CARROLL COMMUNITY COLLEGE

2026 – 2036 Facilities Master Plan

January, 2026

Approved by Carroll Community College Board of Trustees
December 17, 2025

Marshall Craft
PLANNING + ARCHITECTURE

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INTRODUCTION

This Facilities Master Plan (FMP) lays out the history, current conditions, and suggested paths forward for Carroll Community College relative to its facilities. The Marshall Craft planning team has drawn on several resources to inform development of the FMP, including: review of data furnished by the College and from external sources, observations by the consultants, and conversations in meetings with the FMP Steering Committee from 2023 through 2025. The FMP complies with the State of Maryland / Maryland Higher Education Commission (MHEC) requirements. As informed by the original College Request for Proposals, we have developed one additional area of investigation, 'Academic Planning', which exceeds MHEC FMP requirements but, more importantly, helps to inform development of the case for 'need' as well as consideration for updating existing facilities and adding new buildings.

The College has developed a cadre of skilled leadership, faculty, and staff. We have noted comments from the Carroll County community as they hold these persons in high regard. This, in turn, is how the County residents feel about the College itself. It is an important community resource to be appreciated, protected, and heralded throughout the County. We have witnessed the same strengths already well known to others in Carroll County. And let's not forget the deserving students, who typically depend on the College for their own educational experiences and career advancement.

The ultimate focus of this plan is the College's *facilities* – campus buildings, site features, and infrastructure. Accordingly, much of this report will embrace the case for need and justification for improvements to the College's facilities. The history of capital improvements supported by the State and by the County is one of splendid achievements, at times compromised by the need to play 'catch-up'. In several projects, the demand for needed space addressed several often disparate needs at the same time, with buildings serving more than one purpose or being compromised by insufficient budgets. Two exceptions are the Nursing Building and the Learning Resources Center (LRC). But even in the LRC, minor renovations one at a time have resulted in limited areas for the spaces needed for a true learning center. Similarly, some science labs are outdated and too small for 21st-century pedagogy and learning experiences. Some students have noted that the best of the County's K-12 schools provide better facilities than some they find at CCC. The last significant capital project, Building K, was completed in 2010. In the meantime, the population has grown, as well as the need for more and better space.

Chapter 1 lays out the overview of the College from its founding to its current state.
Chapter 2 establishes the needs of the College today, focusing on the need for space in both quantitative and qualitative contexts.
Chapter 3 describes the College today, from Academic programs to buildings and building systems, the campus, and sustainability.
Chapter 4 lays out the basis for recommendations, leading to recommendations for the campus development, including buildings and building systems, both individually and college-wide, the campus, sustainability, and recommended capital projects with budgetary cost estimates.

This Facilities Master Plan provides the foundation and framework for the College, the County Commissioners, and the State to resume the College's pursuit of developing the facilities most needed, now, by the College, its students, faculty, and leadership.

EXECUTIVE SUMMARY

OVERVIEW OF THE COLLEGE

CARROLL COUNTY

Carroll County is located in northern Maryland. It consists of a Piedmont Region bounded by Pennsylvania to the north, the Patapsco River (north branch) and Liberty Reservoir to the southeast, the Patapsco River (south branch) to the south, and the Monocacy River to the northwest.

A rural-suburban county, Carroll has a total area of 453 square miles, of which 448 square miles is land and 5.1 square miles is water. Carroll County is included in the Baltimore-Columbia-Towson, Maryland Metropolitan Statistical Area, which is also included in the Washington-Baltimore-Arlington, DC-MD-VA-WV-PA Combined Statistical Area.

Carroll County was founded January 19, 1837 and named for Charles Carroll of Carrollton, a signer of the Declaration of Independence. The county seat is Westminster, a Union supply depot for the Battle of Gettysburg (July 1-3, 1863) during the American Civil War. The main economic activities are manufacturing and agriculture (dairy, cattle, oats, and corn).

As of the 2020 census, Carroll County's population was 172,891 and grew to a U.S. Census Bureau estimate of 176,639 in 2023, of which 98% are U.S. citizens. In 2022, there were 23.7 times more White (non-Hispanic) residents in Carroll County than any other race or ethnicity. White (non-Hispanic) residents represented 86.8% of the population, 3.66% were Black or African American (non-Hispanic), 2.6% Multiracial (non-Hispanic), and 2.2% Asian (non-Hispanic) residents, the second, third, and fourth most common ethnic groups.

The 2022 median household income in Carroll County is approximately $111,672.

Carroll's primary occupations are reflected in the American Community Survey (ACS) 2013-2022 released in 2022.

Census Bureau ACS 5-year Estimate

The most common areas of employment by number of people living in Carroll County, Maryland are Management Occupations (13,433 people), Office & Administrative Support Occupations (9,335 people), and Sales & Related Occupations (7,732 people). The above chart illustrates the share breakdown of the primary jobs held by residents of Carroll County.

CARROLL COMMUNITY COLLEGE TODAY

Carroll Community College (Carroll) is a 2-year, public, open admissions, associate degree-granting institution in Carroll County, Maryland, with baccalaureate preparation programs, career education, workforce and business development, and personal and cultural enrichment opportunities. As a vibrant, learner-centered community, the College engages students as active learners, prepares them for an increasingly diverse and changing world, and encourages their lifelong learning. Ten (10) buildings are situated on an approximately 80-acre campus located at 1601 Washington Rd, Westminster, Maryland 21157.

History

Responding to interest expressed by citizens of Carroll County, the Carroll County Board of Commissioners examined the need for additional educational opportunities in the county in 1973. As a result, the county commissioners appointed a team to conduct a special study to review the possibilities, including a community college program that would be available to Carroll County citizens.

Catonsville Community College took an interest in the idea and presented a proposal, which was sent to a Carroll Community College Advisory Committee with the purpose of evaluating the recommendation for a community college. Then, a draft Community College Service Agreement was forwarded to Catonsville Community College.

On February 10, 1976, the Carroll County Commissioners entered into a three-year contractual agreement with Catonsville Community College to establish a branch campus in Carroll County. Approval was given for the Carroll County branch of Catonsville Community College to begin its instructional program for more than 750 students with over 1,500 course registrations.

Consistent growth of the student body and program demands, future planning resulted in several facility changes, with the College's first home in the old Robert Moton Elementary School on Center Street. The county, following the recommendation of the advisory board, purchased a site on Route 32. Following this, the East End Elementary School was briefly used for additional classroom space. Then, in January 1982, the county made the South Center Street building available to the College.

In 1983, the Board of Carroll County Commissioners approved the development of the College's first Facilities Master Plan to guide the physical development of the facilities required to support a comprehensive community college for the citizens of Carroll County. This original Master Plan was approved in 1984, updated in 1994, and revised in 1997. A new Facilities Master Plan for 2002-2012 was approved in 2002 and updated in February 2010 for the period of 2010-2020. This plan was revised in

2015 from that approved in 2010 to become Carroll's current and in effect *Carroll Community College Facility Master Plan 2015 –2025*.

After operating in several different locations in Carroll County, in August 1990, the College celebrated the opening of its current campus on Washington Road, with two buildings—the A Building and the C Building.

In late 1992, the College met with the Middle States Commission on Higher Education (MSCHE) to become accredited as a two-year, degree-granting institution. After visits with the Maryland Higher Education Commission (MHEC) and MSCHE, degree-granting status was offered by MHEC in 1993, and candidacy with MSCHE was awarded later the same year. Carroll Community College was granted full accreditation in 1996 and reaffirmed in 2001, 2011, 2016, and 2021.

The M Building, a multi-purpose building, opened in the fall of 1993 and was entirely funded by Carroll County. In 1997, the L Building was built, and shortly after, the Rotary Amphitheater was completed in 1998. The T Building, which houses the theater, art gallery, and business training center, was opened in 2002, as was the P Building. This was followed by the N Building in 2004. Two small additions to the T Building were constructed in 2006 and 2007. The College's most recent construction project, the K building, was opened in 2010.

Mission

***Empowering learners. Changing lives. Building community*.**
Carroll Community College provides accessible, high-quality educational opportunities to advance careers, enrich lives, and strengthen the community we serve.

Vision
Carroll is our community's first choice for learning.

Values
At Carroll Community College, we demonstrate the following values in all we do:

- Community
- Accountability
- Respect
- Reflection
- Opportunity
- Learning
- Leadership

Mission-Based Institutional Goals
These goals are defined in Chapter 1.

2025-2029 Strategic Plan Core Strategies:

- **Core Strategy I**: Intentionally design innovative programs, services, and environments to address barriers and optimize success.
- **Core Strategy II**: Treat people as a priority by promoting a culture of well-being and belonging that advances academic, personal, and professional growth.
- **Core Strategy III**: Build community through seamless, inclusive, and cohesive experiences that meet individual aspirations and collective needs.

Carroll Community College Civility Statement

Carroll Community College is committed to the highest standards of integrity. As such, we continuously cultivate an environment of mutual respect and responsibility. Students and employees have a right to learn and work in a safe, just, humane, and inclusive environment free from prejudice, discrimination, harassment, and bullying.

- We acknowledge the right to freedom of expression - the right of every individual to think and speak as dictated by personal belief and to disagree with or counter another's point of view.
- We pair the right to freedom of expression with our commitment to maintaining the highest standards of civility, respect, and decency among all members of the College community.
- We recognize the enrichment added to our lives by our diversity, therefore, we endeavor to overcome deep-rooted misunderstandings and biases and foster understanding of the diverse characteristics of the members of our community.
- We reject and confront all forms of discrimination, including those based on ability/disability, age, class, economic status, race, ethnicity, color, national origin, language, visas status, gender identity and expression, sex, sexual orientation, marital status, religion, political beliefs, height, weight, and veteran status within or outside the College.
- We do not accept symbols of hate virtually or on the College's campus unless presented in an educational format as approved by faculty or College leadership.

Digital Accessibility Statement

Carroll Community College is committed to making our entire digital presence perceivable, operable, understandable, and robust for the greatest number of people possible. These four principles, disseminated in W3C's Web Content Accessibility Guidelines (WCAG), form the foundation of Carroll's Digital Accessibility policy.

We strive to meet or exceed the requirements of WCAG 2.0 Level AA for all digital resources, including:

- Instructional content
- Administrative content
- Communications content

Additionally, to provide comparable experience and information access to all students, employees, and the broader community, we commit to equity in the purchase, development, and application of our Information Technologies. This applies to our websites, Learning Management System, courses, assessment tools, and faculty/staff resources.

With this statement, Carroll Community College outlines a long-term strategy rather than a fully accomplished agenda. If you encounter a problem with any of our digital resources, or are otherwise in need of reasonable accommodation, even for a short-term need, please reach out to Disability Services. We are eager to hear your questions, concerns, or feedback, and will do all possible to provide a solution.

Governance and Organization

Carroll Community College's governing board is comprised of seven trustees exercising general control over the College. The board members are appointed to six-year terms on a staggered basis by the Governor of Maryland under Article 16, subtitle 2 of the Annotated Code of Maryland.

The board's primary function is to establish the policies that govern the College and to see that the institution fulfills its mission and goals. The Board of Trustees performs its responsibilities of appointing a chief executive officer, making policy, providing advice on major issues, and providing stewardship of the institution's assets. They are also responsible for approving the academic programs offered by the College and for assuring that the highest possible academic standards are met. The board provides oversight of the financial status and management of the institution. The Board of Trustees appoints a President of the College who serves as the chief executive officer of the College and secretary-treasurer for the Board of Trustees. The board officers consist of a chair, vice-chair, and secretary/treasurer. By law, the College president serves as the secretary/treasurer to the board.

The president is hired by and reports directly to the Board of Trustees. Hired by and reporting directly to the Board of Trustees, the president heads the College's Executive Team, consisting of:

- Vice President of Academic and Student Affairs and Dean of Faculty
- Vice President of Administrative Services
- Vice President of Effectiveness, Integrity and Accountability
- Vice President of Workforce, Business, and Community Education
- Chief Communications and Public Relations Officer

Additional direct reports to the President include: 1) Executive Director of College Standards and Accountability; and 2) Executive Director of Institutional Advancement and College Foundation.

Students, Faculty and Staff

During the fall semester of 2023, the College enrolled an unduplicated headcount of 3,164 students in 25,498 credit hours of instruction, generating 1,700 full-time equivalent student (FTES) enrollments.

Credit Enrollment Summary: Fall 2023

Full-Time Headcount	Part-Time Headcount	Total Headcount	Credit Hours	FTES
901	2,263	3,164	25,498	1,700

Headcount enrollments and full-time equivalent student (FTE or FTES) enrollments are the principal measures of student population. Although headcount is commonly used when referring to enrollments, this measure is generally not used as a primary metric for determining space allowances, needs, or other facility planning purposes. The next two tables provide six-year trend summaries of credit vs. noncredit enrollments first expressed as unduplicated headcounts and then as State-funded FTE.

Headcount Enrollment Comparisons (2018-2023) Credit vs. Noncredit

	Fiscal Years					
Headcount	2018	2019	2020	2021	2022	2023
Credit	4,314	4,256	4,304	4,145	3,806	3,998
Noncredit	7,309	6,785	5,038	3,230	4,602	5,676
Totals*	11,288	10,756	9,117	7,183	8,199	9,391
Noncredit %	64.8%	63.1%	55.3%	45.0%	56.1%	60.4%

*Total unduplicated headcount is the number of unique students served by the institution. The sum of credit and noncredit headcounts will exceed the total because some students are enrolled in both types of courses during the reporting period.

FTE (State-funded) Comparisons (2018-2023) Credit vs. Noncredit

	Fiscal Years					
FTE (State-funded)	2018	2019	2020	2021	2022	2023
Credit	1,880	1,844	1,820	1,759	1,568	1,624
Noncredit	464	432	360	307	358	427
Totals	2,344	2,276	2,180	2,066	1,926	2,051
Noncredit %	19.8%	19.0%	16.5%	14.9%	18.6%	20.8%

Nearly 21% of Carroll Community College's full-time equivalent (FTE) student population is represented by enrollments in State-funded noncredit courses. Maryland's space planning models do not fully provide for consideration of Workforce, Business & Community Education student enrollment data when determining the need for specific spaces for facilities. However, it is rather obvious that the implications of such statistics would have a significant impact on Carroll's need for space.

College staffing for this Facilities Master Plan consists of 78 full-time faculty and 211 full-time staff. The following table illustrates the distribution of personnel who are critical to providing campus environments that foster academic excellence and student success.

Table 1.4: Faculty and Staff (2023)

Category	Fall 2023 Full-Time	Part-Time	Total
Faculty (Credit)	78	115	193
Faculty (Noncredit)	0	64	64
Staff	211	108	319
Totals	**289**	**287**	**576**

Programs of Study

Lifelong learning is an integral part of the institution's philosophy, resulting in the continued growth of both credit and noncredit program options. This commitment to serving the learner places Carroll Community College as the leading provider of postsecondary education for Carroll County. In responding to the needs of its varied constituents, the College assumes multiple roles within the community. The continuum of educational delivery spans the needs of County youth in summer programs, high school graduates, young adults and employees in the workforce, professionals, business owners and individuals with the desire to learn for personal enrichment.

Complementing the full degree options is a selection of certificate programs that focus on the technical aspects of the degree, demonstrated by the successful completion of approximately 30 credits. Letters of Recognition are available in selected disciplines and generally require the completion of three courses. Students interested in computer-related technology, accounting, education, office technology, criminal justice, or music can advance their skills by selecting one of these non-degree academic program options.

Degree-Credit Program Offerings

Carroll offers more than 70 credit programs and transfer patterns across a wide range of program areas of study, each providing an in-depth curriculum and professional orientation.

Program Area	AA/AAT	AAS/AS/ASE	Certificate	Letter of Recognition
Advanced Manufacturing		1	2	
Business & Accounting	4	1	3	1
Communication & Language	3			
Computers & Technology	3	4	5	
Environment & Conservation		1		
English to Speakers of Other Languages (ESOL)	program for students who want to enter an academic program of study			
Fitness & Wellness	2	1		
History, Culture & World View	2			
Nursing & Allied Health		5	3	
Performing Arts	3			
Science, Engineering & Math		8		
Social Sciences	4	1	2	
Teaching & Education	7	1		
Visual Arts	5	2	2	
Writing	3			

Students may complete an Associate of Arts degree (A.A.) in the following programs:

Arts and Sciences
Arts and Sciences – Criminal Justice
Arts and Sciences – Forensics
Arts and Sciences – Legal Studies
Arts and Sciences – Music
Arts and Sciences – Nursing
Arts and Sciences – Psychology
Business Administration – General Business
Business Administration – International Business
Business Administration – Management Information Studies
General Studies
Health and Exercise Science
Legal Studies
Nursing - ADN
Paralegal Studies
Teacher Education
Associate of Fine Arts
Associate of Arts in teaching (AAT) – Early Childhood
Associate of Arts in Teaching (AAT) – Elementary Education
Associate of Arts in Teaching (AAT) – Secondary Education, Concentrations in Mathematics, Spanish, English, Physical Education, and Chemistry
Associate of Applied Sciences
Associate of Science in Engineering
Associate of Science in Computer and Electrical Engineering

Students who plan to transfer can use the programs listed above to create a curriculum consisting of the College's general education requirements and the undergraduate courses required by transfer institutions. The possibilities are endless but include such majors as:

American Studies
Anthropology
Art, Fine and Applied
Biology
Biotechnology
Chemistry
Communications
Economics
Environmental Science
Geography
Geology
Health Sciences
Pre-Law
Mathematics
Pre-Medicine
Meteorology
Music
Nursing
Political Science
Psychology
Science Technology
Sociology
Social Work
Speech/Communication
Theatre

CAREER PROGRAMS

Through Carroll Community College, students may complete an Associate of Applied Science degree (A.A.S.) in the following programs:

Accounting
Administrative Assistant
Computer Graphics – Graphic Design
Computer Graphics - Multimedia Design
Computer Graphics Web Design
Computer Information Systems
Computer Information Systems – User Support Technology
Computer Information Systems - Microcomputer Services
Computer Information Systems - Application Software Support
Computer Information Systems - Local Area Network (LAN)
Early Childhood Education
Digital Design & Fabrication
Law Enforcement
Physical Therapist Assistant (selective admissions)
Technical and Professional Studies

CERTIFICATES

Students who would like to focus on the technical aspect of the degree may consider the following Certificates:

Accounting - CPA Exam Qualification
Accounting - Tax
Accounting - Management
Computer Graphics - Design
Computer Graphics - Multimedia Design
Computer Information Systems - Programming Language, Visual Basic
Computer Information Systems - Programming Language, C/C++
Computer Information Systems - Microcomputer Services
Computer Information Systems - Application Software Support
Computer Information Systems - Local Area Network (LAN)
Digital Fabrication & Design
Early Childhood Education
Office Technology
Practical Nursing
Small Unmanned Aircraft Systems (sUAS) Pilot Safety
SOLIDWORKS

OTHER PROGRAMS

Dual Enrollment: To enhance learning, students may be simultaneously enrolled in both high school and a post-secondary institution. With approval, selected students can earn credit at Carroll Community College by taking classes that support their overall educational plan and career interests and are a logical extension of their planned sequence of study. This Dual Enrollment program allows high school students to take Carroll courses while still in high school and get a head start in college.

Digital Learning: Digital Learning is the general term for learning opportunities accessed via remote electronic access (not in the traditional classroom). Several delivery modes are available at Carroll, including on-line (Internet), and hybrid courses which deploy a face-to-face and online learning component in a given course.

The Internet provides an enhanced mechanism for the delivery of credit and non-credit coursework and student/faculty interaction. Internet based instruction provides time and location independent learning opportunities often found to be useful for working adults. The College uses the Canvas Learning Management System as a virtual course presence for all courses. This enables students to have 24/7 access to all course materials in online and face-to-face courses.

Maryland Online: In addition to the many distance learning courses that originate at Carroll, credit seeking students can take advantage of Carroll's membership in Maryland Online and get on-line courses from selected other community colleges. Students register and pay Carroll tuition even though the course may originate from another college.

WBCE-NONCREDIT PROGRAM OFFERINGS

Carroll Community College is committed to the development of a highly qualified local, state, and regional workforce. Workforce, Business & Community Education (WBCE) offers an array of timely and relevant educational opportunities for Carroll County residents. Courses and training programs assist individuals and groups to prepare and keep pace in career, occupational, professional, personal, and cultural growth areas.

The College now offers 45 competency-based Workforce, Business Certificate programs ranging from 75- 400+ hours of instruction. Business Solutions is a key partner in the Carroll County Business Path initiative and provides access to technology, networking opportunities, and courses and seminars to promote entrepreneurship and support business start-ups in the County. The Hikel Business Training Center houses classrooms, labs and other resources to support workforce training and organizational development services to local employers.

WBCE offers adult education programs that help to improve the basic skills needed to earn a high school diploma. Classes prepare students to take the GED exam and earn a high school diploma. Adults who are seeking a high school diploma and have mastered basic skills through life experience are eligible for the External Diploma Program of independent study and portfolio development. English classes for foreign-born students are offered through the ESOL program.

WBCE Programs Include:

- Career Training, Technical Skill Development, and Continuing Professional Education
- Nursing and Health Care
- Information Technology
- Applied Technology
- Child Care

Other Occupational Training Programs - A broad array of courses to prepare students to work in, or advance in, a variety of occupations are offered. Some College offerings in the trades are held at the Carroll County Career and Technology Center. Some offerings are held in partnership with local community colleges. Some of the following training programs are also designated as Continuing Education Certificate Programs.

