement will also be required during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.
- The stained ceiling tiles will require replacement once the leaks are repaired. The cost of this work is relatively insignificant and can be performed through routine maintenance.

COMMERCIAL KITCHEN EQUIPMENT

A residential scale laundry room is located in K-113 in the newer addition. The laundry has two washers and two dryers. Each includes one front loading machine.

- The kitchen appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement over the assessment period. Based on the insignificant amount of work, this can be performed through routine maintenance.
- The laundry machines appear to be in good to fair condition. Based on their estimated Remaining Useful Life (RUL), some of the washers and dryers will require replacement over the assessment period.
- The kitchen countertop and cabinetry appears to be in good to fair condition. Routine maintenance will be required during the evaluation period.

OTHER STRUCTURES

A storage shed is located southwest of the main building. The shed is constructed of materials similar to the original main building but is finished with painted cementitious fiberboard with a wood grain pattern. The structure is supported by a concrete slab on grade with integral reinforced turned down concrete footings.

- The shed is in good condition and will require routine maintenance during the evaluation period.

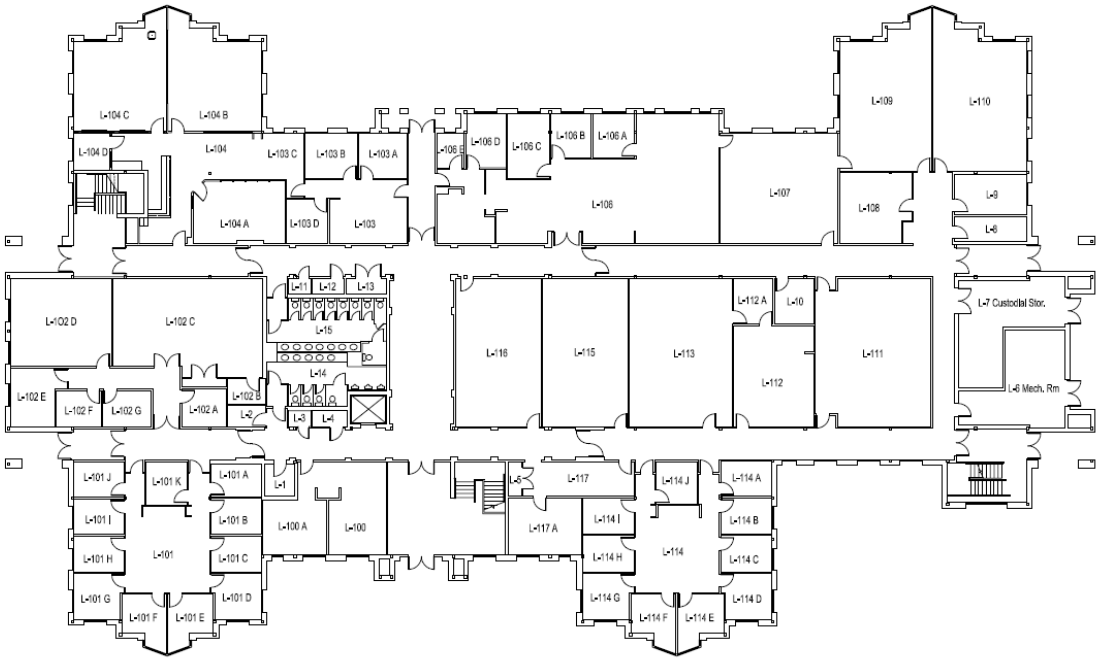
HVAC EQUIPMENT

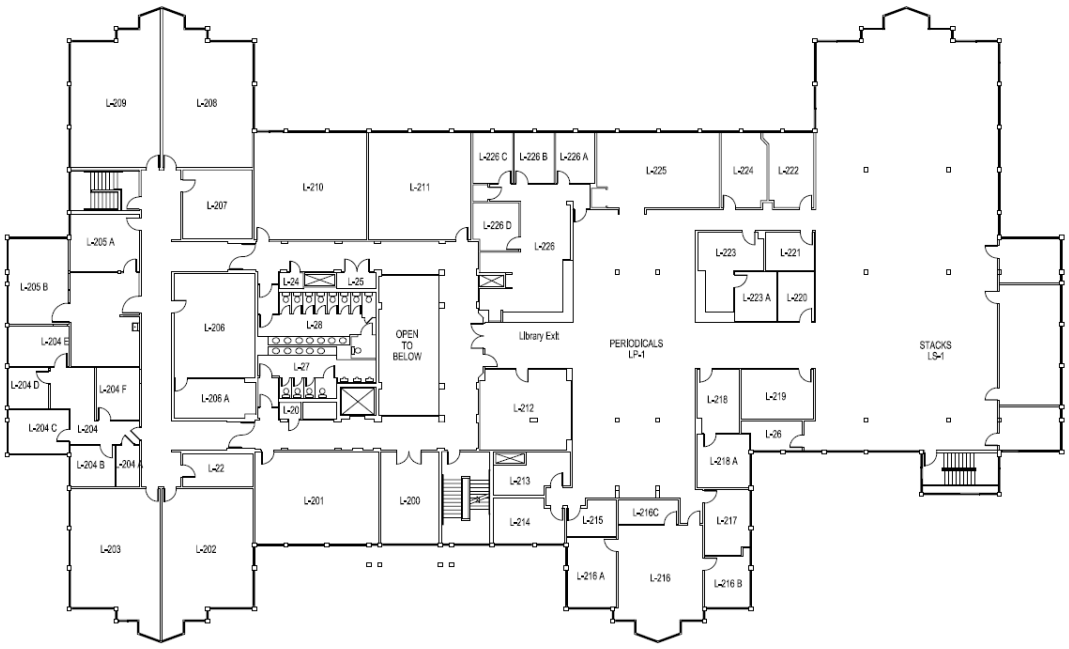
- The building is respectably energy efficient by today's standards.

LIBRARY – BUILDING L

Year constructed:	1995 Room L104 renovated in 2010 Renovation in progress at room L205, while a portion of room L205 - Nursing Simulation Lab - has been completed
Building type:	**Library, classrooms, television studio, offices** - Classroom space 7,884 s.f., Lab space 7,418 s.f., Office space 10,421 s.f., Study space 8,862 s.f., Special use space 1,600 s.f., General use space 764 s.f., Support space 971 s.f.
Building square footage:	37,920 Net SF and 54,014 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Library, Classroom and Business type facility = 892 occupants
Number of stories:	Two
Building construction:	Steel frame with concrete-topped metal decks. Masonry walls.
Roof construction:	Primary hipped standing seam metal roof Secondary flat built-up roof
Exterior Finishes:	Brick veneer
Heating and/or Air-conditioning:	The building is supplied heated and chilled water from the central system at Building "D". High capacity air handling units, variable air volume (VAV) boxes and fan coil units (FCU) supplied with heated and chilled water by the central system. Rooms L102, L206 and L207: self-contained precision cooling glycol-cooled air conditioners. Control Room: One split system unit ventilator with roof-mounted condenser. Rooms L101E, L101F, L104A, L105, L109, L110, L114E, L114F, LRC, L202, L203, L208, L209, L216: Electric, baseboard heaters. Mechanical rooms: Unit heaters supplied hot water from the central system.

Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, extinguishers, security cameras for classrooms, building security door card readers and emergency phones.
Dates of visit:	September 16, 2011





SITE AND EXTERIOR

The Library building is located on the northern side of the Campus and has the main asphalt paved entrance circle drive on the east side of the building. The building is generally accessed from parking lots to the north and south and from walking paths to the west. A service drive is located to the north of the building and paved with asphalt.
The property slopes mildly down from the east, west, and north side of the building to drains or inlets.
The landscaping consists of trees, shrubs, and lawn.

The topography and adjacent uses do not appear to present conditions detrimental to the property.

- The landscape materials are in good condition and will require routine maintenance over the evaluation period.
- Trees adjacent to the building were observed brushing against the exterior walls and overhanging the perimeter gutter system. The trees should be trimmed as part of routine maintenance to prevent damaging exterior finishes and gutter drainage problems.

- Parking, site improvements, and surrounding areas are included in the overall site report under separate cover. A cursory assessment of areas surrounding the building was performed to identify potential safety hazards or site items which may be negatively impacting the building. No hazardous areas were observed.
- The concrete walkways near entrances are in good condition. Minor signs of concrete spalling were observed throughout these areas. Based on its estimated Remaining Useful Life (RUL), the concrete walkways will require replacement over the evaluation period.
- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

SIGNAGE AND EXTERIOR LIGHTING:

- The building name is displayed on the signage off the walkways near the building entrances.
- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls. Recessed light fixtures are located at the covered entrances.
- The exterior building light fixtures are in good (90 percent) to poor (10 percent) condition requiring routine maintenance. One damaged light fixture is located on the west side exterior wall. Based on the estimated Remaining Useful Life (RUL) and condition, the damaged light fixture will require replacement immediately to provide necessary levels of night lighting for security. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

FOUNDATIONS AND SUPERSTRUCTURE:

The foundation systems include reinforced concrete column pads. The building has concrete masonry unit (CMU) exterior bearing walls, which support the upper floor and roof diaphragm. The upper floor and landings have concrete-topped metal decks and are supported by steel beams and open-web steel joists. The roofs are constructed of metal decks which are also supported by steel beams and open web steel joists. The roof decks are topped with concrete.

- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.
- The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

ROOFING:

The primary roofs are standing seam metal hipped roofs. The secondary roofs are classified as flat. These are located over the central lobby and above the penthouse mechanical rooms. The exterior perimeter walls extend above the surface of the upper portion flat roofs, creating parapet walls. The roof membrane turns up the sides of the parapet walls and terminates at the base of the walls. The roofs have edge flashing.

- Both types of roof finishes are approximately 16 years old. The fields of the sloped roofs are in good condition and will require routine maintenance over the evaluation period**.**
- According to the POC, there are active roof leaks in the sloped roofing near roof vents above room L202 and the corridor outside of room L207. However, at these areas stained ceiling tiles were not observed. In the library stack area above a book shelf stained ceiling tiles were noted and are assumed to be a result of roof leaking.
- There is no evidence of roof deck or insulation deterioration in the sloped roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used at the sloped roofing.
- The sloped roof flashings and sloped roof vents are in good condition and will require routine maintenance over the evaluation period.
- According to the point of contact, the perimeter gutters bordering the sloped roofs on the west side of the building have chronic leaking problems and numerous repair attempts have been made. During the assessment, water dripping was observed at the gutter seam with evidence of water staining on the exterior wall on the west side of the building. Based on the current condition and to maintain the integrity of the system, the gutters should be replaced at the area of concern. The cost is relatively insignificant and the work can be accomplished as routine maintenance.
- There is no evidence of moisture, water intrusion, or excessive daylight in the sloped roof attics. The insulation in the attics appears to be adequate.
- The fields of the flat roofs are in good to fair condition. Minor cracking was observed along the perimeter. Based on the estimated Remaining Useful Life (RUL), the built-up roof membranes will require replacement over the evaluation period.
- There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration in the flat roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used at the flat roofing.
- The flat roof flashings are in fair condition. Cracking was observed at the joints. Flashing will be replaced in conjunction with the roof membrane replacement. Routine maintenance will also be required throughout the evaluation period.
- The parapet walls and copings at the flat roofing are in good condition and will require routine maintenance over the evaluation period.

- Flat roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- Sloped roof drainage appears to be adequate. On the west side of the building, vegetation was observed growing out of the perimeter gutter. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- According to the point of contact, the perimeter gutters bordering the sloped roofs on the west side of the building have chronic leaking problems and numerous attempts have been made to repair the gutter. During the assessment, water dripping was observed at the gutter seam with evidence of water staining on the exterior wall on the west side of the building. Based on the current condition and to maintain the integrity of the system, the gutters should be replaced at the area of concern.

Exterior Walls, Interior Stairs, Window and Doors:

The exterior walls are finished with brick veneer. The building has concrete bands between floors and concrete lintels and window sills. The soffits are exposed and are finished with painted gypsum wallboard.

Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

- The sealant is flexible, smooth, and in good condition and will require routine maintenance over the evaluation period.
- The exterior finishes are in good to fair condition. Water staining is found on the west side of the building adjacent to the gutter leak. Routine maintenance is required to wash and clean the walls.
- The interior stairs, balusters, and handrails are in good condition and will require routine maintenance over the evaluation period.
- According to the POC, the property does not experience a significant number of complaints regarding window leaks or window condensation. There is no evidence of window leaks or condensation. The windows and screens are in good condition and will require routine maintenance over the evaluation period.
- The exterior doors, ADA automatic door openers and door hardware are in good condition and will require routine maintenance over the evaluation period.
- The ground-level patio slabs are in good condition. There are no significant signs of movement, settlement, or cracking. Routine maintenance is required over the evaluation period.

BUILDING HEATING, VENTILATING, AND AIR-CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as septic systems, water or waste water treatment plants, or propane gas tanks.

The building is supplied heated and chilled water from the central system, located at Building "D".
Heated and cooled air is distributed by high-capacity air handling units (AHU). Air distribution is provided to supply air registers by ducts concealed above the ceilings. Circulating pumps provide hot and chilled water to each temperature-controlled space via a two-pipe distribution system for each. Both hot and chilled water systems have separate supply and return pipes for each. Hot and chilled water is supplied to the high-capacity air handling units, fan coil units (FCU), and variable air volume (VAV) boxes. Hot water is supplied to the unit heaters.
Variable frequency drives (VFD) are utilized on supply and exhaust fans for the air handling units and Circulating pumps. The mechanical systems are controlled from a building automation system (BAS).

Cooling is also provided to room L100 by one split-system air conditioner. Heating is provided to some rooms on the first and second floors of the building by electric, baseboard heaters. The heaters are individually-controlled by integral thermostats.

- According to the contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- The air handling units, variable frequency drives (VFD), variable air volume boxes (VAV), fan coil units (FCU), hot and chilled water circulating pumps, Liebert self-contained precision cooling systems, split system fan coil unit and condenser appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the air handling units will require replacement over the evaluation period.
- The electric heaters appear to be in good condition and will require routine maintenance during the evaluation period.
- The hydronic unit heaters appear to be in good condition and will require routine maintenance during the evaluation period.
- Leaks reportedly occur at some dielectric unions in the penthouse mechanical room. Some replacements will be required over the evaluation period. The cost of replacement is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

PLUMBING:

There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.

- The pressure and quantity of hot water appear to be adequate.

- The water heaters appear to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heaters will require replacement over the evaluation period.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The accessories and fixtures in the common area restrooms are in good condition and will require routine maintenance over the evaluation period.
- The drinking fountains appear to be in good condition and will require routine maintenance over the evaluation period.

ELECTRICAL:

The main electrical service size to the building is 1,200-amp, 277/480 volt three-phase four-wire alternating current (AC). Step-down transformers are located in electrical rooms for conversion from 480 Volt to 208Y/120 Volt power receptacles and controls. The building is protected against lightning strikes by a lightning arresting grid system mounted on the roof parapet walls and pitched metal roofing sections. The building is equipped with efficient T8 fluorescent light fixtures.

- The on site electrical systems up to and including the transformers and meters are owned and maintained by the respective utility company.
- The switchgear, motor control center, circuit breaker panels and electrical meter appear to be in good condition and will require routine maintenance over the evaluation period.
- The electrical power appears to be adequate for the building's demands.
- The building is equipped with a cell tower; however, no cell antennas are located within the building. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The Hub room is becoming crowded and future expansion in the existing space is not considered feasible beyond current planned upgrades.
- The lightning arresting grid system appears to be in good condition requiring routine maintenance over the evaluation period.
- The lights are energy efficient fixtures and appear in good condition. Routine maintenance will be required over the evaluation period.
- The broadcast and PA system equipment appears to be in good condition. Routine maintenance will be required during the evaluation period.

ELEVATORS AND CONVEYING SYSTEMS:

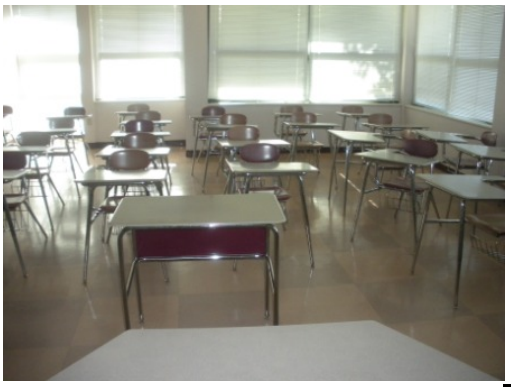
There is a total of one hydraulic passenger elevator. The elevator was manufactured by Schindler Elevator. The elevator has a rated capacity of 3,500 pounds and a speed of 100 fpm. The elevator machinery is located in a room adjacent to the shaft.

- The elevators, and their responsiveness, appear to be adequate. The elevator is serviced by ThyssenKrupp Elevator on a routine basis. The elevator machinery and controls are the originally installed system. Based on the estimated Remaining Useful Life (RUL), some of the elevator equipment will require replacement over the evaluation period.
- The emergency communication equipment in the elevator cab appears to be functional.

FIRE PROTECTION SYSTEMS

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- The property does not have a dedicated fire alarm inspection contractor. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement during the evaluation period.
- Some of the fire sprinkler heads were manufactured by Central. These heads are potentially defective and were subject to a nationwide recall. The sprinkler heads will require replacement immediately.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- The library checkpoint system appears to be in good condition and will require routine maintenance during the evaluation period.
- The security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF & E



The interior finishes are in good to fair condition. Based on estimated Remaining Useful Life (RUL), the carpet and vinyl tile will require replacement during the assessment period. Interior painting and wall covering replacement will also be required during the assessment period. Wall covering replacement is relatively insignificant and can be done through routine maintenance.

- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.

- The corridor floor tiles are in good to fair condition. Damaged and cracked tiles were observed outside of room L201. Terrazzo tile repair and replacement can be performed as a part of the property's routine maintenance program.
- Room identification signage is in good condition. The signs for most maintenance closets, storage rooms, restrooms, and mechanical rooms do not contain room numbers. Instead the room number is written above the door in black marker. Room identification number signs are recommended to be installed on or near each room identification sign (only for those rooms missing the room identification number). This work can be performed as a part of the property's routine maintenance program.
- The room identification sign is missing for a room near L111. The room identification sign can be replaced as a part of the property's routine maintenance program.
- The wood double doors near entrance vestibules are in good to fair condition. The double doors near room L102 contain minor impact damage due to equipment being pushed out of these doors. The doors will require routine maintenance over the evaluation period.

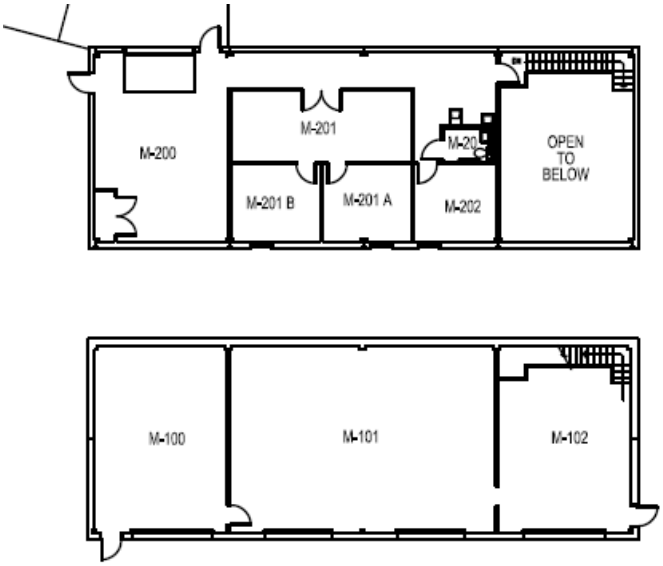
HVAC Equipment

- The building is respectably energy efficient by today's standards.

MAINTENANCE – BUILDING M

Year constructed:	Southwest side original construction – November 1995 Northeast side addition construction – March 2003 Community Center storage building – approximately 1980 or older
Building type:	**Maintenance/Storage**
Building square footage:	5,820 Net SF and 7,383 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Business type facility = 58 occupants.
Number of residential units:	None
Number of buildings:	Two
Number of stories:	Two stories in each half of Maintenance Building Single story Community Center storage building
Building construction:	Original southwest side is a steel framed building supporting concrete-topped metal deck upper level. Northeast addition is a pre-engineered steel building on a concrete slab. Community Center storage building - conventional wood frame structure on concrete slab.
Roof construction:	Maintenance Building - gabled roofs with factory finished standing seam metal panels. Community Center storage building - wood framed, hipped roof with asphalt shingles.
Exterior Finishes:	Maintenance Building – factory finished preformed metal panels and partially exposed concrete foundation with epoxy coating and brick veneer on original side at lower level. Community Center storage building - painted T1-11 plywood siding.
Heating and/or Air-conditioning:	Common areas: Air handling unit, unit heaters, through wall air-conditioning

Fire and Life/Safety:	Fire sprinklers, hydrant, smoke detectors, alarms, extinguishers, illuminated exit signs, strobes, and pull stations



SITE AND EXTERIOR

Maintenance Building

Community Storage Building

The Building M - Maintenance Building and the Community Center storage building are located on the north side of the Campus. The buildings are generally accessed from a road off the campus loop. Parking lots are located to the northeast of the Maintenance Building and to the south of the Community Center storage building. The parking lots are paved with asphalt. A service drive is located to the southwest of the Maintenance Building.

The property slopes moderately down from the east side of the property to the street and steeply from the Community Center storage building towards the south property line.

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance over the evaluation period.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.

FOUNDATIONSAND SUPERSTRUCTURE:

- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.
- The below grade walls are in good condition. There is only minor evidence of movement but no evidence of water infiltration.
- Minor cracking was observed at the southeast elevation in the concrete at the joint between the concrete masonry unit addition and the cast in place concrete foundation walls of the original and also in the middle of the concrete masonry unit foundation wall. The joint crack appears to be in the coating since no cracking was observed on the interior. Both areas should be crack sealed with an epoxy compound and monitored for further separation.
- The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There are isolated significant signs of deflection and movement in the raised slab of M-200 as evidenced by numerous cracks through this area. A lightweight concrete leveling compound is recommended as it does not appear to be a major structural issue and reportedly occurred near the time of construction and has not increased in gap width. In addition to the leveling compound, the area should be monitored for further settlement.

- An isolated wet area was observed at the loading dock near the column. It was reported that water comes under the roll-up door and can flood the interior loading dock area. The surface of the concrete is worn. It is recommended to apply a lightweight leveling compound to slope towards the door. In addition, a trench drain is recommended to be installed along the roll-up door and to have it piped to the exterior.
- Minor cracking was observed in the slab at the northwest entrance. The area should be epoxy sealed and monitored for further settlement.

ROOFING:

- The roof finishes appear to be original to the dates of construction for each structure. Information regarding roof warranties or bonds is not available. The roofs are maintained by the in-house maintenance staff.
- The fields of the sloped metal roofs are in good condition and will require routine maintenance over the evaluation period.
- The fields of the sloped asphalt shingle roofs are in fair condition. Based on the estimated Remaining Useful Life (RUL), the shingles will require replacement over the evaluation period.
- According to the POC, there are no active roof leaks in the sloped roofing. There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration in the sloped roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no drainage provided at the Community Center storage building. The perimeter ground does not appear to be negatively impacted.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used in the sloped roofing.
- The sloped roof flashings are in good condition and will require routine maintenance over the evaluation period.
- Sloped roof drainage at the Maintenance Building appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.

Exterior Walls, Stairs, Windows and Doors

- The exterior finishes on the Maintenance Building are in good to fair condition. Painting and patching will be required over the evaluation period.
- The exterior finishes on the Community Center storage building are in fair condition. Painting and patching will be required over the evaluation period.
- The sealant is flexible, smooth, and in good condition and will require routine maintenance over the evaluation period.
- The fascia and soffit on the Community Center storage building are in fair to poor condition. Water damaged wood was observed at the northwest corner. Painting, patching and isolated replacement will be required over the evaluation period. The cost of the replacement is minimal and can be performed in conjunction with the painting.
- The interior stairs and handrails are in good condition and will require routine maintenance over the evaluation period.
- According to the POC, the property does not experience a significant number of complaints regarding window leaks or window condensation. There is no evidence of window leaks or condensation. The windows and screens are in good condition and will require routine maintenance over the evaluation period.
- The exterior doors and door hardware are in good condition and will require routine maintenance over the evaluation period.

- The roll-up doors are in good to fair condition. One of the automatic openers on the northeast of the Maintenance Building is not functioning; although, it was reported that there is no need for it to be brought back on line. No costs are included in the tables at this time.
- One panel in the roll-up door was observed to be damaged on the interior in M-102. The cost for this repair is minimal and can be performed through routine maintenance.
- The weather-stripping on the entrance doors on the lower level of the original section has deteriorated and daylight can be seen through the bottom sill. Repairs are insignificant in cost and can be performed through routine maintenance.

ADA CONDITIONS

- Signage directing to accessible parking or accessible building entrances to the facility are not provided.
- Stair handrails do not extend beyond the top and bottom risers. Existing interior stairs are not equipped with the required handrails. Only one side of the stair has a railing accessing the northeast level to the office level. The existing railing is not compliant due to opening spacing and lack of extension at the bottom landing.

BUILDING HEATING, VENTILATION AND AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Washington Gas	Good
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

Heating and cooling is provided in the office areas by an individual direct expansion, constant volume gas-fired air handling unit. The unit has a cooling capacity of four tons. The cooling equipment uses R-22 as a refrigerant. The condensing unit is pad-mounted on grade.

Gas-fired unit heaters (7) provide supplemental heating to maintenance shop areas. The heaters are controlled by individual thermostats and have input ratings of 45 to 50 MBH.

Natural ventilation is provided by operable windows. Mechanical ventilation is provided in the bathrooms and maintenance shop by ceiling exhaust fans.

- According to the construction drawings, most of the equipment is original to the building's construction except for equipment provided for the addition in 2004.
- The air handling unit (HC1M) appears to be in good to fair condition. The condensing unit for the air handler has signs of deterioration with rust appearing on most exposed metal elements. Based on its estimated Remaining Useful Life (RUL), the air handling unit and air cooled condensing unit will require replacement during the assessment period.
- The gas-fired unit heaters appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the unit heaters will require replacement during the assessment period.
- The through wall heat pump appears to be in good condition. Based on their estimated Remaining Useful Life (RUL), the heat pump will require replacement during the assessment period. The cost for this work is relatively insignificant and can be performed as a part of the property's routine maintenance program.
- The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

PLUMBING:

There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.

- The pressure and quantity of hot water appear to be adequate.
- The water heater appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The accessories and fixtures in the common area restroom are in good condition and will require routine maintenance over the evaluation period.
- The drinking fountain appears to be in good condition and will require routine maintenance over the evaluation period.
- ***GAS:***
- Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior walls of the building. The gas distribution piping is malleable steel (black iron).
- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter and regulator appear to be in good condition and will require routine maintenance over the evaluation period.
- Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping is in good condition and, according to the POC, there have been no gas leaks.

ELECTRICAL

The main electrical service size to the building is 400-amp, 277/480 volt three-phase four-wire alternating current (AC). The electrical wiring is reportedly copper, installed in metallic conduit. Circuit breaker panels are located throughout the building. A step down transformer is located near the main distribution panel.

The building is not equipped with an emergency generator.

- The switchgear, circuit breaker panels and electrical meters appear to be in good condition and the electrical power appears to be adequate for the building's demands. Routine maintenance will be required over the evaluation period.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The light fixtures throughout the maintenance and storage buildings are in good condition requiring routine maintenance over the evaluation period.
- The building is not equipped with a cell tower or cell antennas. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

Building Elevators and Conveying Systems

- The wheelchair lift, used for ADA access is in good condition requiring routine maintenance over the evaluation period.

Fire Protection Systems

According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads. A copy of the most recent fire inspection is included in Appendix C.

The property does not have a dedicated fire alarm inspection contractor. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required. The fire alarm system is in good condition. A copy of the most recent inspection is included in Appendix C. Equipment testing is not within the scope of a Facility Condition Assessment. Based on the estimated Remaining Useful Life (RUL), the alarm panel will require replacement during the evaluation period.

- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- The security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.
- An exit sign in room M-100 on the southwest side of the building is not lit up due to the lamps in the exit sign being burnt out. Replacing the lamps can be performed as a part of the property's routine maintenance program. No cost is included in the tables.

INTERIOR FINISHES AND FF & E

Interior Finishes

- It appears that the interior finishes in the office administration areas are approximately five years old.
- The maintenance bay finishes are original and in fair condition. Interior painting will be required during the assessment period.
- The interior finishes office administration areas are in good condition. Based on its estimated Remaining Useful Life (RUL), the carpet and vinyl tile will require replacement during the assessment period. Interior painting will also be required during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.
- The washer and dryer are in good to fair condition. Based on their Remaining Useful Life, the washer will require replacement. EMG suggests an Energy Star rated appliance.
- The dryer cost is relatively insignificant and can be replaced as routine maintenance.

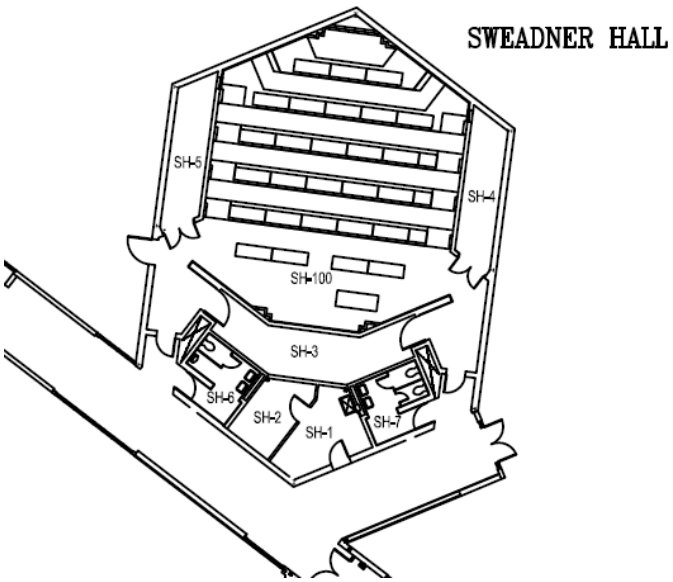
HVAC Equipment

Observations/Comments:

- The building is respectably energy efficient by today's standards.

SWEADNER – BUILDING SW

Year constructed:	1968 original construction Renovated 1998
Building type:	Lecture hall
Building square footage:	2,539 Net SF and 4,550 Gross SF per the HEGIS code listing issued to state March 30, 2011. Approximate occupancy load for Assembly type facility = 362 occupants
Number of residential units:	None
Number of buildings:	One
Number of stories:	One double height space
Building construction:	Steel frame with concrete-topped metal decks
Roof construction:	Flat roofs with built-up membrane and stone aggregate
Exterior Finishes:	Brick veneer at lecture hall Stucco on paper backed metal lath with metal storefront at link corridor
Heating and/or Air-conditioning:	Lecture Hall: Air handling unit (fed from central plant) with variable frequency drives Corridors: Fan coil units
Fire and Life/Safety:	Fire sprinklers, smoke detectors, alarms, extinguishers, pull stations, illuminated exit signs, and emergency phone



SITE AND EXTERIOR

The Building SW - Sweadner Hall is located on the south side of the Campus. The building is generally accessed from the center of campus or from parking lots to the east and west. The parking lots are paved with asphalt.

The property is relatively flat. The landscaping consists of trees, shrubs, and lawn.

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance over the evaluation period.
- Parking, site improvements, and surrounding areas are included in the overall site report under separate cover. A cursory assessment of areas surrounding the building was performed to identify potential safety hazards or site items which may be negatively impacting the building. No areas were observed.
- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.

FOUNDATIONSAND SUPERSTRUCTURE:

The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.

The building has structural steel columns, which support the roof diaphragms. The roofs are constructed of metal decks which are supported by steel beams and open web steel joists. The roof decks are topped with concrete.

- The superstructure is concealed. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

ROOFING:

The primary roofs are classified as flat roofs. The roofs are finished with stone aggregate over a multi-ply bituminous built-up membrane. According to the construction drawings, only the fascias at the link corridor appear to be insulated with fiberglass batts. The flat roof appears to have a layer of tapered rigid insulation at the perimeter to provide slope away from the parapet walls. .

- The roof finishes are approximately 16 years old. According to the POC, the flat roofs are covered by a 20 year warranty. A copy of the warranty is attached in Appendix C. The roofs are maintained by the in-house maintenance staff.
- The fields of the flat roofs are in good condition. Based on the estimated Remaining Useful Life (RUL), the roof membranes will require replacement over the evaluation period.
- According to the POC, there are no active roof leaks in the flat roofing. There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration in the flat roofing. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used in the flat roofing.
- The flat roof flashings are in good condition and will require routine maintenance over the evaluation period.
- The parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- Flat roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- Isolated areas of algae were observed over the SH-1 roof area. Additional tapered insulation may be required during the next roof replacement. This work can be done in conjunction with the membrane replacement and is of minimal cost due to the small area involved.

Exterior Walls, Stairs, Windows and Doors:

- The exterior finishes are in good to fair condition. Some joint cracking was observed in the stucco in the connecting corridor over the doors on both sides. Painting and patching will be required over the evaluation period. The patches to the stucco can be performed in conjunction with the painting.
- The sealant is deteriorated and in fair to poor condition. The sealant from the building face to the sidewalk was missing. This will need to be replaced before the next freeze/thaw cycle to prevent damage to the building foundation system.

- An isolated vertical crack was observed on the north face of the lecture hall stretching up to approximately five feet from grade. Sealant is required to keep water from infiltrating. The cost of this work is relatively insignificant and can be performed through routine maintenance. The maintenance staff should monitor the area for further settlement cracking.
- The interior stairs are in good condition and will require routine maintenance over the evaluation period.
- No railings are provided at the widely spaced terraced steps.
- According to the POC, the property does not experience a significant number of complaints regarding window leaks or window condensation. There is no evidence of window leaks or condensation. The windows and screens are in good condition and will require routine maintenance over the evaluation period.
- The exterior doors and door hardware are in good to fair condition and will require routine maintenance over the evaluation period. Based on their estimated Remaining Useful Life (RUL), automatic openers will require replacement early in the assessment period due to the high wear.
- It was reported that high winds swing the doors open abruptly and can damage the openers or frame. Sliding doors may be the solution during the next scheduled door replacement.

BUILDING HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	**Supplier**	**Condition and Adequacy**
Sanitary sewer	Frederick County	Good
Storm sewer	City of Frederick	Good
Domestic water	City of Frederick	Good
Electric service	Potomac Edison	Good
Natural gas service	Not provided for this building	Not applicable
Internet Service	Comcast or Verizon	Good

According to the POC, the utilities provided are adequate for the property. There are no unique, on site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

The building is supplied heated and chilled water from the central plant, located at Building "D", through a four pipe distribution system (supply and return for each). Heated and cooled air is distributed by an air handling unit (AHU) equipped with heating and cooling coils. Variable frequency drives (VFD) are utilized on supply and exhaust fans for the air handling unit. The mechanical systems are controlled from a building automation system (BAS) by "Johnson Controls" for energy savings and more comfortable temperature control in the building. Hydronic fan coil units provide heating near entrance doors. The restrooms and other areas are ventilated by a mechanical exhaust fan.

- According to the contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls.
- The air handling unit appears to be in good condition. Based on its estimated Remaining Useful Life (RUL), the air handling unit will require replacement over the evaluation period.
- The variable frequency drives (VFD) appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the VFD's will require replacement over the evaluation period.
- The fan coil units (FCU) appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the FCU's will require replacement over the evaluation period.
- The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

PLUMBING:

- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.
- The pressure and quantity of hot water appear to be adequate.
- The water heater appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the water heater will require replacement over the evaluation period.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The accessories and fixtures in the common area restrooms are in good condition and will require routine maintenance over the evaluation period.
- The drinking fountain appears to be in good condition and will require routine maintenance over the evaluation period.

ELECTRICAL:

The main electrical service size to the building is 250-amp, 277/480 volt three-phase four-wire alternating current (AC). A step-down transformer is located near the main distribution panel for conversion from 480 Volt to 208Y/120 Volt power receptacles and controls. The electrical wiring is reportedly copper, installed in metallic conduit.

- The on site electrical systems up to and including the transformers and meters are owned and maintained by the respective utility company.
- The switchgear, circuit breaker panels and electrical meter appear to be in good condition and will require routine maintenance over the evaluation period.
- The electrical power appears to be adequate for the building's demands.
- The lights are energy efficient fixtures and appear in good condition. Routine maintenance will be required over the evaluation period.
- The PA system is reportedly in good condition. Routine maintenance will be required over the evaluation period.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

FIRE PROTECTION AND SECURITY SYSTEMS

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.
- The property does not have a dedicated fire alarm inspection contractor. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required. Equipment testing is not within the scope of a Facility Condition Assessment. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement during the evaluation period.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign and emergency light replacement is considered to be routine maintenance.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- The security systems are reportedly in good condition. Routine maintenance will be required over the evaluation period.

INTERIOR FINISHES AND FF & E

- The corridor ceiling finishes were replaced approximately 16 years ago, Lecture Hall finishes were replaced 13 years ago and the common area restrooms were last renovated approximately 16 years ago.
- The interior finishes are in good to fair condition. Based on its estimated Remaining Useful Life (RUL), the Lecture Hall carpet will require replacement during the assessment period. Some isolated areas at the vertical faces are not fully adhered. Interior painting, ceramic tile and wall panel replacement will also be required during the assessment period. The acoustic panel fabric can be replaced through routine maintenance.
- An isolated crack in the terrazzo in the corridor near the fire doors to Building E – Conference Center occurs within inches of a control joint. It was reported that a new slab was installed in this location. A repair may need to include an additional control or expansion joint.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles and automatic openers will require replacement during the assessment period.

- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.
- The storage and custodial vinyl tile floors will require replacement based on Remaining Useful Life. Due to the small area and insignificant cost, this work can be performed through routine maintenance.

HVAC EQUIPMENT

Observations/Comments:

The building is respectably energy efficient by today's standards.

CENTRAL PLANT BUILDING

Year constructed:	1969
Building type:	Central Plant Building
Building square footage:	Central Plant 4,936 Net SF per the HEGIS code listing issued to state March 30, 2011
Number of buildings:	One - attached to Building “D” - Field House
Number of stories:	One
Building construction:	Steel frame with concrete-topped metal decks. Masonry walls
Roof construction:	Flat roofs with built-up membrane
Exterior Finishes:	Brick and cement stucco
Heating and/or Air-conditioning:	Heated and chilled water is supplied to the campus by the Central Plant Building boilers, chillers and cooling towers described in Section 7.1. Underground water distribution piping systems which feed through a tunnel under Building “D” lobby out to the campus. Buildings “K”, “G” and “M” are not on the central system.
Fire and Life/Safety:	Limited fire sprinklers, hydrants, alarms, extinguishers, and emergency boiler shut-offs

SITE AND EXTERIOR

The Central Plant is located on the northwest side of the Campus and is attached to the northern side of the Field House building. The building is accessed generally from the staff parking area and service drive running through the center of the campus on the west side of the building. The parking lot is paved with asphalt and includes a chain link fence around the cooling tower. There is a modular building on the west side and small hazardous waste storage shed with fenced containment area.

The property slopes mildly down from the west rear side of the building to the east portion of the campus with the main detention pond landscaping.

The landscaping consists of expanses of lawn with well maintained trees and shrubs concentrated around the building entrances. The rear is abutted by asphalt paving.

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance over the evaluation period
- There are no unique, on site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.
- The property is equipped with fuel storage tanks, located adjacent to the central plant building, which are as follows:
- One pad-mounted concrete fuel storage tank consisting of 750 gallons of gasoline and 250 gallons of diesel.
- One pad-mounted 10,000-gallon concrete storage tank for fuel oil for the boilers.
- The storage tanks should be protected with both a fence enclosure and bollards for safety. The oil tank currently has a partial fence enclosure. Installing a complete fenced unit for both fuel storage tanks will ensure limited access and the bollards will protect the tanks from the adjacent drive aisle. Additionally, portable fire extinguishers will also be required for safety.
- Parking, site improvements, and surrounding areas are included in the overall site report under a separate cover. A cursory assessment of areas surrounding the building was performed to identify potential safety hazards or site items which may be negatively impacting the building. No areas were observed.
- There were no significant paving or landscape issues noted in the area of the Central Plant building.
- The west roll-up door to Mechanical room D-1 experiences flooding in severe rainstorms. The POC reported that the most recent asphalt topping changed the grade at this threshold. The solution is to cut one or more small drainage swales across the asphalt directly in front of the rollup door to redirect water flow away from mechanical room. This work is considered routine maintenance.

Signage and Exterior Lighting:

- The building identification signs are in good condition. Routine maintenance will be required over the evaluation period.
- The building light fixtures are in good condition. Routine maintenance will be required over the evaluation period.
- The chain link fences at the cooling tower and hazardous materials locations are in fair to poor condition due to corrosion. Based on the estimated Remaining Useful Life (RUL), the chain link fences will require replacement over the evaluation period.

Foundationsand Superstructure:

- The foundations and footings could not be directly observed during the site visit except in the campus utility distribution tunnel passing under the front corridor of the building. There is no evidence of movement that would indicate excessive settlement in the foundation walls.
- There are significant cracks in the concrete masonry walls on the south and east end of the Central Plant. In recent years steel reinforcing has been retrofitted between masonry and steel framing at the roof line. Exterior brick work at the roof line has been replaced in several areas corresponding to the reinforcements; however, recent cracks have appeared in the exterior wall corners and CMU pilasters on the south wall. Larger cracks were observed around the exterior doors from rooms D4 and D2. The cause of these cracks was not determined, but they could be related to the Mineral Virginia earthquake on August 23, 2011. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs.

Roofing:

The roof is classified as flat. The roof is finished with a multi-ply bituminous built-up membrane with stone aggregate. The roof is insulated with rigid boards.

- The flat roof was installed in 1995 and has a 20-year warranty ending in 2015. A copy of the warranty is attached in Appendix. The roof is physically attached to the Field House and therefore an integral part of the main roof
- There is no evidence of roof deck or insulation deterioration in the flat roofing.
- There is no evidence of fire retardant treated plywood (FRT), and, according to the POC, FRT plywood is not used in the sloped roofing.
- The roof flashings, parapet walls and copings are in good condition and will require routine maintenance over the evaluation period.
- There is a dislodged masonry anchor bolt on the roof service ladder at the south side of the parapet wall, which requires repair for stability of the ladder.
- There are broken or missing grate dome covers on the internal roof drains that could allow stone aggregate or miscellaneous debris to clog drains. Maintaining all roof drain covers is required. Since drains have been open, verifying that no clog exists is also recommended.

Exterior Walls, Windows and Doors:

- The exterior brick veneer is in good condition. Routine inspection and maintenance will be required over the evaluation period.
- The sealant is flexible, smooth, and in good condition and will require routine maintenance over the evaluation period.
- All sealants must be inspected thoroughly, and any gaps or missing areas should be replaced.
- There are no exterior windows.
- The exterior doors, door hardware, roll-up door, and gate are in good condition and will require routine maintenance over the evaluation period.

One swing door in room D-2 is corroded at the kick plate and requires replacement.

BUILDING HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SECURITY SYSTEMS

Heated and chilled water is supplied to the campus by the Central Plant boilers, chillers and cooling towers described below. Underground water distribution piping systems then feed through a tunnel under Building "D" lobby out to the campus. Buildings "K", "G" and "M" are not on the central system.

Hot water for the central heating system is supplied by three dual-fuel "oil" and "gas" fired hot water boilers. Boiler #1 has a rated input capacity of 4,464 MBH. Boilers #2 and #3 each have a rated input capacity of 10,326 MBH. The boilers also supply the domestic hot water system during the winter months. An oil pump is located in the central plant and used to supply fuel oil to the boilers when needed. The oil storage tank is described in Section 5.1 of this report.

Chilled water for the central cooling system is supplied by three water-cooled chillers and two cooling towers. Chillers #1 and #2 each have a nominal rating of 450 tons and use R-123 as a refrigerant. Chiller #3 has a nominal rating of 300 tons and uses R-134A as a refrigerant.

Each cooling tower is constructed of galvanized steel and is located adjacent to the central plant building inside a brick enclosure. Cooling tower #1 has a capacity of 800 tons and cooling tower #2 has a capacity of 400 tons.

Circulating pumps provide hot and chilled water to each temperature-controlled space by a four-pipe distribution system. The hot and chilled water supplies the campus as discussed above and hot water is supplied to the cabinet heaters and unit heater in the central plant building. Heat reclaim circulating pumps and condenser water circulating pumps are also used as part of the chilled water system.

The mechanical systems are controlled from a building automation system (BAS) by "Johnson Controls" for energy savings and more comfortable temperature control through-out the property. The HVAC air compressor, equipped with two 5HP motors, is located in the central plant adjacent to Chiller #2. The air compressor for the shop, equipped with two 3HP motors, is located adjacent to the tunnel in the central plant.

The bathroom and other areas are ventilated by mechanical exhaust fans. The bathrooms and other areas are ventilated by mechanical exhaust fans. Rooftop fans are mounted on the roof and provide ventilation for interior spaces through concealed ducts.

Emergency shut-offs for the boilers / oil burners are located adjacent to the exit doors and overhead doors.

- On site personnel maintain the HVAC equipment or a contractor is retained when required. Contractors used at the campus Central Plant building are identified below.

- According to the contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls. Additionally, a defective controller part that operates chiller #2 was placed on order and should arrive in the next two days which will then be immediately installed. The contractor visits the campus two times each month to conduct routine maintenance procedures and as needed during emergencies.
- According to the contractor, all chillers are in good condition. Chiller #3 was installed in 2009. Chillers #1 and #2 were installed in 1994-1995. Also, chiller #2 was recently overhauled and chiller #1 is scheduled to be overhauled in 2012. According to the contractor, the chillers are overhauled approximately every ten years and in doing so, help to extend the useful life of the chillers to 30 years. Based on the estimated Remaining Useful Life (RUL), all chillers will require replacement over the evaluation period.
- The two cooling towers appear to be in fair condition. The cooling towers were installed in 1995-1996. Isolated rusting conditions occur at the cooling towers. Based on estimated Remaining Useful Life (RUL) and condition, the cooling towers will require replacement during the assessment period.
- The boilers appear to be in good (B01) to poor (B02 & B03) condition. Boiler #1 was installed in 2010 and will require routine maintenance. Boilers #2 and #3 are original. Boiler #2 is currently off-line due to leaking and is in the process to be repaired. A proposal to repair boiler #2 is included in Appendix C; however no costs are included in the tables for this repair. Additionally, boilers #2 and #3 are antiquated and show significant signs of rusting conditions and the interior of boiler #2 has build-up of deposits and sludge, as well as interior rusting. Based on their estimated Remaining Useful Life (RUL) and condition, boilers #2 and #3 will require replacement during the assessment period.
- The hot and cold water distribution system appears to be in good to poor condition. The vast majority of the underground loop which supplies the A-B Knuckle is mostly original (42 years old), with some replacements reported at the loop (approximately 3 years ago) in close proximity to the knuckle. Photos provided by the POC showed evidence of significant rusting and deterioration of the piping system at the loop that was replaced, which would potentially represent the condition of the existing original piping system. Based on the estimated Remaining Useful Life (RUL) and condition, some piping replacements will be required during the evaluation period.
- The three hot water circulating pumps appear to be in good condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The chilled water circulating pumps appear to be in good (2) to fair (4) condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The heat reclaim water circulating pumps appear to be in good (2) to fair (4) condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The condenser water circulating pumps appear to be in good (2) to fair (4) condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The air compressors are approximately 27 years old and appear to be in fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, replacement of the air compressors should be anticipated over the evaluation period.
- The hydronic unit heater and cabinet heaters appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL) and condition, the unit heater and cabinet heaters will require replacement over the evaluation period.
- The mechanical ventilation system and equipment currently in place at the building does not appear to provide the adequate ventilation through-out the central plant building. Proper ventilation, and heating and/or cooling if required, of the central plant building are recommended. EMG recommends an engineering professional be retained to analyze the existing building conditions, provide system installation and recommendations and, estimate the size, scope and cost of a new HVAC Ventilation system.

- Although not mentioned by the Chiller maintenance contractor, as stated above, there have been reported problems with the chillers since Chiller #3 was installed in 2009. According to the POC, the chillers work fine when two circulator pumps are operating, but as soon as a third pump turns on, there is a pressure loss and the system does not maintain the proper water flow required. EMG recommends an engineering professional be retained to analyze the existing conditions, provide system installation or repair and recommendations and, estimate the size, scope and cost to ensure proper operation of the chiller system.
- The oil pump appears to be in fair condition. Some repairs or replacements will be required over the assessment period. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- An abandoned through-wall A/C unit was observed at the storage room adjacent to the bathroom. Removal and proper disposal of the abandoned unit can be accomplished as part of the property's routine maintenance operations.
- The results show that there is surplus capacity available in the central plant for both chiller and boiler and in the chilled water (12") and hot water (10") distribution piping.
- The installed chiller is supplying a maximum of 1040 TR at the peak load conditions. The chiller can supply about 160 TR more if all the buildings are running at their peak capacity (as the total installed capacity is 1,200 TR). The current 12" chilled water pipe can deliver 1200 TR of cooling during peak conditions. So if 160 TR is added to the existing central chiller, the piping has sufficient capacity to deliver this additional load.
- The installed gas boiler is supplying maximum of the 10763 MBH at the peak load conditions and can supply about 737 MBH more if all the buildings are running at their peak capacity (as the total installed capacity is 11,500 MBH). The current 10" hot water pipe can deliver 10763 MBH of heating during peak conditions. So if 737 MBH is added to the existing central boiler system, the piping has sufficient capacity to deliver this additional load

Building #	Sq Ft	Cooling Capacity from Chiller (TR)	Heating Capacity from Boiler (MBH)	Avg Cooling Sq.ft/TR	Avg BTU/sqft for Heaeting
E	22,882	66	676	346.7	29.5
C	29,172	101	1,054	288.8	36.1
B	29,892	117	1,297	255.5	43.4
F	51,725	120	1,216	431.0	23.5
L	54,000	169	1,714	319.5	31.7
D	35,894	96	976	373.9	27.2
A	29,022	121	1,266	239.9	43.6
H	76,987	250	1,444	307.9	18.8
DHW			1,120		
TOTALS	**329,574**	**1,040**	**10,763**	**316.9**	**32.7**

Note: Building E includes Sweadner Hall

PLUMBING:

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil and vent systems are cast iron and PVC, with some galvanized observed at some roof vent piping.

Domestic hot water is supplied by one 65-gallon gas-fired water heater during the summer months. The water heater is located in the central plant. Domestic hot water is supplied by the HVAC system's boilers during the winter months. The central hot water system consists of circulating pumps and a 2,538-gallon insulated storage tank. The domestic hot water system supplies the central plant and Building "D" / Field House.

Boiler draining, condensation and backwash from the water softener are collected in concrete basins. The sumps are located in the slab at various locations of the central plant floor. Small capacity sump pumps eject the water into the municipal waste sewer system. A commercial water softener system and chemical feed pump system are utilized for water treatment for the cooling towers.

- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. No polybutylene piping was observed during our on site assessment.
- The pressure and quantity of hot water appear to be adequate.
- The water heater is approximately 27 years old and appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, the water heater will require replacement over the evaluation period.
- The domestic hot water storage tank appears to be in fair condition. The tank is an original unit that was repaired 5-27-10. Based on the estimated Remaining Useful Life (RUL) and condition, the water storage tank will require replacement over the evaluation period. Due to reported hot water backing up into the 2-inch cold water supply piping at times, installing a check valve or backflow preventer, as needed, is recommended. This work can be accomplished during the tank replacement above, as some re-piping may be necessary, or by the property maintenance staff.
- The plumbing systems appear to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing systems will require routine maintenance during the evaluation period.
- The concrete sumps and sump pumps are reported to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the sump pumps will require replacement over the assessment period. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The water softener and chemical feed pump system appeared to be in good condition requiring routine maintenance. Repair, replacement and maintenance of this equipment can be accomplished as part of routine maintenance procedures.
- The accessories and fixtures in the restroom are in fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, the original toilet and sink will require replacement during the evaluation period. The cost of replacement is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. Replacements of the fixtures with low-flow type fixtures will help save on water usage.

Gas:

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located adjacent to the cooling towers. The gas distribution piping is malleable steel (black iron).

- According to the POC, the pressure and quantity of gas are adequate.
- The gas meter and regulator appear to be in good condition and will require routine maintenance over the evaluation period.
- Only limited observation of the gas distribution piping can be made due to hidden conditions. The distribution system appears to be in good condition and no gas leaks have been reported. The system will require routine maintenance during the evaluation period.

Electrical:

The main electrical service size to the building is 3,000-amp, 277/480 volt three-phase four-wire alternating current (AC). An original switchboard panel has 1,200-amp 277/480 volt three-phase four-wire alternating current (AC). Circuit breaker panels and step-down transformers for conversion from 480 Volt to 208Y/120 Volt power

receptacles and controls are located in the electrical room of the central plant building. Two 600-amp motor control centers (MCC) are located on the central plant floor. The control centers are powered from the main electrical switchgear. The starters at the power centers are for HVAC and associated systems. The electrical wiring is reportedly copper, installed in metallic conduit.

The building is protected against lightning strikes by a lightning arresting grid system mounted on the roof along the perimeter of the parapet walls.

The building is not equipped with an emergency generator.

- The on site electrical systems are owned and maintained by the respective utility company. This includes transformers, meters, and related service cables up to the meters and transformers.
- The switchgear, motor control centers, circuit breaker panels and electrical meter appear to be in good to fair condition and will require routine maintenance over the evaluation period. In addition, based on the estimated Remaining Useful Life (RUL) and condition, replacement of the original 1,200-amp switchboard should be anticipated over the evaluation period.
- The electrical power appears to be adequate for the building's demands and is equipped with surge protection. However, based on the 3,000-amp electrical service size to the building, upgrading the surge protection should be anticipated.
- The lightning arresting grid system appears to be in good overall condition requiring routine maintenance over the evaluation period; however, there are some areas that have unattached cabling (approximately 100 LF) along the parapet walls. Re-setting and properly attaching the lightning cabling system on the parapet walls will be required. The cost of this work is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The light fixtures are in good condition. Routine maintenance will be required over the evaluation period.
- The PA system is reportedly in good condition. Routine maintenance will be required over the evaluation period.
- A server rack was found in the electrical room with no cooling provided and is in a location where accumulation of duct occurs which may hinder the equipment over time. Re-locating the server equipment to a more suitable location in Building "D" / Field House is recommended. This work can be accomplished by the on site Network Administration.
- The building is not equipped with a cell tower or cell antennas. No issues with coverage were reported.

Fire Protection Systems:

Fire protection consists of a dry-pipe sprinkler system which supplies the modular building and a partial wet-pipe sprinkler system in the central plant building, portable fire extinguishers, pull stations and alarm horns. Fire sprinkler risers are located in the central plant building. There is no fire pump and no back flow preventer for the system.

The building is equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms. A central fire alarm panel is located in the central plant and monitors the pull stations, smoke detectors, and flow switches in the central plant building and Building "D" / Field House.

Site Security is provided by full-time on site Campus Security personnel. The building is equipped with a security system monitored by Pegasus. The system includes card readers at the building entrance doors for use by campus staff after hours. The main security central panel is located in the electrical room.

- According to the contractor, the fire sprinkler system is in good condition, with no major upgrades or replacements required, other than typical routine maintenance operations. The contractor is not aware of any recalled sprinkler heads.

- The property does not have a dedicated fire alarm inspection contractor. On site personnel conduct quarterly fire alarm inspections and maintain the fire alarm systems or a contractor is retained when required. Equipment testing is not within the scope of a Facility Condition Assessment. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement during the evaluation period.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period. However, portions of the building are not equipped with an automatic sprinkler system for fire suppression, including areas noted at the shop, storage room, restroom and electrical room. Installation of a complete fire suppression piped sprinkler system in the areas indicated is recommended as a life safety issue.
- The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period. The strobe light was observed loose at the exit door in the central plant. Re-attaching the strobe light can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- Exit sign and emergency light replacement is considered to be routine maintenance.
- There are some openings at through-wall pipe penetrations in the (electrical room, in the tunnel and above the shop suspended ceiling gird) that will require proper fire-stopping. All floor and wall penetrations shall be fire-stopped, as per NFPA 101. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program.