- Electrical Apprenticeship
- HVAC Apprenticeship
- Plumbing Apprenticeship
- Home Inspection
- Home Improvement
- Food Service and Alcohol Management
- Management Development
- Real Estate Sales
- Advanced Manufacturing
- Welding
- Industrial Maintenance Technology/Millwright
- Veterinary Assistant
- Animal Control Officer
- Commercial Vehicle Driver—CDL A/ B

Workforce, Business, and Community Education

Carroll Community College partners with several national and international training organizations, bringing world-renowned training to local employers. Alliances with DDI©, Achieve Global©, and other globally recognized curriculum providers enable us to deliver widely acclaimed programs in leadership, management and customer service.

Programs and Services include:

- Customized training, tailored to meet specific business needs in convenient and flexible formats.
- Industry-specific technical skills to prepare employees for technological changes within the company.
- IT software training and certification programs in high-end training facilities.
- Mobile laptop computer lab to take training directly to a business.
- Licensure and pre-certification programs designed to meet state, national, and professional association requirements in a broad range of industries.
- Consortium training designed to help small businesses pool resources to address common training needs.
- Communication skills, including English for speakers of other languages (ESOL) and Spanish for the workplace.
- Consulting services, including language translation, strategic planning facilitation, technical writing, employee skill assessment, technology planning, and other topics related to organizational development
- Adult Basic Education, diploma programs including GED and External Diploma, and English for Speakers of Other Languages (ESOL)
- Conferencing services that meet the continuing education needs of the agencies, businesses and the professions.
- Partnerships with state and national associations that bring pre-licensing and continuing education courses (CEUs) to professionals in the region.

To further the mission of providing services to the business community, the College has established partnerships with the Maryland Department of Business and Economic Development, Carroll County Office of Economic Development, Small Business Development Center, Business and Employment Resource Center, Carroll Technology Council, Carroll County Chamber of Commerce, Carroll County Public Schools, Public Libraries, and numerous other business associations in the County.

- Start-Up Business Development and Entrepreneurship
- Professional Development, Licensure, and Certification
- Lifelong Learning and Community Development
- Children and Youth
- Older Adults and Retirees
- Arts, Humanities and Personal Development
- Adult Education & English for Speakers of Other Languages (ESOL)

Accreditations

Carroll Community College is accredited by the Middle States Commission on Higher Education, 1007 North Orange Street, 4th Floor, MB #166, Wilmington, DE 19801. (267-284-5000) The MSCHE is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA). The College was granted full accreditation in 1996. Accreditation was reaffirmed in 2001, 2006, 2011, 2016, and 2021. Carroll Community College was approved on April 14, 1993 to operate as a community college and award associate degrees and lower-division certificates in the state of Maryland by the Maryland Higher Education Commission (MHEC). Additional program accreditation can be found in Chapter 1 Overview of the College.

Campus Facilities

The Carroll Community College campus buildings collectively total 346,649 gross square feet (GSF) and contain approximately 200,310 net assignable square feet (NASF) of space. The various buildings range in age from two (2) original buildings (Academic/Administration Building "A" and Classroom Building "C") built in 1990 to Classroom Building "K" built in 2009 and occupied in 2010. None have undergone major renovations. Also located on campus is a rotary amphitheater which is classified as a miscellaneous structure. Therefore, it is appropriately not subject to inventory.

Carroll also occupies space at two off-site locations in Westminster; the Multi-Service Center at 224 North Center Street and the Carroll County Career and Technology Center (CCCTC) at 1229 Washington Road.

Digital Learning is provided at Carroll Community College for credit and non-credit courses, as well as for businesses.

Table 1.6: Campus Buildings (chronological listing)

Designation	Built	Known As	Building Donor Name	GSF	NASF	Primary Use
		Main Campus				
A Building	1990	Academic/Administration Building	The Kahlert Foundation Campus Center	73,000	38,488	Office, Instruction
C Building	1990	Classroom Building		21,000	13,478	Instruction
M Building	1993	Multi-purpose Building	The Virginia S. Minnick Classroom Building	21,270	13,226	Instruction, Office
L Building	1997	Learning Resources Center	Penguin Random House Learning Resources Center	57,000	34,727	Study, Instruction
R Building	1998	Amphitheater	Rotary Amphitheater	See Note Below		Outdoor Performances
T Building	2002	Fine and Performing Arts/Business Training	The Scott Center for the Fine and Performing Arts	44,050	21,434	Assembly, Instruction
P Building	2002	Fitness Center	The First Financial Federal Credit Union Life Fitness Center	17,540	11,540	Physical Education
N Building	2004	Nursing/Allied Health Building	The Pappalardo Nursing and Health Care Education Center	31,557	19,526	Instruction
	2006	Theater Workshop		800	722	Assembly
	2007	Theater Workshop Storage Building		432	385	Assembly
K Building	2009	Classroom Building	Drs. Chitrachedu & Vimala Naganna Center for Innovation	80,000	46,784	Instruction, Office, Food Svc.
		Main Campus Totals		**346,649**	**200,310**	

Note. The Rotary Amphitheater is classified as a "miscellaneous structure." Therefore, it is appropriately not subject to inventory for facility planning purposes.

		Off-Site Campuses/Leased Space				
		North Center Street-Multi-Service Center		1,800	1,634	Instruction
		Carroll County Vocational Center		3,000	3,000	Instruction
		Off-Site Totals		**4,800**	**4,634**	
		Carroll Community College Totals		**351,449**	**204,944**	

NEEDS ASSESSMENT

CONTEXT

Carroll is committed to developing its campus facilities in ways that best accommodate the needs of students, faculty, and staff, while pursuing plans that benefit all stakeholders in the success of the campus and the larger community. The College will, on an ongoing basis, consider the merits of removing some obsolete facilities from inventory, renovating and/or renewing other existing facilities, as well as providing new facilities.

Projected needs are the results of future demand on facilities and infrastructure.
Although the lecture/lab instructional delivery mode will continue to be used, colleges and universities will increasingly supplement that delivery modality with specialized learning environments that allow for both scheduled and unscheduled instruction and learning in discipline-specific simulated environments.

Growth of some existing programs and the establishment of new ones suggest concomitant growth in enrollment and a need for specific, specialized facilities.

Demand for critical skills in top growth occupations, flexibility in contract and workforce training with their unique learning environments, veterans, and the aging of the general population will be primary drivers for future program offerings and learning environments. Workforce, Business & Community Education (WBCE) at Carroll Community College offers affordable and convenient workforce training and lifelong learning opportunities for students of all ages. These “market-driven” courses must be extremely flexible as course changes are continuous. This flexibility is essential in order to meet the ever-changing needs of its unique market. As the general population ages, it is expected that a maturing workforce will create greater demand for continuing education and personal enrichment opportunities. WBCE programs will require highly flexible, sometimes large, specialized learning environments for a variety of trade skills.

Central to Carroll’s efforts to enhance and refine its learning environments are two major initiatives of restoring and maintaining existing facilities, and improving the overall aesthetic environment.

Contemporary teaching/learning environments include the provision of detailed and unique needs for classroom, laboratory, and office space, as well as ancillary spaces required for supporting future programmatic impetus.
Improved literacy and refinement of technology in educational institutions dictate the provision of instructional spaces that are designed for both unique and/or shared functions. These spaces will further require adequate consistency with global reconfiguration that increases the utilization efficiency ratio.

In future environments, the distinction between a computer lab and a lecture classroom will disappear because technology and furnishings will be unobtrusive but available on demand. Except for science labs, athletic and recreation spaces, and some arts studios, the idea of rooms belonging exclusive to an instructional area will also become obsolete.

Electronic presentation that allows integration and manipulation of complex data into the learning environment is becoming the norm. Teleconferencing and online learning capabilities will make partnerships with other schools and businesses commonplace. Modernization of instructional delivery requires that instructional spaces be configured relative to future disciplinary/programmatic goals whose objectives and functions dictate more efficient organization and effective utilization of space.

GLOSSARY OF TERMS

Bound Volume Equivalent (BVE)	The physical space required to accommodate a variety of library materials in amounts equal to one single typical book.
Class Laboratory	Space that is used primarily for formally or regularly scheduled classes that require special purpose equipment for a specific room configuration for student participation, experimentation, observation, or practice in an academic discipline.
Classroom	Space that is not limited to a specific subject or discipline by equipment or room configuration.
Core Space	Space necessary because of existence of the institution or program without regard to other factors.
Credit Hour	A numerical value awarded a student for successfully completing a course.
Facilities Inventory	Room-by-room and building-by-building listing of assignable spaces, their primary use, their size and their capacity.
Full-Time Equivalent Faculty (FTEF)	A base factor statistic equal to all full-time faculty plus 25% of all part-time faculty. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTEF computed for budgetary or other reporting purposes.**
Full-Time Equivalent Student (FTE or FTES)	The total number of on-campus credit hours taught during a given semester/term, divided by 15. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTE or FTES computed for budgetary or other reporting purposes.**
Full-Time Day Equivalent Student (FTDE or FTDES)	The total number of on-campus credit hours taught before 5:00 p.m. during a given semester/term, divided by 15. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTDE or FTDES computed for budgetary or other reporting purposes.**
Gross Square Feet (GSF)	The sum of square feet of space in a building included within the outside faces of exterior walls for all stories or areas that have floor surface. Included are all structural, mechanical, service and circulation areas.
Net Assignable Square Feet (NASF)	The sum of all areas on all floors of a building assigned to, or available for assignment to an occupant for specific use. Excluded are spaces defined as structural, mechanical, services and circulation areas.
Student Contact Hour	A measure of time of scheduled interface between students and teacher that is usually expressed in terms of Weekly Student Contact Hour (WSCH), which is the number of hours per week of required interface. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from WSCH computed for budgetary or other reporting purposes.**
Use Codes	Space use codes represent the recommended central or core concepts for classifying the assignable space, **by use**, within campus facilities. Sometimes referred to as HEGIS or FICM codes.

QUANTITATIVE ASSESSMENT (Space)

Quantitative assessment of space incorporates the concept of supply and demand. It is the process of providing one computed estimate of an allocated supply of learning, support, and resource space given a projected demand of academic programs and co-curricular activities, faculty and staffing levels, and student enrollments. The ultimate outcome is to provide estimates of the overall sufficiency of campuswide supply of space that is eligible for capital funding by the State.

Key Findings

Guidelines space allowances are the results of demand, in terms of anticipated programs, enrollments and staffing, against space and buildings. To reemphasize, the ultimate outcome of this quantitative assessment is only to compute suggested maximum state funding allowances for various types of campuswide space categories.

Space deficits in all but five room use categories (Class Laboratory, Stack/Processing, Lounge, Merchandising, and Media Production) were suggested when Maryland's *Space Allocation Guidelines* formulae are applied to Carroll Community College's projected (2033) space inventory.

The 2023 campus building space inventory was 200,310 net assignable square feet (NASF). The College anticipates a 2033 space inventory to remain at 200,310 NASF as the base or supply against which the need, generated by the demand of future activity, would be quantified.

When space deficits and surpluses were computed by comparing enrollment and staffing projections against projected space inventory, the outcome was a projected 2033 overall deficit of 83,761 NASF as shown by the following tables. Quantitative indicators suggest immediate and long-term need for facilities to support space classifications showing significant deficits.

The following tables 2.1 and 2.2 identify the deficits and surpluses projected to the year 2033, the planning horizon for this Facilities Master Plan (FMP), and current and projected space allowances for 2023 (the base year for this FMP) and 2033. The third table (2.6) lays out the current campus space inventory in net assignable square feet (NASF) by building.

Table 2.1: Projected (Fall 2033) Space Deficits and Surpluses

Space Classification	Use Code	Projected NASF Fall 2033 Inventory	Allowance	(Deficit)/Surplus
Office/Conference Room	310/350	46,401	96,736	(50,335)
Athletics/Physical Education	520	7,769	36,540	(28,771)
Study	410	5,678	10,963	(5,285)
Open Laboratory	220	2,618	7,367	(4,749)
Shop/Storage	720-740	8,459	10,824	(2,365)
Food Facility	630	9,815	11,883	(2,068)
Meeting Room	680	4,116	6,000	(1,884)
Testing/Tutoring	320	0	1,627	(1,627)
Classroom	100	31,480	32,960	(1,480)
Assembly	610	11,345	12,508	(1,163)
Central Service	750	2,923	4,000	(1,077)
Greenhouse	580	0	1,000	(1,000)
Exhibition	620	830	1,627	(797)
Health Care	800	0	551	(551)
Hazmat Storage	760	0	216	(216)
Data Processing	710	2,413	2,500	(87)
Subtotals Deficits		133,847	237,302	(103,455)
				0
Class Laboratory	210	45,301	32,627	12,674
Stack/Processing	420/440	9,428	4,675	4,753
Lounge	650	4,866	3,495	1,371
Merchandising	660	2,238	1,727	511
Media Production	530	2,188	1,803	385
Subtotals Surpluses		64,021	44,327	19,694
Day Care	640	2,442	2,442	0
Subtotals Ad Hoc		2,442	2,442	0
Campus Totals		**200,310**	**284,071**	**(83,761)**

Table 2.2: Summary of Computed Space Allowances

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Space								
Classroom	110	31,480	17,777	13,703	0	31,480	32,960	(1,480)
Class Laboratory	210	45,301	17,598	27,703	0	45,301	32,627	12,674
Open Laboratory	220	2,618	3,973	(1,355)	0	2,618	7,367	(4,749)
Subtotals		79,399	39,348	40,051	0	79,399	72,954	6,445
Academic Support Space								
Office	300	46,401	54,246	(7,845)	0	46,401	98,363	(51,962)
Study	400	15,106	9,917	5,189	0	15,106	15,638	(532)
Athletics/Physical Education	520	7,769	34,000	(26,231)	0	7,769	36,540	(28,771)
Media Production	530	2,188	1,600	588	0	2,188	1,803	385
Greenhouse	580	0	1,000	(1,000)	0	0	1,000	(1,000)
Assembly	610	11,345	12,000	(655)	0	11,345	12,508	(1,163)
Exhibition	620	830	1,500	(670)	0	830	1,627	(797)
Food Facility	630	9,815	6,416	3,399	0	9,815	11,883	(2,068)
Lounge	650	4,866	1,887	2,979	0	4,866	3,495	1,371
Mechandising	660	2,238	1,600	638	0	2,238	1,727	511
Meeting Room	680	4,116	6,000	(1,884)	0	4,116	6,000	(1,884)
Data Processing	710	2,413	2,500	(87)	0	2,413	2,500	(87)
Shops/Storage	720-740	8,459	7,061	1,398	0	8,459	10,824	(2,365)
Central Service	750	2,923	4,000	(1,077)	0	2,923	4,000	(1,077)
Hazmat Storage	760	0	141	(141)	0	0	216	(216)
Health Care Facilities	800	0	500	(500)	0	0	551	(551)
Subtotals		118,469	144,368	(25,899)	0	118,469	208,675	(90,206)
Other Classified Space (Ad Hoc)								
Day Care	640	2,442	2,442	0	0	2,442	2,442	0
Subtotals		2,442	2,442	0	0	2,442	2,442	0
Campus Totals		**200,310**	**186,158**	**14,152**	**0**	**200,310**	**284,071**	**(83,761)**

Table 2.6: Campus Space Inventory (NASF) by Building

Use Code	Use Classification	(A) Academic Admin	(C) Classroom	(M) Multi-Purpose	(L) Learning Resource	(I) Fine Arts	(P) Fitness Center	(N) Nursing	Theater Workshop	Theater Storage	(K) Classroom	On-Campus Totals
100	**CLASSROOM**	**1,223**	**5,066**	**1,426**	**2,952**	**2,026**	**1,354**	**2,734**	**0**	**0**	**14,699**	**31,480**
200	**LABORATORY**	**5,913**	**5,978**	**5,981**	**4,879**	**7,797**	**850**	**9,135**	**0**	**0**	**7,386**	**47,919**
210	Class Laboratory	5,913	5,978	5,981	2,595	7,463	850	9,135	0	0	7,386	45,301
220	Open Laboratory	0	0	0	2,284	334	0	0	0	0	0	2,618
300	**OFFICE**	**18,180**	**2,083**	**4,654**	**5,370**	**2,777**	**1,567**	**2,825**	**0**	**0**	**8,945**	**46,401**
310/350	Office/Conference	18,180	2,083	4,654	5,370	2,777	1,567	2,825	0	0	8,945	46,401
320	Testing/Tutoring	0	0	0	0	0	0	0	0	0	0	0
400	**STUDY**	**0**	**0**	**0**	**15,106**	**0**	**0**	**0**	**0**	**0**	**0**	**15,106**
410	Study	0	0	0	5,678	0	0	0	0	0	0	5,678
420/430	Stack/Study	0	0	0	7,259	0	0	0	0	0	0	7,259
440	Processing/Service	0	0	0	2,169	0	0	0	0	0	0	2,169
500	**SPECIAL USE**	**0**	**0**	**0**	**2,188**	**0**	**7,769**	**0**	**0**	**0**	**0**	**9,957**
520/523	Athletics/Phys. Ed.	0	0	0	0	0	7,769	0	0	0	0	7,769
530	Media Production	0	0	0	2,188	0	0	0	0	0	0	2,188
580	Greenhouse	0	0	0	0	0	0	0	0	0	0	0
600	**GENERAL USE**	**9,630**	**0**	**0**	**761**	**8,790**	**0**	**663**	**722**	**385**	**14,701**	**35,652**
610	Assembly	2,920	0	0	0	7,318	0	0	722	385	0	11,345
620	Exhibition	0	0	0	0	830	0	0	0	0	0	830
630	Food Facility	2,005	0	0	0	0	0	0	0	0	7,810	9,815
640	Day Care	0	0	0	0	0	0	0	0	0	2,442	2,442
650	Lounge	2,467	0	0	761	0	0	663	0	0	975	4,866
660	Merchandising	2,238	0	0	0	0	0	0	0	0	0	2,238
670	Recreation	0	0	0	0	0	0	0	0	0	0	0
680	Meeting Room	0	0	0	0	642	0	0	0	0	3,474	4,116
700	**SUPPORT**	**3,542**	**351**	**1,165**	**3,471**	**44**	**0**	**4,169**	**0**	**0**	**1,053**	13,795
710	Data Processing	1,191	0	0	1,222	0	0	0	0	0	0	2,413
720-740	Shop/Storage	711	351	1,165	966	44	0	4,169	0	0	1,053	8,459
750	Central Service	1,640	0	0	1,283	0	0	0	0	0	0	2,923
760	Hazmat Storage	0	0	0	0	0	0	0	0	0	0	0
800	**HEALTH CARE**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
000	**UNCLASSIFIED**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Net Assignable Square Feet (NASF)		**38,488**	**13,478**	**13,226**	**34,727**	**21,434**	**11,540**	**19,526**	**722**	**385**	**46,784**	**200,310**
Total Gross Square Feet (GSF)		**73,000**	**21,000**	**21,270**	**57,000**	**44,050**	**17,540**	**31,557**	**800**	**432**	**80,000**	**346,649**

In addition to interior building spaces, parking spaces are also calculated, as shown in Table 2.7 below. The College has 1,393 available parking spaces distributed among eight locations. Forty-five spaces are reserved for disabled individuals and four for visitors. The remaining 1,344 spaces are open to all students, faculty, staff, and the general public. All existing parking is on surface lots served by an interior road network.

Table 2.7: Distribution of Parking Spaces

Parking Area	Student/Public	Faculty/Staff	ADA	ADA/Van	Visitor	Total
North Lot (Lot A)	422	65	0	0	4	491
South Lot (Lot B)	427	158	0	0	0	585
Overflow (Lot C)	258	0	0	1	0	259
K Building	0	0	5	2	0	7
L Building	0	4	19	2	0	25
N Building	0	4	0	15	0	19
T Building	0	0	1	0	0	1
Loading Dock	0	6	0	0	0	6
Totals	**1,107**	**237**	**25**	**20**	**4**	**1,393**

Enrollment and Staffing – Current and Projected

The Maryland Higher Education Commission projects an average annual growth in credit hour enrollment and 6.4% in credit contact hour enrollment through 2033. Growth in student headcount, credit hours, full-time equivalent, full-time day equivalent, and weekly student contact hours are the drivers in establishing the quantitative basis for space need by the fall semester 2033. Refer to the table below.

Table 2.8: Current (Fall 2023) and Projected (Fall 2033) Enrollments by Headcount, Credit Hours, FTES, FTDES and WSCH

	Full-Time Headcount	Part-Time Headcount	Total Headcount	Credit Hours	FTES	Before 5:00 p.m. Credit Hours	FTDES	WSCH Lecture	WSCH Laboratory
Fall 2023	901	2,263	3,164	25,498	1,700	16,498	1,100	11,851	2,514
Fall 2033	1,202	2,638	3,840	33,975	2,265	25,665	1,711	21,973	4,661
% Change 2023-2033	33.4%	16.6%	21.4%	33.2%	33.2%	55.6%	55.6%	85.4%	85.4%
Average Annual Growth Rate	2.9%	1.5%	2.0%	2.9%	2.9%	4.5%	4.5%	6.4%	6.4%

Sources: Carroll Community College Institutional Research (2023) and Maryland Higher Education Commission (2033)

In addition to student enrollment growth, the number of current and projected faculty and staff is also taken into consideration. Refer to Table 2.9 below, accordingly.

Table 2.9: Current and Projected Faculty and Staff Summary

	Faculty (Credit & Noncredit) Full-Time	Part-Time	Total	FTEF	Staff Full-Time	Part-Time	Total
Fall 2023	78	179	257	123	211	108	319
Fall 2033	142	326	468	224	384	197	581
% Change 2023-2033	82.1%	82.1%	82.1%	82.1%	82.0%	82.4%	82.1%
Average Annual Growth Rate	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%

Sources: Carroll Community College (Fall 2023) and Maryland Higher Education Commission (Fall 2033)

Library space projections are based on Bound Volume Equivalents (BVE), which establish the corresponding need for space, are projected to grow by 19% in 2033. While it is expected that the print media in the library collections will not grow due to digitalization of the collections, other library functions including assisting students in finding information, programs using maker space, and even advising will tend to grow along with a demand for space.

Academic Space, while in a current surplus, is projected to be close to balanced in 2033. However, the qualitative factors influencing the quality of the current spaces suggests that much of the current academic space will need significant updating in the next ten years. On the other hand, Academic Support Space is project to need an additional 90,000 net square feet by 2033. See Tables 2.12 and 2.13, below.

Table 2.12: Academic Space

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Space								
Classroom	110	31,480	17,777	13,703	0	31,480	32,960	(1,480)
Class Laboratory	210	45,301	17,598	27,703	0	45,301	32,627	12,674
Open Laboratory	220	2,618	3,973	(1,355)	0	2,618	7,367	(4,749)
Subtotals		79,399	39,348	40,051	0	79,399	72,954	6,445

Table 2.13: Academic Support Space

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Support Space								
Office	300	46,401	54,246	(7,845)	0	46,401	98,363	(51,962)
Study	400	15,106	9,917	5,189	0	15,106	15,638	(532)
Athletics/Physical Education	520	7,769	34,000	(26,231)	0	7,769	36,540	(28,771)
Media Production	530	2,188	1,600	588	0	2,188	1,803	385
Greenhouse	580	0	1,000	(1,000)	0	0	1,000	(1,000)
Assembly	610	11,345	12,000	(655)	0	11,345	12,508	(1,163)
Exhibition	620	830	1,500	(670)	0	830	1,627	(797)
Food Facility	630	9,815	6,416	3,399	0	9,815	11,883	(2,068)
Lounge	650	4,866	1,887	2,979	0	4,866	3,495	1,371
Mechandising	660	2,238	1,600	638	0	2,238	1,727	511
Meeting Room	680	4,116	6,000	(1,884)	0	4,116	6,000	(1,884)
Data Processing	710	2,413	2,500	(87)	0	2,413	2,500	(87)
Shops/Storage	720-740	8,459	7,061	1,398	0	8,459	10,824	(2,365)
Central Service	750	2,923	4,000	(1,077)	0	2,923	4,000	(1,077)
Hazmat Storage	760	0	141	(141)	0	0	216	(216)
Health Care Facilities	800	0	500	(500)	0	0	551	(551)
Subtotals		118,469	144,368	(25,899)	0	118,469	208,675	(90,206)

The formulas that establish demand for parking show a modest need for additional spaces in 2033. However, the continuing interest in hybrid and remote learning platforms may suggest that the demand for parking will remain similar to current use.

Parking Category	Factor	Allowance 2023	Inventory 2023	(Deficit)/ Surplus	Allowance 2033	Inventory 2033	(Deficit)/ Surplus
FTDE-T	0.75	710	1,107	397	1,316	1,294	-22
FT Faculty plus Staff	0.75	213	237	24	388	222	-166
Visitors	0.02	18	4	-14	34	4	-30
Reserved Accessible (ADA)	Required	14	45	31	23	43	20
Total Spaces		**955**	**1,393**	**438**	**1,761**	**1,563**	**-198**

Workforce Development

Workforce development is a top economic development priority of Carroll County Government; "attracting high quality firms while maintaining a highly skilled and trained labor pool are critical tenants of our success." Carroll County Workforce Development is an American Job Center that administers the Workforce Innovation and Opportunity Act (WIOA) in Carroll County and is dedicated to employment, training, and workforce development. It is an office of the Carroll County Department of Economic Development and part of the Carroll Workforce Development Board.

The following Table 2.16 presents data showing that during the fall semester of 2023 over 20% of Carroll Community College's students were enrolled in noncredit courses. The Maryland Higher Education Commission (MHEC) projects an increase to 23% by 2032 (there are no 2033 projections as of this writing). Although Maryland space planning models do not fully provide for consideration of Workforce, Business & Community Education student enrollment data when computing space needs, it is rather obvious that the implications of this statistic would have a significant impact on Carroll's needs for space.

Table 2.16: State-funded FTE Comparisons (Fiscal Years 2019-2024)

	Fiscal Years					
FTE (State-funded)	2018	2019	2020	2021	2022	2023
Credit	1,880	1,844	1,820	1,759	1,568	1,624
Noncredit	464	432	360	307	358	427
Totals	2,344	2,276	2,180	2,066	1,926	2,051
Noncredit %	19.8%	19.0%	16.5%	14.9%	18.6%	20.8%

Athletics Facilities

The demand for athletic fields was identified in the most recent *Facilities Master Plan 2015-2025* as a priority of the College.

On October 18, 2018, Carroll Community College received approval from its Board of Trustees to launch an intercollegiate sports program. Soccer and Cross Country launched in August 2019, and Lacrosse launched in Spring 2021. Currently, the College has just one regulation grass field that accommodates both Soccer and Lacrosse. The College campus also includes a small fitness center, and a gymnasium that does not meet standards for regulation play of any indoor sport.

The College's vision for Athletics includes developing facilities suitable to serve the very active participation rates of Carroll Countians in athletics that are on par with all Community Colleges, especially those in neighboring Frederick, Baltimore, Howard, and Washington Counties.

Health and wellness courses are anticipated to continue to be in demand as our culture embraces nutrition, weight management, and mental and physical fitness as keys to healthy living, longevity, and healthcare cost management.

Carroll proposes the development of a multipurpose Athletic/Health and Fitness Complex on campus including a Physical Education Building, and future Indoor Track facility. In addition, Carroll proposes to develop a multi-use artificial turf field, an outdoor track, lights, press box and bleachers, and restrooms, concession, ticket, and equipment storage building.

Career and Technical Education (CTE) Facilities

Career and Technical Education has been and is now a major federal economic development priority, a priority of the State of Maryland, a priority of Carroll County Government, and consequently, a top priority for Carroll Community College. The demand for CTE facilities was identified in the most recent *Facilities Master Plan 2015-2025* as a priority of the College for some time.

Rapid growth is expected in all entry-level career/job training programs and especially in trades and applied technology. In addition, the growth of the emerging green economy and development of green careers and jobs will soon provide new opportunities for career/job training. Demand for training programs leading to industry certifications and licensures, particularly in the health care and information technology fields, is anticipated to continue well into the future. Artificial Intelligence and Machine Learning will impact jobs, and training will need to adapt accordingly.

Carroll's Workforce, Business & Community Education programs are currently being offered in less-than-ideal spaces or not at all. In order to provide state-of-the-art learning, state-of-the-art facilities are needed.

Surge Space

The availability of surge or swing space is so critical when the College plans to renovate existing facilities. There is an ongoing compelling need at Carroll Community College for space to temporarily house academic or administrative units that are displaced because of renovations to their home buildings.

Academic Programs

The College's current programs, both Credit and Non-Credit, have been described earlier in this Executive Summary and in Section 3-A.

Academic Programs of the College's Future

Significant New Initiatives with Facilities Implications

To meet the growing demand for higher education and specialized training, several new projects and expansions may have direct implications for College facilities.

Expansion of STEM Facilities
With an increase in demand for science, technology, engineering, and mathematics (STEM) programs, expanding science labs and technology centers will be essential. This includes adding more laboratory space, upgrading equipment for engineering and robotics, and developing dedicated facilities for IT and cybersecurity training.

Sustainability Initiatives
Incorporating sustainability into its campus infrastructure will include initiatives such as the installation of solar panels, the creation of green spaces, and the development of energy-efficient buildings to reduce the campus's carbon footprint. These improvements would also serve as an opportunity to link directly to curricular and CET offerings.

Specific Activities on Campus to be Accommodated Over the Next 10 Years

Workforce Development
As part of its mission to serve the community, CCC is increasing its workforce development programs in collaboration with local industries. Key considerations include expanding facilities for non-credit training programs in areas such as trade skills, construction management, and renewable energy.

Athletics, Wellness, and Recreational Facilities
The demand for improved athletics, wellness, and recreational facilities is expected to grow over the next decade. The College will need to expand its existing facilities and develop new outdoor sports fields to accommodate athletic programs, physical education courses, and college and community wellness offerings and events.

Integrated Learning Pathways and Facilities Planning
Carroll Community College serves diverse student populations with unique educational and career goals—from traditional students seeking degrees to adult learners needing career-focused skills. In recent years, for community colleges in general, the demand for more flexible, workforce-relevant, and integrative learning options has increased as students seek both academic credentials and practical skills to thrive in today's fast-evolving job market. Integrating continuing education (CE), workforce development (WD), and traditional academic programs offers community colleges a holistic approach to meet these needs, fostering career readiness, lifelong learning, and stronger community connections.

The College exemplifies this strategic integration through its forward-looking 10-Year Facilities Master Plan that proposes to include one transformative capital project that materially supports the fusion of Continuing Education, Workforce Development, and academic programming. These investments are aligned with the vision articulated in The Blueprint for Maryland's Future and demonstrate how physical infrastructure can serve as a foundation for educational innovation and community advancement.

Carroll Community College's proposed 10-Year Facilities Master Plan reflects a bold, integrative vision for the future of education in Maryland. By strategically investing in the proposed Trades, Technology, and Training Complex, CCC is aligning its infrastructure with its academic aspirations—supporting stackable credentials, expanding access, and building inclusive pathways to opportunity. As a model of integrative planning, CCC demonstrates how community colleges can serve as engines of transformation within their regions—advancing the goals of the Blueprint for Maryland's Future and preparing learners for success in a dynamic world.

Campus Facilities

Existing Facilities

The Carroll Community College campus buildings collectively total 346,649 gross square feet (GSF) and contain approximately 200,310 net assignable square feet (NASF) of space. The various buildings range in age from two (2) original buildings (Academic/Administration Building "A" and Classroom Building "C") built in 1990 to Classroom Building "K" built in 2009 and occupied in 2010. None have undergone major renovations. Also located on campus is the Rotary Amphitheater, which is classified as a miscellaneous structure. Therefore, it is appropriately not subject to inventory.

The College also occupies space at two off-site locations in Westminster; the Multi-Service Center at 224 North Center Street and the Carroll County Career and Technology Center (CCCTC) at 1229 Washington Road. Digital Learning is provided at the College for credit and credit-free courses, as well as for businesses.

Table 1.6: Campus Buildings (chronological listing)

Designation	Built	Known As	Building Donor Name	GSF	NASF	Primary Use
		Main Campus				
A Building	1990	Academic/Administration Building	The Kahlert Foundation Campus Center	73,000	38,488	Office, Instruction
C Building	1990	Classroom Building		21,000	13,478	Instruction
M Building	1993	Multi-purpose Building	The Virginia S. Minnick Classroom Building	21,270	13,226	Instruction, Office
L Building	1997	Learning Resources Center	Penguin Random House Learning Resources Center	57,000	34,727	Study, Instruction
R Building	1998	Amphitheater	Rotary Amphitheater	See Note Below		Outdoor Performances
T Building	2002	Fine and Performing Arts/Business Training	The Scott Center for the Fine and Performing Arts	44,050	21,434	Assembly, Instruction
P Building	2002	Fitness Center	The First Financial Federal Credit Union Life Fitness Center	17,540	11,540	Physical Education
N Building	2004	Nursing/Allied Health Building	The Pappalardo Nursing and Health Care Education Center	31,557	19,526	Instruction
	2006	Theater Workshop		800	722	Assembly
	2007	Theater Workshop Storage Building		432	385	Assembly
K Building	2009	Classroom Building	Drs. Chitrachedu & Vimala Naganna Center for Innovation	80,000	46,784	Instruction, Office, Food Svc.
		Main Campus Totals		**346,649**	**200,310**	
		Note. The Rotary Amphitheater is classified as a "miscellaneous structure." Therefore, it is appropriately not subject to inventory for facility planning purposes.				
		Off-Site Campuses/Leased Space				
		North Center Street-Multi-Service Center		1,800	1,634	Instruction
		Carroll County Vocational Center		3,000	3,000	Instruction
		Off-Site Totals		**4,800**	**4,634**	
		Carroll Community College Totals		**351,449**	**204,944**	

FACILITIES NEEDS FOR MODERNIZATION AND EXPANSION: SYSTEMS SUMMARIES

Architectural Systems

The shared architecture of the College's buildings reflects a unity of design and construction. Older buildings have set the character of subsequent buildings, all of which may appear to be contemporary. While the County has maintained the architectural, structural, mechanical, electrical, life safety, and technology systems in good condition, some of those systems need modernizing to achieve state-of-the-industry levels of efficiency, flexibility, controllability, and sustainability, and to meet the expectations of students considering enrolling in the College's programs.

Some learning spaces are making do with decades-old sizes and layouts in terms of square feet per student and configuration. As programs move to newer facilities recommended for development in this

Facilities Master Plan, vacated spaces in existing buildings should be scheduled for renovations along with systemic upgrades. Many classrooms and labs in older buildings are small, not suitable for the flexibility needed for today's learning environments.

While existing systems such as mechanical, electrical, and technology, are maintained in good condition, newer systems will bring with them more ready ability to obtain parts and compatible programs. This is true for all infrastructure systems, and particularly so with technology.

Refer to Section 4-C MEP Systems and 4-D Technology Systems for detailed recommendations for upgrading MEP and Technology Systems and for MEP and Technology Systems for proposed new facilities.

Campus-wide Systems and Infrastructure Improvements

There is ongoing need to address condition and capacities of facilities, infrastructure, utilities, technology, campus circulation for pedestrian and various transportation modes, parking and open space. There is also ongoing need for planned renovation, adaptation, replacement or upgrade of the systems of a capital asset. Categories of campus-wide systems and infrastructure improvements include:

- **Facilities Renewal:** There is ongoing necessity to address facility renewal needs including improvements, repairs, and deferred maintenance. Details are appropriately described in a subsequent chapter.
- **Technology Upgrades:** There is an identified need to provide upgrades to software systems.
- **Classroom Technology Upgrades:** There is an identified need to provide upgrades to classroom technology in buildings not being totally renovated.
- **Systemics:** There is an identified need to provide funding support for systemic repairs/maintenance including life safety, ADA accessibility, roofs, elevators, sidewalks, mechanical, etc.

Mechanical, Electrical, and Plumbing (MEP) Systems

Existing Facilities Mechanical Systems Recommendations

The evaluation of mechanical and plumbing systems across various buildings indicates that many systems exceed their useful life but remain operational, with specific recommendations for upgrades and replacements.

- Building A: HVAC systems exceed useful life; CRAC units replaced in 2023; plumbing fixtures in fair condition; humidity issues in IT server room need further evaluation.
- Building C: HVAC systems in good condition; constant flow pumping strategy may lead to energy inefficiency; plumbing systems exceed useful life but are in fair condition.
- Building K: HVAC and plumbing systems approaching end of useful life; recommended replacement of pneumatic controls with DDC controls.
- Building L: Five AHUs exceed useful life; new domestic water line and water heater installed in 2023; recommendations for central plant upgrades.

- Building N: Two VAV AHUs in poor condition; new chiller and DDC controls installed in 2024; recommendations for replacing AHUs and boilers.
- Building P: VAV AHUs and pumps exceed useful life; recommendations for evaluating pneumatic linkages and ductwork design.
- Building T: Similar issues with VAV AHUs and pumps; recommendations for evaluating ductwork design.
- Central Plant: All HVAC systems exceeded useful life; recommendations for replacing boilers and chillers with high-efficiency options.

Existing Facilities Electrical Systems Recommendations

The electrical systems in various buildings are aging, with many components beyond their useful life, necessitating upgrades and replacements.

- Building A: Electrical panels are 35 years old; wiring beyond useful life; fire alarm system scheduled for replacement; lighting retrofitted with LED.
- Building C: Electrical panels are 35 years old; wiring should be replaced; fire alarm system upgrade planned.
- Building K: Electrical panels and wiring are 15 years old; no changes anticipated.
- Building L: Electrical panels are 28 years old; wiring in fair condition; fire alarm system upgrade planned.
- Building M: Electrical panels are 32 years old; wiring should be replaced; fire alarm system upgrade planned.
- Building N: Electrical panels are 21 years old; wiring in good condition; fire alarm system upgrade planned.
- Building P: Electrical panels are 23 years old; wiring in good condition; fire alarm system upgrade planned.
- Building T: Electrical panels are 23 years old; wiring in good condition; fire alarm system upgrade planned.

Proposed New Facilities Mechanical Systems Recommendations

The proposed Trades, Technology, and Training Complex will feature advanced mechanical systems designed for sustainability and efficiency.

- The new structure will be 112,600 square feet, including various facilities.
- HVAC and plumbing systems will aim for LEED silver certification and comply with Maryland BEPS.
- A dedicated central heating and cooling plant is recommended due to existing central plant capacity limitations.
- Estimated cooling demand is 376 tons, and heating demand is 4,580 MBH.
- The central plant will utilize a 4-pipe air-to-water heat pump for simultaneous heating and cooling.
- Variable speed pumps will be used for efficiency, designed for N+1 redundancy.
- Energy-star rated plumbing fixtures are recommended, and utility metering will comply with LEED standards.
- An alternative geothermal system could reduce utility costs and maintenance, with a life expectancy of over 50 years.

Proposed New Facilities Electrical Systems Considerations

The electrical infrastructure for the new complex will require significant upgrades to accommodate increased power demands.

- The existing central plant has extra capacity but is too far from the new building for practical use.
- A new 4000A, 480/277V service is anticipated for the new building.
- Distribution panels will be provided at 480V and 208V throughout the structure.
- All lighting will be LED, with various fixture types based on space requirements.
- A new voice evacuation fire alarm system will be installed, reporting to the main campus system.
- Building P will undergo renovations, requiring modifications to lighting fixtures and devices.

Technology Systems

Audio-Visual

- Legacy VGA and RGB video connections should be decommissioned in favor of HDMI-compatible systems that support Voice over IP (VoIP) integration, aligning with current industry standards.
- A phased replacement strategy should be initiated to upgrade obsolete projectors and monitors with high-definition (HD) or 4K-capable displays, enhancing instructional and presentation quality.
- The college should establish a formal set of audiovisual (AV) equipment standards as part of its broader technology planning, specifying approved models and performance criteria for Projectors, Flat-panel displays, Room scheduling panels, Video conferencing systems, Cameras, Digital signage systems, Portable AV carts, AV-over-IP encoders/decoders, microphones, speakers, and other AV components to ensure consistency, interoperability, and long-term support.

Technology

- Establish a formal five-year refresh cycle for all college-owned desktop and laptop computers to ensure optimal performance and reliability.
- Prioritize the replacement of aging technology in simulation laboratories and other mission-critical areas to support academic and operational excellence.

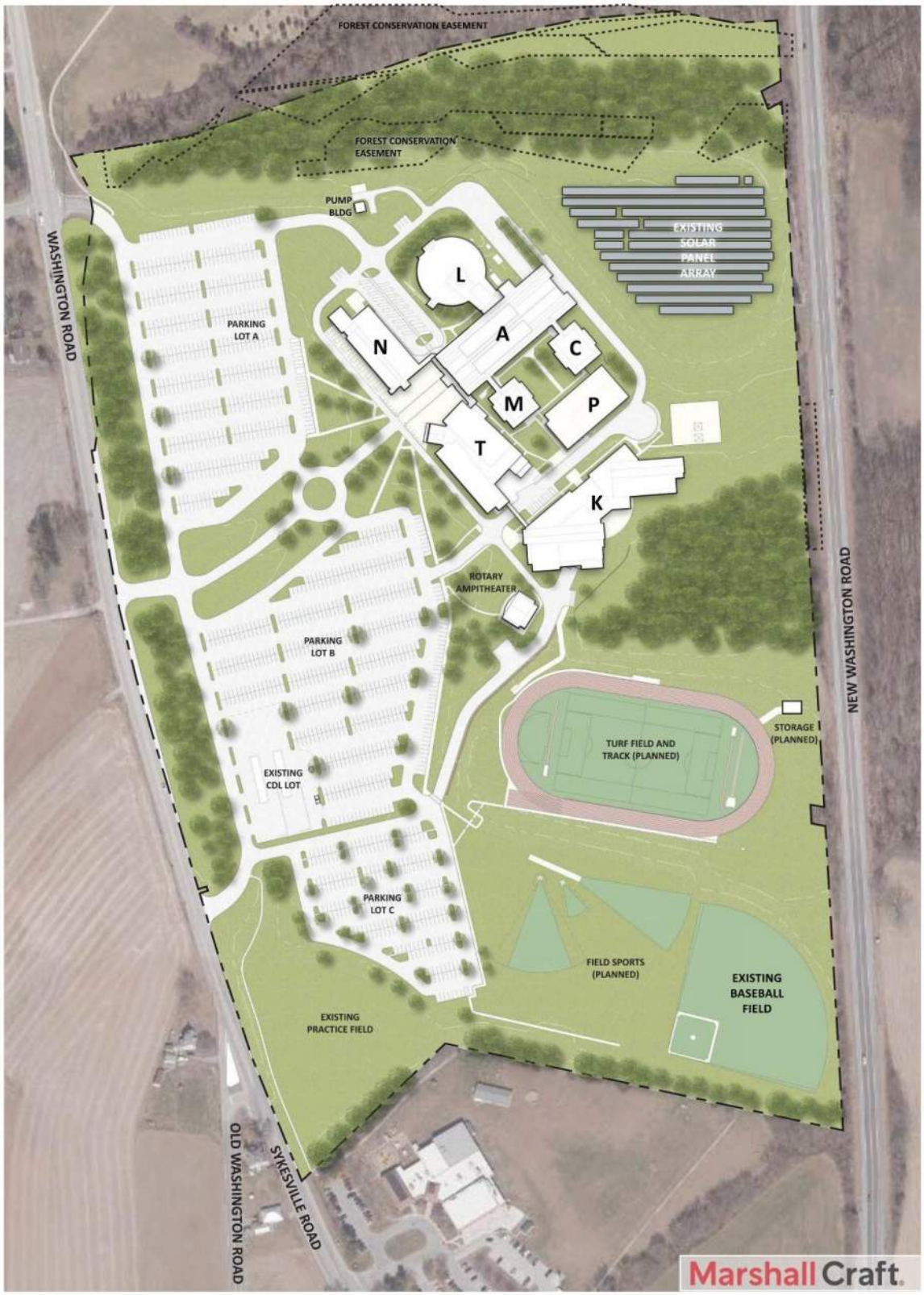
Electronic Security

- Enhance campus safety by addressing existing security camera coverage gaps, with a focus on parking areas, through targeted upgrades and optimized placement.
- As cameras reach end-of-life, transition to a combination of single sensor camera, fisheye and multi-sensor models to improve coverage and reduce blind spots.
- Expand the internal access control infrastructure to include critical areas such as IT rooms, administrative suites, and other high-security zones, supporting a more comprehensive security posture.