INTERIOR FINISHES AND FF & E

- The interior finishes are in good condition and will require routine maintenance during the evaluation period.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.

HVAC EQUIPMENT:

The building is respectably energy efficient by today's standards.

OTHER STRUCTURES

There is a modular building adjacent to the Central Plant that is 24' x 44'. The conventional manufactured wood frame structure is supported by CMU piers. This structure is a former classroom modular building and is currently used for storage of electrical and painting inventory and supplies. The building is equipped with T12 lighting fixtures. Additionally, cooling of the building is provided by two window A/C units and heated by electrical baseboard heaters. The building has a dry-pipe sprinkler system, supplied from the central plant building.

Standing approximately 28 feet from the chiller area is one metal shed with a locked fenced area approximately 16' x 16' for hazardous waste materials containment.

- The modular storage building and hazardous waste storage appear to be in good condition. No hazard or safety code inspection of the waste storage methods or practices was included in this inspection. Both structures will require routine maintenance during the evaluation period.
- The window A/C units appear to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the A/C units will require replacement over the evaluation period. The cost of replacement is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The electric baseboard heaters appear to be in good condition and will require routine maintenance during the evaluation period.

4. PROVIDED PROGRAMS AND SERVICES

Frederick Community College has one main campus and work force training facility in the City of Frederick and a shared allied health facility in Mt. Airy, MD. Programs and services in main campus facilities are listed under each building heading, in the Building Evaluation section.

THE MONROE CENTER

The Monroe Center is a work force training facility with two classrooms at 4,252 s.f and 11 labs 24,889 s.f. The two classrooms are general purpose for allied health, building trades, information technology and business instruction and a culinary arts instructional space and student run restaurant.

THE MOUNT AIRY COLLEGE CENTER FOR HEALTH CARE EDUCATION

The Mount Airy College Center for Health Care Education is a jointly leased facility that offers four Associate of Applied Science degree programs and two certificates. Each program is sponsored by one of the center's three partner institutions: Carroll Community College, Frederick Community College or Howard Community College. Clinical and program courses are offered in full at the Mount Airy location.

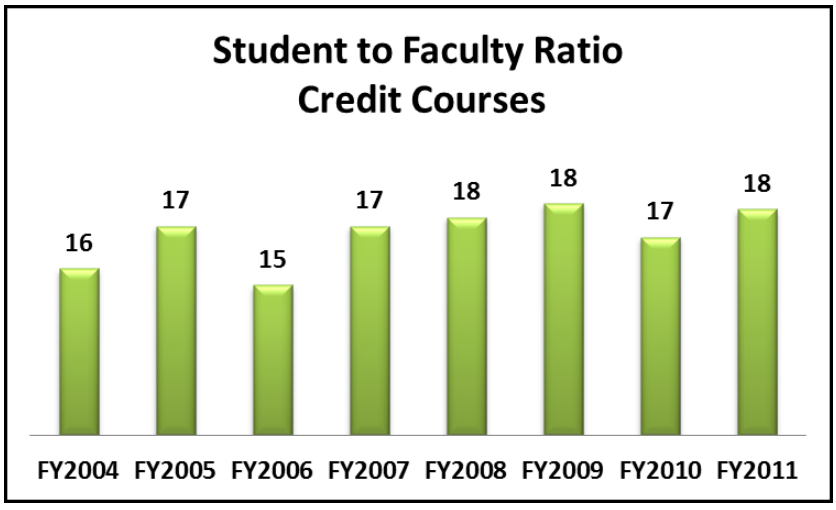


Table indicates one instructor per X students. X = the number of students at the top of each bar graph.

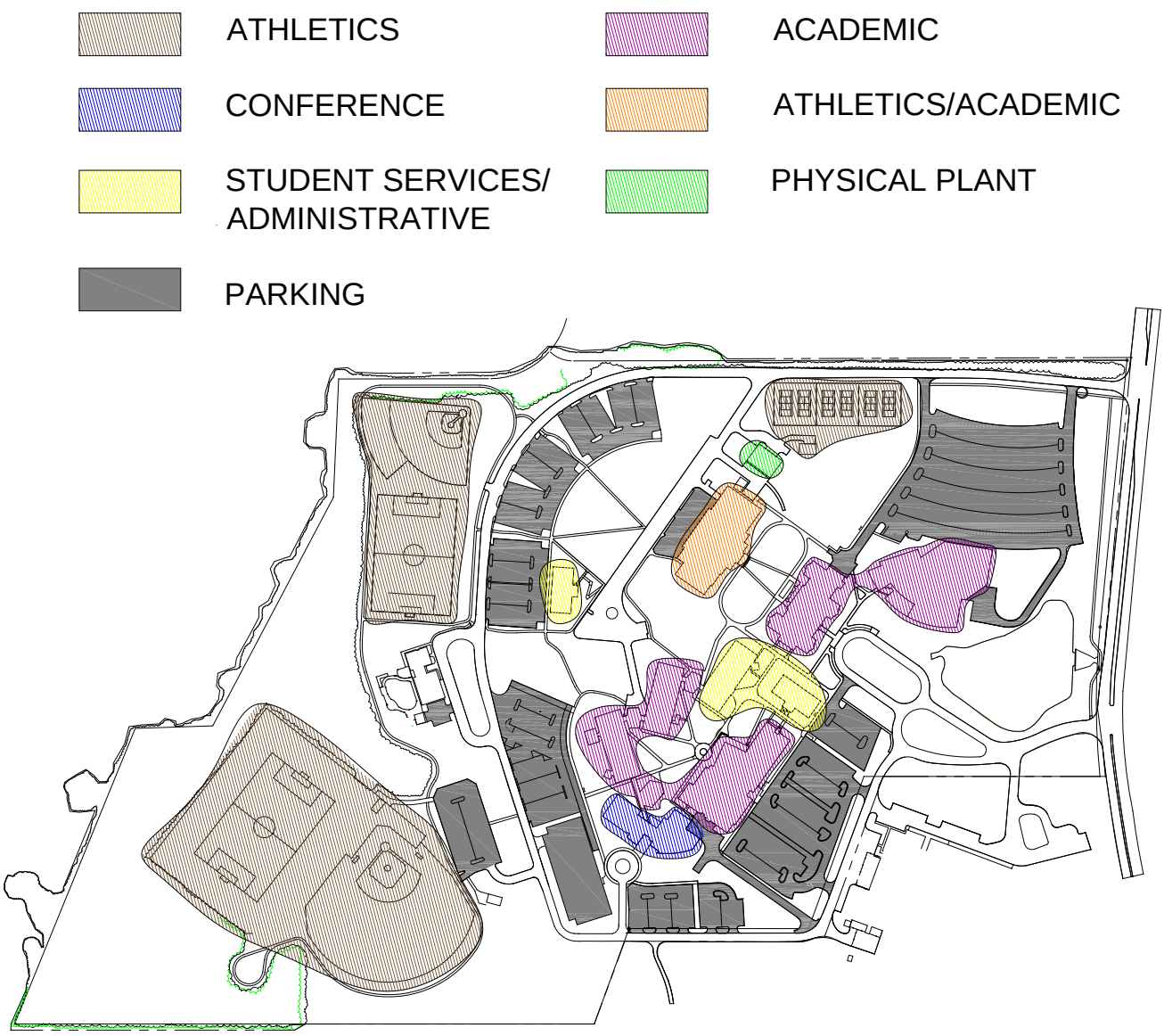
TRENDS IN FREDERICK COMMUNITY COLLEGE ENROLLMENT

Highest Enrollments (above 30 students)out of 74 Certificate and Degree programs MHEC April 2011 Trends in Enrollment Report

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
LOWER DIVISION CERTIFICATE														
5209-01 PRACTICAL NURSING	25	34	38	0	42	49	59	60	43	54	47	51	50	33
5211-02 SURGICAL TECHNOLOGY 510909 A98	0	1	13	12	8	12	20	9	23	19	17	20	28	33
5214-02 MEDICAL ASSISTANT 510801 A07	0	0	0	0	0	0	0	0	0	0	0	0	0	50
ASSOCIATE														
4910-01 ARTS & SCIENCES TRANSFER	531	542	543	522	610	656	770	773	915	808	877	860	1042	1163
4950-01 GENERAL STUDIES TRANSFER 240199	794	872	933	996	1133	1269	1317	1190	1177	1353	1465	1629	1857	1900
4960-09 ERLY CHLDHD ED/ ERLY CHLDHD SPEC ED	0	0	0	0	0	0	0	0	9	33	49	61	87	100
4960-11 ELMNTRY EDUC/ ELMTRY SPEC ED	0	0	0	0	0	0	0	0	185	145	122	139	141	133
4970-01 BUSINESS ADMIN. TRANSFER	445	425	423	350	411	366	359	394	446	423	384	428	418	374
4980-01 COMPUTER SCIENCE TRANSFER	70	96	77	90	119	123	93	72	82	71	104	95	92	106
5001-01 BUSINESS MGMT	124	132	135	126	147	118	120	115	115	91	104	97	86	98
5002-01 ACCOUNTING	90	85	78	62	78	78	71	67	73	58	72	57	80	80
5208-01 NURSING	263	255	228	329	327	400	545	586	541	523	554	622	686	656
5211-02 SURGICAL TECHNOLOGY	0	4	13	17	18	16	19	23	21	21	20	21	25	43
5215-01 RESPIRATORY CARE	51	44	31	24	25	35	42	58	68	69	45	63	63	76
5299-02 NUCLEAR MEDICINE	0	0	0	0	0	0	0	0	15	39	66	66	53	50
5317-01 CONSTRUCTION MGMT & SUPERVISION	18	11	12	0	14	32	22	22	22	35	112	246	93	74
5317-03 BLDG TRADES TECHNOLOGY	0	0	0	0	0	0	0	0	0	0	0	2	85	32
5503-01 ERLY CHLHD DEV	56	42	39	42	114	65	61	46	60	41	41	43	51	52
5505-01 POLICE SCIENCE	0	0	0	0	10	19	14	21	13	12	11	13	31	34
5599-01 PARALEGAL	42	40	36	29	32	33	44	63	43	34	41	42	46	38

Transfer indicates students in program that are scheduled to complete degree at a four year institution.

Main campus major precincts



Major pedestrian and vehicular paths

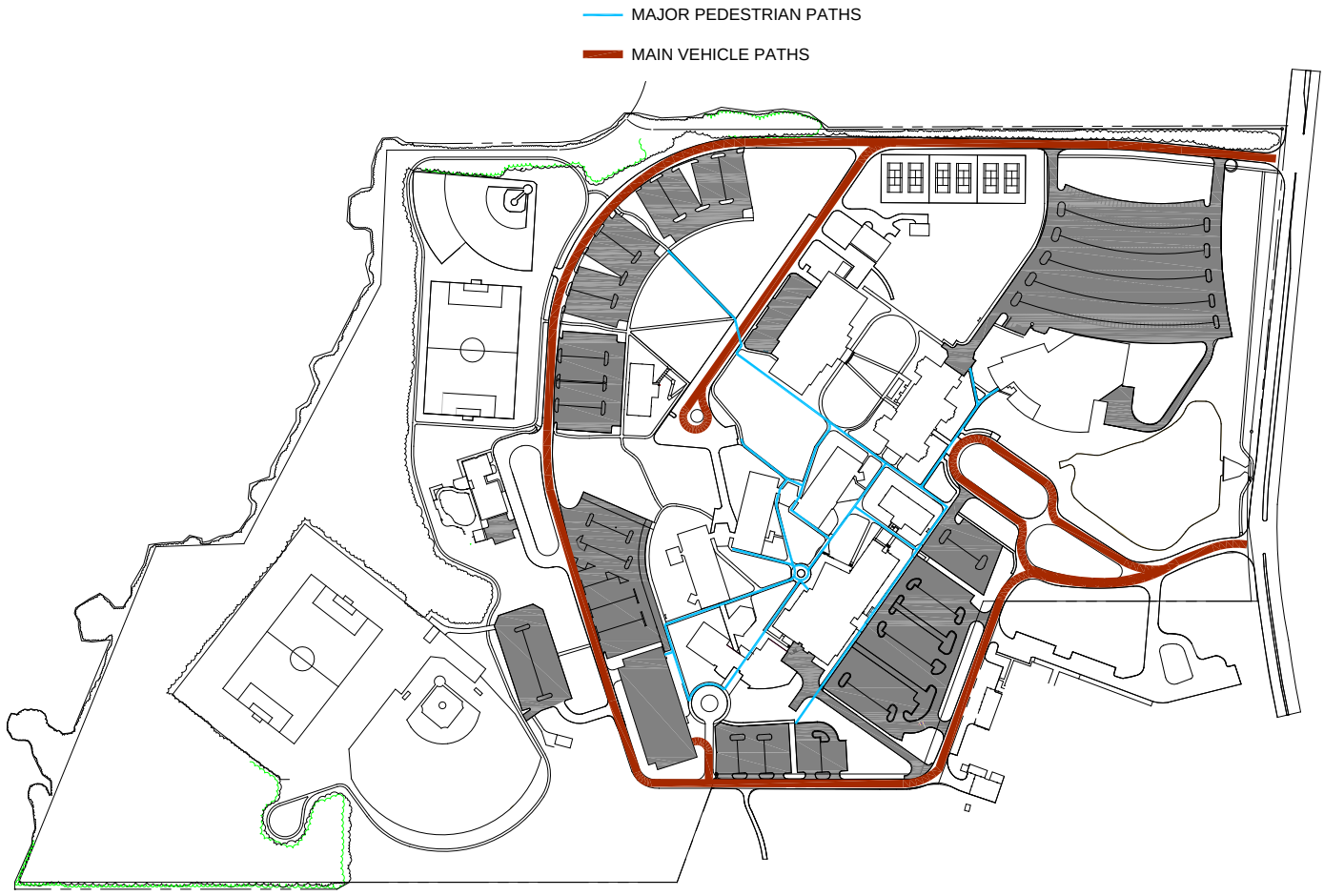


Table 3. Fall 2011 – Peak Days and Times

Subject [a]	Catalogue #	Total Sections	Peak Days [b]	Peak Time [c]
Computer Science	101	25	M/T/W/Th	8:00 AM - 3:15 PM
English	50A	19	M/T/W/Th	8:00 AM - 8:50 PM
English	52	16	M/T/W/Th/S	8:00 AM - 7:35 PM
English	101	38	M/T/W/Th/S	8:00 AM - 10:20 PM
English	102	14	M/T/W/Th	8:00 AM - 1:45 PM
Math	81	29	M/T/W/Th	8:00 AM - 5:40 PM
Math	82	30	M/T/W/Th	8:00 AM - 9:00 PM
Math	103	12	M/T/W/Th	8:00 AM - 9:35 PM
Math	111	10	M/T/W/Th	9:00 AM - 8:40 PM
Math	206	21	M/T/W/Th	8:00 AM - 9:35 PM
Psychology	101	20	M/T/W/Th	8:00 AM - 3:15 PM
Sociology	101	14	M/T/W/Th	11:00 AM - 7:35 PM

[a] Only course with ≥ 10 sections and that also appeared on Table 2 were included

[b] Peak days were determined using only the sections that reached their capacity limit

[c] Peak times were determined using only the sections that reached their capacity limit

Table 4. Spring 2012 – Peak Days and Times

Subject [a]	Catalogue #	Total Sections	Peak Days [b]	Peak Time [c]
Computer Science	101	20	T/Th	9:30 AM - 3:15 PM
English	50A	11	M/T/W/Th	8:00 AM - 3:15 PM
English	52	14	M/T/W/Th	9:30 AM - 8:50 PM
English	101	34	M/T/W/Th	8:00 AM - 4:45 PM
English	102	17	M/T/W/Th	8:00 AM - 4:45 PM
Math	81	22	M/T/W/Th	8:00 AM - 8:35 PM
Math	82	27	M/T/W/Th	8:00 AM - 8:35 PM
Math	103	11	M/T/W/Th	8:00 AM - 7:35 PM
Math	206	20	M/T/W/Th	8:00 AM - 7:35 PM
Psychology	101	19	M/T/W/Th	8:00 AM - 4:45 PM
Sociology	101	14	M/W	11:00 AM - 3:15 PM

[a] Only course with ≥ 10 sections and that also appeared on Table 2 were included

[b] Peak days were determined using only the sections that reached their capacity limit

[c] Peak times were determined using only the sections that reached their capacity limit

INSTITUTIONAL EVALUATION

This section provides an evaluation of all main campus buildings and infrastructure. For each type of facility the impact of user trends, need for renovation, conversion or modification and suitability to accommodate present and future programs and services is expressed.

1. SITE ANALYSIS

Infrastructure / Site											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
5.2	Parking, Paving and Sidewalks	$39,875.00	$0.00	$4,656.00	$0.00	$79,093.99	$0.00	$0.00	$0.00	$0.00	$79,093.99
5.4	Topography and Landscaping	$165,486.20	$16,992.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$104,000.00	$0.00	$0.00	$28,689.64	$0.00	$3,800.00	$0.00	$0.00	$0.00	$0.00
Totals, Unescalated		$309,361	$16,992	$4,656	$28,690	$79,094	$3,800	$0	$0	$0	$79,094
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$309,361	$17,502	$4,940	$31,350	$89,021	$4,405	$0	$0	$0	$103,200

PARKING, PAVING, AND SIDEWALKS

The parking areas are divided into 14 numbered lots with designations for visitors, staff, student, administration and the Arts Center. There are approximately five additional smaller parking areas adjacent to specific buildings. See the chart below for a description of the condition of the parking areas on the campus.

Parking Area	Lot #	Condition	Pavement Type	Parking Area	Approx. Parking Count	Car Accessible Spaces	Van Accessible Spaces
Under construction 8/17/2011	1	Fenced for construction					
Visitor	2	Good	Asphalt	28,476	56	1	1
Student	3	Good	Asphalt	33,153	70	2	2
Staff	4	Good	Asphalt	27,750	76	6	2
Student	5	Good	Asphalt m	19,152	80	0	0
Conf Center	6	Good	Asphalt	30,880	79	5	0
Science & Tech*	7	Good	Asphalt	65,704	180	5	3
Baseball/Overflow	8	Good	Asphalt	32,640	94	1	1
Children's Center		Good	Asphalt	4,340	11	1	0
Administration	9	Good	Asphalt	42,700	68	1	1
Student	10	Good	Asphalt	47,850	131	0	2

Parking Area	Lot #	Condition	Pavement Type	Parking Area	Approx. Parking Count	Car Accessible Spaces	Van Accessible Spaces
Student	11	Very Good	Asphalt	50,100	140	0	0
Staff	13	Good	Asphalt	64,740	99	3	1
Arts Center	14	Very Good	Asphalt	177,600	433	5	4
Rear of Arts Building		Good	Asphalt	5,125	7	2	0
Rear of A & B		Good	Asphalt	7560	7	2	2

Roadways approximately 24 ft wide circle the campus and link parking and building loading service and maintenance areas. Signage identifying parking lots and specific buildings direct drivers to appropriate lots and entrances.

Asphalt and concrete walkways link the campus parking areas, buildings and athletic fields.

Observations/Comments:

- The POC reported that minor alterations, repairs, surface sealing and striping were made to all parking areas approximately nine years ago.
- All parking lots had crack filling approximately one year ago.
- The Arts Center Lot #14 was sealed, reconfigured for additional parking stalls and paint striped approximately one year ago.
- The Faculty parking lot #4 is controlled by a card reader automatic gate for entry and a sensor controlled exit gate. These gates are aging and are expected to be replaced in the assessment period.
- EMG observed asphalt macadam parking lots #2 through #10 and #13, and several smaller related parking areas to be in good condition. The parking areas will require seal coating and re-striping over the assessment period. Some signage upgrades are also required enhance traffic from the lots to buildings. The costs are included in Replacement Reserves Report.
- EMG observed the asphalt macadam parking lot #11 to be in Very Good condition. The parking area will require re-striping over the assessment period.
- EMG recorded the newly constructed parking area # 11 to be in new condition. The parking area will require re-striping over the assessment period. The cost of this work is included in Replacement Reserves Report.
- The property is accessed by a perimeter roadway 24 feet wide approximately one mile long with addition service loops for passenger drop-off, loading docks and maintenance services. The drive and service areas will require repair and sealing over the assessment period.
- EMG observed approximately 0.4 miles of interconnecting sidewalks. Those in concrete are in very good condition. Asphalt walks were observed to be in good to fair condition and will require maintenance over the reserve period. The cost of recoating is included in the Replacement Reserves Report.
- The acrylic glazing at the parking lot #13 bus shelter is fogged and will require replacement. The shelter located in the front of the library will require replacement in the reserve term.
- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good overall condition and will require routine maintenance over the evaluation period.

General Site Improvements

Property identification is provided by a metal sign mounted on metal posts adjacent to the main entrance drive. Property directional signs are located at various locations along the site drives. The building name is displayed on metal signage adjacent to each building entrance.

Site lighting is provided by property-owned metal street light standards. The light standards are spaced along the drive aisles throughout the parking areas. Light fixtures mounted on metal poles are located along walkways and drive aisles throughout the property.

Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls.

A perimeter fence is located along the west property line. The fence is constructed of metal wire mesh with metal posts.

Site emergency phones are located at exterior strategic locations across the campus adjacent to parking areas and walkways. The emergency phones are utilized to contact the on site Campus Security Personnel in times of emergencies. There are a total of 12 emergency phones.

Metal bike racks are located at various site locations in close proximity to building entrances.

Observations/Comments:

- The site signage is in good condition requiring routine maintenance over the evaluation period. However, a lack of identification signage was observed by EMG and also mentioned by the POC. EMG noted minimal to no signage at the parking lots with directions to the buildings and additional directional signage is recommended. Additionally, due to the close nature of the central buildings, it is somewhat difficult to discern which building signage belongs to which building and the size of the lettering is not readable from the parking lots. EMG recommends additional signage on the buildings or close proximity addressing main entrances with the name of each building. Additional signage referencing where to turn for each building should be located at the perimeter road and at main sidewalk intersections as needed.
- The site light fixtures are in good condition. Routine maintenance will be required over the evaluation period.
- The site wire mesh fencing on the west property line bordering the wooded area is in fair condition. Significant portions of the fence are weathered and rusting, with overgrowth of vegetation also noted. Based on the estimated Remaining Useful Life (RUL) and condition, the affected portions of the fence must be replaced over the evaluation period. Due to sharp edges on the metal posts, replacement of the existing fence with a chain link fence is recommended.
- The security systems appear to be in good condition requiring routine maintenance over the evaluation period.
- The metal bike racks are in good condition requiring routine maintenance over the evaluation period.

PLAYING FIELDS AND COURTS

Tennis Courts: Asphalt-paved tennis courts are located on the north side of the property and are surrounded by a chain link fence. There are a total of six playing courts within the fenced area. The tennis courts are not equipped with dedicated light fixtures.

Observations/Comments:

- The tennis courts were resurfaced in 2004 and are in good condition. Based on the estimated Remaining Useful Life (RUL), the courts surfaces must be resurfaced over the evaluation period.
- The tennis courts chain link fencing is in good condition. Based on the estimated Remaining Useful Life (RUL), the tennis courts fencing will require replacement during the assessment period.

Softball Field: The softball field is located at the northwest corner of the property. The entire field is surrounded by a chain link fence with a chain link backstop behind home plate. The playing field has a dirt infield and grass outfield. One 3-tier portable aluminum bleacher is located behind the backstop and set on a gravel bed. A batting cage and practice area is located adjacent to the outfield and is surrounded by a chain link fence. The softball field is equipped with two CMU constructed dugouts with wood-framed pitched asphalt shingled roofs. The softball field is not equipped with dedicated light fixtures.

The softball field is equipped with a Light Emitting Diode "LED" Scoreboard, manufactured by Varsity Scoreboards.

The playfield areas are irrigated by an in-ground sprinkler system consisting of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers.

Observations/Comments:

- The play field, scoreboard, field equipment, bleachers dug outs and underground irrigations system all appear to be in good condition requiring routine maintenance over the evaluation period.
- The softball field chain link fencing is in good (68 percent) to fair (32 percent) condition requiring routine maintenance. Based on the estimated Remaining Useful Life (RUL) and condition, the chain link fencing along the left and right sides of the field will require replacement early in the evaluation period, while the remaining fencing will require replacement late in the evaluation period.

Baseball Field: The baseball field is located on the southwest corner of the property. The entire field is surrounded by a chain link fence with a chain link backstop behind home plate. The playing field has a dirt infield, new sod installed at the infield foul line territory, and a grass outfield. There are four 5-tier portable aluminum bleachers located behind the backstop and set on gravel beds. A batting cage and practice area are located adjacent to each dugout and both areas are surrounded by a chain link fence. The baseball field is equipped with two CMU constructed dugouts with wood-framed pitched asphalt shingled roofs. The baseball field is not equipped with dedicated light fixtures.

The baseball field is equipped with a Light Emitting Diode "LED" Scoreboard, manufactured by Daktronics.

The playfield areas are irrigated by an in-ground sprinkler system consisting of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers.

Observations/Comments:

- The play field, scoreboard, field equipment, dugouts, bleachers and underground irrigation systems all appear to be in good condition requiring routine maintenance over the evaluation period.
- The baseball field chain link fencing is in good overall condition. However, a damaged area of fencing, due to ball impact, noted on the right side chain link fencing adjacent to the dugout. The affected portions of the fence must be replaced. The cost of this work is relatively insignificant and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables. Additionally, based on the estimated Remaining Useful Life (RUL), the baseball fencing will require replacement over the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

South Soccer Field: A grass soccer play field is located adjacent to the baseball field. There are two 5-tier and two 3-tier portable aluminum bleachers on one side of the field (side closest to the baseball field) set on gravel beds. The field is surrounded on three sides by a chain link fence and is open on the side closest to the baseball field. The field has two portable metal goals. The soccer field is not equipped with dedicated light fixtures.

The soccer field is equipped with a Light Emitting Diode "LED" Scoreboard, manufactured by Varsity Scoreboards.

The playfield areas are irrigated by an in-ground sprinkler system consisting of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers.

Observations/Comments:

- The play field, scoreboard, portable goals and underground irrigation system all appear to be in good condition requiring routine maintenance during the evaluation period.
- The portable bleachers are in good condition. However, the gravel area below the portable bleachers have significant overgrown grass and vegetation growing up through the seats and in this current condition cannot be used. Ponding occurs next to the bleachers. Refer to Section 5.3 for more details and descriptions. Removing the bleachers, removing overgrown grass and vegetation, minor re-grading and adding additional gravel at the base of all bleachers will be required. The cost of this work is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.
- Additionally, based on the estimated Remaining Useful Life (RUL), the bleachers will require replacement over the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

North Soccer (Practice) Field: A grass play field is located on the south side of the softball field. The field is an open area with four portable metal goals. The soccer field is not equipped with dedicated light fixtures.

The playfield areas are irrigated by an in-ground sprinkler system consisting of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers.

Observations/Comments:

- The play field is in good condition requiring routine maintenance over the evaluation period.
- The portable goals are in good condition requiring routine maintenance over the evaluation period.
- The underground irrigation system was not operated during our on site assessment however appears to be in good condition. Replacement of sprinkler heads and minor repairs will be required during the evaluation period. This work is considered to be routine maintenance.

PARKING ANALYSIS

Figure 1: Transportation and Parking Systems - Frederick Community College

TRAFFIC

The estimated average delay traffic (ADT) on Opossumtown Pike in the vicinity of the Frederick Community College (FCC) is 12,000 vehicles per day. In 2007 the ADT estimate was 15,000 vehicles per day. The ADT along Opossumtown Pike has experienced a 0.05 % decrease per year since 2007. While the traffic has dropped along the Pike, peak hour traffic to and from the College has increased. AM peak hour trips have increased from 513 to 932 and total PM peak hour trips have increased from 771 to 1318 from 2007 to 2011 at the Main Entrance (South Entrance). This represents a 20% AM peak hour and an 18% PM peak hour increase in traffic per year from 2007 to 2011. Peak hour traffic has also increased in inbound site trips at the North Entrance.

Since the College only represents 20 percent of the traffic on Opossumtown Pike, the traffic generated by the College did not reflect a net increase on the Pike during the same four years.

FORECASTS

Growth in Student Population

MHEC[1] has developed estimates for Community Colleges in Maryland. Frederick Community College is expected to grow by 17 percent between 2011 and 2021 in student enrollment.