Telecommunications

- Future renovation projects should include upgrades to telecommunications rooms (TRs) that are currently undersized, as well as improvements to cabling infrastructure and electrical systems. These enhancements should include uninterruptible power supply (UPS) updates if needed and proper bonding and grounding.
- To support long-term scalability and maintain consistent network performance, it is recommended to provide a dedicated TR on each floor of a building. In many existing buildings, network cabling currently extends vertically between floors, relying on TRs located above or below the occupied level. As part of all major renovation projects, new TRs should be constructed on any floor where this vertical cabling condition exists. This strategy not only aligns with industry best practices, but also improves serviceability, reduces cable lengths, and ensures infrastructure readiness for future technology deployments.
- The existing optical fiber in Buildings L, N, and M is outdated and should be replaced to align with current standards. Campus standards are twenty-four (24)-strand Single Mode OS2 and twelve (12)-strand Multimode OM4 fiber cabling from each TR to the Building A data center.
- Carroll CC currently relies on Category 5e cabling for most existing facilities. However, during major renovations, the standard recommendation is to upgrade to Siemon shielded Category 6A cabling. This upgrade supports higher data rates, improved electromagnetic interference protection, and future-proofing for emerging technologies.
- Carroll CC is planning a comprehensive, campus-wide wireless network refresh within the next one to two years. This initiative is a key component of the College's broader technology infrastructure strategy and is aimed at addressing existing coverage gaps, increasing network reliability, and supporting the growing demand for high-performance wireless connectivity.
- To ensure consistency, scalability, and long-term reliability of campus technology systems, all major renovation and new construction efforts should be guided by a combination of campus-specific infrastructure recommendations, higher education best practices, and established industry standards. These include, but are not limited to, specifications outlined by the Telecommunications Industry Association (TIA) and the Building Industry Consulting Service International (BICSI).
- This standards-based approach should be applied to all upcoming capital projects, including the development of the renovated building for the new *Trades, Technology, and Training Complex*. By aligning these efforts with recognized best practices, Carroll Community College will ensure that its facilities are technologically resilient and capable of supporting both current demands and future innovation.

EXISTING CAMPUS PLAN



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

EXISTING CAMPUS

JANUARY 2026

0 25 50 100 200

LEGEND

Existing CCC Building

The Campus and Site Infrastructure

CAMPUS PLANNING

Significance of the new project

As the first major capital project to be undertaken since Building K in 2010, the **Trades, Technology, and Training Complex** (TTTC) has the capacity to be transformative, in terms of: meeting the College's needs to accommodate current and new programs; impact relative to the current campus; the College as a dynamic symbol of educational, economic, and cultural driver for the County; opportunities for new and evolving initiatives and technologies; the College's significance within the County; scale; and character of the campus.

Campus, Landscaping, Character

Given the departure from the hub-and-spoke concept of the campus, this project presents an opportunity to enhance the quality of the landscaping and outdoor spaces for uses by the College community. This includes developing the spaces around the Trades, Technology, and Training Complex and between it and the existing campus buildings to develop settings with friendly connections, pedestrian ways, gathering spaces large and small, and engaging more of the beauty of the setting of the campus. The existing forested areas will remain undisturbed, and there will be opportunities to plant more trees and provide shade where it would be welcome. All considered, the opportunity is presented to give the campus a more collegiate character.

Circulation and Parking

The amount of existing parking spaces is more than adequate and is expected to accommodate a larger enrollment. Given the trend towards expanded on-line learning, there should be no need to increase parking spaces. Nonetheless, the proposed development plan includes up to 40 convenience parking spaces near the new building. Existing circulation routes will be maintained, with modifications to provide vehicular access to the Trades, Technology, and Training Complex.

The location of the new building will result in a higher use of the south campus entrance from Maryland Route 32, which may require some widening and upgrading of that entrance. The pedestrian route from the existing buildings to the new building will need to deal with a long uphill grade. Suggestions include some switch-back routing; and places to be able to pause and gather, while also providing places of calm along the way. Needless to say, all will be required to meet accessibility standards. One consideration to mitigate the slope of the pedestrian way could be to establish a lower floor elevation of the building with an at-grade entrance.

Use of the Building

The nature of the building type will result in extended day-and-evening use. Consideration will need to be given to appropriate lighting in areas near the building as well as pedestrian ways and parking areas. The anticipated use of the building, expanding the relationships of all of the buildings to each other, should result in a greater sense of the vitality of the campus.

Signage
The new, larger, scale of the campus will require signage which may complement the existing signage or may suggest a new site signage program, including parking areas, vehicular circulation routes, and pedestrian routes. Signage at both Maryland Route 32 entrances should be studied relative to directing vehicles at and from the south and/or north entrances to campus destinations.

INFRASTRUCTURE FOR ALL RECOMMENDED PROJECTS - GENERAL

Future buildings will require several overall site infrastructure improvements that are generally the same for each project. Those improvements include:

- The capacity of the existing water supply will need verification with the City of Westminster. Projects proposing additional water consumption will need to apply for approval of water allocation with the City. The existing water meter must also be confirmed to ensure adequate domestic flow.
- The capability of the existing sanitary pump station will need review to ensure adequate wet well storage volumes and pump cycle times for increased demands.

INFRASTRUCTURE FOR THE TRADES, TECHNOLOGY, AND TRAINING COMPLEX

- Requires relocation of 15” and 24” storm water drains.
- Water service is expected to require extension of the main and the addition of hydrants for fire protection.
- Sewer service is expected to be extended and may require additional manholes or directional drilling installation method to avoid significant impacts to the existing retaining wall along the access road to the Amphitheater/Classroom.
- Stormwater management is required before connecting to the existing campus stormwater drainage system.
- The building site generally slopes north toward the track and field, with steep slopes at the project limits, preventing treatment options. Open space south of the proposed parking area may be suitable for small surface facilities (micro-bioretention) to provide treatment for the parking lot/roadway.
- Options for stormwater treatment include a green roof or providing treatment elsewhere, e.g. northeast corner of the parking lot, replacing existing bituminous paving with porous paving or removing excess parking.
- Earthwork is expected to be moderate with minor cuts along the south side and little fill for the building pad. Connection to the existing track and field area is expected to require several feet of fill with a retaining wall in the northeast corner.
- The building site does not impact any area of existing forest and should not result in any additional forest conservation requirements.

SUSTAINABILITY

The exciting prospect of improving and expanding the built environment of the campus offers unique opportunity to develop the campus smartly and with an eye to incorporating sustainable features in the process, especially relative to proposed capital projects. Given the practices and traditions of Carroll County to respect the land, water, and air in its large expanse of rolling hills, farms, residences, businesses, and institutions, it is more than appropriate to improve the sustainable features of the campus as a model for preservation and development of other parcels in the County.

If there is to be a County-wide leader relative to thoughtful stewardship of its land, Carroll Community College is particularly well-suited to be an exemplary institution as it maintains and sustainably moves its built environment forward in the next decades. The College and County together are well-positioned to build on their history of care and respect for the Carroll Community College campus and the buildings within which exemplary teaching and learning take place.

The following considerations are some of a myriad number of opportunities to help make the College, and in turn the County, a better, healthier place to live, work, and learn.

Administrative

- Develop and adopt policies and procedures to set standards and guidance for the sustainable care and development of the campus.
- Operationally, set achievable goals for maintaining and improving the quality of the upkeep of and improvements to building systems and the outdoor environment.
- Adopt a requirement for all major building projects, both new and major renovations, to meet current LEED Silver standards in place at the time of design. Consider achieving a higher standard such as Gold.
- Promote educational coursework that explores and studies on the health of the environment, the health of our world, and of Carroll County.
- Promote better access to the County's Trailblazer public bus system to and from the campus and to expanding routes helpful to the College.
- Engage design consultants who have demonstrated successful implementation of sustainable design strategies.

The Campus

- Save the existing trees where possible and guard against potential threats by disease.
- In landscaping the campus, avoid use of pesticides.
- Use native plantings friendly to pollinators. Avoid plantings sensitive to drought.
- Consider development of meadowlands in portions of current large grassy areas (and save the cost of cutting the grass in those areas).
- Where they exist now, preserve and enhance areas of natural habitat; consider creating more habitat, such as meadows.
- Reduce the footprint of the parking lots. Also, introduce islands where trees can be planted. Both of these strategies will reduce the heat island effect of the paved areas and reduce water run-off . The islands also provide shade and a place to deposit plowed snow.

Transportation

- Install electric vehicle charging stations in existing parking lots.
- Purchase all-electric vehicles for the College's fleet.
- Use traffic paint markings to define bike-only lanes.
- Provide bike racks convenient to campus buildings.

Energy

- Investigate providing additional roof-mounted solar panels and solar arrays in all parking lots.
- Only provide and use energy-efficient heating and cooling equipment.
- For future HVAC systems, first investigate all-electric systems

Indoor Air, Lighting, and Acoustic Quality

- Provide and operate only HVAC systems meeting minimum air quality performance requirements.
- Use only low-emitting materials in interior construction projects
- Ensure access to natural daylight in all occupiable spaces and, to the extent feasible, provide access to views of outside spaces.
- Ensure even, consistent thermal comfort in all occupiable interior spaces.

Water Quality and Use

- Install building-level water metering.
- Reduce use of outdoor watering.
- Use low-flow plumbing fixtures

Miscellaneous

- Provide healthy food options at food service operations
- Provide sortable containers for recycling, trash, and compost

COLLEGE-WIDE RECOMMENDATIONS

PROCESS - OVERVIEW

- Submit the reviewed and approved-by-the-college Facility Master Plan (FMP) to the CCC Board of Trustees for review and approval.
- Submit the reviewed and approved-by-the-college FMP to the following State Agencies for review and approval:
    - Maryland Higher Education Commission (MHEC)
    - Maryland Department of Planning
    - Department of General Services (DGS)
    - Department of Budget and Management (DBM)
- Develop the building program for the Trades, Technology and Training Complex, presumably with the assistance of a professional team experienced in building programs.

- County Commissioners and Carroll Community College develop a timeline for the following:
    - State and local funding process
    - Develop the RFP for design services and solicit proposals, accordingly
    - Select and engage a professional architectural and engineering design team (A/E)
    - A/E designs and develops contract documents for the project, including documenting the process for engaging the construction team, to be determined by County Commissioners
    - During the design process, select an interior design consultant to select furnishings (with input from the College) and develop a procurement process.
    - Solicit proposals for the construction work and select the construction team
    - Construction team initiates the construction process, including pre-construction activities
    - Oversee the construction to completion
    - Furnish, move into, and occupy the building(s)

IN GENERAL:

- Ensure that the County continues its commendable job of maintaining, upkeep, and upgrades to the College's facilities.
- Promote awareness of the process and recommended project(s) – within the College and locally within the County.
- Expect disruption to normal activities on campus.
- Expect to develop contingency plans, e.g. delays in funding.

DESIGN RECOMMENDATIONS FOR THE BUILDINGS AND BUILDING SYSTEMS

- Refer to specific design recommendations in Chapter 4 of the FMP, Sections 4-B through 4-E, founded on The *Basis for Strategic Recommendations*, Section 4-A.

PROJECT APPROACH

- Approach the project with the expectation that:
    - The College and the County deserve this project.
    - The County and the College's Trustees and Senior Leadership have and/or will find the right tools, strategies, and where-with-all to make this project happen.
    - The standards for the design and construction of this project should be best-in-class and nothing less.

Proposed Projects

Projects are proposed for the short, intermediate, and long term.

SHORT-TERM (TEN-YEAR DEVELOPMENT PLAN)

First and foremost, the most important project proposed for short-term campus development is the 112,600 gross square foot **Trades, Technology, and Training Complex** (TTTC).

This project will provide much-needed space for an anticipated expanded curriculum, Workforce Development and training, and Continuing Education and Technology programs, some of which are now confined to small spaces scattered in the College's existing buildings. Several much-needed programs have not been developed by the College due to the lack of space in which to house them. The demand is there, but the space is not. These programs will be located in the three-story 45,600 GSF *Applied Technology Center* within the complex.

At 64,500 GSF, the largest component of the TTTC is the *Physical Education / Wellness Center*. This portion of the complex will house Physical Education, Athletics, Exercise Science, Physical Therapy, student and employee fitness, and Student Life programs. A performance gym, fitness center, group activity, and support spaces are included.

Finally, a one-story, 2,500 GSF *Sports Support Building* will provide space to support field sports events and practices using the proposed Turf Field project (separately developed and funded), the existing Baseball Field, and proposed Field Sports area. The building will include space for equipment storage, restrooms, and a concession operation.

Related site development including earthwork, utilities, parking, extended roadways, landscaping, lighting, and site furnishings is included in the TTTC project.

INTERMEDIATE TERM

After the TTTC project is complete, some spaces in the existing buildings now in need of renovation will be vacated, allowing re-use for current and expanded programs and functions. Renewal and Renovations are anticipated to include spaces within Buildings A, M, P, L, and N. Scope, timing, and funding for these back-fill projects are to be determined before the TTTC project is complete. In addition, the existing, infrequently used Amphitheater is a candidate for re-use and renovation to accommodate functions now in too small and disconnected spaces, such as campus police.

INTERMEDIATE- TO LONG-TERM

Not long after the TTTC project has been completed and occupied and the back-fill projects have also been completed, at least one of the College's well-subscribed programs, Nursing, will need more space for growth, and an addition should be considered for the intermediate or long term.

Budget Cost Estimates

Refer to Section 4-H in Chapter 4.

PROPOSED TEN-YEAR CAMPUS DEVELOPMENT PLAN

CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

TEN YEAR CAMPUS DEVELOPMENT PLAN (2026-2036)

JANUARY 2026

0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction

PROPOSED PROJECTS

1 Trades, Technology, and Training Complex
2 Bicycle Parking Area

PROPOSED LONG-TERM CAMPUS DEVELOPMENT PLAN

CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

LONG TERM CAMPUS DEVELOPMENT PLAN

JANUARY 2026

0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction
- Renovation

PROPOSED PROJECTS

1. Renovate Building P for Meeting Space
2. Facilites Storage Building
3. Nursing Renovation
4. Nursing Expansion
5. Consolidate Science Labs
6. Bicycle Parking Area
7. Renovate Existing Ampitheatre

CHAPTER 1
OVERVIEW OF THE COLLEGE

Chapter 1 OVERVIEW OF THE COLLEGE (Facilities Master Plan Context)

INTRODUCTION

Each community college must develop a Facilities Master Plan (FMP) which supports the institution's role and mission. Multi-campus or very large community colleges may prepare separate plans. However, an additional report summarizing and linking the separate plans is required. The foundation of the plan is the collection, projection, and analysis of data, the identification of facility needs, and the development of recommendations to meet these needs over a 10-year period. The collection of data should be consistent and systematic to identify, evaluate, and address the conditions that affect the College's capital program. This will lead to the development of sound capital programming to guide the physical development of the College's facilities. Institutions should consider developing 20-year land use plans as well. Community college personnel or outside consultants may develop the plans. Refer to COMAAR, Title 13B, Chapter 4 Construction Procedures, Regulation 02 Facilities Master Plan for the complete text of the regulation.

Institutions should regularly review their Facilities Master Plans. These plans shall be updated every ten (10) years after the submittal date of the original plan. 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. Annual updates showing population data are due January 1 of each year in which a capital improvement request will be made.

By February 1st of each year, each community college is required to **submit one** of the following:

- **New FMP** (if the plan has not been updated in the past ten [10] years), OR
- **Updated FMP** (if major changes occurred in the role and mission statements or in other plan components which have significant facilities implications), OR
- **Confirmation Statement** (signed cover letter – PDF is fine – confirming the plan is still valid and no updates are required)

Required information must be submitted to the Maryland Higher Education Commission (MHEC), the Department of Budget and Management (DBM), the Department of General Services (DGS), and the Maryland Department of Planning (MDP).[1]

In order to assist and contextualize understanding and ultimately support of the FMP by all audiences, Carroll needs to address its origins and evolution. Carroll must identify factors influencing social, economic, cultural and other trends impacting its policies, programs and services. Last, but not least, Carroll Community College must provide compelling reasons for the capital investments and its impact locally, regionally and state-wide.

The baseline for this Facilities Master Plan is the fall semester of 2023.

[1] Code of Maryland Regulations (COMAR), 13B.07.04.02

CARROLL COUNTY

Figure 1.1: Carroll County Location

Carroll County is located in northern Maryland. It consists of a Piedmont Region bounded by Pennsylvania to the north, the Patapsco River (north branch) and Liberty Reservoir to the southeast, the Patapsco River (south branch) to the south, and the Monocacy River to the northwest. The southeast corner of the county includes part of Patapsco Valley State Park.

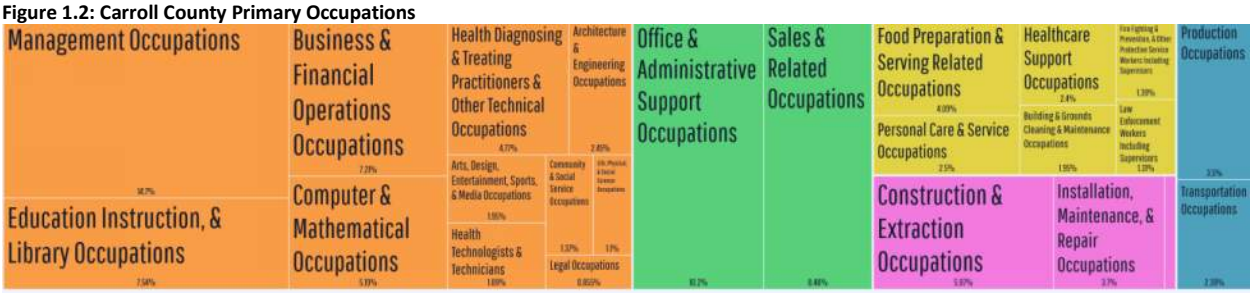
A rural-suburban county, Carroll has a total area of 453 square miles, of which 448 square miles is land and 5.1 square miles is water. Carroll County is included in the Baltimore-Columbia-Towson, Maryland Metropolitan Statistical Area, which is also included in the Washington-Baltimore-Arlington, DC-MD-VA-WV-PA Combined Statistical Area.

Carroll County was founded January 19, 1837 and named for Charles Carroll of Carrollton, a signer of the Declaration of Independence. The county seat is Westminster, a Union supply depot for the Battle of Gettysburg (July 1-3, 1863) during the American Civil War. The main economic activities are manufacturing and agriculture (dairy cattle, oats, and corn).[2]

As of the 2020 census, Carroll County's population was 172,891 and grew to a U.S. Census Bureau estimate of 176,639 in 2023 of which 98% are U.S. citizens. In 2022, there were 23.7 times more White (non-Hispanic) residents in Carroll County than any other race or ethnicity. White (non-Hispanic) residents represented 86.8% of the population, 3.66% were Black or African American (non-Hispanic) and 2.6% Multiracial (non-Hispanic) and 2.2% Asian (non-Hispanic) residents, the second, third and fourth most common ethnic groups.

The 2022 median household income in Carroll County is approximately $111,672. Carroll's primary occupations are reflected in the American Community Survey (ACS) 2013-2022 released in 2022.[3]

Figure 1.2: Carroll County Primary Occupations



Census Bureau ACS 5-year Estimate

The most common job groups, by number of people living in Carroll County, Maryland are Management Occupations (13,433 people), Office & Administrative Support Occupations (9,335 people), and Sales & Related Occupations (7,732 people). This chart illustrates the share breakdown of the primary jobs held by residents of Carroll County.

[2] Britannica, The Editors of Encyclopaedia. "Carroll" Encyclopaedia Britannica, 30 July 2024, https://www.britannica.com/place/Carroll-county-Maryland

[3] United States Census Bureau, "Data USA-Employment Occupations in Carroll County, Maryland" https://datausa.io/profile/geo/carroll-county-md/

CARROLL COMMUNITY COLLEGE

Carroll Community College (Carroll) is a 2-year, public, open admissions, associate degree-granting institution in Carroll County, Maryland with baccalaureate preparation programs, career education, workforce and business development, and personal and cultural enrichment opportunities. As a vibrant, learner-centered community, the College engages students as active learners, prepares them for an increasingly diverse and changing world, and encourages their lifelong learning. *Empowering learners*. *Changing lives*. *Building community*. Ten (10) buildings are situated on an approximately 80-acre campus located at 1601 Washington Rd, Westminster, Maryland 21157. Its coordinates are 39°31'50" N and 76°59'30" W or 39.53056 and -76.99167.

Responding to interest expressed by citizens of Carroll County, the Carroll County Board of Commissioners examined the need for additional educational opportunities in the county in 1973. As a result, the county commissioners appointed a team to conduct a special study to review the possibilities, including a community college program which would be available to Carroll County citizens. The seed was planted to create a branch college of an established community college to best serve the county.

Catonsville Community College took an interest in the idea and presented a proposal, which was sent to a Carroll Community College Advisory Committee with the purpose of evaluating the recommendation for a community college. Then, a draft Community College Service Agreement was forwarded to Catonsville Community College.

On February 10, 1976, the Carroll County Commissioners entered into a three-year contractual agreement with Catonsville Community College to establish a branch campus in Carroll County. The green light was given for the Carroll County branch of Catonsville Community College to begin its instructional program for more than 750 students with over 1,500 course registrations.

Consistent growth of the student body, program demands, and future planning resulted in several facility changes, with the College's first home in the old Robert Moton Elementary School on Center Street. The county, following the recommendation of the advisory board, purchased a site on Route 32. Following this, the East End Elementary School was briefly used for additional classroom space. Then in January 1982, the county made the North Center Street Building available to the College.

In April 1983, the state passed legislation enabling Carroll County to request state funds for the College under guidelines that applied to all community colleges. This resulted in significant planning for movement towards permanent college facilities. In 1983 the Board of Carroll County Commissioners approved the development of the College's first Facilities Master Plan, to guide the physical development of the facilities required to support a comprehensive community college for the citizens of Carroll County. This original Master Plan was approved in 1984, updated in 1994, and revised in 1997. A new Facilities Master Plan for 2002-2012 was approved in 2002 and updated in February 2010 for the period of 2010-2020. This plan was revised in 2015 from that approved in 2010 to become Carroll's current and in effect *Carroll Community College Facility Master Plan 2015 –2025*.

After existing in a number of different locations in Carroll County, in August 1990, the College celebrated the opening of its current campus on Washington Road, with two buildings—the Babylon Great Hall (the A Building which is currently named The Kahlert Foundation Campus Center) and the C Building.

In late 1992, the College met with the Middle States Commission on Higher Education (MSCHE) to become accredited as a two-year, degree granting institution. After visits with the Maryland Higher Education Commission (MHEC) and MSCHE, degree-granting status was offered by MHEC in 1993 and candidacy with MSCHE was awarded later the same year. Carroll Community College was granted full accreditation in 1996 and re-affirmed in 2001, 2011, 2016 and 2021.

The M Building (currently named The Virginia S. Minnick Classroom Building), a multi-purpose building, opened in the fall of 1993 and was entirely funded by Carroll County. In 1997, the L Building (currently named the Penguin Random House Learning Resources Center) was built, and shortly after, the Rotary Amphitheater was completed. The T Building (currently The Scott Center for the Fine and Performing Arts), which houses the theater, art gallery, and Hikel Business Training Center, was opened in 2002 as was the Life Fitness P Building (currently The First Financial Federal Credit Union Life Fitness Center). This was followed by the Nursing and Allied Health N Building (currently named The Pappalardo Nursing and Health Care Education Center) in 2004 and the College's most recent construction project, the K Building (currently named Drs. Chitachedu & Vimala Naganna Center for Innovation), opening in January 2010.

Mission

***Empowering learners. Changing lives. Building community*.**

Carroll Community College provides accessible, high-quality educational opportunities to advance careers, enrich lives, and strengthen the community we serve.

Vision
Carroll is our community's first choice for learning.

Values
At Carroll Community College, we demonstrate the following values in all we do:

Community: Carroll is the community's college, and building community is highlighted in its mission statement. Through associate degree programs, career education, support for entrepreneurs, corporate training, kids' summer camps, adult personal enrichment, cultural events, athletics, and its many partnerships with community and governmental organizations, the College is dedicated to enriching the community it serves.

Accountability: The College is a good steward of the public's trust and is transparent and accountable in all it does. It assesses its mission accomplishment through bench-marked institutional effectiveness measures, national and state peer comparisons, and regular program reviews. Student learning outcomes are continuously assessed and curricula revised to ensure the highest quality educational experience for students. Assessment data are regularly shared with the College's governing board, the County government, and the public.

Respect: Carroll Community College is an organization that values, recognizes, and rewards just, humane, honest, and respectful human interaction; ethical and truthful representation of the College to students and the community; positive and collaborative problem-solving; and solutions-oriented action.

Carroll fosters engagement and a sense of belonging by providing a safe learning and working environment that models respect, acceptance, inclusion, and empathy towards diverse ways of thinking and being.

Reflection: Inscribed within the Seal of Carroll Community College are three ideals of an educated person: "Knowledge, Truth and Wisdom". To inspire these ideals, the College encourages students and employees to reflect on their learning and personal experiences to build knowledge, distinguish truth and develop wisdom.

Opportunity: Carroll strives to provide an affordable education accessible to all who can benefit from its offerings, with transitional education to prepare students for college work and flexible learning options including online and evening classes to fit our students' busy lives.

Learning: The words "Enter to Learn" are chiseled above the College's main entrance, heralding its primary and defining mission. The phrase is also emblematic of Carroll's institutional culture of organizational learning and continuous improvement.

Leadership: Carroll challenges its students and employees to take responsibility for and control of their lives and become engaged citizens and leaders in their chosen careers. Similarly, the College embraces the challenge of being a thought leader in the community it serves.

Learning Assessment

Students will periodically be asked to participate in departmental learning assessments as well as institution-wide surveys and assessments. These assessment efforts are designed to help the College understand what students have learned so that student performance and goal completion can be continuously improved, which is central to the College's mission. The College appreciates student cooperation in these endeavors.

Mission-Based Institutional Goals

Through effective teaching, engaged learning and a caring, student-centered environment, Carroll Community College:

1. Provides associate degree programs, career and credentialing preparation, job skill enhancement, continuing professional education, and career resources and support to strengthen the regional workforce.
2. Supports student attainment of essential skills in general education and prepares students for transfer to earn degrees beyond the associate.
3. Delivers training and essential services to businesses and entrepreneurs, and creates and sustains strategic community partnerships to support business and economic development.
4. Empowers students to define and achieve their educational and career goals, while offering individualized academic support services to enhance academic progress, educational transitions and program completion.

5. Fosters campus and civic engagement and a sense of belonging, by providing a safe learning environment that models respect, acceptance, inclusion, and empathy towards diverse ways of thinking and being.

6. Provides personal and community enrichment through lifelong learning opportunities, creative and cultural arts, athletics, student organizations, and special events.

7. Assesses college programs and services to continuously improve student outcomes and the efficient use of college financial, human, physical, and technological resources.

2025-2029 Strategic Plan Core Strategies:

- **Core Strategy I**: Intentionally design innovative programs, services, and environments to address barriers and optimize success.
- **Core Strategy II**: Treat people as a priority by promoting a culture of well-being and belonging that advances academic, personal, and professional growth.
- **Core Strategy III**: Build community through seamless, inclusive, and cohesive experiences that meet individual aspirations and collective needs.

Carroll Community College Civility Statement

Carroll Community College is committed to the highest standards of integrity. As such, we continuously cultivate an environment of mutual respect and responsibility. Students and employees have a right to learn and work in a safe, just, humane, and inclusive environment free from prejudice, discrimination, harassment, and bullying.

- We acknowledge the right to freedom of expression - the right of every individual to think and speak as dictated by personal belief and to disagree with or counter another's point of view.
- We pair the right to freedom of expression with our commitment to maintaining the highest standards of civility, respect, and decency among all members of the College community.
- We recognize the enrichment added to our lives by our diversity, therefore, we endeavor to overcome deep-rooted misunderstandings and biases and foster understanding of the diverse characteristics of the members of our community.
- We reject and confront all forms of discrimination, including those based on ability/disability, age, class, economic status, race, ethnicity, color, national origin, language, visas status, gender identity and expression, sex, sexual orientation, marital status, religion, political beliefs, height, weight, and veteran status within or outside the College.
- We do not accept symbols of hate virtually or on the College's campus unless presented in an educational format as approved by faculty or College leadership.

Digital Accessibility Statement

Carroll Community College is committed to making our entire digital presence perceivable, operable, understandable, and robust for the greatest number of people possible. These four principles, disseminated in W3C's Web Content Accessibility Guidelines (WCAG), form the foundation of Carroll's Digital Accessibility policy.

We strive to meet or exceed the requirements of WCAG 2.0 Level AA for all digital resources, including:

- Instructional content
- Administrative content
- Communications content

Additionally, to provide comparable experience and information access to all students, employees, and the broader community, we commit to equity in the purchase, development, and application of our Information Technologies. This applies to our websites, Learning Management System, courses, assessment tools, and faculty/staff resources.

With this statement, Carroll Community College outlines a long-term strategy rather than a fully accomplished agenda. If you encounter a problem with any of our digital resources, or are otherwise in need of reasonable accommodation, even for a short-term need, please reach out to Disability Services. We are eager to hear your questions, concerns, or feedback, and will do all possible to provide a solution.

Governance and Organization

Carroll Community College's governing board is comprised of seven trustees exercising general control over the College. The board members are appointed to six-year terms on a staggered basis by the Governor of Maryland under Article 16, subtitle 2 of the Annotated Code of Maryland.
The members of the Board of Trustees have legal authority only when the board is in formal session with the prescribed majority quorum. Chosen from among the citizens of Carroll County, board members come from various communities in the county. They represent a range of educational, economic and professional backgrounds.

The board's primary function is to establish the policies that govern the College and to see that the institution fulfills its mission and goals. The Board of Trustees performs its responsibilities of appointing a chief executive officer, making policy, providing advice on major issues, and providing stewardship of the institution's assets. They are also responsible for approving the academic programs offered by the College and for assuring that the highest possible academic standards are met. The board provides oversight of the financial status and management of the institution. The Board of Trustees appoints a President of the College who serves as the chief executive officer of the College and secretary-treasurer for the Board of Trustees.

The board officers consist of a chair, vice-chair and secretary/treasurer. By law, the College president serves as the secretary/treasurer to the board. The board meets ten times a year in open, public session. Copies of the agenda and minutes are distributed in designated areas of the College. On special occasions, the board may elect to meet in private executive sessions, which are convened typically for personnel and legal matters. The Board of Trustees is dedicated to Carroll and committed to preserving the institution's integrity.

Hired by and reporting directly to the Board of Trustees, the president heads the College's Executive Team consisting of:

- Vice President of Academic and Student Affairs and Dean of Faculty
- Vice President of Administrative Services

- Vice President of Effectiveness, Integrity and Accountability
- Vice President of Workforce, Business, and Community Education
- Chief Communications and Public Relations Officer

Additional direct reports to the president include: 1) Executive Director of College Standards and Accountability, and 2) Executive Director of Institutional Advancement and College Foundation.

Students, Faculty, and Staff

During the fall semester of 2023, the College enrolled an unduplicated headcount of 3,164 students in 25,498 credit hours of instruction, generating 1,700 full-time equivalent student (FTES) enrollments.

Table 1.1: Credit Enrollment Summary: Fall 2023

Full-Time Headcount	Part-Time Headcount	Total Headcount	Credit Hours	FTES
901	2,263	3,164	25,498	1,700

Headcount enrollments and full-time equivalent student (FTE or FTES) enrollments are the principal measures of student population. Although headcount is commonly used when referring to enrollments, this measure is generally not used as a primary metric for determining space allowances, needs, or other facility planning purposes. The next two tables provide six-year trend summaries of credit vs. noncredit enrollments first expressed as unduplicated headcounts and then as State-funded FTE.

Table 1.2: Headcount Enrollment Comparisons (2018-2023) Credit vs. Noncredit

	Fiscal Years					
Headcount	2018	2019	2020	2021	2022	2023
Credit	4,314	4,256	4,304	4,145	3,806	3,998
Noncredit	7,309	6,785	5,038	3,230	4,602	5,676
Totals*	11,288	10,756	9,117	7,183	8,199	9,391
Noncredit %	64.8%	63.1%	55.3%	45.0%	56.1%	60.4%

*Total unduplicated headcount is the number of unique students served by the institution. The sum of credit and noncredit headcounts will exceed the total because some students are enrolled in both types of courses during the reporting period.

Table 1.3: FTE (State-funded) Comparisons (2018-2023) Credit vs. Noncredit

	Fiscal Years					
FTE (State-funded)	2018	2019	2020	2021	2022	2023
Credit	1,880	1,844	1,820	1,759	1,568	1,624
Noncredit	464	432	360	307	358	427
Totals	2,344	2,276	2,180	2,066	1,926	2,051
Noncredit %	19.8%	19.0%	16.5%	14.9%	18.6%	20.8%

Nearly 21% of Carroll Community College's full-time equivalent (FTE) student population is represented by enrollments in State-funded noncredit courses. Maryland's space planning models do not fully provide for consideration of Workforce, Business & Community Education student enrollment data

when determining the need for specific spaces for facilities. However, it is rather obvious that the implications of such statistics would have a significant impact on Carroll's need for space.

College staffing for this Facilities Master Plan consists of 78 full-time faculty and 211 full-time staff. The following table illustrates the distribution of personnel who are critical to providing campus environments that foster academic excellence and student success.

Table 1.4: Faculty and Staff (2023)

Category	Fall 2023 Full-Time	Fall 2023 Part-Time	Fall 2023 Total
Faculty (Credit)	78	115	193
Faculty (Noncredit)	0	64	64
Staff	211	108	319
Totals	**289**	**287**	**576**

Programs of Study

Lifelong learning is an integral part of the institution's philosophy resulting in the continued growth of both credit and noncredit program options. This commitment to serving the learner places Carroll Community College as the leading provider of postsecondary education for Carroll County. In responding to the needs of its varied constituents, the College assumes multiple roles within the community. The continuum of educational delivery spans the needs of County youth in summer programs, high school graduates, young adults and employees in the workforce, professionals, business owners and individuals with the desire to learn for personal enrichment.

Complementing the full degree options is a selection of certificate programs that focus on the technical aspects of the degree demonstrated by the successful completion of approximately 30 credits. Letters of Recognition are available in selected disciplines and generally require the completion of three courses. Students interested in computer-related technology, accounting, education, office technology, criminal justice or music can advance their skills by selecting one of these non-degree academic program options.

Degree-Credit Program Offerings

Carroll offers more than 70 credit programs and transfer patterns across a wide range of program areas of study, each providing an in-depth curriculum and professional orientation.

Table 1.5: Faculty and Staff (2023)

Program Area	AA/AAT	AAS/AS/ASE	Certificate	Letter of Recognition
Advanced Manufacturing		1	2	
Business & Accounting	4	1	3	1
Communication & Language	3			
Computers & Technology	3	4	5	
Environment & Conservation		1		
English to Speakers of Other Languages (ESOL)	program for students who want to enter an academic program of study			
Fitness & Wellness	2	1		
History, Culture & World View	2			
Nursing & Allied Health		5	3	
Performing Arts	3			
Science, Engineering & Math		8		
Social Sciences	4	1	2	
Teaching & Education	7	1		
Visual Arts	5	2	2	
Writing	3			

Note: The above program area offerings are approved by the Maryland Higher Education Commission. Within a given program, the College may offer multiple curricular options or transfer patterns.

Selecting a Program of Study

Most full-time students and a large percentage of part-time students plan to transfer to a four-year institution after leaving Carroll Community College. From the time students select their first courses, they are making decisions that greatly affect their transfer plans. The Admissions Office, Advising and

Transfer Center as well as the Career Center have personnel and resources devoted to assist students with effective academic, transfer and career planning and decision making.

Full and Part-time advising staff work with students upon entry and thereafter to assist with academic planning and program/course selection. The College uses Datatel's Colleague academic planning and degree audit system as tools to assist students in monitoring degree progress. Every new student participates in "First Advising," a program designed to orient them to the process of academic Program/Course selection and transfer processes. Students are given opportunities to declare majors and/or learn about ongoing events within our "Areas of Study" structure. Seven individual areas of study are run by the faculty who conduct associated learning opportunities relating to their community both in-side and out-side of class. Areas of study are designed to demystify the college major and the world of work by exposing students to learning activities and opportunities to engage in exploration of career pursuits related to a given area of study. Students participating in areas of study events connect classroom learning with related learning opportunities including service learning, field trips, films, seminars, debates, lectures and many other activities.

The Advising and Transfer Center contains a library of in-state and many out-of-state college catalogs as well as computer access to the Articulation System of Maryland (ARYTSYS) and online access to college web pages. Applications for area colleges are available, as well as comparative information for making college selection decisions. An active Transfer Services webpage is also maintained on the College's webpage containing useful information regarding the transfer process and links to area universities.[4]

Students can use the online "Discover System" to conduct a national search for colleges that meet their special requirements. Discover is also used as a career development tool whereby students can research various career possibilities as well as take online assessments to assist in pointing direction for career decision making. Carroll Community College sponsors two Transfer Advising Days each year. Representatives from transfer institutions are available to talk to prospective students in the Great Hall.

A variety of degrees, courses and curricula are offered by the College for students seeking to supplement their education or to work toward a career or a transfer degree. To ease transfer, the College has developed agreements on the acceptance of credits with the University System of Maryland and select Maryland private institutions. These agreements can be accessed via the articulation program for the University System of Maryland (ARTSYS).[5]

In addition, agreements with several out-of-state colleges exist. Advisers will assist students in selecting transferable courses.

Students may complete an Associate of Arts degree (A.A.) in the following programs:

Arts and Sciences
Arts and Sciences – Criminal Justice
Arts and Sciences – Forensics
Arts and Sciences – Legal Studies
Arts and Sciences – Music

[4] http://www.carrollcc.edu/services/advising/articulation/default.asp
[5] http://artweb.usmd.edu

Arts and Sciences – Nursing
Arts and Sciences – Psychology
Business Administration – General Business
Business Administration – International Business
Business Administration – Management Information Studies
General Studies
Health and Exercise Science
Legal Studies
Nursing – ADN
Paralegal Studies
Teacher Education
Associate of Fine Arts
Associate of Arts in teaching (AAT) – Early Childhood
Associate of Arts in Teaching (AAT) – Elementary Education
Associate of Arts in Teaching (AAT) – Secondary Education, Concentrations in Mathematics, Spanish, English, Physical Education, and Chemistry
Associate of Applied Sciences
Associate of Science in Engineering
Associate of Science in Computer and Electrical Engineering

Students who plan to transfer can use the programs listed above to create a curriculum consisting of the College's general education requirements and the undergraduate courses required by transfer institutions. The possibilities are endless but include such majors as:

American Studies
Anthropology
Art, Fine and Applied
Biology
Biotechnology
Chemistry
Communications
Economics
Environmental Science
Geography
Geology
Health Sciences
Pre-Law
Mathematics
Pre-Medicine
Meteorology
Music
Nursing
Political Science
Psychology
Science Technology
Sociology
Social Work
Speech/Communication
Theatre

CAREER PROGRAMS

Through Carroll Community College, students may complete an Associate of Applied Science degree (A.A.S.) in the following programs:

Accounting
Administrative Assistant
Computer Graphics – Graphic Design
Computer Graphics – Multimedia Design
Computer Graphics Web Design
Computer Information Systems

Computer Information Systems – User Support Technology
Computer Information Systems – Microcomputer Services
Computer Information Systems – Application Software Support
Computer Information Systems – Local Area Network (LAN)
Early Childhood Education
Digital Design & Fabrication
Law Enforcement
Physical Therapist Assistant (selective admissions)
Technical and Professional Studies

CERTIFICATES

Students who would like to focus on the technical aspect of the degree may consider the following Certificates:

Accounting – CPA Exam Qualification
Accounting – Tax
Accounting – Management
Computer Graphics – Design
Computer Graphics – Multimedia Design
Computer Information Systems – Programming Language, Visual Basic
Computer Information Systems – Programming Language, C/C++
Computer Information Systems – Microcomputer Services
Computer Information Systems – Application Software Support
Computer Information Systems – Local Area Network (LAN)
Digital Fabrication & Design
Early Childhood Education
Office Technology
Practical Nursing
Small Unmanned Aircraft Systems (sUAS) Pilot Safety
SOLIDWORKS

LETTERS OF RECOGNITION

Students who would like to take courses in selected disciplines that can be completed within a short time frame may consider the following Letter of Recognition:

Administrative Assistant

OTHER PROGRAMS

Dual Enrollment: To enhance learning, students may be simultaneously enrolled in both high school and a post-secondary institution. With approval, selected students can earn credit at Carroll Community College by taking classes that support their overall educational plan and career interests and are a logical extension of their planned sequence of study. This Dual Enrollment program allows high school students to take Carroll courses while still in high school and get a head start in college.

Digital Learning: Digital Learning is the general term for learning opportunities accessed via remote electronic access (not in the traditional classroom). Digital Learning is provided at Carroll Community College for credit and credit-free courses, as well as for businesses and professionals. Several delivery modes are available at Carroll, including on-line (Internet), and hybrid courses which deploy a face-to-face and online learning component in a given course.

The Internet provides an enhanced mechanism for the delivery of credit and noncredit coursework and student/faculty interaction. Internet based instruction provides time and location independent learning opportunities often found to be useful for working adults. The College uses the Canvas Learning Management System as a virtual course presence for all courses. This enables students to have 24/7 access to all course materials in online and face to face courses.

Maryland Online: In addition to the many distance learning courses that originate at Carroll, credit seeking students can take advantage of Carroll's membership in the Maryland Online and get on-line from selected other community colleges. Students register and pay Carroll tuition even though the course may originate from another college.