Table 1: Student Enrollment

	Fall 2011	Fall 2021	% Change
	FY11 Actual	FY21 Projected	2010 - 2020
Full time	2332	2917	25%
Part time	3953	4435	12%
Total Head Count	6285	7352	17%

Growth in Traffic

The City of Frederick models future traffic with TransCAD planning software. Their projections for 2030 on Opossumtown Pike predict the following average daily traffic at:

- Hayward Road - 8200 vehicles per day
- the College - 12,300 vehicles per day, and
- Thomas Johnson Drive - 18,200 vehicles per day.

These forecasts reflect the new grade separated interchange by 2015 replacing the at-grade intersection improvement at US15 and Monocacy Boulevard and the shift in travel patterns to/from Christophers Crossing north of the College campus. Since existing traffic at the College is 12,000 vehicles per day on Opossumtown Pike, the traffic forecasts exhibit only a slight increase over the next 10 years. The City's forecasts also include changes and growth which will be occurring at Ft. Detrick.

Future Parking Needs

Future parking needs are projected in fourth worksheet of the MHEC Capital Improvement Program (CIP) workbook. The following computations were developed in July 2011:

Table 2: Future Parking Needs and Supply

PARKING CATEGORY	Need Current	Inventory Current	Surplus/ (Deficit)	Need 10 Years	Inventory 10 Years	Surplus/ (Deficit)
FTDE-T	1,368	1,357	(11)	2,008	1,777	(231)
FT-Faculty and FT-Staff	253	246	(7)	371	246	(125)
SUBTOTAL	1,621	1,603	(18)	2,379	2,023	(356)
Visitors	32	52	20	48	52	4
REGULAR SPACES	1,653	1,655	2	2,427	2,075	(352)
Reserved Accessible	27	47	20	34	47	13
ALL SPACES	1,680	1,702	22	2,461	2,122	(339)

The 10 year need is automatically computed in the worksheet based upon the MHEC growth projections. With the established future inventory(including 140 spaces from the new surface lot and 280 spaces that are the net increase with the addition of the parking garage) a deficit of 339 spaces is shown in Table 2 by 2021.

ANALYSES

Existing and Forecast 2021 Traffic

As described in the previous Technical Memorandum the LOS (Levels of Service) of peak hour traffic at the two entrances are LOS C at the Main Entrance (South Entrance) and LOS B at the North Entrance during each peak hour. Long queues occur in the left turn inbound lane to the campus at both entrances. Through traffic can avoid the queues by moving into the right through lane during these times.

Since the left turn lane at the Main Entrance has been extended in the median and the queues still exceed the storage area, two 'traffic demand' options have been examined to reduce the left turning demand at the entrances:

Encouraging motorists bound to the campus to take an alternative route from US Route 15 . An option[1] to shift 20 percent of the combined inbound left turning traffic to inbound right turning traffic from the north has been examined. If 20 percent of the traffic is shifted from left to right turns then the entrance LOS would improve as follows within current traffic conditions:

- The northbound approach on Opposumtown Pike at the Main Entrance would improve from LOS C to LOS B, and
- queue lengths would drop by 80 to 90 feet during each peak hour.

The results of the analysis are summarized in Table 3. These shifts can be made by placing new directions on the College website and new signs on US Route 15.

A second 'travel demand' option is based upon the scheduling of classes at the College. An examination of the Spring 2012 class schedule was conducted to obtain insight as to the student traffic demands. Scheduled class capacity throughout the day was reviewed for Mondays through Thursdays. In general Mondays and Wednesdays reflect a peaking of classes at 930 AM, 11 AM to 1 PM and 6 PM to 7 PM. Tuesdays and Thursdays provide a more frequent peaking of classes. In each case, Monday through Thursday, the fewest number of students are expected on campus around 430 PM

The highest demand for classroom space next semester is expected to be in the late afternoon on Thursdays and on Mondays at 11 AM. Since the critical time of automobile arrivals at the campus is between 715 AM - 815 AM, further examination of early classes was conducted. Classes begin at 8 AM and increase through the morning until around noon. Traffic arriving at the entrances peaks at 745 AM and places a burden on the left turns into the campus. One consideration for reducing the stress on the entrances is to consider a shift in the 8 AM classes. Shifting approximately half of the 8 AM classes to 730 or 7 AM spreads the arrival rates over a greater time period. This offers students and faculty an earlier class and reduces the last minute arrivals in the peak 15 minutes before 8 AM. Shifting of classes could include a consideration of earlier classes, more even distribution during the week and increased online classes.

An additional outbound turn lane. The North Entrance also experiences heavy outbound queues due to the one approach lane that serves left, throughs and right turns leaving the campus. The queues have been noted during the AM and PM peak periods and around Noon and 3 PM. The queues often block the Lot 14 exiting traffic. Additional analysis has been conducted to consider adding another outbound lane. The majority of traffic leaving the campus at this exit is right turning traffic. The intersection has a "No Right on Red' sign at this location. A separate free flow right turn has been examined and provides improvements to the LOS at the entrance as follows:

The outbound approach is expected to experience a LOS F (queue length of 300 feet) in the PM peak hour. Similar long queues are expected to occur around noon and 3 PM leaving the campus at this intersection. With the addition of a separate channelized right turn lane (with adequate sight distance), the LOS improves to C (and a queue length of 129 feet). A comparison of LOS and queue lengths are presented in Table 3.

Table 3 - Traffic Operations

Mitigation incorporates the following:

- Rerouting of 20 percent of northbound traffic turning left into the FCC campus. This traffic will be rerouted north on US 15 to Hayward Road, make a left onto Opossumtown Pike, and make an alternative right turn into the College
- The addition of a channelized right turn lane from the north entrance onto SB Opossumtown Pike.

Levels of Service

Opposumtown Pike Entrances	Existing				Future				Future, With Mitigation			
	AM Peak Hour (2011)		PM Peak Hour (2011)		AM Peak Hour (2021)		PM Peak Hour (2021)		AM Peak Hour (2021)		PM Peak Hour (2021)	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
North	**C**	**23.6**	**C**	**28.5**	**C**	**24.8**	**C**	**28.3**	**C**	**23.2**	**C**	**27.0**
NB Approach	C	24.2	B	18.8	C	22.1	C	25.1	C	21.4	C	24.0
SB Approach	B	19.8	B	15.9	C	23.4	C	31.2	C	21.6	C	31.0
EB Approach	D	36.2	F	85.7	D	36.5	C	32.9	C	34.7	C	25.7
WB Approach	D	39.9	C	34.4	D	40.0	C	22.5	D	38.1	C	22.3
South	**C**	**20.9**	**B**	**19.1**	**C**	**33.2**	**C**	**22.4**	**C**	**23.3**	**C**	**20.4**
NB Approach	B	16.8	B	14.5	C	29.1	B	16.8	B	18.4	B	12.4
SB Approach	C	24.9	C	21.0	D	37.9	C	29.0	C	27.3	C	29.0
WB Approach	C	26.8	C	28.3	C	26.9	C	26.9	C	26.9	C	26.9

Notes: Delay = average vehicle delay (seconds); Future 2021 Conditions incorporate the optimization of signal timings for each intersection.

Queue Lengths

Opposumtown Pike Entrances	Existing		Future		Future, With Mitigation	
	AM Peak Hour (2011)	PM Peak Hour (2011)	AM Peak Hour (2021)	PM Peak Hour (2021)	AM Peak Hour (2021)	PM Peak Hour (2021)
	Queue Length	Queue Length	Queue Length	Queue Length	Queue Length	Queue Length
North	**NB Left Turn Bay = 100 feet**					
NB Approach	177 Feet	172 Feet	174 Feet	164 Feet	144 Feet	133 Feet
SB Approach	196 Feet	104 Feet	322 Feet	208 Feet	309 Feet	208 Feet
EB Approach	38 Feet	300 Feet	42 Feet	235 Feet	32 Feet	129 Feet
WB Approach	101 Feet	44 Feet	101 Feet	35 Feet	99 Feet	35 Feet
South	**NB Left Turn Bay = 310 feet**					
NB Approach	303 Feet	269 Feet	388 Feet	325 Feet	303 Feet	219 Feet
SB Approach	203 Feet	133 Feet	330 Feet	198 Feet	305 Feet	198 Feet
WB Approach	34 Feet	77 Feet	37 Feet	78 Feet	37 Feet	78 Feet

- *Inbound perimeter road reconfiguration.* Upon entering the Main Entrance (South Entrance) the motorist is confronted with numerous signs, circuitous roadway alignments, decision points and turning locations. The 'gateway' into the campus has been explored to provide a simpler, welcoming entryway. The reconfiguration concept suggests a main travel way that brings the vehicles onto campus, separates the traffic between the Tech Training site and the College, reduces conflicting movements and weaving between lanes and simplifies way finding. As the first experience onto the campus this design maintains consistency for traffic flow and signing around the perimeter roadway facility. The redesign of the 'gateway' is suggested.

Future Traffic

- The 'traffic demand' options have also been explored for future 2021 traffic conditions. The changes are expected to reduce the stress on the entrances by improving the LOS and reducing the length of the left turn queues into the campus. A summary of these benefits and the addition of the free flow right turn lane leaving the campus at the North Entrance is provided on Table 3.

Parking Analysis

- There is a 339 parking space shortfall projected for 2021. This shortfall is expected to occur even with the addition of the new 345 space (net of 280 spaces) parking garage outside of the Conference Center and the Science & Technology Building. While there are some opportunities for redesigning some of the surface parking lots and adding more parking, structured parking appears to be best way to add a significant amount of parking to the campus. There are few places on the campus where land is undeveloped. Fortunately the imminent parking garage has been planned to accommodate additional structured parking. The need to add parking will be a continuing one over the next 10 years. Figure 2 (See Section E. Facilities Master Plan Proposals – Circulation and Parking Proposals) depicts the rising parking demand on the campus concomitant with the growth in student enrollment. The figure identifies changes in parking supply, impact on the inventory and the rising demand for parking. Over the next 10 years it is recommended that parking be added on a pace to keep up with enrollments. With an expected steady increase in enrollment, additional structured parking should be considered on a three - four year cycle. This would suggest an expansion of the new parking garage and another new parking garage in a location that can maximize its utility and service to the students and staff. An examination of the Spring 2012 class schedule shows a need for more parking in the vicinity of the H building and providing more parking options to the B, C and E buildings.
- In addition to the need for additional parking on the campus, the earlier technical memorandum highlighted the concern over the demarcation between the perimeter road and the parking areas, especially Lots 7, 9 and 10. Motorists driving through the parking areas have limited warning that they are arriving or traveling into the perimeter road. In order to improve this condition it is recommended that stop bars, signing and raised curbs be constructed along the edge of the parking areas.

2.IMPACT OF USER TRENDS

Based on the scheduling information in section C.4. Students have not been able to enroll in basic general education courses. More physical classroom space would allow more sections of these courses to be open at times other than at 10pm or on Sundays. Enrollment for Fridays is historically low.

Table 1. Fall 2011 – Failed Enrollment Attempts

Subject [a]	Catalog #	Failed Enrollment Attempts [b]
American Sign Language	102	14
Biology	100	14
Biology	101	22
Biology	103	55
Biology	120	17
Chemistry	101	35
Speech	103	14
Speech	105	25
Economics	201	10
English	101	102
English	101S	29
English	102	15
English	50A	25
Health	102	17
History	101	16
Human Relations	102	11
Math	103	14
Math	111	18
Math	206	41
Math	207	11
Math	81	21
Math	82	21
Psychology	101	18
Sociology	101	15
	TOTAL	580 [c]

[a] Only courses where failed attempts were ≥ 10 were included

[b] Each failed attempt represents a single, distinct student

[c] Failed attempts for all courses in the Fall 2011 semester totaled 629

Table 2. Spring 2012 – Failed Enrollment Attempts

Subject [a]	Catalog #	Failed Enrollment Attempts [b]
Art	100	14
American Sign Language	102	19
American Sign Language	106	11
Biology	100	16
Biology	101	20
Biology	103	18
Biology	104	32
Biology	120	19
Biology	130	13
Business	103	11
Chemistry	101	33
Computer Science	101	19
Speech	105	34
Economics	201	10
English	101	20
English	101S	16
English	102	20
Health	102	12
Math	103	22
Math	130	14
Math	206	23
Math	82	30
Psychology	101	13
Psychology	206	13
Sociology	101	15
	TOTAL	467 [c]

[a] Only courses where failed attempts were ≥ 10 were included

[b] Each failed attempt represents a single, distinct student

[c] Failed attempts for all courses in the Spring 2012 semester totaled 539

The following table highlights the department needs for classroom, lab, storage and office space over the next ten years:

Department	Degrees	Current Enrollment FY 2011	Enrollment Increase	Need for Classroom Space	Need for Lab Space	Need for Storage Space	Need for Office
Allied Health and Wellness	*Physical and Health Education*	1,234	19%	Yes	No	No	No
	Nursing	200+	100%	Yes*	Yes*	Yes	No
	Nuclear Medicine Tech	91	n/a	Yes*	Yes *	No	No
	Respiratory Care	385	n/a	Mt. Airy Ctr. ***	Mt. Airy Ctr.***	Mt. Airy Ctr.***	Yes
	Surgical Tech	85	n/a	Yes	Yes	Yes	No
Comm., Humanities and Arts	*Art*	1,204	n/a	F Building ****	F Building ****	F Building ****	F Building ****
	Communications (Speech)	1,394	43%	Yes	No	No	No
	Media Design	975	34%	Yes	No	Yes	No
	Drama	118	n/a	F Building ****	F Building ****	F Building ****	F Building ****
	Music	625	n/a	F Building ****	F Building ****	F Building ****	F Building ****
	Philosophy	495	45%	Yes**	No	No	No
Computing and Business Technology	*Business*	900	82%	Yes*	Yes*	No	No
	Accounting	960	n/a	Yes**	No	No	No
	Architectural CAD	96	Negative Enrollment	No	No	No	No
	Building Trades	137	Fluctuating	Monroe Ctr. ***	Monroe Ctr.***	Monroe Ctr.***	Monroe Ctr.***
	Construction Management	233	Fluctuating	Monroe Ctr. ***	Monroe Ctr.***	Monroe Ctr.***	Monroe Ctr.***
	Information Technology	99	Yes	Yes**	Yes**	Yes	No
	Medical Laboratory Technology	n/a	n/a	Mt. Airy Ctr. ***	Mt. Airy Ctr.***	Mt. Airy Ctr.***	Mt. Airy Ctr.***
	Medical Assistant	481	800%	Yes*	Yes *	Yes	Yes
	Computer Science	3,590	Yes	Yes*	Yes *	Yes	No
	Information Management Systems	1,792	6%	n/a	n/a	n/a	n/a
Continuing Education	*Certified Nursing Assistant*	n/a	n/a	Yes	Yes	n/a	n/a

Department	Degrees	Current Enrollment FY 2011	Enrollment Increase	Need for Classroom Space	Need for Lab Space	Need for Storage Space	Need for Office
	Phlebotomy	n/a	n/a	Yes	Yes	n/a	n/a
	Pharmacy Tech	n/a	n/a	Yes	Yes	n/a	n/a
	Welding	n/a	n/a	Yes	Yes	n/a	n/a
	Child Care	n/a	n/a	Yes	No	n/a	n/a
Emergency Mgmt.	*Emergency Management*	76	n/a	No	No	No	Yes
General Education	*English*	4,958	30%	Yes*	Yes*	No	No
	Mathematics	4,934	40%	Yes*	Yes^*	No	No
Physical Sciences	*Biology*	2,747	50%	C Building ****	C Building ****	C Building ****	C Building ****
	Chemistry	736	77%	C Building ****	C Building ****	C Building ****	C Building ****
	Engineering	60	50%	No	Yes	No	No
	Bioprocessing Tech	47	80%	C Building ****	C Building ****	C Building ****	C Building ****
Social Sciences	*Criminal Justice*	660	47%	Yes**	No	No	No
	Economics	651	47%	Yes**	No	No	No
	Government and Politics	188	40%	Yes**	No	No	No
	History	1,105	16%	Yes**	No	No	No
	Human Services	594	105%	Yes**	No	No	No
	Psychology	1,867	23%	Yes**	No	No	No
	Sociology	1,362	40%	Yes**	No	No	No
	Early Childhood Dev.	246	No	Yes**	No	No	No
	Paralegal	202	16%	No	No	No	No
	Police Science	660	47%	No	No	No	No
Education	*Education*	518	49%	Yes**	No	No	No
Honors	*Honors*	143	53%	Yes	Yes	No	No

**Could be combined classroom/lab*
***Contributes to the demand for general classroom space.*
****Taught at separate facility. Space is adequate*
*****Space needs supported by renovation*
^Requires a testing center

Student enrollments, faculty and staff are expected to increase over the next ten years at Frederick Community College, and so are space requirements. By 2021 Frederick Community College is expected to have a full-time on campus enrollment of 2,972 FTDE and 4,369 part-time.

Current space shortages are 12,050 s.f. in office space, 7,357 in study space, 17,788 in Special Use space, and 3,333 in Central Service space.

Projected space shortages for 2021 are 12,053 s.f. in classroom space, 18,969 for office space, 10,236 for study space, 27,637 for Special Use space and 746 for Health Care space.

- The programs with the largest enrollment increases are Medical Assistant (800%), Human Services (105%), Nursing (100%) and Business (82%). Each of these programs will require additional classroom space, with additional laboratory and storage space, and additional office space for Medical Assistant faculty and staff.
- The programs without an enrollment increase are Architectural CAD, Building Trades, Construction Management and Early Childhood Development.

While there does not appear to be a deficit in classroom or laboratory space current conditions indicate that classroom space is in heavy demand due to increased general education course enrollments and the use of general classroom space as laboratory space for Nursing programs primarily in building L. The general education increase is reflected in enrollment trends and may be attributed to the high enrollment of students taking general education courses before transferring to four year institutions. The projected shortage in classroom space would be somewhat relieved by relocating Nursing programs from building L.

Laboratory space, especially for A.H.W. continues to lack contemporary technology and while this does not produce a deficit in foot print, the program would benefit and allow F.C.C. graduates to have a competitive edge as potential employees in this field.

Special Use space deficits reflect the demand on building D, as the majority of deficit in this area is in the Athletics sub-category of Special Use. The demand on building D is driven by the general education requirement that all of our Associate Degree programs have a 1/3 credit requirement in PE/Health & Wellness and strains on the Aerobics room to meet the Associate Degree PE/ Health & Wellness requirement, the aerobics instruction use, athletic team use and Physical Education programs.

The space needs computations do not take in to account the non-credit enrollments.

Table 3
COMPUTATION OF SPACE NEEDS

COLLEGE: **Frederick Community College**
July 1, 2012

HEGIS CODE	HEGIS CATEGORY	Need 2,011	Inventory 2011	Surplus/ (Deficit)	Need 2,021	Inventory 2021	Surplus/ (Deficit)
100 (110-115)	**CLASSROOM**	**32,108**	**32,255**	**147**	**48,233**	**36,180**	**(12,053)**
200	**LABORATORY**	**48,486**	**66,442**	**17,956**	**72,834**	**151,896**	**79,062**
210-15	Class Laboratory	40,859	60,853	19,994	61,376	130,098	68,722
220-25	Open Laboratory	7,627	5,589	(2,038)	11,458	21,798	10,340
250-55	*No Allowance*						
300	**OFFICE**	**77,644**	**65,594**	**(12,050)**	**115,782**	**96,813**	**(18,969)**
310-15	Office/ Conf. Room	75,986	64,184	(11,802)	113,668	95,403	(18,265)
320-25	Testing/Tutoring	1,658	1,410	(248)	2,114	1,410	(704)
350-55	*Included w/ 310*						
400	**STUDY**	**18,545**	**11,188**	**(7,357)**	**25,534**	**15,298**	**(10,236)**
410-15	Study	11,350	3,310	(8,040)	17,050	7,420	(9,630)
420-30	Stack/Study	5,139	7,878	2,739	6,060	7,878	1,818
440-55	Processing/Service	2,056	0	(2,056)	2,424	0	(2,424)
500	**SPECIAL USE**	**40,013**	**22,225**	**(17,788)**	**49,862**	**22,225**	**(27,637)**
520-23	Athletic	37,160	20,215	(16,945)	46,280	20,215	(26,065)
530-35	Media Production	1,853	1,667	(186)	2,582	1,667	(915)
580-85	Greenhouse	1,000	343	(657)	1,000	343	(657)
600	**GENERAL USE**	**37,017**	**37,311**	**294**	**47,264**	**48,877**	**1,613**
610-15	Assembly	12,632	6,117	(6,515)	14,456	6,117	(8,339)
620-25	Exhibition	1,658	510	(1,148)	2,114	510	(1,604)
630-35	Food Facility	11,567	11,690	123	17,371	17,283	(88)
640-45	*No Allowance*						
650-55	Lounge	3,402	4,491	1,089	5,109	6,840	1,731
660-65	Merchandising	1,758	6,167	4,409	2,214	9,791	7,577
670-75	*No Allowance*						
680-85	Meeting Room	6,000	8,336	2,336	6,000	8,336	2,336
700	**SUPPORT**	**17,144**	**18,374**	**1,230**	**21,463**	**23,607**	**2,144**
710-15	Data Processing	2,500	2,434	(66)	2,500	3,802	1,302
720-25	Shop/ Storage	10,435	15,152	4,717	14,670	19,017	4,347
730-35	*Included w/ 720*						
740-45	*Included w/ 720*						
750-55	Central Service	4,000	667	(3,333)	4,000	667	(3,333)
760-65	Hazmat Storage	209	121	(88)	293	121	(172)
800	**HEALTH CARE**	**563**	**0**	**(563)**	**746**	**0**	**(746)**
900	***No Allowance***						
050-090	***No Allowance***						
	Total NASF:	**271,520**	**253,389**	**(18,131)**	**381,718**	**394,896**	**13,178**

3. BUILDING MODIFICATION NEEDS AND SUITABILITY OF USE

Estimates provided by EMG, Inc. for 2011 Frederick Community College Facilities Condition Assessment

BUILDING A

Administration Hall

Report Section		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.2	Follow-up Recommendations	$5,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$3,981.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.2	Parking, Paving and Sidewalks	$1,946.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.3	Drainage Systems and Erosion Control	$0.00	$1,563.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$0.00	$1,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00
6.3	Roofing	$500.30	$0.00	$0.00	$7,358.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$483.75	$22,805.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$19,504.65	$0.00	$0.00	$0.00	$2,612.25	$0.00	$0.00	$17,746.65
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$6,480.00	$43,838.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$8,130.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$43,055.00	$24,098.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$3,027.10	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$14,515.20	$84,029.00	$0.00	$99,600.00	$0.00	$14,515.20	$0.00	$2,600.00	$81,376.00
Totals, Unescalated		$55,466	$63,982	$103,534	$18,516	$106,080	$43,838	$17,127	$0	$3,600	$99,123
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$55,466	$65,902	$109,839	$20,233	$119,394	$50,820	$20,451	$0	$4,560	$129,333

Building A is primarily used for Administrative functions and Learning Support operations. Continued use of the building in this capacity can be adequately provided should the electrical systems, windows and doors and interior finishes be kept in good repair. The buildings electrical systems have the most immediate need and most direct impact on operations of the Administration hall.

No cell antennas or cell towers are located within the building. There are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones.

A combination of Cat 5 and Cat 5e was observed for the Data network cabling at in the building. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs.

The building's lobby finishes were replaced in 2007, most other finishes were completed in 1994 but are in good condition. There will be a need for carpet and ceiling tile replacement and touch ups to wall finishes during the assessment period

The lounge and kitchenette appliances, cabinetry and countertops are in good condition. The appliances will require replacement during the evaluation period. The cost of this replacement work is relatively insignificant and can be performed through routine maintenance.

Additionally some window seals and door hardware will require repair.

BUILDING B

Academic Hall

Report Section		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.2	Follow-up Recommendations	$5,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$4,035.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$1,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00	$0.00
6.3	Roofing	$1,197.60	$0.00	$0.00	$0.00	$25,755.45	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$22,805.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.5	Exterior and Interior Stairs	$303.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$0.00	$0.00	$0.00	$1,741.50	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$2,709.00	$33,616.00	$25,886.00	$23,952.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$0.00	$10,415.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$29,004.40	$37,077.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.5	Elevators and Conveying Systems	$0.00	$0.00	$0.00	$0.00	$12,870.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$3,200.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$114,094.34	$0.00	$0.00	$135,456.00	$0.00	$31,752.00	$0.00	$173,732.34	$0.00
Totals, Unescalated		$44,241	$173,977	$0	$2,709	$218,112	$27,628	$55,704	$1,000	$173,732	$0
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$44,241	$179,196	$0	$2,960	$245,488	$32,028	$66,513	$1,230	$220,079	$0

Building B is primarily used for mathematics and engineering instruction and offices for faculty that instruct these programs.

- The Mathematics program had 12 majors listed in Fall 2011, with 1 FY 2011 graduate and 4934 total course enrollments. The majority of the enrollments are in support of the overall degree requirements of all of our programs. Math enrollments have increased by 40% over the last five years and the program needs three additional classrooms to meet the increased demand for courses. Several preexisting classrooms have a cap of 20. While this size is preferable for developmental courses, these rooms are too small for credit classes where a cap of 30-32 could be supported, which means more sections and more instructors (from Program Analysis).
- The Engineering program had 102 majors listed with 3 graduates and 60 total course enrollments for FY 2011. Since 2008 the course enrollments have doubled. The high numbers of students in the major, along with the enrollment growth indicate a demand from the students for this program. This is a program that has strong growth potential and would need one dedicated lab to support its development.
- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended.
- The building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground.
- The building is not equipped with a cell tower or cell antennas. There are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.

BUILDING C

Science Technology Hall

Report Section		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.2	Follow-up Recommendations	$12,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$3,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$1,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.2	Superstructure	$1,084.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$2,249.75	$0.00	$0.00	$0.00	$39,001.11	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$25,391.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$0.00	$0.00	$0.00	$1,741.50	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$9,648.00	$33,616.00	$36,060.00	$5,128.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10,415.00	$0.00
7.3	Building Gas Distribution	$0.00	$45,524.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$33,388.72	$35,728.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.5	Elevators and Conveying Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$8,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$0.00	$0.00	$80,840.18	$0.00	$0.00	$0.00	$0.00	$169,424.80	$137,946.00
Totals, Unescalated		$61,722	$106,644	$0	$90,488	$72,617	$37,802	$5,128	$0	$179,840	$137,946
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$61,722	$109,843	$0	$98,879	$81,731	$43,822	$6,123	$0	$227,816	$179,988

Building C's main function is science, business and technology instruction. Some English courses and Medical Assisting courses are also taught in building C and some faculty that teach Science courses have offices in this building along with Learning Administration staff.

- The Biology program had 103 majors listed with 5 graduates and 2747 total course enrollments for FY 2011. The program has grown 50% is the last five years and currently uses over 90% of its allocated space.
- The Chemistry program had 18 majors listed with 1 graduate and 736 total course enrollments for FY 2011. The course offering have increased by 77% in the last five years putting a demand on lab space.
- The Bioprocessing Technology program had 15 majors listed in FYT 2011 with 2 graduates and 26 total course enrollments, with a graduate to major ratio of 13.33%. The program has undergone an in-depth program review and modifications to the program were made in FY 2011 through FY 2012. For FY 2012, the enrollments have increased to 47, which is an 80% increase in enrollments. The program places a demand of existing labs.

The C Building is currently planning a renovation that will provide more lab space and will accommodate the current science demands on facilities.

- The Business program had 384 majors listed with 111 graduates and 900 total course enrollments for FY 2011. The program's enrollments have increased 82% in the last five years. The program has a graduate to major ratio of 28.91%.
- The program currently uses 82% of its allocated space and uses mainly general classrooms. The growing enrollments have contributed to the overall increased demand for general and computer classrooms. Current computer classrooms are capped at 18-20, which means offering more sections with additional adjunct workforce. Creating computer classrooms that have a higher cap would reduce the number of sections and the number of faculty. Further, there is a desire to move towards a third type of classroom, which would accommodate lecture and hands-on work at computers. In order to increase the number of computers, the building networking/electrical infrastructure would need to be upgraded to support the technology.
- The Information Technology (IT) program had 83 majors listed with 11 graduates and 99 total course enrollments for FY 2011, with a graduate to major ration of 13%. Enrollments in the IT Option I: Information Technology Specialist major have grown significantly over the past five years with nine students in FY 2007 and eighty-three in FY 2011. Enrollments in the IT Option II: Network Engineering grew from five students in FY 2007 to thirty-nine students in FY 2010. Enrollments degreased to 16 in FY 2011. Current facilities are not on par with our local counterparts. They also do not allow us to tap into funding or enrollments that would be consistent with national trends related to information security. In order to grow this program, specialized classrooms are essential. Initially, IT will need a high tech room complete with a local server, virtual operating system (e.g. networking, databases, etc.), and enough space to accommodate 20-24 seats.