WBCE-NONCREDIT PROGRAM OFFERINGS

Carroll Community College is committed to the development of a highly qualified local, state, and regional workforce. Workforce, Business & Community Education (WBCE) offers an array of timely and relevant educational opportunities for Carroll County residents. Courses and training programs assist individuals and groups to prepare and keep pace in career, occupational, professional, personal, and cultural growth areas.

In addition to its degree-credit programs, the College supports economic development by offering noncredit occupational training programs including State and industry certification training; continuing education for the professions; exam preparation, and contractual, on-demand, specialty and technical courses for local businesses.

Noncredit courses are delivered in formats that are convenient and flexible for learners of all ages and abilities, including self-directed learning, traditional classroom, small group seminars, conferences, field study, clinical practicum, and distance learning. Working closely with local businesses, government, and non-profit agencies, Workforce, Business & Community Education provides customized training that meets specific workplace needs. Through the communication technologies of interactive video, satellite down-link and the Internet, students and employers are linked to regional, national, and global resources.

The College now offers 45 competency-based Workforce, Business Certificate programs ranging from 75- 400+ hours of instruction. The Miller Center for Small Business Development is a key partner in the Carroll County Business Path initiative and provides access to technology, networking opportunities, and courses and seminars to promote entrepreneurship and support business start-ups in the County. The Hikel Business Training Center houses classrooms, labs and other resources to support workforce training and organizational development services to local employers.

WBCE offers adult education programs that help to improve the basic skills needed to earn a high school diploma. Classes prepare students to take the GED exam and earn a high school diploma. Adults who are seeking a high school diploma and have mastered basic skills through life experience are eligible for the External Diploma Program of independent study and portfolio development. English classes for foreign-born students are offered through the ESOL program.

Carroll provides noncredit personal enrichment educational activities for adults that stimulate creativity, broaden knowledge, expand perspectives and support healthy living. A broad selection of courses and activities are designed to accommodate changing lifestyles and balancing work, home and self. The College's Kids and Teens@Carroll programs also provide summer enrichment programs for youth ages 6 – 15 years of age and volunteer and paid camp counselor opportunities.

Career Training, Technical Skill Development and Continuing Professional Education – WBCE offers courses and training programs to prepare individuals to enter the workforce, upgrade current job skills and advance in their careers. State and industry certifications and pre-licensing qualifications are offered in some areas. Following are current noncredit offerings by major content areas; new training programs are developed and offered each year.

Nursing and Health Care - Training programs and continuing professional development in the nursing and health care occupations are available for individuals currently working in the healthcare and for those who are considering a career in the field.
Entry level training includes:

- Medical Assistant
- Nursing Assistant (Geriatric option)
- Pharmacy Technician
- Medical Billing and Coding (online only)
- Dental Assistant
- Ophthalmic Assistant (online)
- Assisted Living Manager
- Phlebotomy Technician
- Registered Behavior Technician
- EMT (co-listed with credit)
- Health Coach
- CPR
- Sterile Processing Technician (at Frederick Community College via seat sharing)

Continuing Professional Education courses are also offered for nurses and health care professionals (physical therapists, EMTs, massage therapists and others) in a variety of topics throughout the year. CEUs are offered by the College in conjunction with professional organizations.

Information Technology - Courses are available for IT professionals seeking to update computer skills, individuals seeking industry certifications, and for those who have minimal computer experience. Courses are offered in topics related to all major computer software suites; internet use; desktop publishing; computer graphics and web design; architectural and engineering software, and cyber security.

IT Certifications: the College offers coursework to prepare for industry exams in IT careers including A+, Net+, Security+, CCNA, AWS, and Python. Classroom and online options are offered. CET also offers courses in Digital and Social Media, Artificial Intelligence, Cloud Management, Database Management, and QuickBooks.

Office Technology and Administration: Courses in general office technology are offered throughout the year in self-paced formats. Topics include keyboarding, word processing, machine transcription, terminology, and office practices. Classroom and lab-based training programs for specific office settings such as dental office and medical office administration are also offered

Continuing Education Certificate programs offered in the Information Technology area include: Computer Graphics, Computer Support Specialist, Web Site Design, Business Technology, and Office Administration.

Applied Technology - WBCE also offers courses and programs in the following:
High Tech Automotive & Electric Vehicle
Drones
Electrical Assembler
Digital Photography

Child Care - Childcare courses are approved by the Maryland State Department of Education Office on Child Care. Certification courses provide the classroom requirements for individuals seeking teacher and director positions in childcare settings. These courses are available in credit and noncredit options. Additionally, a variety of continuing education courses are to assist childcare professionals in meeting their license renewal requirements. In Fall 2024, the College expects to offer an Early Childhood Education apprenticeship.

Other Occupational Training Programs - A broad array of courses to prepare students to work in, or advance in, a variety of occupations are offered. Some College offerings in the trades are held at the Carroll County Career and Technology Center. Some offerings are held in partnership with local community colleges. Some of the following training programs are also designated as Continuing Education Certificate Programs.

- Electrical Apprenticeship
- HVAC Apprenticeship
- Plumbing Apprenticeship
- Home Inspection
- Home Improvement
- Food Service and Alcohol Management
- Management Development

- Real Estate Sales
- Advanced Manufacturing
- Welding
- Industrial Maintenance Technology/Millwright
- Veterinary Assistant
- Animal Control Officer
- Commercial Vehicle Driver—CDL A/ B

Workforce, Business, and Community Education - A well-trained staff is an organization's most valuable asset and essential to helping it meet its strategic goals. Training provided by Carroll Community College can help build employees' skills, increasing both productivity and profitability. The College provides quality, cost effective, and flexible learning opportunities for career, professional, and personal growth. Classes can be designed to meet specific organizational needs, and is delivered to employees at times and locations most convenient for the employer.

Carroll Community College partners with several national and international training organizations bringing world renowned training to local employers. Alliances with DDI©, Achieve Global©, and other globally recognized curriculum providers enable us to deliver widely acclaimed programs in leadership, management and customer service.
Programs and Services include:

- Customized training, tailored to meet specific business needs in convenient and flexible formats.
- Industry-specific technical skills to prepare employees for technological changes within the company.
- IT software training and certification programs in high-end training facilities.
- Mobile laptop computer lab to take training directly to a business.
- Licensure and pre-certification programs designed to meet state, national, and professional association requirements in a broad range of industries.
- Consortium training designed to help small businesses pool resources to address common training needs.
- Communication skills, including English for speakers of other languages (ESOL) and Spanish for the workplace.
- Consulting services, including language translation, strategic planning facilitation, technical writing, employee skill assessment, technology planning, and other topics related to organizational development
- Adult Basic Education, diploma programs including GED and External Diploma, and English for Speakers of Other Languages (ESOL)
- Conferencing services that meet the continuing education needs of the agencies, businesses and the professions.
- Partnerships with state and national associations that bring pre-licensing and continuing education courses (CEUs) to professionals in the region.

To further the mission of providing services to the business community, the College has established partnerships with the Maryland Department of Business and Economic Development, Carroll County Office of Economic Development, Small Business Development Center, Business and Employment

Resource Center, Carroll Technology Council, Carroll County Chamber of Commerce, Carroll County Public Schools, Public Libraries, and numerous other business associations in the County.

Partnerships with several national and international training organizations bring renowned training services to local employers. Alliances with DDI© International enable staff to deliver widely acclaimed programs in leadership, management and customer service. A partnership with NxLevel provides a nationally recognized, comprehensive and intensive business development program for entrepreneurs and a specialized track for agribusiness.

For businesses interested in maximizing the health of their employees while minimizing health care costs, corporate wellness programs can be designed for specific employers and employee needs. CPR, first aid, and other safety programs are offered that help keep employees safe and ensure company compliance with OSHA/MOSHA regulations. Carroll Community College is an approved training center for the American Heart Association and the National Safety Council.

Start-Up Business Development and Entrepreneurship - The Miller Center for Small Business offers courses, seminars, technical assistance, business resources and referrals for entrepreneurs and those seeking to start a new business. The College also operates the Small Business Development Center (SBDC) for the Northern Region, providing business consultation and education to small businesses in Carroll, Cecil, Harford, and Frederick Counties. SBDC also provides statewide online training via a contract with Department of Social Services for its Poverty to Entrepreneurship Program and via seat sharing arrangement with other community colleges for its Pathways to Entrepreneurship training. Both the Miller Center and SBDC play a role in the County's goal of increasing business revenues through new business starts and growth.

Professional Development, Licensure, and Certification - Through ongoing interaction with state licensing divisions, professional associations and other colleges, courses are developed to meet educational needs in the professions of real estate, insurance, child care, health care, accounting, counseling, environmental services, alcohol and food management, human resources management, construction and building maintenance, volunteer management, and other professions in the health and human services fields. Courses are held in a variety of formats including online, interactive video, and traditional classroom settings. New courses are developed each year to keep professionals current in their field.

Life Long Learning and Community Development - Personal enrichment courses are designed for lifelong learning in many diverse subject areas. These courses contribute to county residents' quality of life through educational activities that broaden knowledge, stimulate creativity, expand perspectives and support healthy living. Courses about timely local, state, national and global issues and concerns are offered to keep the community abreast of events affecting our lives and community. New courses and subject areas are continually added in the personal enrichment and community development areas.

Children and Youth - Kids@Carroll and Teens@Carroll are enrichment programs designed for children and youth ages 6 – 15 and are offered throughout the summer. These half and full-day programs emphasize creativity, world culture, technology, and hands-on learning in a camp-like environment. Additionally, via a partnership with the Boys and Girls Club, the College provides a youth Leadership

Academy to BGC students. It also provides career exploration activities for CCPS students in accordance with the Blueprint.

Older Adults and Retirees - Learning is for a lifetime! Special programming is designed for senior adults. Senior adults may engage in learning experiences designed with their interests and needs in mind. Courses are offered at community senior centers and area retirement communities and on the College campus. Courses are offered in art, computer applications, humanities and health and health and wellness. New courses are regularly developed and offered based on participant interest.

Arts, Humanities and Personal Development - A variety of courses are scheduled that are intended to enrich and expand the creative world through the visual, musical and written arts. Classes in painting, drawing, photography, craft and writing for pleasure and profit are offered. Additional courses in history, culture and foreign languages are offered, as well as classes intended to enhance the activities of daily life. Special programs for homeowners focus on home and garden themes, including sustainable living practices and the culinary arts. Motorcycle safety training provides instruction for State licensure and safe driving methods.

Adult Education & English for Speakers of Other Languages (ESOL) - GED preparation courses are designed to assist adults who are seeking a high school diploma through the GED test. These basic education classes are offered at varying levels and provide educational support to adults needing additional skills prior to taking the GED test.

The External Diploma Program (EDP) provides an alternative for adults who are seeking a high school diploma. Students work independently to demonstrate academic skills. Assessors test and document the progress of the students until all skills have been achieved. One-on-one tutoring is also available for EDP participants.
English classes for foreign-born persons who want to learn or improve their English are offered. Classes are small to meet the needs of the students and intensive instruction is given in listening, speaking, reading and writing. Students also learn about the American culture and democracy.
The Adult education and ESOL programs also provide guidance to students who wish to continue their education through post-secondary academic or training programs. Students who are job ready are also referred to appropriate job assistance agencies.

All adult education and ESOL programs are open to adults over 18 years and most are free. They are supported in part by a grant through the Maryland State Department of Labor and Licensing. Enrollments in adult education have expanded greatly. In FY24 it is projected the College will enroll 600 adult basic education students.

Accreditations[6]

Carroll Community College is accredited by the Middle States Commission on Higher Education, 1007 North Orange Street, 4th Floor, MB #166, Wilmington, DE 19801.[7] (267-284-5000) The MSCHE is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation (CHEA).

The College was granted full accreditation in 1996. Accreditation was reaffirmed in 2001, 2006, 2011, 2016, and 2021.

Carroll Community College was approved on April 14, 1993 to operate as a community college and award associate degrees and lower-division certificates in the state of Maryland by the Maryland Higher Education Commission (MHEC).

The National Registry Paramedic Associate of Applied Science and Certificate programs have been accredited since January 11, 2018 by the Commission on Accreditation of Allied Health Education Programs, Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CoAEMSP), 8301 Lakeview Parkway, Suites 111-312, Rowlett, TX 75008 (214-703-8445). I

The Physical Therapy Assistant Associate of Applied Science program has been accredited since May, 1996 by the Commission on Accreditation of Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314 (703-706-3240).

The Registered Nursing Associate of Science program was accredited on February 22, 2019 by the National League for Nursing, Commission for Nursing Education Accreditation (NLN CNEA), 2600 Virginia Avenue, NW, Washington, DC 20037.

The National Registry Paramedic Associate of Applied Science and Certificate programs have been accredited since January 11, 2018 by the Commission on Accreditation of Allied Health Education Programs, Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CoAEMSP), 8301 Lakeview Parkway, Suites 111-312, Rowlett, TX 75008 (214-703-8445).

The Registered Nursing Associate of Applied Science program was approved on October 26, 2005 by the Maryland Board of Nursing (MBON), 4140 Patterson Ave, Baltimore, MD 21215.

The Practical Nursing Certificate program was approved on October 22, 2002 by the Maryland Board of Nursing (MBON), 4140 Patterson Ave, Baltimore, MD 21215.

The Carroll Community College Associate Degree in Nursing Program holds accreditation from the National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA), located at 2600 Virginia Avenue, NW, 8th Floor, Washington, DC 20037; phone 202-909-2487. Interested parties are invited to submit third-party comments in writing directly to NLN CNEA, attention Dr. Teresa Shellenbarger, NLN CNEA Executive Director, at cneaaccreditation@nln.org.

[6] https://www.carrollcc.edu/about/accreditation/

[7] www.msche.org

Campus Facilities

The Carroll Community College campus buildings collectively total 346,649 gross square feet (GSF) and contain approximately 200,310 net assignable square feet (NASF) of space. The various buildings range in age from two (2) original buildings: Academic/Administration Building "A" (currently named The Kahlert Foundation Campus Center) and Classroom Building "C" built in 1990 to Classroom Building "K" (currently named Drs. Chitrachedu & Vimala Naganna Center for Innovation) built in 2009 and occupied in 2010. None have undergone major renovations.

Also located on campus is a rotary amphitheater which is classified as a miscellaneous structure. Therefore, it is appropriately not subject to inventory. Carroll also occupies space at two off-site locations in Westminster: The Multi-Service Center at 224 North Center Street and the Carroll County Career and Technology Center (CCCTC) at 1229 Washington Road.

See the table and photographic images on the following page.

Table 1.6: Campus Buildings (Chronological Listing)

Designation	Built	Known As	Building Donor Name	GSF	NASF	Primary Use
		Main Campus				
A Building	1990	Academic/Administration Building	The Kahlert Foundation Campus Center	73,000	38,488	Office, Instruction
C Building	1990	Classroom Building		21,000	13,478	Instruction
M Building	1993	Multi-purpose Building	The Virginia S. Minnick Classroom Building	21,270	13,226	Instruction, Office
L Building	1997	Learning Resources Center	Penguin Random House Learning Resources Center	57,000	34,727	Study, Instruction
R Building	1998	Amphitheater	Rotary Amphitheater	See Note Below		Outdoor Performances
T Building	2002	Fine and Performing Arts/Business Training	The Scott Center for the Fine and Performing Arts	44,050	21,434	Assembly, Instruction
P Building	2002	Fitness Center	The First Financial Federal Credit Union Life Fitness Center	17,540	11,540	Physical Education
N Building	2004	Nursing/Allied Health Building	The Pappalardo Nursing and Health Care Education Center	31,557	19,526	Instruction
	2006	Theater Workshop		800	722	Assembly
	2007	Theater Workshop Storage Building		432	385	Assembly
K Building	2009	Classroom Building	Drs. Chitrachedu & Vimala Naganna Center for Innovation	80,000	46,784	Instruction, Office, Food Svc.
		Main Campus Totals		**346,649**	**200,310**	

Note. The Rotary Amphitheater is classified as a "miscellaneous structure." Therefore, it is appropriately not subject to inventory for facility planning purposes.

		Off-Site Campuses/Leased Space				
		North Center Street-Multi-Service Center		1,800	1,634	Instruction
		Carroll County Vocational Center		3,000	3,000	Instruction
		Off-Site Totals		**4,800**	**4,634**	
		Carroll Community College Totals		**351,449**	**204,944**	

Figure 1.3: Campus Buildings (Photographic Images)

(A) The Kahlert Foundation Campus Center

(C) Classroom Building

(M) The Virginia S. Minnick Classroom Building

(L) Penguin Random House Learning Resources Center

(R) Rotary Amphitheater

(T) The Scott Center for the Fine and Performing Arts

(P) The First Financial Federal Credit Union Life Fitness Center

(N) The Pappalardo Nursing and Health Care Education Center

Theater Workshop & Theater Workshop Storage Building

(K) Drs. Chitrachedu & Vimala Naganna Center for Innovation

CHAPTER 2
NEEDS ASSESSMENT

A. NEEDS CONTEXT
B. QUANTITATIVE ASSESSMENT (SPACE)
C. QUALITATIVE ASSESSMENT (PROGRAMS)
D. NEEDS ASSESSMENT CONCLUSION

Chapter 2 NEEDS ASSESSMENT

NEEDS CONTEXT

The purpose of this section is to provide context to the meaning of needs as expressed in this facilities master planning document. Needs is more than about space. Needs for development of Carroll Community College's (Carroll, the College) campus facilities and infrastructure are influenced by four principal factors. These factors are: 1) the College's mission, 2) the College's strategic priorities[1], 3) P.P.A.S., pronounced "pass" (Programs, People, Activities and Stuff)™ who or what must be accommodated, and 4) the need for improvement of operations and services. These four principal factors apply to institutional-wide needs, campus-wide needs, building needs, or individual space needs. Recognizing its community, state, regional, national, international and political contexts, Carroll Community College's orderly development of campus facilities and infrastructure is in response to these factors.

Carroll is committed to developing its campus facilities in ways that best accommodate the needs of students, faculty and staff, while pursuing plans that benefit all stakeholders in the success of the campus and the larger community. The College will, on an ongoing basis, consider the merits of removing some obsolete facilities from inventory, renovating and/or renewing other existing facilities, as well as providing new facilities.

Projected needs are the results of future demand on facilities and infrastructure. The need for academic facilities should be viewed in the context of how the process of learning may evolve over time. Due to ever changing technology for both teaching and learning, much of higher education must rethink its learning environments. Although the lecture/lab instructional delivery mode will continue to be used, colleges and universities will increasingly supplement that delivery modality with specialized learning environments that allow for both scheduled and unscheduled instruction and learning in discipline-specific simulated environments.

Growth of some existing programs and the establishment of new ones suggest concomitant growth in enrollment and a need for specific, specialized facilities. The demand for college completion and workforce preparation will drive program offerings in the coming years. Many of these programs require specialized classrooms, labs and other facilities that can be flexibly adjusted for a variety of teaching/learning settings. This demand is considered in subsequent sections to identify needs and suggest future physical development.

Demand for critical skills in top growth occupations, flexibility in contract and workforce training with their unique learning environments, veterans, and aging of the general population will be primary drivers for future program offerings and learning environments. Workforce, Business & Community Education (WBCE) at Carroll Community College offers affordable and convenient workforce training and lifelong learning opportunities for students of all ages. These "market-driven" courses must be extremely flexible as course changes are continuous. This flexibility is essential in order to meet the

[1] Compass 2025: College Priorities through June 30, 2025 https://www.carrollcc.edu/wp-content/uploads/Compass-Strategic-Priorities-2025-Brochure.pdf

ever-changing needs of its unique market. As the general population ages, it is expected that a maturing workforce will create greater demand for continuing education and personal enrichment opportunities. WBCE programs will require highly flexible specialized learning environments for a variety of trade skills. These types of programs often necessitate large unique commercial and industrial type specialty spaces, utilizing interior and exterior open areas. Such spaces, or groupings of spaces, are intended to maximize efficiency and flexibility of use in terms of highly specialized tasks, tools, materials and equipment.

Central to Carroll's efforts to enhance and refine its learning environments are the major thrusts of restoring and maintaining existing facilities, as well as the aesthetic environment. These thrusts are to be developed, guided, and modified within the parameters of systematic, coordinated planning efforts. The short and long-term outcomes of each planning methodology will provide direct evidence of the revitalization of levels of integrity that reflect optimal teaching and learning environments.

Contemporary learning environments are required so the College can continue to successfully attract and retain a representative level of its market's available student population. Contemporary teaching/learning environments include the provision of detailed and unique needs for classroom, laboratory and office space, as well as ancillary spaces required for supporting future programmatic impetus.

Improved literacy and refinement of technology in educational institutions dictate the provision of instructional spaces that are designed for both unique and/or shared functions. These spaces will further require adequate consistency with global reconfiguration that increases the utilization efficiency ratio.

Future environments should be such that distinction between computer lab and a lecture classroom will disappear because technology and furnishings will be unobtrusive but available on demand. Furniture will be easily movable allowing for rapid reconfiguration based upon immediate need. Except for science labs, trades labs, athletic and recreation spaces, and some arts studios, the idea of rooms belonging exclusive to an instructional area will also become obsolete. Credit classrooms will be available to continuing education learners and vice versa.

Electronic presentation that allows integration and manipulation of complex data into the learning environment is becoming more and more the norm. Teleconferencing and online learning capabilities make partnerships with other schools and businesses, even ones in other countries, commonplace. Modernization of instructional delivery requires that instructional spaces be configured relative to future disciplinary/programmatic goals whose objectives and functions dictate more efficient organization and effective utilization of space.