- *Associate of Sciences*
- Under this department, there are two A.S. degrees offered: Computer Science and Information Systems Management. Both programs have similar space requirements. There is a need to convert some of the preexisting computer labs into lecture/lab classrooms, in addition to adding 1-2 additional lecture/lab classrooms. These rooms would allow the instructor to offer traditional instruction while allowing the students to have hands-on access to the theoretical material in-class.
- The A.A. Computer Science program had 94 majors listed with 2 graduates. Enrollments in this program are a challenge to calculate because they are shred Computer Information Systems. Courses with the CIS designation totaled 3590 for Fall 2011, which represents a strong demand. With a graduate to major ratio of 2.13% the majority of the enrollments are due to the computer literacy degree requirements of all our degrees. In addition to the additional of lecture/lab space, there needs to be one room with a complete set of computer parts (for repair and testing) for each student and the lab space to be able to work on these machines.
- The A.A. Information Systems Management had 25 majors listed with 1 graduate and 1792 total course enrollments for FY 2011, with a graduate to major ratio of 4%. The program has grown 6% over the last five years.
- Both types of roof finishes on this building are approximately 16 years old. According to the POC, both types of roofs are covered by a 20 year warranty. Copies of the warranties are attached in Appendix C. The flat roof warranty only covers the knuckles. The roofs are maintained by the in-house maintenance staff and an outside contractor as needed. It was reported that the snow guard system is ineffective for heaving snows. The snow sheets over the rail system and falls to the ground. A possible remedy is to install an additional rail system near any entrance areas further up the roof at approximately three to four feet from the edge to match the newer systems.
- The mechanical ventilation system and equipment appear to be in fair condition and will require routine maintenance over the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program. However, in conversation with the on site point of contact, the exhaust ventilation currently in place for the science lab classrooms needs improvements. No testing of the exhaust ventilation systems was performed as part of this Facility Condition Assessment. There were seven exhaust ventilation units located on top of the pitched metal roof that were not accessed due to not having the proper fall gear required to access this area of the building. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs.
- Additionally, the computer classroom C206 was reported to have inadequate cooling at times when the classroom is full and all computers are operating. This room may have an undersized VAV box or originally was not factored in as a computer lab classroom. In order to provide proper cooling, replacing the existing VAV terminal or adding an additional VAV will be required. The maintenance personnel are aware of this condition and are currently investigating the VAV for this room. This work can be performed as part of the property management's routine maintenance program.
- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended.
- Additionally, the building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground.

- The building is not equipped with a cell tower or cell antennas. There are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.

BUILDING D

Field House

Report Section		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
5.5	General Site Improvements	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.1	Foundations	$392.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$2,395.20	$0.00	$0.00	$0.00	$98,606.58	$0.00	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$0.00	$133,069.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$8,111.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$2,000.00	$42,992.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$0.00	$0.00	$0.00	$189,679.60	$0.00	$8,010.00	$0.00	$0.00	$0.00
8.2	Commercial Kitchen Equipment	$666.06	$0.00	$0.00	$0.00	$4,000.00	$1,018.13	$0.00	$0.00	$0.00	$4,000.00
Totals, Unescalated		$5,453	$51,104	$0	$0	$292,286	$134,087	$8,010	$0	$0	$4,000
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$5,453	$52,637	$0	$0	$328,971	$155,444	$9,564	$0	$0	$5,219

Building D is used mainly used for physical education instruction which is a part of the College's Allied Health and Wellness program. In addition to PE building D is used for college athletic events and convocations.

Physical Education had 1,234 total course enrollments for FY 2011. The enrollments have increased 19% since 2007. All of our Associate Degree programs have a 1/3 credit requirement in PE/Health & Wellness. The majority of the PE enrollments support this requirement.

Course offerings for PE are varied and require both indoor and outdoor facility space and equipment on campus, as well as in several off campus sites. Health Education courses use general classroom space and contribute to the growing demand on our available classroom allocations.

Within our existing courses for the Physical Education Programs, we do not have sufficient space to do the assessment of fitness that is required of the curriculum. There is no dedicated floor space to allow for stretching exercises and flexibility assessment. We currently have an undersized weight training/cardiovascular fitness room (approx. 990 sq. ft.), that does not have any free floor space whatsoever. It actually is an embarrassment to the College, as students who come here out of high school are shocked that our weight training/cardiovascular fitness room is so small. For obvious reasons, all strength and muscular endurance assessments are done in this weight training/cardiovascular fitness room; but when we have a class of 25 students trying to do the required assessments in this room, which is completely filled by exercise equipment, it is impossible to provide and/or receive quality instruction.

Usage of existing space for the Fitness Lab has gone well beyond design capacity. Our last remodeling effort (dating back to 2001) added some Program space, including a 990 sq. ft. weight training/ cardiovascular fitness room, and a 990 sq. ft. aerobics/yoga room, however, these rooms were almost immediately deemed "space deficient". Having a 900 sq. ft. space for combined weight training and cardiovascular fitness does not accommodate our Program instructional needs and classroom sizes. This room is actually smaller than the equivalent spaces at all of the high school facilities in Frederick County. Also, the fact that the College began increasing our Program offerings has only added to the limitations we have experienced in our use of this space. Currently, instead of just having aerobics classes housed in a room that was originally intended for use only for "aerobics", the Program has added several class sections of yoga, pilates, tai chi classes, and various CE classes, resulting in much congestion for all of these curriculum groups. Furthermore, the AHW courses that were previously utilizing this same aerobics/yoga room for assessment or learning activities for their curriculum, subsequently found themselves without a space to use other than the already over-crowded existing weight training/cardiovascular fitness room, which is a scenario that continues to this day.

- The standing seam metal roof was installed in 1995. The lower flat roofs were installed in 1995 and have a twenty year warranty ending in 2015. The classroom addition roof was installed in 2001 and appears to match the other flat roofs in general condition.
- According to the Wes Merchant a recent active roof leak in the side wall corridors relates to main roof snow and gutter overflow issues and not an actual leak in the membrane.
- The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.
- The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. The telephone cabling in the building is supplied from the main telephone interface at the Central Plant building, which is reportedly CAT 3. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- There are wooden retractable bleachers manufactured by Husey which are 42 years old. The maintenance staff perform inspections twice each year of all mechanical and structural components and make any necessary repairs or adjustments. Every other year a registered structural engineer inspects and certifies the bleach system.
- Two of the ten bleacher sections have had wooden bench planks replaced. All parts and components are available from the manufacturer. All bench surfaces are in good to fair condition. In recent years the bleacher system was upgraded with automated power drives. The power systems have been performing without failure. A compliant assessable ramp designed for a portable stage is stored in an area adjacent to the gym.

BUILDING E

Conference Center											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
3.2	ADA Accessibility	$520.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.3	Drainage Systems and Erosion Control	$8,400.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$0.00	$6,441.76	$0.00	$0.00	$0.00	$0.00	$0.00	$44,152.20	$0.00	$0.00
6.4	Exterior Walls	$0.00	$5,760.00	$0.00	$0.00	$0.00	$5,760.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$1,077.50	$23,662.20	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$23,662.20
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$3,734.73	$0.00	$26,528.00	$0.00	$74,890.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$30,135.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$48,714.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,000.00	$0.00
8.1	Interior Finishes	$0.00	$0.00	$0.00	$13,041.00	$101,720.00	$0.00	$0.00	$0.00	$13,041.00	$0.00
8.2	Commercial Kitchen Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$7,500.00
Totals, Unescalated		$8,920	$61,994	$23,662	$46,911	$101,720	$32,288	$0	$119,042	$27,041	$31,162
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$8,920	$63,853	$25,103	$51,261	$114,487	$37,431	$0	$146,407	$34,255	$40,660

Building E is used for a variety of classes including communications and science. Two classrooms used solely for communications media have recently been moved to building F.

These two classrooms can be converted to general classroom space or lab space for other classes.

The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.

A combination of Cat 6, Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Upgrading the Data network cabling system will be required over the evaluation period.

The building is not equipped with a cell tower or cell antennas. There are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building

The conference room, some classrooms, corridors and office areas were last renovated approximately three to five years ago. Some classrooms and part of the corresponding corridor finishes are original.

Based on its estimated Remaining Useful Life (RUL), the carpet tiles, ceiling tiles, and folding partitions will require replacement during the assessment period. Interior painting and wall finish replacement will also be required during the assessment period.

BUILDING F

Visual and Performing Arts Center											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
1.2	Follow-up Recommendations	$5,500.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$130.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.2	Parking, Paving and Sidewalks	$1,720.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$12,000.00	$0.00
6.3	Roofing	$0.00	$353,217.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$0.00	$19,568.64	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.5	Exterior and Interior Stairs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$5,200.00	$71,934.00	$0.00	$56,600.00	$0.00	$13,225.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$4,635.00	$0.00	$10,559.27	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$10,000.00	$70,654.80	$0.00	$103,106.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$26,385.32	$12,114.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$42,110.44	$45,034.00	$5,880.00	$0.00	$0.00	$310,139.86	$0.00	$5,880.00	$61,743.94
Totals, Unescalated		$48,935	$554,667	$45,034	$195,714	$0	$13,225	$310,140	$0	$17,880	$61,744
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$48,935	$571,307	$47,777	$213,862	$0	$15,331	$370,323	$0	$22,650	$80,562

The main usage of building F is for instruction in the areas of Communications, Humanities & Arts. Building F underwent a renovation of approximately a fourth of it's spaces in 2011 – 2012 and currently over half of the remainder of older spaces in the building are being renovated.

- Under this department, there are six A.A. degrees offered: Art, Communications (Speech), Digital Media Design, Drama, Music, and Philosophy.
- The Art program had 58 majors listed in Fall 2011, with 5 FY 2011 graduates and 1,204 total course enrollments. Under the varied associate degree requirements at FCC there is a 3 or 4 credit requirement in art. With an 8.62% graduate to major ratio it appears the majority of the enrollments are degree requirements and not the Art major requirement. The F Building is currently under renovation and will support an improvement in the quality of the instructional space for art and provides some room for growth.
- The Communications Speech program had 20 majors listed in Fall 2011, with 2 FY 2011 graduates and 1,394 total course enrollments. Under the varied associate degree requirements at FCC there is a 3 or 4 credit requirement in communications. Communications Speech enrolments have increased 43% in the last five years and the program uses 97% of its allocated space.
- The initial focus of the renovation of the F Building was in support of Music, Art, and Digital Media Design. With the rapid growth of Communications Speech enrollments, some of the renovation plans have been reconsidered to increase the classroom support for the program. The program needs at least two additional classrooms to support program growth.
- The A.A. , Digital Media Design program had 86 majors listed in Fall 2011, with 13 FY 2011 graduates and 975 total course enrollments. Under the varied associate degree requirements at FCC there is a 3 or 4 credit requirement in communications. The program has grown 34% in the last five years, and currently uses 81% of its allocated space.
- Digital Media Design is a popular program with its dual focus on computer graphics and television production. The program is being supported by the renovation of the F Building; however, this renovation does not provide any additional space for growth. We anticipate that we will require a second MAC classroom in the next two years, which will require additional space, equipment, and a networking/electrical infrastructure within the F Bldg to support the technology.
- The Drama program had 11 majors listed in Fall 2011, with zero FY 2011 graduates and 118 total course enrollments. The Drama program's enrollments are good and these students contribute to the cultural enrichment of the campus by putting on a show each semester. The program is being supported by the F Building renovation and has adequate facilities for instruction.
- The Music program had 40 majors listed in Fall 2011, with 6 FY 2011 graduates and 625 total course enrollments. The program supports an additional 640 enrollments in Continuing education. The Music program provides some instruction in theory; however, the majority of their instruction is in applied music and ensemble support. The program contributes to the cultural enrichment of the college and the community through a variety of student performances and workshops. The Music program's space needs are being sufficiently supported by the F Building renovations.
- The roof finishes are original and approximately 23 years old. Information regarding roof warranties or bonds is not available. The fields of the flat roofs are in fair to poor condition. There is evidence of ponding, vegetation, and exposed felts throughout the fields of the roof. Some of the ponding corresponds to some of the active roof leaking observed throughout the facility as mentioned in section 1.2. Based on the estimated Remaining Useful Life (RUL) and condition, the roof membranes will require replacement early in the evaluation period. Work to resurface the roof was listed as an alternate to F building renovations.
- Roof drainage generally appears to be adequate; although, due to the standing water conditions, re-sloping is required. All sections should slope to existing roof drains. This work will be completed as a part of roof replacement. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.

- The variable air volume boxes (VAV) appear to be in good condition. Some VAV's will be replaced during the planned renovation at the building. Based on their estimated Remaining Useful Life (RUL), replacement of 40 percent of the VAV boxes should be anticipated over the evaluation period.
- The fan coil units (FCU) appear to be in fair (5) to poor (1) condition. FCU1F at the loading dock is reportedly non-operational. Based on their estimated Remaining Useful Life (RUL), the FCU's will require replacement over the evaluation period.
- The hot and chilled water circulating pumps appear to be in fair condition. The motor was replaced on pump P2S. Based on its estimated Remaining Useful Life (RUL), the hot and chilled water circulating pumps will require replacement over the evaluation period.
- The split system unit ventilator and condenser are in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the unit ventilator and condenser will require replacement over the evaluation period.
- The electrical power appears to be adequate for the building's demands; however, the building is not equipped with surge protection. In the event of line surges, resulting in damaged equipment, installation of surge protection for the building is recommended.
- Additionally, the building is currently not protected against lightning strikes by a lightning arresting grid system. Installation of a lightning protection system at the building is recommended to protect against lightning strikes. The system must be carefully designed to ensure that static discharges are provided with an adequate path to ground. The estimated cost of for this work cannot be accurately determined without an engineering study. EMG therefore recommends an engineering study be conducted to determine the feasibility and cost of installing a building wide lightning protection system.
- The generator is in fair condition and is reportedly tested on a weekly basis. Based on the estimated Remaining Useful Life (RUL), the generator will require replacement during the evaluation period.
- According to the original construction drawings, the underground storage tank is 550 gallons. The condition of the underground storage tank (UST) could not be determined. Reportedly the UST is original to the building construction. Based on the National Fire Protection Standards, the typical Estimated Useful Life is between 15 and 20 Years. The Marshal & Swift Valuation Guide indicates that USTs have an Estimated Useful Life between 12 to 20 Years. As such, an Estimated Useful Life of 20 to 30 years is typically utilized depending on design and build. Based on the Estimated Useful Life, replacement will be required over the evaluation period
- The building is not equipped with a cell tower or cell antennas. There are some areas in the building where cell coverage is poor. A cellular antenna/repeater system should be installed in the building to enhance coverage.
- CAT 5 was observed for the telephone cabling in the main communications HUB room and a combination of Cat 5 and Cat 4 are in place at the secondary Hub room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.
- A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 is required to download and email gigs. Cat 5 and Cat 5e is reportedly more prominent throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.
- The floors throughout the facility are original to the building's construction with exception of the carpet which has been replaced periodically. Based on its estimated Remaining Useful Life (RUL), the area carpet will require replacement during the assessment period. The carpet in rooms F-109 and F-108 is in fair to poor condition due to staining and wheel based objects being dragged across the carpet and will require replacement early in the assessment period. The area is to be renovated and the carpet will be replaced at that time. Interior painting and wall finish replacement will also be required during the assessment period.

- The stage hard wood flooring is in fair to poor condition. The floor is worn with signs of streaking, scarring, and chipping and is nearing the end of its useful life. The chipping is reportedly caused by the piano wheels from the piano being wheeled across the floor. Based on its estimated Remaining Useful Life (RUL) and condition, the hard wood floor will require replacement early on during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.

BUILDING G

Administrative Services											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
1.2	Follow-up Recommendations	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$1,047.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$324.70	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$3,807.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$19,724.75	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$8,000.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$0.00	$7,560.00	$54,165.90	$0.00	$0.00	$0.00	$7,560.00	$0.00	$0.00
Totals, Unescalated		$6,372	$19,725	$7,560	$54,166	$0	$0	$3,807	$7,560	$8,000	$0
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$6,372	$20,316	$8,020	$59,189	$0	$0	$4,546	$9,298	$10,134	$0

Building G is used for College administrative functions. The College's IT department, Finance department and Human Resources department are housed in this building.

- The property is less than four years old. The building systems and finishes are in good condition and will generally require only routine maintenance during the evaluation period

BUILDING H

Classroom/Student Center											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
1.2	Follow-up Recommendations	$17,750.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
3.2	ADA Accessibility	$5,418.12	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.4	Topography and Landscaping	$6,557.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$12,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$12,000.00	$0.00	$0.00
6.3	Roofing	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$0.00	$0.00	$0.00	$23,662.20	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$36,114.56	$0.00	$0.00	$37,800.00	$0.00	$0.00	$163,085.00	$0.00	$37,800.00	$0.00
8.2	Commercial Kitchen Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Totals, Unescalated		$77,840	$0	$0	$37,800	$0	$23,662	$163,085	$12,000	$37,800	$0
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$77,840	$0	$0	$41,305	$0	$27,431	$194,732	$14,758	$47,884	$0

Building H opened in 2009 and in general the technology and infrastructure in this building supports the building's use well. Primarily Social Science and English courses are taught in building H and L. Faculty that teach in Social Sciences and English also reside in this building. Most of the Social Science and English programs are a part of the College's general education courses.

The growth in general education course requirements is contributing to an increase demand for general classroom space.

Social Sciences courses include: Criminal Justice, Economics, Government & Politics, History, Human Services (Gerontology, Social Work Transfer, Developmental Problems, Addictions), Psychology, and Sociology.

- The Criminal Justice program had 171 majors listed in Fall 2011, with 20 FY 2011 graduates and 660 total course enrollments. The programs enrollments have grown 47% in the last five years. The program currently

uses 82% of its allocated space; however, the enrollment growth contributes to the demand on general classroom usage.

- The Economics program had 5 majors listed in Fall 2011, with 2 FY 2011 graduates and 651 total course enrollments. Economics courses meet both General Education and Social/Behavioral Science requirements s of all FCC Associates Degrees and in the last five years have increased by 47%. The program used 82% of its allocated space for FY 2011; however, the enrollment growth contributes to the demand on general classroom usage.
- The A.A. Government & Politics program had 14 majors listed in Fall 2011, with 3 FY 2011 graduates and 188 total course enrollments. The program's enrollments have increased by 40% in the last five years. The program currently uses on average 80% of its allocated space; however, the enrollment growth contributes to the demand on general classroom usage.
- The History program had 53 majors listed in Fall 2011, with 3 FY 2011 graduates and 1105 total course enrollments. History courses meet both General Education and Social/Behavioral Science requirements s of all FCC Associates Degrees and in the last five years have increased by 16%. The program used 86% of its allocated space for FY 2011; however, the enrollment growth contributes to the demand on general classroom usage.
- The Human Services program had 125 majors listed in Fall 2011, with 17 FY 2011 graduates and 594 total course enrollments. The program's enrollments have increased 105% over the last five years. The program used 83% of its allocated space for FY 2011; however, the enrollment growth contributes to the demand on general classroom usage.
- The Psychology program had 138 majors listed in Fall 2011, with 80 FY 2011 graduates and 1867 total course enrollments. Psychology courses meet both General Education and Social/Behavioral Science requirements s of all FCC Associates Degrees and in the last five years have increased by 22.5%. The program used 91% of its allocated space for FY 2011 and the enrollment growth contributes to the demand on general classroom usage.
- The A.A. , Sociology program had 11 majors listed in Fall 2011, with 3 FY 2011 graduates and 1362 total course enrollments. Sociology courses meet both General Education and Social/Behavioral Science requirements s of all FCC Associates Degrees and in the last five years have increased by 40%. The program used 93% of its allocated space for FY 2011 and the enrollment growth contributes to the demand on general classroom usage.

The English program had 47 majors listed in Fall 2011, with 6 FY 2011 graduates and 4958 total course enrollments. The majority of the enrollments are due to overall degree requirements of all FCC Associate degree programs.

- The programs enrollments have grown by 30% in the past five years and the department needs three additional lab classrooms to meet increased demands for course offerings. In order to increase the number of computers in these classrooms, the building networking/electrical infrastructure would need to be upgraded to support the technology, particularly in building L.

Under the Applied Science department, there are three A.A.S. degrees offered: Early Childhood Development, Paralegal, and Police Science. Early Childhood Development classes are taught in buildings H, L and K.

- The Early Childhood Development program had 51 majors listed with 5 graduates and 246 total course enrollments for FY 2011. The program's enrollments have been consistent for the last three years and the program used 76% of its allocated space in FY 2011. The program has sufficient space allocated to support its instruction.
- The Paralegal program had 44 majors listed with 4 graduates and 202 total course enrollments for FY 2011. The program's enrollments have increased by 16% over the last five years and the program used 77% of its

allocated space for FY 2011. This program is taught in building L and H and has sufficient space allocated to support its instruction.

- The Police Science program had 50 majors listed with 4 graduates and 660 total course enrollments for FY 2011. The program's enrollments have increased by 47% over the last five years. This program is primarily offered in offsite locations and via distance learning.; therefore, the program has sufficient facilities to support its instruction.

Under the Arts in Teaching department, there are four A.A.T. degrees offered: Education (Elementary)/Elementary Special Education, Mathematics (Secondary), Spanish (Secondary), Early Childhood Education/Early Childhood Special Education.

- **Education** (encompassing all programs)
- The Education program had 212 majors listed with 23 graduates and 518 total course enrollments for FY 2011. The program's enrollments have increased by 49% in the last five years. The program used 84% of its allocated space for FY 2011 and the enrollment growth contributes to the demand on general classroom usage.

FCC's Honors College has experienced tremendous growth over the past five years and Honors programs at community colleges have been identified by multiple sources as an area of future growth. For the past five years, both the number of classes offered and total enrollment have climbed at FCC:

Honors Enrollments

Term	FY 2007	FY2008	FY2009	FY 2010	FY 2011
Enrollments	253	271	362	400	419

- On average, FCC Honors has been adding one new class per semester each year. The national growth projections for Honors suggest that this will continue. Moreover, memberships in the Honors College have risen from 94 in September 2010 to 143 in September 2011.
- At present, H-248 is designated as the Honors classroom. For Fall 2012, H-248 is booked is completely on MW 8:00-7:35 and TTH 9:30-7:35. To meet growing demand, the English department scheduled three classes in other rooms and the Science department has booked two classes in other rooms. Yes, Honors can add classes to the 7:45-10:20 time slot, but that is only a short-term solution.
- Besides growth, Honors faculty members have identified another problem – access to computers. Some faculty, especially EN 101H professors, have incorporated computers into their teaching methods. H 248 has seminar space and small group tables. The current mobile cart of netbook computers in H-building has been less than satisfactory for several reasons.
- Thus, to maintain its strategic growth, Honors will need additional classroom space with computer access. Moreover, the space needs to be located near H-248 and the H-247 Honors Lounge so we can continue to build a sense of community among the Honors students – a key element in student and program success.
- The interior finishes are in good condition. Based on its estimated Remaining Useful Life (RUL), the carpet will require replacement during the assessment period. Interior painting and wall finish replacement will also be required during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.
- Based on their estimated Remaining Useful Life (RUL), the folding wall panels will require replacement during the assessment period.

BUILDING K

Children's Center											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
3.2	ADA Accessibility	$1,556.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.2	Parking, Paving and Sidewalks	$5,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$225.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$0.00	$2,520.92	$0.00	$0.00	$0.00	$0.00	$4,224.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$26,810.81	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$1,800.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$13,343.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$3,000.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$7,140.00	$0.00	$18,817.50	$0.00	$0.00	$7,140.00	$0.00	$0.00	$0.00
8.2	Commercial Kitchen Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$6,200.25	$0.00
Totals, Unescalated		$6,781	$20,483	$0	$23,138	$0	$0	$7,140	$0	$40,235	$0
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

The Early Childhood Development program, which is a part of Applied Sciences, had 51 majors listed with 5 graduates and 246 total course enrollments for FY 2011. The program's enrollments have been consistent for the last three years and the program used 76% of its allocated space in FY 2011.

One course from the Early Childhood Development program is taught in building K. The balance of courses for this program are taught in buildings H and L. The program has sufficient space allocated to support its instruction.

CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.

A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period.

BUILDING L

Library Building											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
5.2	Parking, Paving and Sidewalks	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$0.00	$0.00	$5,010.00	$0.00	$22,076.10	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$0.00	$0.00	$0.00	$0.00	$13,932.00	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$0.00	$54,531.73	$52,266.00	$0.00	$0.00	$31,200.00	$0.00
7.2	Building Plumbing	$0.00	$4,412.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$95,807.30	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.5	Elevators and Conveying Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$103,761.00
7.6	Fire Protection Systems	$16,000.00	$0.00	$0.00	$0.00	$0.00	$12,114.90	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$0.00	$0.00	$0.00	$298,000.00	$125,216.18	$0.00	$0.00	$0.00	$0.00	$49,896.00
Totals, Unescalated		$111,807	$4,412	$5,010	$298,000	$201,824	$78,313	$0	$0	$31,200	$153,657
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$111,807	$4,544	$5,315	$325,633	$227,155	$90,786	$0	$0	$39,523	$200,488

Building L is used for Allied Health and Wellness, Communications (mainly language) and some Social Science course instruction, as well as the College Library.

Allied Health and Wellness (AHW) programs facility requirements need to be more fully evaluated in light of the suspended application for the Allied Health Building that FCC requested. The Respiratory Care and Medical Laboratory Technology (MLT) programs will have new, high quality space at the Mt. Airy Center. However, because MLT is a new program, and because much of Respiratory Care was offered at an off campus site, their relocation will not open up space for the remaining AHW programs. The data below shows while student enrollment in specific majors overall has increased by 23% there has been a 24% increase in the Allied Health & Wellness areas.

Frequency of Allied Health Majors and Pecentage Increased from Fall 2007-2011				
	Allied Health	All Programs	% Increase Allied Health	% Increase All Programs
Fall 2011	1023	6000	24%	23%
Fall 2007	823	4868		

The Nursing Programs are currently housed in Building L on the FCC campus, and have been since 1995. At that time, the Programs admitted students only once-a-year for a maximum of 106 students. Since then, the increase of 90+ students and twice-a-year admissions have both put a serious strain on the existing space for classrooms and lab.

The Nursing program had 643 majors listed in Fall 2011, with 83 FY 2011 graduates and 869 total course enrollments for FY 2011. The program has grown over 14% since 2007. The Nursing classrooms in the current Building L location, with a single exception, hold only 30-32 students, which has caused overcrowding and the need to schedule multiple sections of classes, all in order to accommodate the current number of students. The current Nursing Skills Lab accommodates a maximum of only 16 students, while the Simulation Lab, which was recently converted from office space, can only accommodate a maximum of 8-10 students. These conditions have also created overcrowding and resulted in the inability to use these laboratories at the level necessary to provide current state-of-the-art nursing education.

With the growing instructional demands caused by both enrollment growth and instructional technology, Nursing is in need of more instructional, lab and storage space. Currently there is insufficient space available to support the full potential of our SIM Lab, and the program lacks the space needed to grow the program beyond the current cohort threshold.

Nuclear Medicine Technology, Respiratory Care and Surgical Technology are in the Applied Science program. The Nuclear Medicine Technology program had 43 majors listed in Fall 2011, with 6 FY 2011 graduates and 91 total course enrollments. The A.A.S. , Surgical Technology program had 48 majors listed in Fall 2011, with 9 FY 2011 graduates and 85 total course enrollments.

Currently, the Nuclear Medicine Technology Program has no space on the FCC campus for a laboratory, which unfortunately means that all training must be conducted in the classroom(s), before the students enter an actual clinical setting, which prevents the students from learning within a real-life environment. Furthermore, to even accommodate this undesirable scenario, the equipment that the Nuclear Medicine Technology Program routinely utilizes for classroom teaching and training, which is currently stored in a shared storage room (L108), must be transferred from this storage space to the classroom(s), as it is needed. For the last two years, the Program has had to rely on an outside proprietor to conduct lab sessions in the evening, so that the students could develop a familiarity with the equipment they will be using in a real-life clinical setting. However, this same outside proprietor has recently stated that they can no longer facilitate our Program.

The Nuclear Medicine Program is in need of a secured, dedicated lab/classroom space to support instruction.

A major shortcoming of the current Surgical Technology Program location is the lack of adequate space for skills practice. Currently, supplies and equipment have to be moved into any given classroom in order to conduct lab sessions. The required scrub-sink area is currently housed in a storage/janitor's closet. Faculty members currently cannot view the student's performance adequately, due to a lack of space. The Surgical Technology classroom/lab entrance area is currently located off of the same corridor as an adjacent student lounge, resulting in the Surgical Technology students' activities blocking the entrance into the student lounge (which is intended for use by all FCC students).

This program has growth potential; however**, i**n order to grow the program, an additional lab, classroom, and storage space is needed.

The air handling units, variable frequency drives (VFD), fan coil units, hot and chilled water circulating pumps, Liebert self-contained cooling systems and split systems appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the air handling units will require replacement over the evaluation period.

Based on their estimated Remaining Useful Life (RUL), replacement of 40 percent of the VAV boxes should be anticipated over the evaluation period.

The building is equipped with a cell tower; however, no cell antennas are located within the building. There are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period.

A combination of Cat 6, Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs.

The Hub room is becoming crowded and future expansion in the existing space is not considered feasible beyond current planned upgrades. An engineering evaluation is recommended at the time of any anticipated expansions.

The interior finishes are in good to fair condition. Based on estimated Remaining Useful Life (RUL), the carpet, ceiling tiles and vinyl tile will require replacement during the assessment period. Interior painting and wall covering replacement will also be required Based on their estimated Remaining Useful Life (RUL). The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.

BUILDING M

Maintenance											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
3.2	ADA Accessibility	$11,315.08	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.2	Superstructure	$41,303.13	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$0.00	$0.00	$5,901.88	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$2,852.00	$558.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$6,831.00	$0.00	$12,000.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$1,800.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$5,537.25	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$0.00	$0.00	$12,114.90	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$3,850.00	$0.00	$7,128.00	$11,147.50	$8,964.00	$0.00	$0.00	$2,856.00	$0.00	$4,272.00
Totals, Unescalated		$56,468	$7,337	$22,713	$11,706	$20,964	$12,115	$0	$2,856	$0	$4,272
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$56,468	$7,557	$24,096	$12,791	$23,595	$14,044	$0	$3,513	$0	$5,574

Building M is where the campus Physical Plant operates from. The building is primarily shop space for vehicle and equipment maintenance and repair, storage and office space for physical plant staff. The maintenance building has not increased in sized however the growth in staff for new facilities has increased usage of the building.

The telephone system is reportedly in good condition requiring routine maintenance over the evaluation period. CAT 3 was observed for the telephone cabling in the main communications HUB room. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to use IP Telephones. Based on these observations, upgrading the telephone systems and cabling will be required over the evaluation period. The cost of this work is relatively insignificant and can be performed as a part of the property's routine maintenance program.

The Data network systems are reportedly in good condition requiring routine maintenance over the evaluation period. A combination of Cat 5 and Cat 5e was observed for the Data network cabling at the communications HUB rooms. According to the IT Director of Network Services, upgrading the cabling to Cat 6 would be needed in order to be able to download and email gigs. Cat 5 is reportedly more prominent within the walls throughout the building. Based on these observations, upgrading the Data network cabling system will be required over the evaluation period. The cost of this work is relatively insignificant and can be performed as a part of the property's routine maintenance program.

The building is not equipped with a cell tower or cell antennas. According to the POC and IT Director of Network Services, there are some areas in the building where cell coverage is poor. Cell antennas should be installed in the building, where needed, in order to provide for better cell coverage in the building.

BUILDING SW

Sweadner Hall											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
3.2	ADA Accessibility	$315.34	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.3	Roofing	$0.00	$0.00	$0.00	$0.00	$3,679.35	$0.00	$0.00	$0.00	$0.00	$0.00
6.4	Exterior Walls	$0.00	$0.00	$4,264.40	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6.6	Windows and Doors	$0.00	$5,915.55	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$5,915.55	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$0.00	$0.00	$11,452.00	$0.00	$0.00	$0.00	$7,356.00	$0.00	$0.00
7.2	Building Plumbing	$0.00	$0.00	$0.00	$4,824.73	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$3,412.50	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$0.00	$0.00	$0.00	$12,114.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8.1	Interior Finishes	$61,616.70	$0.00	$2,872.80	$11,307.00	$0.00	$0.00	$0.00	$2,872.80	$0.00	$0.00
Totals, Unescalated		$61,932	$9,328	$7,137	$39,699	$3,679	$0	$0	$10,229	$5,916	$0
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$61,932	$9,608	$7,572	$43,380	$4,141	$0	$0	$12,580	$7,494	$0

Sweadner Hall's single function is as a lecture hall. Because Sweadner is directly adjacent to and connected to the Science and Technology Hall the lecture space in Sweadner is used mainly for Science lecture classes. As part of the C building renovation/addition lecture space will be added to building C. The additional lecture space will assist the Science programs to have more flexible scheduling for lecture courses.

The sealant is deteriorated and in fair to poor condition. The sealant from the building face to the sidewalk was missing. This will need to be replaced before the next freeze/thaw cycle to prevent damage to the building foundation system.

The corridor ceiling finishes were replaced approximately 16 years ago.

The Lecture Hall finishes were replaced 13 years ago.

The common area restrooms were last renovated approximately 16 years ago.

The interior finishes are in good to fair condition. Based on its estimated Remaining Useful Life (RUL), the Lecture Hall carpet will require replacement during the assessment period. Some isolated areas at the vertical faces are not fully adhered. Interior painting, ceramic tile and wall panel replacement will also be required during the assessment period. The acoustic panel fabric can be replaced through routine maintenance.

Based on their estimated Remaining Useful Life (RUL), the ceiling tiles will require replacement during the assessment period.

Based on their estimated Remaining Useful Life (RUL), automatic openers will require replacement during the assessment period.

Space utilization numbers in this section were derived from the College's scheduling software.

CENTRAL PLANT

Central Plant											
Report Section		**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
1.2	Follow-up Recommendations	$19,750.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.1	Utilities	$16,570.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5.5	General Site Improvements	$4,100.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.1	Building Heating, Ventilating, and Air-conditioning (HVAC)	$0.00	$483,116.60	$0.00	$0.00	$141,712.00	$0.00	$0.00	$0.00	$0.00	$1,052,510.00
7.2	Building Plumbing	$0.00	$63,467.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.4	Building Electrical	$0.00	$19,520.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7.6	Fire Protection Systems	$4,473.41	$0.00	$0.00	$0.00	$0.00	$4,473.41	$0.00	$0.00	$0.00	$0.00
Totals, Unescalated		$44,893	$566,104	$0	$0	$141,712	$4,473	$0	$0	$0	$1,052,510
Location Factor (1.00)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Totals, Escalated (3.0%, compounded annually)		$44,893	$583,087	$0	$0	$159,498	$5,186	$0	$0	$0	$1,373,287

The chain link fences at the cooling tower and hazardous materials locations are in fair to poor condition due to corrosion. Based on the estimated Remaining Useful Life (RUL), the **chain link fences** will require replacement over the evaluation period.

There are significant cracks in the concrete masonry walls on the south and east end of the Central Plant. In recent years steel reinforcing has been retrofitted between masonry and steel framing at the roof line. Exterior brick work at the roof line has been replaced in several areas corresponding to the reinforcements; however, recent cracks have appeared in the exterior wall corners and CMU pilasters on the south wall. Larger cracks were observed around the exterior doors from rooms D4 and D2. The cause of these cracks was not determined, but they could be related to the Mineral Virginia earthquake on August 23, 2011. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs.

- The flat roof was installed in 1995 and has a 20-year warranty ending in 2015. A copy of the warranty is attached in Appendix. The roof is physically attached to the Field House and therefore an integral part of the main roof.
- On site personnel maintain the HVAC equipment or a contractor is retained when required. Contractors used at the campus Central Plant building are identified below.
- Diego Valera of Johnson Controls, the property's Service Technician for the Building Automation (BAS), was contacted to discuss the history of the BAS repairs, maintenance practices, and recent replacements. Opinions from the contractor were solicited regarding future repair and maintenance of the equipment. According to the contractor, the BAS currently in place is operating as designed and will likely require software and hardware upgrades over the term, as these operations become outdated. This work is considered routine maintenance under the service contract with Johnson Controls. Additionally, a defective controller part that operates chiller #2 was placed on order and should arrive in the next two days which will then be immediately installed. The contractor visits the campus two times each month to conduct routine maintenance procedures and as needed during emergencies.
- Tommy Mayhew of Boland, the property's HVAC maintenance contractor, was contacted to discuss the history of HVAC repairs, maintenance practices, and recent replacements. According to the contractor, they only maintain the property's chillers at the campus Central Plant building and the most recent preventive maintenance performed on the chillers was on August 11, 2011. According to the contractor, all chillers are in good condition. Chiller #3 was installed in 2009. Chillers #1 and #2 were installed in 1994-1995. Also, chiller #2 was recently overhauled and chiller #1 is scheduled to be overhauled in 2012. According to the contractor, the chillers are overhauled approximately every ten years and in doing so, help to extend the useful life of the chillers to 30 years. Based on the estimated Remaining Useful Life (RUL), all chillers will require replacement over the evaluation period.
- The two cooling towers appear to be in fair condition. The cooling towers were installed in 1995-1996. Isolated rusting conditions occur at the cooling towers. Based on estimated Remaining Useful Life (RUL) and condition, the cooling towers will require replacement during the assessment period.

- The boilers appear to be in good (B01) to poor (B02 & B03) condition. Boiler #1 was installed in 2010 and will require routine maintenance. Boilers #2 and #3 are original. Boiler #2 is currently off-line due to leaking and is in the process to be repaired. A proposal to repair boiler #2 is included in Appendix C; however no costs are included in the tables for this repair. Additionally, boilers #2 and #3 are antiquated and show significant signs of rusting conditions and the interior of boiler #2 has build-up of deposits and sludge, as well as interior rusting. Based on their estimated Remaining Useful Life (RUL) and condition, boilers #2 and #3 will require replacement during the assessment period.
- The hot and cold water distribution system appears to be in good to poor condition. The vast majority of the underground loop which supplies the A-B Knuckle is mostly original (42 years old), with some replacements reported at the loop (approximately 3 years ago) in close proximity to the knuckle. Photos provided by the POC showed evidence of significant rusting and deterioration of the piping system at the loop that was replaced, which would potentially represent the condition of the existing original piping system. Based on the estimated Remaining Useful Life (RUL) and condition, some piping replacements will be required during the evaluation period. The three hot water circulating pumps appear to be in good condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The chilled water circulating pumps appear to be in good to fair condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The heat reclaim water circulating pumps appear to be in good to fair condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The condenser water circulating pumps appear to be in good to fair condition. Based on estimated Remaining Useful Life (RUL), the pumps will require replacement over the evaluation period.
- The air compressors are approximately 27 years old and appear to be in fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, replacement of the air compressors should be anticipated over the evaluation period.
- The hydronic unit heater and cabinet heaters appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL) and condition, the unit heater and cabinet heaters will require replacement over the evaluation period.

FACILITIES MASTER PLAN PROPOSALS

E. FACILITIES MASTER PLAN PROPOSALS

CIRCULATION AND PARKING PROPOSALS

Several concepts are recommended to improve the access to/from the campus, provide sufficient parking inventory and safe and efficient travel experience within the campus. The campus has a simplified transportation plan with a 'horseshoe' type of perimeter roadway interconnecting the buildings and the two entrances off of Opossumtown Pike. In general the transportation and parking plan has an outer serving roadway encompassing the majority of the buildings and parking. Most of the parking encircles the academic areas. This plan minimizes the pedestrian/vehicle conflicts and quickly transfers motorists and passengers from the automobile to walking. This orientation of roads, parking and pedestrian environment reinforces the academic sanctuary for the community college. It is recommended that these principles remain as a guide in future connectivity on the campus. Some changes however are recommended to maintain the efficiency of the transportation and parking systems. These recommended concepts are described in the detail in Figures 1 through 5.

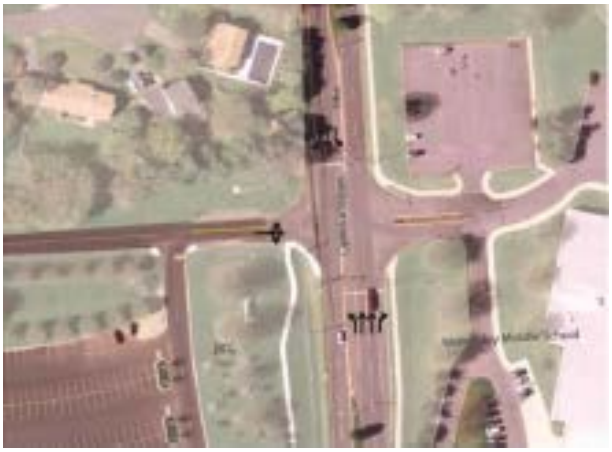
Figure 1

Main Entrance (with South entry)

Main Entrance (with added North Entry)

Alternative 1: Shift Left-Turning Traffic into Campus to Right Turning Traffic (North and South Entrances)
Description: change travel demands by shifting traffic from lefts to rights. Revise on-line directions to campus; add signage on US Route 15
Objectives: Reduce demand for left turns into campus at both entrances
Parking Impacts: none
Traffic/Circulation Effects: provides reduced delays and improves entry into campus
Cost Estimate: $39,875

Figure 2



Existing Configuration at North Entrance

New Right Turn Lane from North Entrance

Alternative 2: New Free Flow Channelized Outbound Right Turn Lane (North Entrance)
Description: provide separate outbound right turn lane. The right turn lane would be channelized and provide "free flow" access to Opossumtown Pike. The existing outbound lane would remain and function as a through-left lane.
Objectives: 1. reduce queuing 2. Improve intersection LOS, reducing stopped time delays.
Parking Impacts: reduces blocking of outbound traffic from parking area 14
Traffic/Circulation Effects: encourages use of North Entrance
Cost Estimate: $94,140

Figure 3

Existing Configuration

Proposed Configuration

Alternative 3: Reconfigured Entrance Gateway (South Entrance)
Description: realign through travel lanes from Main Entrance, connecting more directly to perimeter roadway
Objectives: reduce motorist confusion, simplify maneuvers, separate Tech Training and College inbound traffic
Parking Impacts: none
Traffic/Circulation Effects: 1. Direct connection to perimeter road, 2. Simplified turning maneuvers, 3. Separation of Tech Training Facility and College traffic
Cost Estimate: $15,312

Figure 4

Existing Condition

Proposed Improvement

Alternative 5. Provide Raised Curbs at Parking Lots beside Perimeter Road Description: improve exit from parking lots 7,9 and 10 to show arrival at campus perimeter roadway; supplement markings with signing and raised curbs
Objectives: define the parking lot egress and spacing between the egress and the perimeter roadway by erecting signs and constructing raised curbs
Parking Impacts: minor loss in parking
Traffic/Circulation Effects: improved driver awareness circulating through parking lots and accessing perimeter roadway
Cost Estimate: $36,663

Figure 5

Main Entrance (South)

North Entrance

Alternative 5. Re-Position Entrance Signage (North and South Entrances)
Description: change entrance signing from parallel to perpendicular to roadway
Objectives: improve visibility and location of entrance signs
Parking Impacts: none
Traffic/Circulation Effects: improved driver visibility for arriving at campus
Cost Estimate: $19,371

SITE SIGNAGE PROPOSALS

Alternative 1. Plan a complete rework of all campus site signage. EMG noted minimal to no signage at the parking lots with directions to the buildings and additional directional signage is recommended. Additionally, due to the close nature of the central buildings, it is somewhat difficult to discern which building signage belongs to which building and the size of the lettering is not readable from the parking lots. EMG recommends additional signage on the buildings or close proximity addressing main entrances with the name of each building. Additional signage referencing where to turn for each building should be located at the perimeter road and at main sidewalk intersections as needed. The estimated cost for this work $104,000 (see EMG Replacement Reserves Report).

Alternative 2. Plan a multi-phased site signage update that would address the larger issues of vehicular signage at buildings and campus entrance identification signage in two phases. The estimated cost to address building signage would be $68,000 and the estimated cost to address the entrance signage would be $38,000.

Alternative 3. Maintain current procedure of updating way finding piecemeal as each sign has met it's useful life. Updating signage in this fashion may mean that campus signage never becomes one cohesive way finding system. The lack of identification for vehicular traffic can also pose traffic accidents.

BUILDING PROPOSALS

As part of the alternative to the following building proposals, rental space is considered. The current rates for rental space ranges from $15 - $20 per sq. ft.

BUILDING A PROPOSALS

Alternative 1. Upgrades to accessibility items can be a part of a campus wide building interior signage upgrade. Electrical, including low voltage lines can be a part of a campus wide low voltage line renovation project. Finish upgrades can be incorporated into modifications to spaces that will occur as Learning Support moves into building J and new users move into these vacated spaces. A complete renovation of vacated spaces to suit the use of occupants backfilling those spaces. The cost to do this work in building A is approximately $500,000 (see EMG Replacement Reserves Report).

Alternative 2. Accessibility upgrades, electrical work can be prioritized and done based on usage of the building and age of building systems. Finishes can be done as part of Plant routine maintenance and vacated spaces can be funded out of individual miscellaneous renovation fund project service request. The cost to do this work in building A is approximately $205,000 (see EMG Replacement Reserves Report).

Alternative 3. Low voltage lines can be left as is and vacated spaces can be left as is. New occupants will have to work within the current layout.

BUILDING B PROPOSALS

Alternative 1. The footprint of the Academic Hall Building B will remain the same (34,592 GSF) as will the location of major mechanical rooms, bathrooms, custodial closets, and FCC Printing Services. The current NASF is 17,976 and un-assignable NSF is 1,712 with circulation of 7,434 NSF yielding total useable net square feet of 27,122. This project will include the renovation of the 16 types of functional spaces

DESCRIPTION OF SPACE	HEGIS CODE	TOTAL NASF
Developmental Mathematics Workshop Classroom	110	1,800
Teaching Faculty Office	310	1,600
Department Chair Office	310	150
Mathematics Learning Center Manager Office	310	100
Storage	115	300
Open Computer Laboratory	220	600
Developmental Mathematics Testing Center	320	350
Mathematics Learning Center	320	500
Individual Tutoring Rooms	320	240
Adjunct Workroom/Copy Room/Break Room/Storage	310	600
Standard Mathematics & Engineering Classroom	110	5,200
Engineering & Physics Laboratory	210	660
AutoCAD & Engineering Computer Classroom & Laboratory	210	800
Mathematics Lecture/Computer Laboratory Classroom	210	650
Outdoor Classroom	110	1,800
Collaborative Student Study Space	410	1,200
	Total NASF =	17,150

listed above (including adding 1,800 SF of outdoor teaching space) and the relocation of corridors throughout.

The Academic Hall (Mathematics and Engineering), Building B is located in the center of the campus. It is connected to the C Building, which is the Science and Technology Building. FCC views the marriage of the B and C Buildings as the home of our STEM curriculum. Outdoor learning classrooms will be utilized by any course where the use of the outdoors is integral to instruction.

The overall project cost would is estimated at $11,150,000

Alternative 2. Rent laboratory and classroom space at high schools, other colleges/universities or at commercial/industrial facilities. Challenges: Conflicts with host institution for space and time slots; providing appropriate supplies and equipment to conduct laboratories; getting students to attend laboratory sessions at off-campus sites (unless space is rented for both lecture and laboratory course components); budget to cover rental costs.

Alternative 3. Expand course offering into non-traditional time slots, such as late night or Sunday and make upgrades to building as prioritized by the building B facilities Condition assessment. The cost of these upgrades would be $950,000 (see EMG Replacement Reserves Report).Challenges: Additional operational costs (e.g. utility, security and support staff); changing student (and staff) behaviors to ensure adequate enrollment.

Alternative 4. Develop hybrid, virtual or “at home” classroom and laboratory activities. Challenges: Acceptance of credits at transfer institutions; quality control over student learning experience; providing faculty development and support to design learning activities;

Alternative 5. Do nothing. This option would cause the College to fail the students in Frederick County by not providing adequate services to meet the course needs they are requiring.

BUILDING C PROPOSALS

Alternative 1. This building is currently in the design development phase for a renovation/ addition project. This project will provide laboratory, lecture, storage and laboratory preparation space along with additional offices for the Science Department. It includes Instructional / learning spaces for the lecture and laboratory components of Science courses. This will expand and maintain the College Science program's presence in one physical location. Its effect will provide for the expansion of much needed laboratory facilities for Microbiology, Anatomy & Physiology, General Science and Biology and Chemistry in order to accommodate enrollment needs. It will provide for an upgrading and reconfiguring of four existing labs to increase seating capacity and better align spaces to share storage and preparation rooms.

The business and technology spaces in building C would benefit from upgrades recommended as part of the building evaluation conducted by EMG. Upgrades to accessibility items can be a part of a campus wide building interior signage upgrade. Electrical, including low voltage lines can be a part of a campus wide low voltage line renovation project. The cost of this addition work is estimated at $130,000 (see EMG Replacement Reserves Report).

Alternative 2. Accessibility upgrades, electrical work can be prioritized and done based on the building, usage demands and age of the building systems. Finishes can be done as part of Plant routine maintenance The cost do this work in building C is approximately $112,000 (see EMG Replacement Reserves Report).

Alternative 3. The current spaces not scheduled for renovation can be left as is with no additional cost beyond routine maintenance. The lack of adequate electrical infrastructure would reduce the competitiveness of students enrolled in training in FCC IT courses. This could severely impact enrollment of this program.

BUILDING D PROPOSALS

Alternative 1. A reconfiguration and addition to building D would address the need to accommodate added demands on this building for Allied Health and Wellness courses, particularly the demand on the Fitness Lab which is also the campus aerobics room. Adding more space for the general education health courses would also mean adding support space such as more showers locker room area. In addition a complete renovation of the gymnasiums 42 year old wooden bleachers and floor would address accessibility concerns for individuals using our facilities during commencement and allow for a new layout to accommodate newly requested NCAA regulation courts, including NCAA regulation volleyball courts. The cost to do this work would be approximately $27.5 million dollars.

Alternative 2. The aerobics room could be expanded into an adjacent classroom, displacing the classroom. This would allow some additional space for aerobics and the AHW Fitness lab. Upgrades to the building's low voltage systems and replacement of the gymnasium floor can be prioritized and done based on the building, usage demands and age of the building systems. The cost to perform this work in building D is approximately $250,000 for the aerobics room work and $53,000 for the upgrades.

Alternative 3. Continuing the current shared use of space would limited when students could complete part of the their general education requirement, in which case the College would be failing the students by not providing adequate facilities for required courses and jeopardizing the completion goals set forth by the State and Federal governments.

BUILDING E PROPOSALS

Alternative 1. The spaces in building E are currently adequate for instruction. Upgrades to low voltage lines can be a part of a campus wide low voltage line renovation project. The cost to do this work would be approximately $32,000 (see EMG Replacement Reserves Report).

Alternative 2. Low voltage lines can be left as is and vacated spaces can be left as is. New occupants will have to work within the current layout.

BUILDING F PROPOSALS

Alternative 1. A portion of space in building F has recently undergone a renovation primarily for music and digital media design. Because of a 3 or 4 credit requirement in communications causing increased demand for communications courses the newly renovated spaces were furnished to allow for music and general classroom use. Additional space is scheduled for renovation sometime in the summer/fall of 2012. The second renovation will include repairing the roof. About half of building F has not been and is not schedule for any renovation, with the exception of lighting work in the JBK Theater. Building F is used primarily for communications, humanities and art instruction. With the new renovations the Music courses will have sufficient space. Because of the increase in popularity of digital media design this program could use additional space. This work could be performed as a miscellaneous funds renovation. Additionally the building assessment reports the need for upgrades to the theater stage, mechanical, electrical and fire alarm systems Upgrades to mechanical systems would be a project necessary to keep the building functioning properly for comfort. Many of the air handling units have reached their useful life expectancy. The assessed upgrades to electrical systems could be a part of a campus wide low voltage project. And the work to the fire alarm systems would also be a needed project as spaces in the building have changed significantly. The estimated cost of this work would approximately $975,000 (see EMG Replacement Reserves Report).

Alternative 2. The College could defer the renovation of an existing space for an additional digital media classroom. This would add strain of use on the existing digital media classrooms. Upgrades to mechanical, electrical and fire alarm systems can be prioritized and done based on usage of the building and age of building systems. The estimated cost to do this work in building F is approximately $213,000 (see EMG Replacement Reserves Report).

Alternative 3. Continuing the current shared use of space would limited when students could complete part of the their general education requirement, in which case the College would be failing the students by not providing adequate facilities for required courses and jeopardizing the completion goals set forth by the State and Federal governments.

BUILDING G PROPOSALS

Alternative 1. The spaces in building G are currently adequate for work. Upgrades to way finding signage can be a part of a campus wide building interior signage upgrade project and replacement of the buildings IP phone system can be a part of a campus wide low voltage electrical upgrade project. The cost to do this work would be approximately $19,000 (see EMG Replacement Reserves Report).

Alternative 2. Signage can be left as is with the continued confusion for visitors due to the lack of a cohesive recognizable way finding system to campus buildings overall. The IP phones can be left as is with continued degrading of function.

BUILDING H PROPOSALS

Alternative 1. The spaces in building H are currently adequate for instruction and work. Upgrades to way finding signage can be a part of a campus wide building interior signage upgrade project. The cost to do this work would be approximately $12,000 (see EMG Replacement Reserves Report).

Alternative 2. Signage can be left as is with the continued confusion for visitors due to the lack of a cohesive recognizable way finding system in campus buildings.

BUILDING K PROPOSALS

Alternative 1. The spaces in building K are currently adequate for instruction and work. Upgrades to way finding signage can be a part of a campus wide building interior signage upgrade project. The cost to do this work would be approximately $12,000 (see EMG Replacement Reserves Report).

Alternative 2. Signage can be left as is with the continued confusion for visitors due to the lack of a cohesive recognizable way finding system in campus buildings.

BUILDING L PROPOSALS

Alternative 1. A partial reconfiguration/ conversion to building L to accommodate added demands on this building for Allied Health and Wellness, particularly the demand for lab, classroom and storage space in Nuclear Medicine, Surgical Technology and SIM lab courses which will stay on the College's main campus. In addition to the instructional space reconfiguration a reconfiguration to one of the College's main server rooms would be imperative as the space for equipment currently in the server room is quickly reaching capacity with due to recent construction projects. An upgrade to other low voltage systems and some mechanical systems would be associated with this scope of work which would aid in keeping the infrastructure current to the increased lab space. The cost to do this work would be approximately $9.4 million dollars.

Alternative 2 General classrooms functions could be displaced and converted to labs and storage in building L to allow use of these spaces solely for the Nuclear Medicine, Surgical Technology and Sim Lab programs. This would shift strain on general classroom spaces. Upgrades to the building's server room and low voltage systems can be prioritized and done as part of a campus wide low voltage renovation project. The cost to perform this work in building L is approximately $150,000.

Alternative 3 Rely on an outside proprietor to conduct evening lab sessions. This would mean having to find a new vendor to provide these services in a convenient location for our students. The current proprietor for Nuclear Medicine can no longer facilitate the FCC program so this may negatively impact the continuance of this growing program in which case the College would be failing the students by not providing adequate facilities for in demand programs

BUILDING M PROPOSALS

Alternative 1. The spaces in building M are currently adequate for work. Upgrades to the building superstructure, including roof repairs, and plumbing would extend use of the facility. Electrical upgrades can be a part of a campus wide low voltage system upgrade project. The cost to do this work would be approximately $57,000 (see EMG Replacement Reserves Report).

Alternative 2. A roofing repair project along with HVAC project could serve as an alternate to meeting all the needs identified in the M building condition assessment. The estimated cost of this work would be $20,000.

Alternative 3. Roof and HVAC repairs could be performed as part of routine maintenance.