In addition to academic needs, there are needs for projects focusing on various academic support, institutional support and campus-wide pursuits that collectively create an exceptional atmosphere for students, faculty, staff, alumni and visitors to the College campus. These needs should be viewed in the context of how strategic responses would effectively align with the College's mission, strategic priorities, and its planned academic direction.

GLOSSARY OF TERMS

This glossary contains brief definitions of generic terms related to educational facilities planning and explanations of acronyms and abbreviations referred to in this needs assessment.

Bound Volume Equivalent (BVE)	The physical space required to accommodate a variety of library materials in amounts equal to one single typical book.
Class Laboratory	Space that is used primarily for formally or regularly scheduled classes that require special purpose equipment for a specific room configuration for student participation, experimentation, observation, or practice in an academic discipline.
Classroom	Space that is not limited to a specific subject or discipline by equipment or room configuration.
Core Space	Space necessary because of existence of the institution or program without regard to other factors.
Credit Hour	A numerical value awarded a student for successfully completing a course.
Facilities Inventory	Room-by-room and building-by-building listing of assignable spaces, their primary use, their size and their capacity.
Full-Time Equivalent Faculty (FTEF)	A base factor statistic equal to all full-time faculty plus 25% of all part-time faculty. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTEF computed for budgetary or other reporting purposes.**
Full-Time Equivalent Student (FTE or FTES)	The total number of on-campus credit hours taught during a given semester/term, divided by 15. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTE or FTES computed for budgetary or other reporting purposes.**
Full-Time Day Equivalent Student (FTDE or FTDES)	The total number of on-campus credit hours taught before 5:00 p.m. during a given semester/term, divided by 15. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from FTDE or FTDES computed for budgetary or other reporting purposes.**
Gross Square Feet (GSF)	The sum of square feet of space in a building included within the outside faces of exterior walls for all stories or areas that have floor surface. Included are all structural, mechanical, service and circulation areas.
Net Assignable Square Feet (NASF)	The sum of all areas on all floors of a building assigned to, or available for assignment to an occupant for specific use. Excluded are spaces defined as structural, mechanical, services and circulation areas.
Student Contact Hour	A measure of time of scheduled interface between students and teacher that is usually expressed in terms of Weekly Student Contact Hour (WSCH), which is the number of hours per week of required interface. **Note: This statistic is used in this document for facilities planning purposes only, and the calculation may differ from WSCH computed for budgetary or other reporting purposes.**
Use Codes	Space use codes represent the recommended central or core concepts for classifying the assignable space, **by use**, within campus facilities. Sometimes referred to as HEGIS or FICM codes.

QUANTITATIVE ASSESSMENT (Space)

The purpose of quantitative assessment is to provide one macro-level estimate of the extent to which the total amount of space for instruction and other campus activities is likely to be sufficient to support future enrollments and programs. This assessment, through its application of the Maryland Higher Education Commission's *Space Allocation Guidelines* (*Guidelines*) for community colleges, is used to compute suggested maximum allowances for various types of campuswide space categories. These guidelines may not be used to design a specific space or facility. They are not fixed standards and may be subject to modifications when justified, as reflected in the Maryland Higher Education Commission's *Community College Facilities Manual*, to meet programmatic standards, to provide more appropriate support for proposed uses.

Specifically, quantitative assessment of space incorporates the concept of supply and demand. It is the process of providing one computed estimate of an allocated supply of learning, support and resource space given a projected demand of academic programs and co-curricular activities, faculty and staffing levels, and student enrollments. The ultimate outcome is to provide estimates of overall sufficiency of campuswide supply of space that is eligible for capital funding by the State.

Summary of Key Findings

Guidelines space allowances are the results of demand, in terms of anticipated programs, enrollments and staffing, against space and buildings. To reemphasize, the ultimate outcome of this quantitative assessment is only to compute suggested maximum state funding allowances for various types of campuswide space categories.

Space deficits in all but five room use categories (Class Laboratory, Stack/Processing, Lounge, Merchandising and Media Production) were suggested when Maryland's *Space Allocation Guidelines* formulae are applied to Carroll Community College's projected (2033) space inventory.

The 2023 campus building space inventory was 200,310 net assignable square feet (NASF). The College anticipates a 2033 space inventory to remain at 200,310 NASF as the base or supply against which the need, generated by the demand of future activity, would be quantified.

When space deficits and surpluses were computed by comparing enrollment and staffing projections against projected space inventory, the outcome was a projected 2033 overall deficit of 83,761 NASF as shown by the following tables. Quantitative indicators suggest immediate and long-term need for facilities to support space classifications showing significant deficits.

One space classification in this list (Day Care: 2,442 NASF) is included in the campus inventory but is not addressed by the *Guidelines*. These specialized spaces for which need is based entirely on programmatic requirements which vary greatly by institution are excluded from this quantitative analysis. For this Ad Hoc category of space, existing space is the guideline.

Table 2.1: Projected (Fall 2033) Space Deficits and Surpluses in Descending Order

Space Classification	Use Code	Projected NASF Fall 2033 Inventory	Allowance	(Deficit)/Surplus
Office/Conference Room	310/350	46,401	96,736	(50,335)
Athletics/Physical Education	520	7,769	36,540	(28,771)
Study	410	5,678	10,963	(5,285)
Open Laboratory	220	2,618	7,367	(4,749)
Shop/Storage	720-740	8,459	10,824	(2,365)
Food Facility	630	9,815	11,883	(2,068)
Meeting Room	680	4,116	6,000	(1,884)
Testing/Tutoring	320	0	1,627	(1,627)
Classroom	100	31,480	32,960	(1,480)
Assembly	610	11,345	12,508	(1,163)
Central Service	750	2,923	4,000	(1,077)
Greenhouse	580	0	1,000	(1,000)
Exhibition	620	830	1,627	(797)
Health Care	800	0	551	(551)
Hazmat Storage	760	0	216	(216)
Data Processing	710	2,413	2,500	(87)
Subtotals Deficits		133,847	237,302	(103,455)
				0
Class Laboratory	210	45,301	32,627	12,674
Stack/Processing	420/440	9,428	4,675	4,753
Lounge	650	4,866	3,495	1,371
Merchandising	660	2,238	1,727	511
Media Production	530	2,188	1,803	385
Subtotals Surpluses		64,021	44,327	19,694
Day Care	640	2,442	2,442	0
Subtotals Ad Hoc		2,442	2,442	0
Campus Totals		**200,310**	**284,071**	**(83,761)**

A comprehensive computation of space allowances is summarized in the following table. All numbers in the preceding and succeeding tables may not exactly add or match due to rounding.

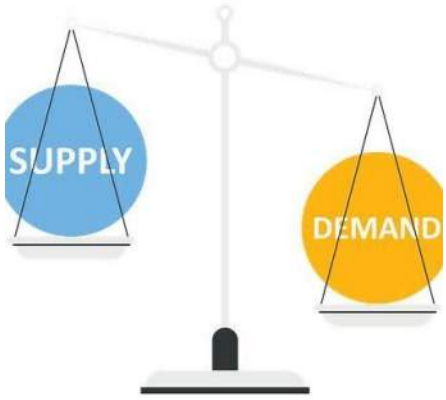
Table 2.2: Summary of Computed Space Allowances

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Space								
Classroom	100	31,480	17,777	13,703	0	31,480	32,960	(1,480)
Class Laboratory	210	45,301	17,598	27,703	0	45,301	32,627	12,674
Open Laboratory	220	2,618	3,973	(1,355)	0	2,618	7,367	(4,749)
Subtotals		79,399	39,348	40,051	0	79,399	72,954	6,445
Academic Support Space								
Office	300	46,401	54,246	(7,845)	0	46,401	98,363	(51,962)
Study	400	15,106	9,917	5,189	0	15,106	15,638	(532)
Athletics/Physical Education	520	7,769	34,000	(26,231)	0	7,769	36,540	(28,771)
Media Production	530	2,188	1,600	588	0	2,188	1,803	385
Greenhouse	580	0	1,000	(1,000)	0	0	1,000	(1,000)
Assembly	610	11,345	12,000	(655)	0	11,345	12,508	(1,163)
Exhibition	620	830	1,500	(670)	0	830	1,627	(797)
Food Facility	630	9,815	6,416	3,399	0	9,815	11,883	(2,068)
Lounge	650	4,866	1,887	2,979	0	4,866	3,495	1,371
Mechandising	660	2,238	1,600	638	0	2,238	1,727	511
Meeting Room	680	4,116	6,000	(1,884)	0	4,116	6,000	(1,884)
Data Processing	710	2,413	2,500	(87)	0	2,413	2,500	(87)
Shops/Storage	720-740	8,459	7,061	1,398	0	8,459	10,824	(2,365)
Central Service	750	2,923	4,000	(1,077)	0	2,923	4,000	(1,077)
Hazmat Storage	760	0	141	(141)	0	0	216	(216)
Health Care Facilities	800	0	500	(500)	0	0	551	(551)
Subtotals		118,469	144,368	(25,899)	0	118,469	208,675	(90,206)
Other Classified Space (Ad Hoc)								
Day Care	640	2,442	2,442	0	0	2,442	2,442	0
Subtotals		2,442	2,442	0	0	2,442	2,442	0
Campus Totals		**200,310**	**186,158**	**14,152**	**0**	**200,310**	**284,071**	**(83,761)**

In summary, quantitative assessment is the process of computing estimated campuswide allowances of learning, support and resource space given a projected demand of academic programs, disciplines and student enrollments. Thus, the quantitative assessment (space guidelines analysis) begins the transition from the language of academic planning to the language of facilities planning.

Methodology

Figure 2.1: Supply vs. Demand



The College provided an inventory of existing space for each campus building, course enrollment data, and staffing data for fall 2023. Fall 2023 is used as the representative semester because during the timeframe of this planning process, it represents the most current data available across all areas of analysis. These sets of data form the basis for a quantitative assessment to be used as one measure of Carroll Community College's eligibility for State-funded space. The consultant team then applied elements of the data to the Maryland community college *Space Allocation Guidelines* to arrive at quantitative indicators of current and future space eligibility. Definitions and room use codes are those provided by the Higher Education General Information Survey (HEGIS) taxonomy found in the *Postsecondary Education Facilities Inventory and Classification Manual* published in 2006 by the U.S. Department of Education in cooperation with the National Center for Education Statistics. Basic methodology for quantitative analysis can be expressed using the accompanying supply vs. demand formula.

Space Allowance (Demand)
- Space Inventory (Supply)
= Space Deficit/Surplus (Net Allowance)

Allowance Determinants

Quantitative allowances for space via new or renovated facilities are typically calculated with respect to hours of instruction and the P.P.A.S. factors described in the very beginning of this chapter. Current and projected total space allowances are based on student enrollments, faculty, staff, and library volumes for fall semester 2023 and 2033 as determined by the Maryland Higher Education Commission (MHEC). These measures of current and anticipated enrollments, personnel and library volumes establish a calculated demand against existing and projected space inventories.

The *Guidelines* require that these computed space projections be viewed only as a listing of "suggested maximum allowances" and do not necessarily relate to "needs" for a particular program or facility. The *Space Allocation Guidelines* application suggests only a computed campuswide allowance for each category of space and does not suggest what sorts of projects should be undertaken. Space deficits and surpluses are identified by applying guidelines to inventories of various categories of space and projected student enrollments. However, these or any space guidelines calculations only provide one measure of overall sufficiency of campus space and in no way address adequacy or appropriateness of space. Therefore, *Guidelines* calculations are not to be used as the determining factor when making decisions about facilities' space needs. A variety of qualitative indicators offer augmentation to *Guidelines* metrics.

Table 2.3: Allowance Determinants

Space Categories	Allowance Determinants
Instructional Spaces	Contact Hours
Open Laboratory Spaces	FTDES
Office Spaces	FTEF, FT Staff, Student Offices
Study (Library) Spaces	FTDES & Bound Volume Equivalents (BVE)
All Other Spaces	FTDES, Core Allowance, Ad hoc Allowance

Current Conditions (Supply)

The purpose of this section is to provide a brief overview of existing building space at Carroll Community College and its distribution as of the fall semester 2023. This supply of existing space will serve as the baseline against which computed space eligibility is compared. Also provided is a brief of current student enrollments, faculty and staff. Projections of these elements form the computed future demand against the existing and projected supplies of space.

Carroll Community College's facilities inventory consists of ten (10) buildings on its main campus which collectively consists of 346,649 gross square feet (GSF) and contains approximately 200,310 net assignable square feet (NASF) of space. The various buildings range in age from the two (2) original buildings: Academic/Administration Building "A" (currently named The Kahlert Foundation Campus Center) and Classroom Building "C") built in 1990 to Classroom Building "K" (currently named Drs. Chitrachedu & Vimala Naganna Center for Innovation) built in 2009 and occupied in 2010. None have undergone major renovations.

Carroll occupies space at two off-site locations in Westminster: the Multi-Service Center at 224 North Center Street and the Carroll County Career and Technology Center (CCCTC) at 1229 Washington Road.

Table 2.4: Campus Buildings (Chronological Listing)

Designation	Built	Known As	Building Donor Name	GSF	NASF	Primary Use
		Main Campus				
A Building	1990	Academic/Administration Building	The Kahlert Foundation Campus Center	73,000	38,488	Office, Instruction
C Building	1990	Classroom Building		21,000	13,478	Instruction
M Building	1993	Multi-purpose Building	The Virginia S. Minnick Classroom Building	21,270	13,226	Instruction, Office
L Building	1997	Learning Resources Center	Penguin Random House Learning Resources Center	57,000	34,727	Study, Instruction
R Building	1998	Amphitheater	Rotary Amphitheater	See Note Below		Outdoor Performances
T Building	2002	Fine and Performing Arts/Business Training	The Scott Center for the Fine and Performing Arts	44,050	21,434	Assembly, Instruction
P Building	2002	Fitness Center	The First Financial Federal Credit Union Life Fitness Center	17,540	11,540	Physical Education
N Building	2004	Nursing/Allied Health Building	The Pappalardo Nursing and Health Care Education Center	31,557	19,526	Instruction
	2006	Theater Workshop		800	722	Assembly
	2007	Theater Workshop Storage Building		432	385	Assembly
K Building	2009	Classroom Building	Drs. Chitrachedu & Vimala Naganna Center for Innovation	80,000	46,784	Instruction, Office, Food Svc.
		Main Campus Totals		**346,649**	**200,310**	

Note. The Rotary Amphitheater is classified as a "miscellaneous structure." Therefore, it is appropriately not subject to inventory for facility planning purposes.

		Off-Site Campuses/Leased Space				
		North Center Street-Multi-Service Center		1,800	1,634	Instruction
		Carroll County Vocational Center		3,000	3,000	Instruction
		Off-Site Totals		**4,800**	**4,634**	
		Carroll Community College Totals		**351,449**	**204,944**	

In addition to main campus buildings, there are outdoor facilities. They include: a baseball field, a softball field, a soccer/rugby field, a multipurpose field, a covered outdoor performance venue (amphitheater) with sloping lawn in front for seating, and eight (8) parking locations.

Existing Building Space Inventory

A room-by-room inventory of assignable space in each campus building was prepared by the College and given to the consultant team. This inventory of existing spaces serves as the baseline data against which space surpluses and deficits are computed. The campus building space inventory utilizes the space taxonomy found in the 2006 *Postsecondary Education Facilities Inventory and Classification Manual (FICM)* published by the U.S. Department of Education in cooperation with the National Center for Education Statistics.

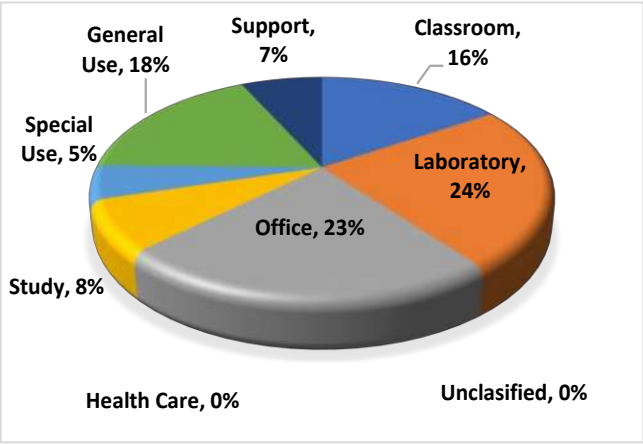
For the most part, room use codes and classifications referenced in this analysis refer to the primary activity space plus support space that directly services the primary activity. Furthermore, the space inventory data in this section is presented in such a way as to satisfy the requirements of the Maryland Higher Education Commission's *Space Allocation Guidelines*. More detailed attention is devoted to each of the College's building structures later in this plan.

The base inventory of 200,310 net assignable square footage (NASF), which is designated as "permanent" and directly related to market-driven conditions, is used to determine State-recognized allowances of campus-wide space. Space contained in temporary structures and space in any facilities at locations other than Carroll's main campus is designated as "overflow" and is not included in the base calculations. The College currently occupies a total of 4,634 NASF of "overflow" instructional space at its two off-site locations.

As depicted in the accompanying graphic, 40% of Carroll's assignable space is used for classroom and laboratory instruction (classroom 16% and laboratory 24%), 23% for offices, 8% for study (library), and the remaining 28% is a combination of special use, general use and support space.

Table 2.5 and Figure 2.2: Distribution of Existing Space by Room Use Classification

Use Code	Classification	NASF
100	Classroom	31,480
200	Laboratory	47,919
300	Office	46,401
400	Study	15,106
500	Special Use	9,957
600	General Use	35,652
700	Support	13,795
800	Health Care	0
000	Unclasified	0
	Total	**200,310**



Carroll Community College's total inventory of net assignable square feet (NASF) is summarized by building and room use classification in the table that follows. This table provides a ready review of the distribution of existing space among the functional classification categories.

Table 2.6: Campus Space Inventory (NASF) by Building

Use Code	Use Classification	(A) Academic Admin	(C) Classroom	(M) Multi-Purpose	(L) Learning Resource	(I) Fine Arts	(P) Fitness Center	(N) Nursing	Theater Workshop	Theater Storage	(K) Classroom	On-Campus Totals
100	**CLASSROOM**	**1,223**	**5,066**	**1,426**	**2,952**	**2,026**	**1,354**	**2,734**	**0**	**0**	**14,699**	**31,480**
200	**LABORATORY**	**5,913**	**5,978**	**5,981**	**4,879**	**7,797**	**850**	**9,135**	**0**	**0**	**7,386**	**47,919**
210	Class Laboratory	5,913	5,978	5,981	2,595	7,463	850	9,135	0	0	7,386	45,301
220	Open Laboratory	0	0	0	2,284	334	0	0	0	0	0	2,618
300	**OFFICE**	**18,180**	**2,083**	**4,654**	**5,370**	**2,777**	**1,567**	**2,825**	**0**	**0**	**8,945**	**46,401**
310/350	Office/Conference	18,180	2,083	4,654	5,370	2,777	1,567	2,825	0	0	8,945	46,401
320	Testing/Tutoring	0	0	0	0	0	0	0	0	0	0	0
400	**STUDY**	**0**	**0**	**0**	**15,106**	**0**	**0**	**0**	**0**	**0**	**0**	**15,106**
410	Study	0	0	0	5,678	0	0	0	0	0	0	5,678
420/430	Stack/Study	0	0	0	7,259	0	0	0	0	0	0	7,259
440	Processing/Service	0	0	0	2,169	0	0	0	0	0	0	2,169
500	**SPECIAL USE**	**0**	**0**	**0**	**2,188**	**0**	**7,769**	**0**	**0**	**0**	**0**	**9,957**
520/523	Athletics/Phys. Ed.	0	0	0	0	0	7,769	0	0	0	0	7,769
530	Media Production	0	0	0	2,188	0	0	0	0	0	0	2,188
580	Greenhouse	0	0	0	0	0	0	0	0	0	0	0
600	**GENERAL USE**	**9,630**	**0**	**0**	**761**	**8,790**	**0**	**663**	**722**	**385**	**14,701**	**35,652**
610	Assembly	2,920	0	0	0	7,318	0	0	722	385	0	11,345
620	Exhibition	0	0	0	0	830	0	0	0	0	0	830
630	Food Facility	2,005	0	0	0	0	0	0	0	0	7,810	9,815
640	Day Care	0	0	0	0	0	0	0	0	0	2,442	2,442
650	Lounge	2,467	0	0	761	0	0	663	0	0	975	4,866
660	Merchandising	2,238	0	0	0	0	0	0	0	0	0	2,238
670	Recreation	0	0	0	0	0	0	0	0	0	0	0
680	Meeting Room	0	0	0	0	642	0	0	0	0	3,474	4,116
700	**SUPPORT**	**3,542**	**351**	**1,165**	**3,471**	**44**	**0**	**4,169**	**0**	**0**	**1,053**	13,795
710	Data Processing	1,191	0	0	1,222	0	0	0	0	0	0	2,413
720-740	Shop/Storage	711	351	1,165	966	44	0	4,169	0	0	1,053	8,459
750	Central Service	1,640	0	0	1,283	0	0	0	0	0	0	2,923
760	Hazmat Storage	0	0	0	0	0	0	0	0	0	0	0
800	**HEALTH CARE**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
000	**UNCLASSIFIED**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Net Assignable Square Feet (NASF)		**38,488**	**13,478**	**13,226**	**34,727**	**21,434**	**11,540**	**19,526**	**722**	**385**	**46,784**	**200,310**
Total Gross Square Feet (GSF)		**73,000**	**21,000**	**21,270**	**57,000**	**44,050**	**17,540**	**31,557**	**800**	**432**	**80,000**	**346,649**

Parking Space Inventory

Carroll Community College has 1,393 available parking spaces distributed among eight locations. 45 spaces are reserved for disabled individuals and 4 are designated for visitors. The remaining 1,344 spaces are open to all students, faculty, staff and the general public. All existing parking at Carroll is on surface lots.