BUILDING SW PROPOSALS

Alternative 1. Sweadner hall is sufficiently adequate for its function. A roof repair, hot water heater replacement and mechanical system repairs project would extend use of the facility. In addition, the Fire Alarm panel is outdated but functional however a replacement of the system would allow for easier purchase of replacement parts. Flooring repairs and upgrades are needed to ceramic tile areas. These finishes are original to the building's construction. The cost to do this work would be approximately $62,000 (see EMG Replacement Reserves Report).

Alternative 2. A roofing repair project along with, plumbing and HVAC project could serve as an alternate to meeting all the needs identified in Sweadner Hall. The estimated cost of this work would be $17,000.

Alternative 3. Roof and HVAC repairs could be performed as part of routine maintenance.

CENTRAL PLANT PROPOSALS

Alternative 1. Central Plant boilers two and three are each 29 years old and in need of replacement. The replacement of these boilers is vital to heating of buildings served by the central plant. Along with the boilers, replacement of the nine year old 3000 gallon hot water storage tank, which underwent repairs in 2010, would be preferred along with the installation of a back flow valve and replacement of a dozen circulation pumps that feed the 42 year old underground loop. The loop consist of 900 linear feet of 10 diameter steel pipe which was observed to be in serious need of repair. Based on the EMG survey of loop documentation the pipes have required emergency repairs over the years due to rusting and to avoid any further emergencies the pipe should all be replaced. Replacement or upgrading the main distribution transient current surpressor would allow for better protection of the 3,000 amp electrical service to the main campus. In addition, replacement of the 1200 amp switchboard should be done during the assessment period. The flat roof the building was installed in 1995 and the 20 year warranty expires in 2015. The roof of the plant building is integral to the D building roof. The replacement of the roof for this complex should be done during the assessment period. Significant cracks were found in the central plant exterior walls. Retrofitted reinforcement has been done to shore up the exterior walls of the plant building. EMG recommends a survey to determine the structural integrity of the plant building's exterior walls. The cost to do this work would be approximately $740,000 (see EMG Replacement Reserves Report).

Alternative 2. As a scaled back alternative to Alternative 1 above would include the replacement of either boiler two or three, the gas fired water heater, hot water storage tank and the campus loop pipe work along with a study of repairs that may be needed to the exterior walls would extend the functionality of most of the Plant's operation for the campus. The estimated cost of this work would be $400,000.

Alternative 3. Replacement of boiler two or three would allow for a necessary back up to boiler one. This back up would prevent the loss of heat to buildings fed from the loop. The estimated cost of this work is $173,000.

Alternative 4. Replacement of the campus loop would be prevent shut down of campus functions due to loss of water fed by the loop. This work could not be done as routine maintenance. The cost of this work is estimated to at $145,000.

Alternative 5. Continue routine maintenance on all systems out of College operating funds until funds are obtained to replace the aging infrastructure of the campus.

See Appendix for:

Technology Master Plan, additional information on the Advance Workforce Training Center at Monroe Ave and Mt. Airy College Center for Health Education

RECOMMENDATIONS

F. RECOMMENDATIONS

LAND / USE AND ACQUISITIONS

One of two important concepts for the Master Plan is the organization of the campus into a conceptual series of rings of buildings, parking lots and open spaces. These rings begin at the center of the Plan with the mass of new and existing classroom and college buildings. Beyond this core is located a continuous ring of shaded parking lots, and beyond these are a number of recreational facilities, which include large open spaces such as athletic fields and tennis courts. The massing of the Plan, which is densest in terms of building volume and human activity at the center and becomes gradually more green and open as one moves to the perimeter of the campus, integrates the campus into the context, creates a convenient and clear strategy for parking, and creates the most vital and active sphere of human activity in and around the classroom buildings.

The close integration of building at the central core creates a series of exterior spaces or campus quadrangles. These exterior spaces, which create places to stroll, or to have a casual conversation with a student or a colleague, provide a setting for the social functions that serve to animate and enrich the public life of the campus. The quadrangles create permanent open spaces at the center of the campus, preserving light and view. They also visually tie building to building and provide a unified image for the campus. The two major quadrangle areas exist where the existing buildings A,B, C, and Conference Center area merge with the Classroom / Student Center building to the east and create an interior quadrangle with the existing faculty garden at its center. Another quadrangle is formed where the Fieldhouse, Library, A building, and a proposed new building near the existing tennis court area meet.

The organization of the campus into a series of rings provide a coherent strategy for parking, integrating the automobile with campus activity while also respecting the need for pedestrian friendly spaces and environments. This integration of the automobile into campus plan is essential for a commuter college such as Frederick. The location of campus buildings at the center of the plan with the parking at the periphery will allow students, most of whom arrive by car, to leave their vehicles for the day and spend the spend the rest of their time on campus on foot, in the traditional manner of college campuses. This foot traffic and social activity will animate the central core and quadrangle spaces. The continuous ring of parking will provide equal access to all buildings and will minimize travel distances between cars and classrooms.

The parking lots will accommodate 2,035 cars once the parking garage addition is completed, allowing for an expansion of the student population to over 8,000. A ring road loops the campus, with the majority of parking just inside the road to facilitate access and safety for pedestrians on the inside of the lots, adjacent to and within easy walking distance of the campus core. Pedestrian walkways connect parking lots and buildings.

The addition of the Forest Conservation and Recovery Plan in 2005 created the need to make substantial changes to the “natural” forest that exists on the western part of the campus. The approach to meeting the state mandate is unique. It is unique in the state of Maryland and of course to FCC.
State designated “invasive species” were removed from the forested area, and non-invasive species of trees and shrubs planted among the remaining forest. The density of the plant materials will allow the forest to act as a substantial buffer for its residential neighbors. The new plantings reflect native

Maryland species. The end result is a more diverse forest. The diversity will allow its use as wildlife habitat, bird sanctuary, and plant materials laboratory.

Frederick Community College recently purchased 55,000 GSF off site as "condo" type agreement at 200 Monroe Ave. This site is located approximately 5 miles from the main campus. This was space that had been previously leased for the Advanced Workforce Training Center. This was providing large working lab spaces to support Carpentry, Masonry, Electrical and mechanical training classes. It is currently going through some interior renovations to assist with overcrowded programs in nursing along with the continuing education work related training programs

BUILDINGS / INFRASTRUCTURE

Our biggest challenge in providing increased access to our current programs, and in the development of new programs, is the need for additional instructional space.

Facility requirements need to be more fully evaluated in light of the suspended application for the Allied Health Building that FCC requested. The Respiratory Care and Medical Laboratory Technology (MLT) programs will have new, high quality space at the Mt. Airy Center. However, because MLT is a new program, and because much of Respiratory Care was offered at an off campus site, their relocation will not open up space for the remaining AHW programs. The facilities allocated in the L Building do not allow the programs to fully support current instruction, and the quality of the space is not on par with other healthcare education programs in neighboring community colleges. At this time, our facilities cannot support any additional growth of our high demand healthcare programs. Furthermore, there is no space to house additional programs that may be considered based on local healthcare employment demands.

From FY 2007 to FY 2011 the colleges overall enrollment has increased by 22%. For General education courses, which represent 53% of our overall enrollments, the increase has been 24%. We are in need of an additional 4 lecture classrooms and 3 lecture/lab classrooms to meet our current demands. We are in need of an additional 7 lecture classrooms and 4 lecture/lab classrooms to accommodate further access opportunities in the next 1-2 years based on enrollment increases in courses that are generally required in most of our degrees, for example in English, Math, Communications, IT, PE, and Social Science courses.

We need to explore, in conjunction with IT and Learning Technologies, a plan to increase 1) the electrical and networking infrastructure in our buildings and 2) explore and adapt smarter more efficient forms of technology that are, at minimum on par with our local counterparts, to include FCPS . This plan should support emerging technologies and the addition of more student (and staff) computers. This plan should be forward-thinking and should include a systematic plan to begin making upgrades now, rather than waiting until we are unable to provide service. We currently find ourselves in a situation where we are unable to add more/new technology that would allow our faculty to develop teaching strategies and/or apply current best-practices.

Frederick Community College has submitted its FY14 Program Part I and II for the Reconfiguration and Conversion of Building B. This project will complement the recently approved Building C Science / Tech

Hall project. By providing appropriate Math and Engineering infrastructure this project along with Building C will provide necessary STEM related curriculum support. Recent County cut backs in funding along with our current 2012 Facilities Master Plan assessment and environmental scans have necessitated a change in how we approach projects. Conversions versus new will be considered whenever possible

Capital Improvements Program FY2012-2018
Short Range Master Plan

Short Range Master Plan (FY 2012 – 2018)

Building F vacant Space Conversion	FY2013
Science / Tech Hall Renovation / Addition	FY2014
Central Plant Renovation/Expansion	FY2014 - FY2016
Technology Upgrades – PeopleSoft	FY2014 & FY2016 & FY2018
Classroom Technology Upgrades	FY2014 – FY2016
Building B Reconfiguration / conversion	FY2014 - FY2016
Allied Health Building	FY2015 – FY2017
Parking Deck	FY2017 – FY2018

Building F Vacant space Conversion - $2,954,970 Total The construction of the Classroom/Student Center includes space for a new bookstore and cafeteria. This project provides funding to reconfigure the existing cafeteria and bookstore space into usable classroom/training space**. Project design has been completed and construction scheduled to begin August 2012 and be completed May 2013.**

Science Tech Hall Renovation /Addition – $9,866,000 Total Renovate, with minor equipment replacements, the 1st and 2nd floors of building C. Construct a two-story addition to the Science and Technology Hall (Building C) to house new Chemistry, Anatomy & Physiology, General Biology, Bio-processing, Micro and Physical Science Labs with multi-media capabilities. The scope of this project was revised to include the addition, in lieu of major disruptive renovations, and to support unprecedented growth. The project has been delayed three years pending completion of the Classroom/Student Center. **Design is underway and construction scheduled anticipated to begin December 2012 and be complete December 2013.**

Central Plant Renovation / Expansion $1,197,400 Total - The central plant is 40 years old. The Classroom student Center project included upgrading of one boiler and one chiller. This project will provide funding to investigate existing plant load capacity against projected future growth. It will investigate the economy of a central plant versus a stand-alone building HVAC system to determine future expansion requirements. The construction portion is requested for replacement of existing underground loop and equipment. Remaining upgrades will be determined after study is completed. The final design analysis results may impact timing of future projects. **(Design FY14, Construction FY15, and Furniture & Equipment FY16).**

Technology Upgrade – PeopleSoft Upgrades $1,300,000 Total - The College is successfully operating PeopleSoft for Student Registration/Administration, Finance, and HR/Payroll. This provides for upgrades

to the Financial and Campus Solutions versions. If version upgrades are not done, the vendor will not provide maintenance support for the software. **(FY14, FY16 & FY18)**

Classroom Technology Upgrades & Equipment - $1,000,000 Total Provides for upgrading of classroom technology equipment in buildings not being totally renovated. **(FY14, FY15, FY16)**

Building B Reconfiguration / Conversion $8,717,419 Total - This project will complement the recently approved Building C Science / Tech Hall project. By providing appropriate Math and Engineering infrastructure this project along with Building C will provide necessary STEM related curriculum support. **(Design FY14, Construction FY15, and Furniture & Equipment FY16).**

Allied Health Building – $ 16,957,622 Total – Construct and equip a 40,000 GSF Allied Health Center building to support the need for an integrated approach to student training in the areas of Health Services. This will provide classroom and lab space as well as faculty and staff support offices to support training in nursing, Surgical Technology, Nuclear Medicine Technology and Physical Education/Fitness Training/Wellness Center to support expanding Frederick County workforce. These four major programs will share space s including reception/lobby, public areas, records/storage rooms, work rooms, as well as break and conference rooms **(Design FY15, Construction FY16, and Furniture & Equipment FY18).**

Parking Deck $7,050,000 Total – Construction of a second deck added to the existing deck currently under construction. This will provide approximately 280 additional parking spaces to support proposed building and renovation construction projects. **(Design FY17, Construction FY18)**

Capital Improvements Program FY2019-2032
Long Range Master Plan

Long Range Master Plan (FY 2019 – 2032)

STEM Building	FY2019 – FY2021
Building L reconfiguration / Conversion	FY2020 - FY2022
Building D Gymnasium Conversion and addition	FY2021 - FY2023
Interior Renovations (Building A, E, F, K & M)	FY2021 FY2022
Roof Replacements – Flat Roof Areas	FY2022 - FY2023
Parking and Walkway Replacement and Overlay	FY2023
Window and Door Replacement (Most buildings)	FY2024
Interior Renovations (Building C, G, & H)	FY2030 – FY2032

Science Technology Engineering Math (STEM) Building - $16,200,543 Total - Construction of a two story 40,000 SF building. A new STEM (Science, Technology, Engineering, and Mathematics) building will allow FCC to continue their efforts to educate individuals in these important areas. The College is particularly short of science labs for Biology, Chemistry, and Physics. New labs will allow the College to offer additional sections of courses in all three science areas. Each of these fields is essential for our allied health and engineering programs. The new ASE (Associate of Science in Engineering) degree will

require the College to offer new courses to support these transfer students. **(Design FY17, Construction FY18, and Furniture & Equipment FY19).**

Building L Reconfiguration / Conversion $9,337,131 Total - Renovate entire interior of building L to include demolition, construction of new classrooms and office spaces and upgrading of Technology equipment. **(Design FY20, Construction FY21, and Furniture & Equipment FY22).**

Building D Gymnasium $27,533,152 - Total Reconfiguration and upgrading of existing building (35,872 GSF) and the addition of a Plant expansion and classroom / office area addition totaling 49,000 GSF. **(Design FY21, Construction FY22, and Furniture & Equipment FY23).**

Interior Renovations (Building A, E, F, K & M) These are the oldest buildings on campus that have not had had any major renovation and/or construction performed. They will reach a 20 year life since they were built or last renovated and will require renovation and modernization. Mechanical/electrical systems will require upgrade/replacement. **(FY2021-2022)**

Roof Replacements – Flat Roof Areas Many campus buildings were newly constructed or re-roofed in the 1996 period. It is anticipated that re-roofing or major maintenance may be required during this period. **(FY2022-2024).**

Parking and Walkway Replacement and Overlay Overlay parking lots and walkways as part of upkeep plan**. (Design/Construct FY2023)**

Window and Door Replacement (Most buildings) Many campus buildings were newly constructed or had windows and doors replaced the 1994-1995 period. It is anticipated that re-roofing or major maintenance may be required during this period. (FY2024).

Interior Renovations (Building C, G, & H) These are among the most recently constructed buildings and will reach a 20 – 25 year life since they were built or renovated and will require renovation and modernization. Mechanical/electrical systems will require upgrade/replacement. **FY2030 – FY2032**

VEHICULAR AND PEDESTRIAN CIRCULATION

As Frederick Community College continues to grow, the campus layout becomes more complex. Circulation patterns are changing significantly. It is essential that the College address these changes to allow for efficient and safe movement of both pedestrians and vehicles on campus. The following Campus Signage Plan proposes a layout plan for circulation and identification signs, and presents the rationale behind the placement of those signs. This rationale will assist the College when future conditions require that additional circulation or identification signs be installed.

Basic Circulation Patterns on the Campus

Frederick Community College is an internally- oriented campus, which encourages vehicular traffic to remain on the periphery while pedestrians use a system of pathways within the Campus itself. As new building projects come on line there are several conditions that will need to be taken into

considerations. The separation of vehicular traffic from pedestrian traffic is complete except within several large parking lots. Careful consideration must be given whenever pedestrian and vehicular circulation interacts in the same place. Safety is of prime concern. Pedestrian walkways to and from the parking lots as well as within the lots will be needed and should be well-defined and easy to see. Every effort should be made to ensure that as one exits his or her vehicle, the path out of the parking lot to the destination (a building entrance, in most cases) is clear and direct. This allows for safe and efficient pedestrian movement out of the lot.

Movement Sequences Into, Through, and Out of the Campus

There are five components to the basic movement sequence which is followed as one comes to, enters, moves within, and exits Frederick Community College. Each of the components is described below.

Getting to the Campus

The first difficulty that may be encountered by a student or visitor to Frederick Community College is that they are unable to locate the campus itself. Vegetation along Opossumtown Pike and low lighting conditions can make finding the campus difficult.

- The College desires to investigate the feasibility of have directional signs placed along the right side of Opossumtown Pike which more clearly indicate the entrances to Frederick Community College.
- The College further proposes that two large signs be placed at the entrances to the campus, to allow for easy identification and to create a strong first impression of the campus. One of these should be a digital message type sign.

Choosing the Appropriate Entrance

There are two entrances to Frederick Community College from Opossumtown Pike. The first entrance, from the South, has been identified as the Main Entrance. This entrance is intended primarily for visitors, students wishing to register, and College staff. The second entrance, located approximately 1,200 feet North of the Main entrance on Opossumtown pike, has been identified as the North Entrance. The two entrances to the campus must be clearly defined and easily identified. It is important to let those visiting the campus know that a second entrance exists, should they accidentally miss the first entrance they encounter.

- The College plan is for two individual signs be placed, one at each entrance which can be read from either direction as one passes along Opossumtown Pike. By labeling each entrance with its own name, most people will understand that a second entrance exists.

Choosing the Appropriate Parking Lot

When students and visitors arrive on campus, their primary concern will be finding the parking lot, which will get them as close to their destination on campus as possible. It is very difficult to get a visual

sense of the layout of the campus from the entrances. The campus topography is relatively flat and most of the campus buildings are consistently low-rise buildings.

- An effective way to quickly orient people to the layout to the campus while providing them with information about where to park is to use a simplified schematic diagram of the campus presented graphically on a kiosk or sign and make their decision about where they will park. Each parking lot shall be clearly labeled.
- Another strategy to direct visitors to major campus areas is to consider using color coded signs for high traffic areas such as the Welcome/Registration Center, the Theater, and the Conference Center.

Moving From the Parking Lot

The fourth component of the movement sequence involves the transition from riding in a vehicle to becoming a pedestrian. At this point, students and visitors already know that the parking lot they are in leads to the building they want to get to. They now need to know the locations of those buildings.

- Signs indicating walkways to and from the buildings must be visible through a "sea" of parked and possibly moving vehicles.
- The College is investigating a way finding system that would address identification of buildings from the lots.

Identifying Building Entrances

Once pedestrians have safely exited the parking lots and are headed in the right direction for the appropriate building, they will want to reaffirm that they are in fact going where they need to go.

- Each building is to be clearly labeled from each direction and entrance.

UTILITIES

Domestic Water

The campus currently is served by an 8-inch water line supplied by the City of Frederick. The line enters the campus from Opossumtown Pike at the Main Entrance, which is the terminus of the line extending North from the City. An additional 12 inch line from the City approaches the campus from the West (Fort Detrick) and was connected to the campus in 1999. At that time the new line was connected in a manner to create a continuous loop around the campus. The addition of this high pressure water line has eliminated water pressure problems on campus and should serve the college for the foreseeable future.

Hot and Chilled Water

Heating and air conditioning water is delivered via underground insulated piping supplied from the Central Plant located on the North wing of the Field House**.** Capacity exists for currently planned short term future development. The Plant is served by two 450-ton heat-reclaim centrifugal electric chillers. Heat is supplied by three boilers - two 180 ton gas/oil fired low-pressure boilers with computer-controlled high efficiency burners and a smaller 2.8 million BTU gas fired boiler also under computer management.

- The addition of the Classroom / Student Center building in 2009 provided for some upgrading and addition of a new boiler.
- A detailed recommendation for replacing the existing main hot and chilled water trunk lines and adding an expansion loop are under consideration and will be part of the FY14 Central Plant Renovation / Expansion design.

Electric Power Distribution

Electric power is supplied by the Allegany Power Company's local division, formerly Potomac Electric Power Company. In 1988, the College upgraded the entire system with modern, above-ground transformers. The system is now owned by Allegany Power. Individual buildings on the campus are metered.

Sewer and Storm Water Utilities

A storm water management facility was constructed in 1994 and major upgrades were carried out to both the sewer lines and underground storm water lines and structures on campus. At that time, the underground utility expansion plan was developed. The recently implemented Storm Water management code, among other requirements calls for several smaller retention areas as opposed to a single large pond.

- It is recommended that the existing storm water capacity and system be reviewed prior to construction of each new major building on campus. Adherence to the local Frederick Land Management code as well as the newer State of Maryland Storm Water regulations will be required during design development.

Campus Central Utility Core

The key element in the Campus Master Utility Plan is the utility core concept. This concept envisions all utilities being extended to serve future building sites shown on the Master Plan in a common utility core trench and conduit system beginning at existing utility stubs and running along the central spine of the campus from the Library to the South Gateway at the Conference Center.

LONG RANGE TELECOMMUNICATIONS

See Technology Strategic Plan in Appendix

APPROACH FOR PLAN UPDATING

As in any Master Plan, the conclusions and recommendations of this Plan are projections based upon current knowledge. The value of the projections made in the Plan is valid only as long as the underlying assumptions are valid. Hence, the recommendations of the Plan must be monitored to assure their consistency with evolving conditions. Specifically, data about the following factors that affect campus space planning will be tracked:

- County growth rates
- County population
- Enrollment as a function of County population
- High school enrollments

- Curriculum changes
- Community needs and requirements
- Mandated standards
- Facilities maintenance

A thorough review of these factors will be undertaken every five years. Given the time required to request, program, fund, design, and construct new facilities, a five year update is reasonable. The plan will be reviewed annually to insure that it remains current during the next five years. Past projections have been conservative in nature. Growth rates have exceeded expectations. A thorough review every five years will allow the flexibility to adjust to changing conditions.

Conclusions and recommendations offered in the Master Plan are based on information currently available. Periodic monitoring of several key variables will be necessary, including: County growth rates, community educational needs, facilities condition and maintenance, curriculum changes, and enrollments. Flexibility to adjust the Plan to respond to changing conditions should continue to be a paramount consideration, especially if enrollment projections prove to be too conservative.

PROJECT IMPLEMENTATION / SUMMARIES

Plan implementation will permit the College to continue to respond to community needs, to provide high quality instruction and to foster an environment conducive to learning. And, the College will continue to be an active partner in developing the Frederick County economy by training its work force.

Through the successful implementation of this Plan the College will be able to meet its goals of high quality instruction in modern facilities suited to the needs of the College's programs. Through the implementation of this Plan, FCC will be able to maintain a personalized learning environment with appropriate student/facility ratios. New instructional programs will be provided to keep abreast of the changing needs of the Frederick business community. The College will be able to increase access to post-secondary education for County populations that have traditionally not had full access to higher education.

Without implementations of this program, Frederick Community College will not be able to meet the increasing and ever-changing needs of the community. Citizens will not receive the academic services to which they are entitled. The College fulfills a unique role in the community, one not duplicated by any other institution. Alternatives are not available. Many people, because of economics or lack of mobility, will never have access to higher education.
Hence, non-implementation of this plan will result in restricted availability of classes to citizens, overcrowding of classes, and increases student-faculty ratios.

Revenues would be lost as a result of not maintaining pace with the changes toward a high technology and service-oriented economy. The capital investments already made at the College would start to deteriorate, wasting community dollars already committed to the institution.

Therefore, it is essential that Frederick Community College actively pursue implementation of this Master Plan. It is the blueprint, which clearly guides the needs of Frederick Community College well into the twenty-first century.

Based on the data presented, Frederick Community College is optimistic about the future growth of the institution. As the County expands its high-technology economy, the educational services provided by the College will be in increasing demand. Growth in demand for campus facilities will also be supported by the increasing population in the County. Over the next ten years, for budget planning purposes, the College expects enrollment to grow 18%.

The College setting possesses a unique character due to the open landscape and the scenic mountains in the background. There is adequate space available on the site to provide for future growth for 15 – 25 years. Additional utility lines, storm water management capacity, and parking will be required, but the capacity of the public services available should be sufficient to meet these needs or to be expanded accordingly.

The need for additional space at Frederick Community College is of critical importance to support projected enrollment growth.

APPENDICES

APPENDIX A

TECHNOLOGY STRATEGIC PLAN

2012 – 2015

PREPARED BY:

FCC CHIEF TECHNOLOGY OFFICER
AND THE
FCC TECHNOLOGY ADVISORY COUNCIL

SEPTEMBER 2012

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PURPOSE OF THE TECHNOLOGY STRATEGIC PLAN

The purpose of the College-wide technology strategic plan is to provide a unified and inclusive strategic framework for the funding, planning and implementation of near and long-term technology needs of the College. The plan addresses many factors, most prominent of which are the interdependencies of technology areas that have traditionally been distinct but have evolved over time to have convergent dependencies.

Technology has become a ubiquitous part of the teaching, learning and administrative functions of the College and has revolutionized the ways in which information is shared and communicated. Mobile devices and apps will continue to drive change in teaching and learning, while upgrades to administrative systems will continue to drive business process improvements.

While there are many shared benefits offered through the application of technology to the teaching, learning and business processes of the College, its use is not without risks. Concerns related to security, systems access, privacy, competitiveness and cost, remain key drivers behind the effort to develop this purposeful and inclusive College-wide technology strategic plan.

A. PLANNING PROCESS

An inclusive process was followed in the development of this plan. The FCC Technology Advisory Council (TAC) met in the spring of the 2012 academic year to review the 2007-2012 plan goals, objectives, and outcomes, and laid the framework for the development of the new 2012 – 2015 plan over the summer of 2012. The Executive Director of Outcomes and Assessment was consulted throughout the process.

B. PLAN SUMMARY, STATUS AND FUNDING

Summary:
This plan provides an overarching view of the short and long-term technology goals, objectives and initiatives of the College. Addressed throughout the plan's objectives and initiatives are shared needs, experiences, and concerns where a single decision impacts multiple areas of the College. The plan aligns to the College's new Strategic Plan goals and divisional strategic initiatives. The FCC Technology Strategic Plan has three goals:

Goal 1:
Leverage technology to enrich and transform the teaching and learning experience at the College.

Goal 2:
Implement technology systems that enable the College to deliver high-quality, cost-effective information technology services to its customers and partners, and to conduct College operations effectively and efficiently

Goal 3:
Design and implement secure and reliable technology infrastructure, applications and related processes that support the teaching, learning, and administrative operations of the College.

Status:
The timelines and priorities for the various plan outcomes and initiatives were defined by the initiatives owners in collaboration with the TAC members.

Budget:
Determination of costs associated with the plan outcomes and initiatives will be identified through the annual budget request cycle.

C. TECHNOLOGY VISION AND MISSION STATEMENTS

Technology Vision: Frederick Community College will be recognized as an innovative and collaborative leader in the application of technology resources, processes, and services in support of the teaching, learning and administrative functions of the College.

Technology Mission: Technology is used in a proactive and effective manner to support, enhance and transform the College's teaching and learning practices, business process initiatives, community partnerships, and the delivery of student services.

D. TECHNOLOGY GOALS AND OBJECTIVES

a. Goal 1: Leverage technology to enrich and transform the teaching and learning experience at the College

Aligns with FCC Strategic Goals 1, 2, 4, and 5

Outcome 1: Students, faculty and staff have the skill set needed to use technology effectively.

Objective:

a. By Spring of 2013, develop and administer College-wide technology survey to identify technology training needs of students, faculty, and staff. (IT, Office of Assessment).
b. By Summer of 2013, identify and publicize training solutions to meet needs identified in Outcome 1, Objective a. (IT, HR, CTL)

Outcome 2: Technology is leveraged to support the education of a multigenerational student body through the use of multimodal methodologies and materials

Division Objectives:

a. *By December 2012, establish an emerging technology subcommittee to monitor, evaluate and evaluate emerging technologies that complement and support the teaching and learning practices of today's students.*
b. By May 2013, pilot the delivery of live online Help Desk support to support the needs of distance learning faculty and students.
c. By August 2013, identify student technology needs and recommendations through a series of traditional, adult and ILR Student Focus Groups.
d. By September 2013, establish a list of ADA compliance recommendations specifically for online course websites in Blackboard

Outcome 3: Technology is used to enhance the quality and delivery of student services and to promote student engagement in the college community

Division Objectives:

a. By Winter 2012, acquire and implement a campus engagement network to connect students and faculty to organizations, programs, and departments in an online community.

b. **Goal 2 – Implement technology systems that enable the College to deliver high-quality useful information and services to its customers and partners, and to conduct College operations effectively and efficiently.** *Aligns with FCC Strategic Goals 1, 2, 3, 4, and 5*

Outcome 1 : Technology supports the development and growth of community initiatives

a. Division Objectives:
   a. By Fall 2012, provide technology advice and associated services needed to open the Mount Airy Center for Fall classes.
   b. By Fall 2012, enhance the design and functionality of the FCC website to actively engage and inform the viewer and promote the mission of the College to the greater FCC community.
   c. By Spring 2014 migrate from the existing streaming video system to a more robust system.

Outcome 2: Technology systems improve and simplify the business intelligence, data integration, and reporting needs of the College.

Division Objectives:

c. By March 2013, conduct a cross-divisional requirements analysis to determine the enterprise data warehousing and analytical reporting requirements of the College. If the need is indicated, then by October 2013, identify, evaluate and recommend a business intelligence solution that delivers real-time PeopleSoft derived reports directly to College decision makers.

Outcome 3: Administrative software applications are utilized to their fullest potential and tuned to optimize the business processes in place at all core FCC offices
Division Objectives:

a. By August 2013, conduct core business process review and fit gap analysis for Finance auxiliary software systems.

Goal 3 – Design and implement secure and reliable technology infrastructure, systems, and related processes that supports the teaching, learning and administrative operations of the College. *Aligns with FCC Strategic Goals 4, and 5*

Outcome 1: Ensure the ongoing functional viability of all College data network, telecommunications systems, and campus security networks.

Division Objectives:

a. By December 2012, review and re-formalize lifecycle management for network switches and cabling, telecommunications cabling, wireless, and IP systems.
b. By February 2013, formalize lifecycle management for all campus IT related security systems.

c. By April 2013, Review the recommendations outlined by EMG in their facility assessment reports which suggest the installation of CAT6 cabling, IP phones, and cellular antenna repeaters in all campus buildings.
    i. By July 2013, develop a project plan to address the findings outlined in the EMG assessment.

Outcome 2: Ensure the security and survivability of the College's technology infrastructure and digital information assets.

Division Objectives:

a. By June 2013, develop IT component(s) of the College's Continuity of Operation Plan (COOP) based on priorities identified by Administration.

Outcome 3: Acceptable Use of Information Technology Resources Policy and Procedures address current and emerging technology trends and practices.

Division Objectives:

a. Annually review and update the Acceptable Use of Information Technology Resources procedures to account for new technologies, legislation, and usage patterns.

Outcome 3: Leverage enterprise content management software in support of the College's data management and records retention needs.

Division Objectives:

a. Maximize the use of the College's enterprise document imaging and management solution by automating, as much as possible, the implementation of the College's records retention and management policies.

E. ALIGNMENT OF TECHNOLOGY STRATEGIC GOALS TO FCC STRATEGIC GOALS

Institutional Strategic Goals	FCC Technology Strategic Goals		
	TSG 1	TSG 2	TSG 3
1. Enhance student learning	√	√	
2. Promote and sustain a culture of inclusion that values diversity	√	√	
3. Enhance employee work life to promote learning		√	
4. Ensure that College systems and practices support learning	√	√	√
5. Sustain and improve the College's enrollment, facilities, linkages with the community, technology, and financial viability	√	√	√

APPENDIX B

ADVANCE WORKFORCE TRAINING CENTER AT MONROE AVENUE

OVERVIEW

Frederick Community College was awarded a U.S. Dept. of Labor Community-Based job Training grant of $1.9 million dollars for a three year period beginning January 2007. These funds were to be used to expand the College's capacity to offer training and education in the Building Trades Technology and Construction Management and Supervision programs. These funds were also used to establish FCC's Construction Management & Building Trades Technologies Institute to address the local workforce crisis in the construction trades, where a projected 3000 new construction-related jobs would be needed through 2012. This funding allowed FCC to expand its curriculum in the building trades, add non-credit courses, establish transfer agreements with four-year colleges & universities and cover the cost of tuition for students' in the building trades programs.

Original Programs

The following trades and degrees were offered:

Certificate(non-credit): Carpentry, Masonry, Plumbing, Electricity, HVAC, Welding

Letter of Recognition(11 credits): Carpentry, Masonry, Plumbing, Electricity, HVAC, Welding

Building Trades Technologies Career Certificate(24 credits)

Building Trades Technologies Associate in Applied Science Degree(60/64 credits)

Construction Management and Supervision Certificate & Degree.

FACILITIES/INSTRUCTIONAL SPACE

The grant also provided funds to the College to lease and outfit a building for the program called the Advance Workforce Training Center(AWTC) located at 200 Monroe Ave. Prior to the opening of the AWTC most of these programs were held at Frederick County Public School's Career Technology Center(CTC) but activity was restricted to evening hours only. The building is a 192,000 square feet facility with FCC's AWTC utilizing 55,342 square feet.

The facility is Wi-Fi and includes State-of-the -art classrooms(6), a computer classroom(1), lobby/reception area, offices(6), a lounge/dining area, a small project area, a large project area, future growth areas(3) and classroom space/lab with equipment for the building trades(6). Space was also designated for future expansion to include the College's culinary program, see Figure A. Floor to ceiling walls were constructed to divide the Carpentry, Welding and Masonry Labs. The walls between the Electrical, HVAC and Plumbing are 6' concrete block walls whereas the ceiling is 17'. Each of the building trades' classroom space/labs are equipped with 10 workbenches and plastic stools on wheels. The building trades' classroom space/labs are located in the heart of the facility with a concourse encircling them with the remainder of the facility functions surrounding them. The six state-of-the-art classrooms are connected to the internet and equipped with black rack podiums containing the PC, DVD/VCR, Extron control units, monitor, and laptop connectivity to ceiling mounted LCD projectors. The classrooms are equipped with standard 5' tables, basic plastic chairs, white boards and a podium. Classroom sizes range from 12-24. The computer classroom is connected to the internet and equipped with a black rack podium containing the PC, DVD/VCR, Extron control units, monitor, and laptop connectivity to a ceiling mounted LCD projectors. The computer classroom is equipped with standard 5' tables, recycled cushioned chairs on rollers(From main campus) and a podium. There are 20 workstations, an instructor workstation and a networked laser printer.

Diversification of Programs

The AWTC opened for its first classes in Spring of 2009. During this period of time students' tuition were covered as part of the DOL grant and enrollments were healthy in the building trades programs except for in masonry and plumbing. At that point in time 43% of the enrollments were in the building trades industries and the remaining enrollments were in allied health(29%) and a mixture of general studies classes(27%).See FigureB. The general studies classes were offered at AWTC due to a shortage of classroom space on the main campus prior to the opening of Building H. In addition FCC established an apprenticeship relationship with the Independent Electrical Contractors, Chesapeake Division.

In Summer 2009 FCC became a founding member of the Construction and Energy Technologies Education Curriculum Consortium(CETEC). FCC was selected as a regional site and funding was granted for equipment and the creation of lab facilities for weatherization training. In addition a model of

Sensitive Compartmented Information Facilities(SCIF) was constructed to support the Department of Labor, Licensing and Regulation(DLLR) grant.

During 2008 - 2010 the construction industry was hit hard by the recession and the three year grant funding ended. Enrollments in the building trades begin to slip as a result of students now having to pay for classes and the apparent lack of jobs available in the construction industry. See Figure D.

In Spring 2010, Building H opened on FCC's main campus and most general studies classes were moved back. FCC strategically decided to begin moving other programs out of the CTC like the Certified Nursing Assistant (CNA) to unoccupied spaces at AWTC such as the Masonry room. This also allowed for daytime programs to increase the offerings of one of FCC's more popular and in high demand programs.

In Summer 2010, FCC began the physical construction of the culinary facilities which included an additional standard classroom. The new classroom allowed FCC to bring the Phlebotomy program to the AWTC. FCC was also granted money from CETEC to construct a pressure house for home energy analysis training and testing for Building Performance Institute(BPI)for the western counties of Maryland.

In late Fall 2010, FCC purchased the condo unit from 200 Monroe LLC(Ruppert Properties) for $4.5 million dollars and the name was changed from AWTC to FCC's Monroe Center.

In Spring 2011, office space and study areas for the External Diploma Program(EDP) which is part of the Adult Basic Education(ABE) program, were established at AWTC. FCC also moved all programming out of CTC and relocated them to the Monroe Center resulting in a $40,000 per year savings for FCC.

Beginning Fall 2011 the Institute for Learning in Retirement(ILR) began offering some of their classes at the Monroe Center due to the disruption on campus as the parking garage and Building J were being built. Space during the day was readily available and the students responded favorably to the facility and nearby parking. Upon completion of the two aforementioned structures, ILR has continued to offer classes at the Monroe Center.

After the Spring 2012 semester two programs, Carpentry and Plumbing were put on a two year suspension, hoping to be brought back once the economy turns around and the jobs become available.

In Fall 2012, the Veterinary Assistant program having been revised was offered at the Monroe Center with favorable enrollments.

As the Monroe Center enrollments have increased there has been a shift of classes being offered from primarily building trades to other areas to meet the current demands. Jobs are more readily available in the health care industry. The majority of enrollments at the Monroe Center are now in the health care sector are now broken down with Allied Health comprising 36%, Building Trades 26%, ILR 16%, Culinary 14%, and smaller programs. See Figure C.

PLANS FOR EXPANSION AND FUTURE OPPORTUNITY CONSTRAINTS

The Monroe Center was originally designed to be a construction training facility and in fact it was the largest college operated entity in Maryland. With the changes that have occurred it is now necessary to reconsider many aspects of the facility and how it can be best utilized. With the increase in classes for health care we need to consider the physical space of some of the areas. In particular, the CNA lab(Rm. 120) pales in comparison to comparable facilities such as the newly built Mount Airy College Center for Health Education. Besides aesthetics(No drop ceiling) there are acoustic problems from the HVAC system and the concrete slab floor that makes it difficult to hear especially when taking vitals such as blood pressure. The CNA lab also needs a more permanent projection system. Currently a portable unit is projected up onto a white painted wall. A short throw system would probably work best if the ceiling is to remain open as is.

There has been some discussion of moving other programs from main campus to the Monroe Center given the delay in funding for the Allied Health Building. Most of the health programs require water and sinks because of the need for proper training of cleanliness of hand washing. Availability of rooms with water access and drains are the plumbing lab(Rm. 121) and possibly room 124. Currently room 124 contains the pressure house. This Spring, lighting will be added to the room to provide adequate illumination in the evening. During the day, the skylights allow for its use. This room also faces similar challenges as the CNA lab with acoustics due to the heating system, concrete floor and tall ceilings. There is currently no air conditioning in this area. This is a large area that could be configured for a classroom of 40 or more.

For the plumbing lab(Rm. 121), it could be reconfigured as a Phlebotomy/CNA area. Currently the Phlebotomy program uses Rm. 123 and the hallway to simulate a real world situation where blood can be drawn. It is short of readily accessible storage and does not have access to water. The CNA program would like to install a bathroom to further enhance the learning of caregivers, although not required as part of the Maryland Board of Nursing certification requirements. There is also the possibility of moving the Nuclear Medicine program into this space which will require build out. Any use of this room will require the construction of a solid wall to the ceiling to separate it from the HVAC lab(Rm. 119) as it now only has a 6'foot high concrete block wall and a 17' ceiling. HVAC would like to have additional space to construct an air conditioning system that is green in focus. This might require removing the 6' wall and build a solid wall to the ceiling about 10' into Rm. 121.

With the carpentry program currently suspended, the carpentry lab(Rm. 116) is being underutilized. Some Do It Yourself(DIY) classes are conducted and the welding classes sometimes uses it for lecture. It does not have a permanent projector or a screen. One option to consider is offering classes in woodworking. This would require the investment in more specialized equipment such as a lathe, routers, additional saws, etc.

Currently there is also a 6' high concrete block wall that separates the electrical lab(Rm. 117) and the HVAC lab(Rm. 119). A Project Service Request(PSR) has been submitted to have a complete wall built to the ceiling to reduce the noise spillover.

In both the large project area(Rm. 154) and the small project area(Rm. 114), insulation on the exterior walls are sagging or loose. In Rm. 154 the weatherization training roof and cubicles(Motel 6) needs to be torn down. This will provide additional space that might be converted to a smaller classroom or offices.

In the general classrooms and the computer labs different furniture could yield higher room capacity. The chairs that are in the classrooms are rigid plastic and not that comfortable. The original idea was that these would be used by construction students and the likelihood of puncturing fabric would be a problem due to tools, etc. The Monroe Center needs to be considered in the replacement cycle for new furniture the not repository for unwanted furniture from main campus. The same is true for the computers in the computer classroom(Rm. 155).

PARKING

The current parking space capacity is 150 parking spaces at the Monroe Center. Only 75 spaces are dedicated to FCC while the remaining 75 are on a first come first serve basis. During the Fall 2012 semester a two week study revealed an average of 95 spaces were being used during the peak evening hours. However, if enrollments continue to increase with current facilities or the addition of newer areas we can be over capacity quickly. If the existing seven general purpose classrooms, the culinary kitchen, the CNA lab and the computer room are full that would be 194. If factoring in the labs, restaurant, large project area, small project area and Rm. 124 the overall seating capacity for the Monroe Center could exceed 400! Many of the students that attend classes at the Monroe Center either are dropped off or carpool which helps to lessen the potential for a parking shortage.

Efforts are being made to get the Transit Service to extend their route from the corner of Monroe Avenue and Patrick Street intersection down to the Monroe Center to help current and potential students, as well as to help alleviate the possible parking problem.

SPECIALTY SPACE

The restaurant(Rm. 133) is used as a classroom only by the culinary program during the periods of time that the restaurant is open. It is equipped with the only smart board equipment at the Monroe Center.

The CNA lab is booked completely for daytime and evening classes. In order to further utilize this space it might be possible to schedule weekend classes. Another option is to have the lecture and lab components switch out. An open lab is needed where students may come in to practice without disrupting the current class. This could be part of a build-out within the existing lab although the Program Manager would prefer to see this space as part of a potential build-out in the plumbing lab.

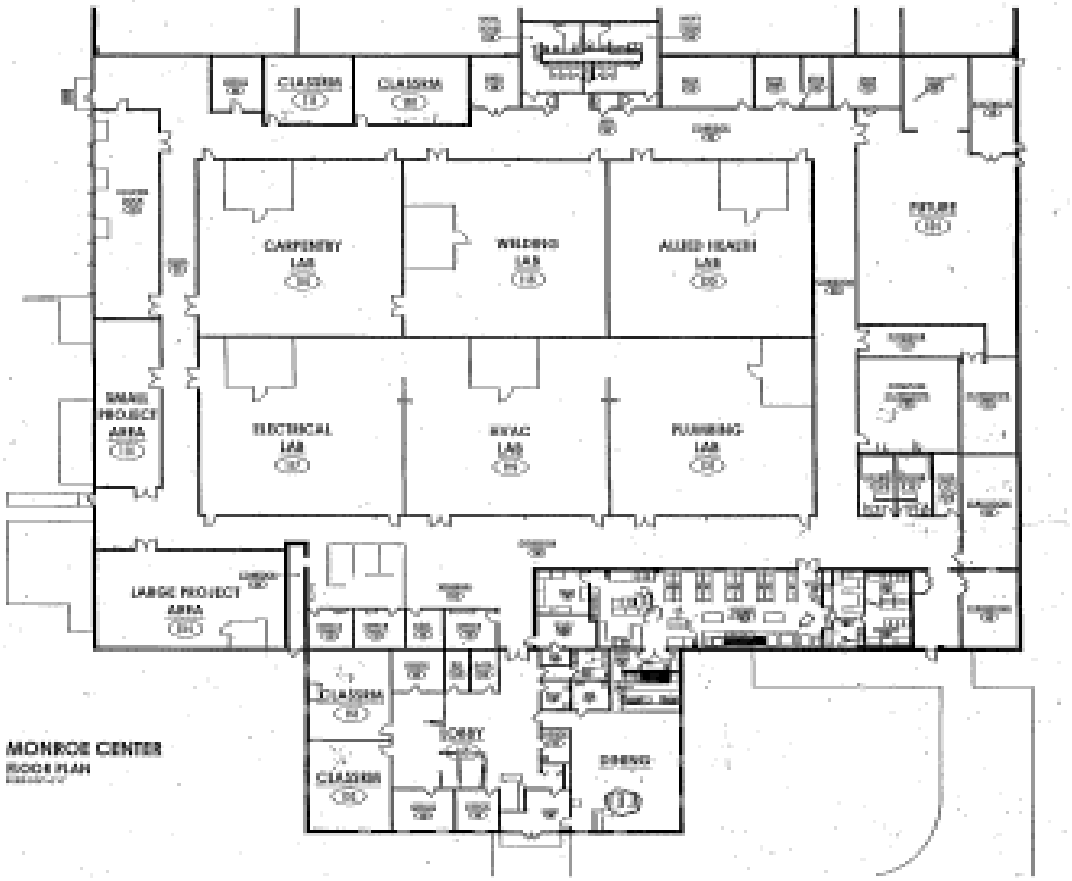

CLASSRM
CLASSRM
CARPENTRY LAB
WELDING LAB
ALLIED TRADES LAB
SMALL PROJECT AREA
ELECTRICAL LAB
HVAC LAB
PLUMBING LAB
LARGE PROJECT AREA
CLASSRM
CLASSRM
LOBBY
DINING
MONROE CENTER
ROOF PLAN

Figure B

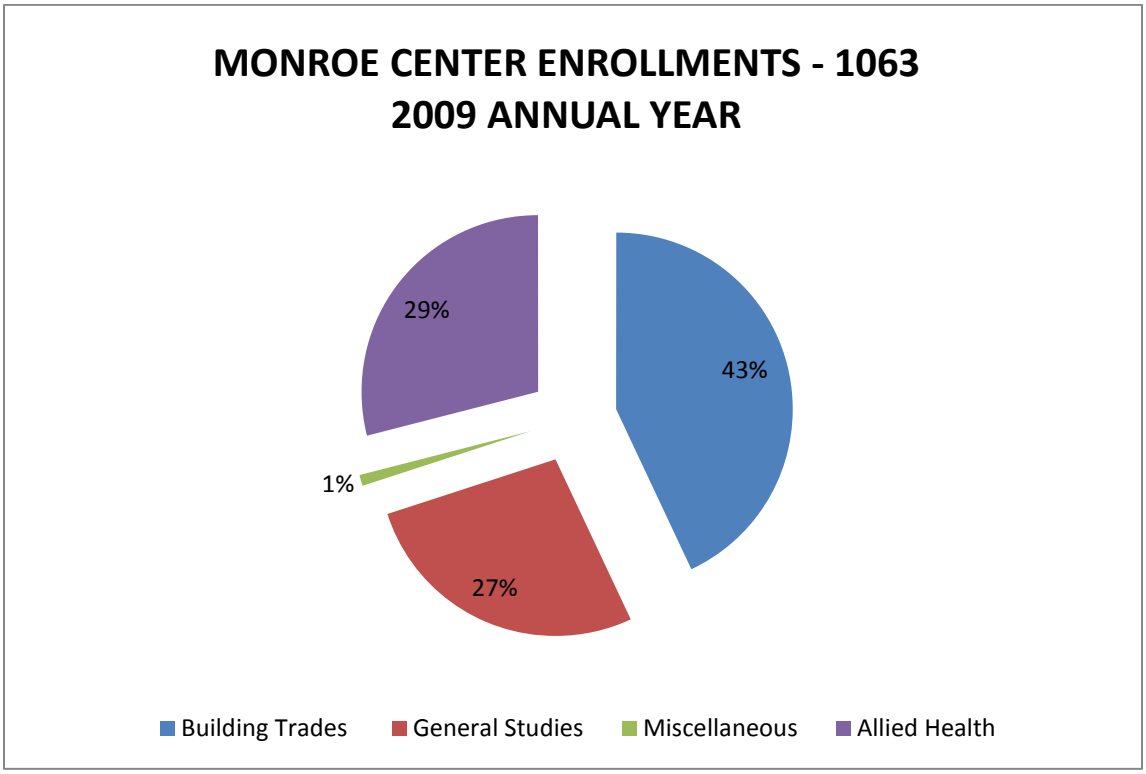


Figure C

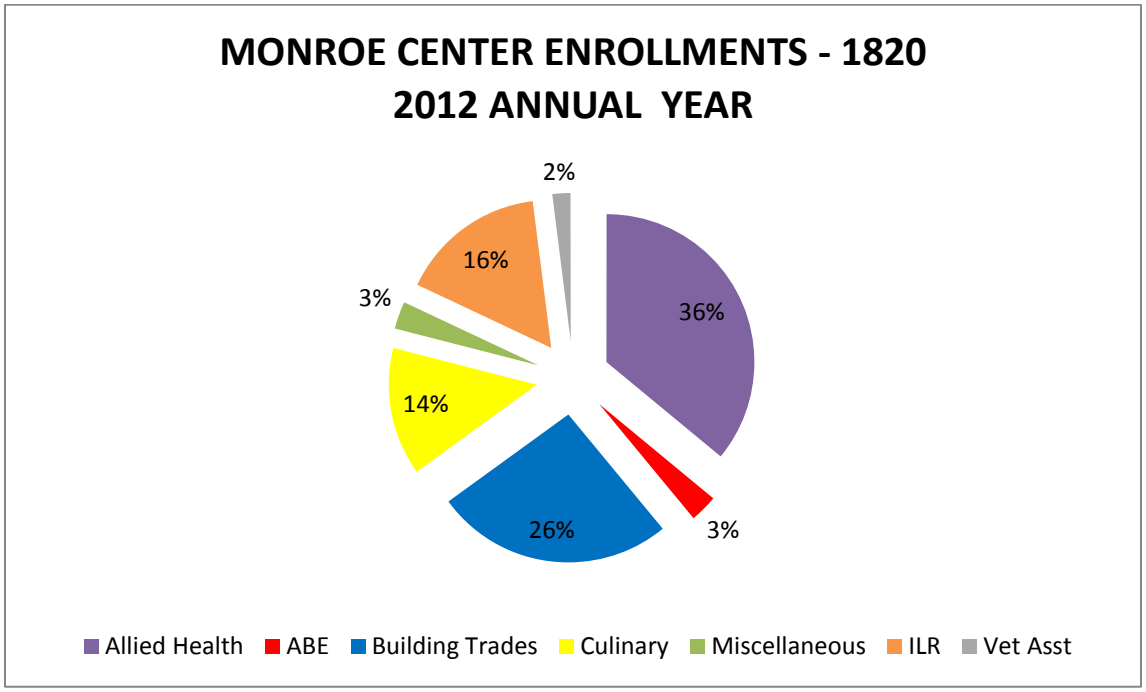
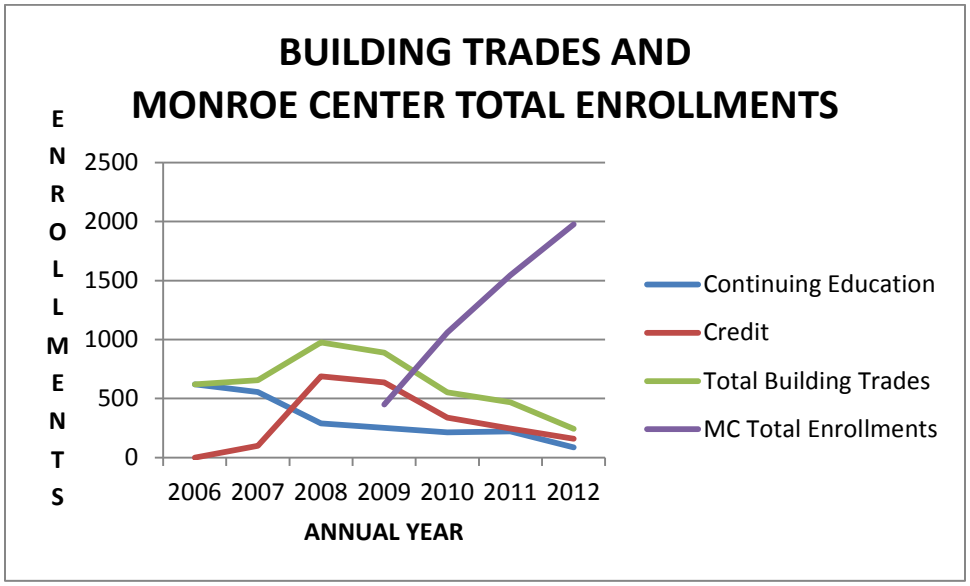


Figure D


BUILDING TRADES AND
MONROE CENTER TOTAL ENROLLMENTS
ENROLLMENTS
2500
2000
1500
1000
500
0
2006 2007 2008 2009 2010 2011 2012
ANNUAL YEAR
Continuing Education
Credit
Total Building Trades
MC Total Enrollments

APPENDIX C

Mount Airy College
Center for Health Care Education

Background Information:

The Mount Airy College Center for Health Care Education (MACC) is a unique collaboration between the community colleges of Carroll, Frederick and Howard Counties. The center brings together high-quality health care programs from all three campuses, allowing students throughout central Maryland to pursue high-demand health care training programs at low cost in one convenient location.

Established to expand access to health care training and address the critical workforce shortage of health care professionals in the state, the center allows students from each county to take any program or course offered at the Mount Airy location at the in-county tuition rate. Students who complete course work at the center receive the same instruction and resources as students attending class on the main campus of each college.

Each member college of the Mount Airy consortium is fully accredited by the Middle States Commission on Higher Education and the Maryland Higher Education Commission (MHEC).

Facility:
MACC features more than 15,000 square feet of academic and support space, which includes:

(1) Respiratory Care/EMS Lab
(1) MLT/Microbiology Lab
(1) A&P/Biology Lab
(1) Multipurpose Lab
(1) Lab Prep
(7) Office (shared)
(3) Multipurpose Classroom
(1) Computer Lab/Classroom
(1) Student study/lounge

MACC, at its maximum capacity, is approximately 224 (24 students per 8 labs and classrooms and 22 staff and faculty). Maximum capacity is well below the fire marshal limit based on square footage (163 lower level and 398 first floor = 561 total – includes corridors, bathrooms, lounge, offices, classrooms, etc.); however, program accreditation guidelines and best practices for instruction limit class size.

MACC has 65 parking spaces, with access to an additional 40 spaces in the adjacent lot owned by the city of Mt Airy and limited street parking; subsequently, at any given time, there is approximately 105 – 130 places for students, staff and faculty to park. Achieving maximum capacity of the facility cannot be met under the current parking limitations. The MACC partner institutions will need to explore adding additional parking and/or encouraging use of city transit or campus-based shuttle services, neither of which has been established at this time. Further, there is an additional 5,000+ square feet of un-leased space in the MACC building. If/when the owner leases that space, we can assume that the occupants will also share the current parking spaces.

MACC is open Monday – Thursday from 7:00 am – 11:00 pm (16 hours per day), Friday from 7:00 am – 5:00 pm (10 hours) and Saturday when classes are scheduled, approximately 74 – 85 hours each week. Operating hours were established based one 1) staffing, 2) class schedule and 3) access to security (Monday – Thursday only).

Instruction:

MACC opened for instruction on August 27, 2012. The following credit and continuing education programs, in addition to an array of supporting general education courses (e.g. : Micro Biology, English Composition, Health Care Ethics, Statistics, Human Biology, Psychology, Sociology, etc.), are being offered:

Carroll Community College	Frederick Community College	Howard Community College
Credit Programs		
Health Information Tech	Medical Laboratory Tech	Emergency Medical Tech - Paramedic
	Respiratory Care	Emergency Medical Tech - Basic
	Bio Processing	
Continuing Education Programs		
Dental Assisting	Pharmacy Tech	Cardiovascular Tech - EKG
	Medical Biller/Coder	Nursing & Home Healthcare Aides

There are no plans to increase the number of credit programs at this time. Each course and section is currently under-enrolled. The goal of increasing enrollment and revenue will be achieved by increasing the number of students in each section, rather than adding more sections or programs.

Enrollment:

During the first semester of operation, there were 304 credit students and 93 continuing education students. Enrollment was lower than expected based on 1) construction delays, 2) limited marketing and 3) college-based program promotion. Enrollment is expected to marginally increase during the

spring 2013 semester for both credit and continuing education, with a conservative 4% increase in credit instruction and flat enrollment for continuing education courses for fall 2013. Projections beyond FY 14 have not been made at this time. Once we have completed a full academic year (e.g. fall, spring and summer), the MACC partners will have a better idea of what we can expect going forward.