Table 2.7: Distribution of Parking Spaces

Parking Area	Student/Public	Faculty/Staff	ADA	ADA/Van	Visitor	Total
North Lot (Lot A)	422	65	0	0	4	491
South Lot (Lot B)	427	158	0	0	0	585
Overflow (Lot C)	258	0	0	1	0	259
K Building	0	0	5	2	0	7
L Building	0	4	19	2	0	25
N Building	0	4	0	15	0	19
T Building	0	0	1	0	0	1
Loading Dock	0	6	0	0	0	6
Totals	**1,107**	**237**	**25**	**20**	**4**	**1,393**

A campus map depicting buildings and parking locations is provided below.

Figure 2.3: Campus Map

Demand Against Existing and Projected Space

The base year for this analysis is 2023. Current demands against existing space reflect the actual situation during the fall term of 2023 while data projected to 2033 are statistically based and are, for the most part, assumptions made by the Maryland Higher Education Commission. Summary explanations of data assumptions for the input items are shown as follows:

- **Student Data** (FTDE) are calculated from course credit hours. Credit hour and contact hour data are derived from current enrollment course data provided by the College; then the Maryland Higher Education Commission projects an average annual growth of 4.5% in daytime (before 5:00 pm) credit hour enrollment and 6.4 % in credit contact hour enrollment through 2033.

- **Faculty and Staff Data** for 2023 are provided by the College. Projections of faculty and staff are determined by the Maryland Higher Education Commission. The Commission projects an average annual growth of 6.2% for faculty and for staff over the next ten years.

- **Library Volume Data**, in terms of Bound Volume Equivalent (BVE), is based on projections as determined by the Maryland Higher Education Commission.

- **Parking Space Data** is provided by the College. Information about the projected numbers of parking spaces derived by applying planned adjustments over the next ten years to the existing parking space inventory. Demand against that inventory is generated by the numbers of projected students, faculty and staff as determined by the Maryland Higher Education Commission. Input for this data element reflects parking at the main campus location only.

As of this *Facilities Master Plan's* publication, Carroll has no completed programs for future facilities. Therefore, the current space inventory serves as the 2033 base or supply against which the allowance generated by the demand of future enrollments, staffing and library volumes would be quantified.

Student Enrollments

Headcount enrollments and full-time equivalent student (FTE or FTES) enrollments are the primary measures of student population. Although the headcount is most commonly used when referring to enrollments, this measure is generally not used as a primary metric for determining space allowances, needs, or other facility planning purposes.

The most generally accepted method of counting students for purposes of assessing eligible space allowances is the FTE. However, it is useful to analyze trends in headcount enrollments with particular attention given to the mix of full-time versus part-time students. Because full-time students often have more needs for space than part-time students do, sizeable shifts in the ratio of full-time to part-time could have a significant impact on FTE generation, and consequently, on overall space allowances.

Analyses during quantitative assessments of space primarily focus upon academic activities that occur during the prime hours before 5:00 p.m. (Day) and will be engaged by full-time and part-time credit students, faculty and staff. Students enrolled during these hours are referred to as full-time day equivalent students (FTDES). While presenting various measures of FTES is important, of prime

significance is establishing a stable foundation of planning tools upon which the effectiveness and quality of instructional environments necessary for learning can be predicted. For those purposes, projections of weekly student contact hours (WSCH) are also presented.

Estimates are that the total on-campus WSCH for courses offered before 5:00 p.m. will reach 26,634 by fall 2033. Of this total, approximately 21,973 WSCH (82%) will be generated by lecture segments and approximately 4,661 (18%) are expected to occur in laboratory segments.

Determination of program and course content ten years out is difficult at best. However, given an anticipated number of students to be enrolled, projections of weekly student contact hours generated, as well as the number of classroom and laboratory sections, general estimations of space allowances can be calculated.

These projections of weekly student contact hours form a basis for planning for future instructional spaces. Projections of enrollments for fall 2024 through fall 2033 represent the recommendations developed by the Maryland Higher Education Commission in keeping with the pursuit of Carroll Community College's mission through the year 2033. The table below presents a summary distribution of projected credit/contact hours for fall term 2033 in comparison with fall 2023 enrollments. The table isolates those on-campus credit hours, FTDES and weekly student contact hours expected to be generated during the day before 5:00 p.m.

Table 2.8: Current (Fall 2023) and Projected (Fall 2033) Enrollments by Headcount, Credit Hours, FTES, FTDES and WSCH

						Before 5:00 p.m.			
	Full-Time Headcount	Part-Time Headcount	Total Headcount	Credit Hours	FTES	Credit Hours	FTDES	WSCH Lecture	WSCH Laboratory
Fall 2023	901	2,263	3,164	25,498	1,700	16,498	1,100	11,851	2,514
Fall 2033	1,202	2,638	3,840	33,975	2,265	25,665	1,711	21,973	4,661
% Change 2023-2033	33.4%	16.6%	21.4%	33.2%	33.2%	55.6%	55.6%	85.4%	85.4%
Average Annual Growth Rate	2.9%	1.5%	2.0%	2.9%	2.9%	4.5%	4.5%	6.4%	6.4%

Sources: Carroll Community College Institutional Research (2023) and Maryland Higher Education Commission (2033)

While the use of static demographics may not be realistic for micro-level planning, such as individual project programming where population movement needs to be considered and planned for, macro-level analysis and estimates of future student populations often using static demographic data have shown to be a relatively reliable tool for most facilities master planning purposes.

When student population movement is projected by means of comprehensive academic planning and/or expressions of institutional policy, such considerations are incorporated into space planning guidelines applications to set priorities for campus development and to compute campus-wide allowances for each category of space. In instances where such is not the case, static data for student enrollments, faculty and staff levels, and library collections are appropriately used as the basis for computing future campus-wide estimates of space allowances.

Faculty and Staff

The College expects to maintain its current student/faculty ratio (14 to 1) for the year 2033. Maryland Higher Education Commission projects an annual average growth of 6.2% for staff.

Table 2.9: Current and Projected Faculty and Staff Summary

	Faculty (Credit & Noncredit)				Staff		
	Full-Time	Part-Time	Total	FTEF	Full-Time	Part-Time	Total
Fall 2023	78	179	257	123	211	108	319
Fall 2033	142	326	468	224	384	197	581
% Change 2023-2033	82.1%	82.1%	82.1%	82.1%	82.0%	82.4%	82.1%
Average Annual Growth Rate	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%

Sources: Carroll Community College (Fall 2023) and Maryland Higher Education Commission (Fall 2033)

Library Volumes

Use of Bound Volume Equivalents (BVE) is a generally accepted determinant of campuswide allocations of stack space that houses library collections. The BVE concept provides for conversion of a variety of collections materials such as e-books, audiovisual materials, and electronic reference sources into amounts equal to a typical book. Although the term bound volume equivalent is used to reference the measure of overall library collections, it should not be construed that growth in BVE's necessarily means a corresponding growth in actual "book" resources. Although gradual acquisition of electronic formats is a goal for libraries and will begin to reduce some storage needs long term, particularly for journals, reference books, and government documents, these new formats will not obviate the need for stack space.

The learning landscape is constantly and dramatically changing in terms of the ways by which people learn and the technologies that can facilitate the learning process. Increasing use of technology that facilitates teaching, learning, and accessing and processing information creates demands for library spaces that bring together information resources. Technology also affects other kinds of needs. Accommodating the added space needed for computer workstations, support systems and other technology often comes at the expense of space for collections or services.

Just as the use of static demographics is generally accepted as reliable in macro-level planning for people-driven space requirements, the use of book equivalents is the generally accepted metric for estimating long-range space needs for library collections. At the time of actual programming for future learning commons facilities, as is true for other facilities, more timely consideration can be given to actual planning for design that is contemporary.

Table 2.10: Current and Projected Bound Volume Equivalents (BVE)

	BVE[a]
Fall 2023	28,040
Fall 2033	33,390
% Change 2023-2033	19%
Average Annual Growth Rate	1.8%

Data Source: Maryland Higher Education Commission

[a]Bound Volume Equivalent (BVE): the physical space required to accommodate a variety of library materials in amounts equal to one single typical book.

Parking

The focus of this Facilities Master Plan does not include a parking utilization study. Therefore, calculated existing and projected demand for parking and its impact appear later in this chapter as suggested allowances under Maryland's *Space Allocation Guidelines*.

Space Guidelines Application and Analysis

Computation of quantitative State allowances for space is based primarily on the projected credit program of instruction and the number of weekly student contact hours (WSCH) that it generates. Except for remedial or other prerequisite courses and a modest amount of eligible adjusted noncredit contact hours, noncredit contact hour data are not included in computing space under the *Space Allocation Guidelines*. Determinations of current and projected space deficits and/or surpluses are driven by current space inventory and anticipated changes, current enrollment and projected enrollments, and current and anticipated staffing levels.

The consultant team used the space guidelines model developed by the State of Maryland and published under *Title 13B of the Code of Maryland Regulations (COMAR)*. These *Space Allocation Guidelines* provide an initial quantitative assessment of campus-wide eligibility for State-funded building and parking space.

By applying information about the type of space required to teach the various courses to the current and projected enrollments previously presented, it is possible to determine the approximate amount of space that is allowed using guidelines. Application of the same enrollment-driven data to the *Guidelines* parking algorithm results in an approximate number of parking spaces allowed. Then by applying space inventory data, it is possible to determine the current and projected space deficits and/or surpluses.

Assumptions made for the application of formulae-driven space computations for fall 2033 are shown in the following table and are applied to existing and projected campus space inventories.

Table 2.11: Guidelines Planning Assumptions

	FTES	FTDES	WSCH Lecture	WSCH Laboratory	Full-Time Faculty	Part-Time Faculty	Full-Time Staff	Library Volumes
Fall 2023	1,804	946	11,851	2,514	78	179	211	28,040
Fall 2033	2,339	1,754	21,973	4,661	142	326	384	33,390
% Change 2023-2033	29.7%	85.4%	85.4%	85.4%	82.1%	82.1%	82.0%	19.1%
Average Annual Growth Rate	2.6%	6.4%	6.4%	6.4%	6.2%	6.2%	6.2%	1.8%

Sources: Carroll Community College (Fall 2023) and Maryland Higher Education Commission (Fall 2033)

Building Space

With respect to current and projected space deficits and surpluses as the result of the *Guidelines* application, review of the individual data elements reveals the following:

Academic Space: This group includes the space categories of Classroom, Class Laboratory and Open laboratory. These are the types of spaces most typically used for scheduled and nonscheduled instructional activities.

Guideline application to academic space inventories suggests a current surplus of 40,051 NASF and a projected surplus of 6,445 NASF in 2033.

The College currently owns 202% of the space allowance in this grouping. The data suggests that by 2033, the College will own 109% of its computed space allowance.

Table 2.12: Academic Space

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Space								
Classroom	100	31,480	17,777	13,703	0	31,480	32,960	(1,480)
Class Laboratory	210	45,301	17,598	27,703	0	45,301	32,627	12,674
Open Laboratory	220	2,618	3,973	(1,355)	0	2,618	7,367	(4,749)
Subtotals		79,399	39,348	40,051	0	79,399	72,954	6,445

Academic Support Space: Included in this category are the core spaces necessary because of the College's or a program's existence without regard to other factors, and other major space classifications that support the College's primary purposes of instruction and learning.

Guideline application to academic support space inventories suggests a current deficit of 25,899 NASF and a projected deficit of 90,206 NASF in 2033.

The College currently owns 82% of the space allowance in this grouping. The data suggests that by 2033 the College will own 57% of its computed space allowance.

Table 2.13: Academic Support Space

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Academic Support Space								
Office	300	46,401	54,246	(7,845)	0	46,401	98,363	(51,962)
Study	400	15,106	9,917	5,189	0	15,106	15,638	(532)
Athletics/Physical Education	520	7,769	34,000	(26,231)	0	7,769	36,540	(28,771)
Media Production	530	2,188	1,600	588	0	2,188	1,803	385
Greenhouse	580	0	1,000	(1,000)	0	0	1,000	(1,000)
Assembly	610	11,345	12,000	(655)	0	11,345	12,508	(1,163)
Exhibition	620	830	1,500	(670)	0	830	1,627	(797)
Food Facility	630	9,815	6,416	3,399	0	9,815	11,883	(2,068)
Lounge	650	4,866	1,887	2,979	0	4,866	3,495	1,371
Mechandising	660	2,238	1,600	638	0	2,238	1,727	511
Meeting Room	680	4,116	6,000	(1,884)	0	4,116	6,000	(1,884)
Data Processing	710	2,413	2,500	(87)	0	2,413	2,500	(87)
Shops/Storage	720-740	8,459	7,061	1,398	0	8,459	10,824	(2,365)
Central Service	750	2,923	4,000	(1,077)	0	2,923	4,000	(1,077)
Hazmat Storage	760	0	141	(141)	0	0	216	(216)
Health Care Facilities	800	0	500	(500)	0	0	551	(551)
Subtotals		118,469	144,368	(25,899)	0	118,469	208,675	(90,206)

Other Classified Space (Ad Hoc): This category is not addressed by Maryland's *Space Allocation Guidelines*. These are either specialized spaces for which suggested need is based entirely on programmatic requirements which vary by institution or auxiliary enterprises which are not State-funded. For these ad-hoc categories of spaces, existing space is the guideline. The only category of this type currently inventoried by Carroll Community College is Day Care as shown in the table below. Other such categories that are included in the HEGIS taxonomy, but not addressed by Maryland's community college *Guidelines*, include Research and Recreation.

Table 2.14: Other Classified Space (Ad Hoc)

Space Use Category	Use Code	Base Year (Fall 2023) Inventory NASF	Allowance NASF	(Deficit)/ Surplus	2024-2033 Net Change	Projected Year (Fall 2033) Inventory NASF	Allowance NASF	(Deficit)/ Surplus
Other Classified Space (Ad Hoc)								
Day Care	640	2,442	2,442	0	0	2,442	2,442	0
Subtotals		2,442	2,442	0	0	2,442	2,442	0

Parking Space

Maryland's *Space Allocation Guidelines* are also used to compute parking allowances. The *Guidelines* allow 300 square feet per car and a number of spaces to accommodate 75% of full-time faculty, staff and eligible full-time day equivalent students with regular parking. In addition to regular parking spaces, the *Americans with Disabilities Act* (ADA) requires reserved spaces for disabled individuals.

Carroll Community College has 1,393 parking spaces distributed among 8 lots. 1,107 spaces are available for students and the general public, 237 spaces are for employees, 4 spaces are for visitors, and 45 spaces are reserved for disabled individuals. When *Guidelines* input data assumptions are applied to current parking inventory data, it is possible to calculate the number of parking spaces allowed for State funding participation. The current parking inventory was presented earlier, and calculations of allowance are provided in the following table.

Table 2.15: Current (Fall 2023) and Projected (Fall 2033) Parking Deficit/Surplus

Parking Category	Factor	Allowance 2023	Inventory 2023	(Deficit)/ Surplus	Allowance 2033	Inventory 2033	(Deficit)/ Surplus
FTDE-T	0.75	710	1,107	397	1,316	1,294	-22
FT Faculty plus Staff	0.75	213	237	24	388	222	-166
Visitors	0.02	18	4	-14	34	4	-30
Reserved Accessible (ADA)	Required	14	45	31	23	43	20
Total Spaces		**955**	**1,393**	**438**	**1,761**	**1,563**	**-198**

The College currently owns 146% of *Guidelines* allowed parking spaces. The data suggests that by 2033 Carroll will own 89% of its computed parking space allowance. In advance of any detailed planning for future campus-wide infrastructure improvements, the College's effective parking supply and its capacity to accommodate anticipated demand requires further study.

Section Summary

As previously stated, space guidelines calculations are not to be used as the determining factor when making decisions about space or other facilities needs. The following excerpts offer some insights into better understanding as to why:

> ". . . no generalized planning or evaluative process can reflect all the nuances of the institutional situation and that complete dependence on an imperfect system is unwise and unwarranted."
>
> ". . . it must be acknowledged that general planning criteria used in the evaluative process cannot be applied to the design of specific facilities. There must be some allowance for flexibility since no gross indicator is sufficiently sensitive to reflect varying requirements created by differing programs, philosophies, modes of operation, functions to be served, and architectural considerations . . ."
>
> --*Maryland Four-Year Public College and University Space Planning Guidelines*
> Maryland Department of State Planning
> August 1981

QUALITATIVE ASSESSMENT (Programs)

A variety of qualitative or nonstatistical environmental characteristics impact the physical needs of a college campus. These global needs, where Carroll Community College is concerned, focus more on quality and functionality of the campus spaces, buildings, major systems and other infrastructure than on quantity.

Unlike quantitative assessment, where focus is primarily on space, qualitative assessments focus more on programmatic issues. Qualitative indicators of current conditions and program characteristics and future needs/desires are the result of observations by the master plan consultants, conclusions reached in plans and studies by other consultants, and views express by Carroll personnel during interviews and/or via written statements and other documentation.

Growth or change of some existing programs and the establishment of new ones suggest concomitant growth or change in enrollments, demographics, and the need for specific specialized facilities. We believe that exploiting opportunities to effectively market the values of a Carroll Community College education will drive program offerings in the coming years. Many of these programs require specialized classrooms, labs and other facilities that can be flexibly adjusted for a variety of teaching/learning or other settings.

As previously discussed, in addition to primary academic needs, there are needs for programs and projects focusing on various academic support, institutional support and campus-wide pursuits that collectively create an exceptional atmosphere for students, faculty, staff, alumni and visitors to the campus. These needs should be viewed in the context of how strategic responses would effectively align with the College's mission, strategic priorities, and its planned academic direction.

Workforce, Business & Community Education (noncredit)

Career and Technical Education (CTE)

The CTE context can be best expressed by the following: "In the early twenty-first century, economic growth and education scholars have begun to move beyond the concepts of an industrial or knowledge economy toward that of a learning economy—a society in which the capability for all individuals to learn is critical to the economic success of individuals, firms, regions, and national economies. In a learning economy, career and technical education (CTE) has the potential to transform postsecondary education by increasing equity and responding to skill gaps in the workforce by integrating academic and work-based learning. CTE programs in specialized skilled trades, applied sciences, modern technology, and career preparation operate at the intersection of formal education and experiential learning and, when done well, provide learners with the academic, technical, and employability skills needed for success in their careers and lives."[2]

[2] Louis Soares and Tashera Gale. 2024. *Career and Technical Education in the Learning Economy*. Washington, DC: American Council on Education.

At the federal level, Career and Technical Education began in 1917 with the Smith-Hughes National Vocational Education Act. In 2006, Vocational Education was renamed the Carl D. Perkins Career and Technical Education Act. The latest legislation to address these matters is **The Carl D. Perkins Career and Technical Education Act (Perkins V)**. Perkins V is the primary federal law aimed at developing and supporting career and technical education (CTE) programs for secondary and postsecondary students. Perkins V was signed into law by President Trump in July 2018 and went into effect on July 1, 2019. The purpose of the act is to develop more fully the academic knowledge and technical and employability skills of secondary and postsecondary students who elect to enroll in CTE programs to include increasing state and local flexibility in providing services and activities designed to develop, implement, and improve CTE.[3] Federal funding in 2023 exceeded $1.4 billion. The Carl D. Perkins Act provides funding at the secondary and post-secondary levels.

The Workforce Innovation and Opportunity Act (WIOA) is the federal law that governs Maryland's workforce system. WIOA is designed to integrate services to support both businesses and jobseekers through strategic cross-sector partnerships. It envisions connecting workforce, education, human services, and economic development entities to ensure strategic leveraging of resources and optimum results. The law addresses the needs of customers through establishing a comprehensive system that provides access to employment, education, training and support services.

The State of Maryland has addressed Career and Technical Education in its Blueprint for Maryland's Future at the prek-12 level. The Governor's Workforce Development Board has been working to develop an actionable CTE framework that will be the responsibility of multiple state and local agencies and institutions. In turn, the Maryland General Assembly passed HB1244 (Chapter 963 of the Acts of 2024) requiring the Maryland State Plan for Higher Education (MHEC) to include "current and emerging State and regional workforce needs" as an annual appendix. The appendices are supported by a variety of data sources: The Maryland Workforce Exchange (MWE); The Maryland Occupational Projections; U.S. Bureau of Labor Statistics; National Center for Education Statistics; The Maryland Academic Program Inventory; and The Maryland Higher Education Commission Degree Trend File.

Workforce development is a top economic development priority of Carroll County Government; "attracting high quality firms while maintaining a highly skilled and trained labor pool are critical tenants of our success."[4] Carroll County Workforce Development is an American Job Center that administers the Workforce Innovation and Opportunity Act (WIOA) in Carroll County and is dedicated to employment, training, and workforce development. It is an office of the Carroll County Department of Economic Development and part of the Carroll Workforce Development Board.

Career and Technical Education at Carroll

Workforce, Business & Community Education (WBCE) at Carroll Community College offers training and certification programs for various skilled career paths that provide valuable credentials to start or advance one's career and to educate the Carroll community.

Workforce, Business & Community Education is included with Qualitative Assessment only because viable metrics have yet to be generally accepted and consistently applied in response to unique

[3] Perkins IV, §2, and Perkins V, §6.

[4] https://carrollbiz.org/workforce-development/

requirements for learning environments such as those generated by noncredit programs found in continuing education, training and workforce development situations. It is universally accepted that, unlike with credit programs, noncredit program environments have the distinct need for maximum flexibility and quick response to change.

At Carroll Community College, "Workforce, Business & Community Education offers an array of timely and relevant educational opportunities for Carroll County residents. Courses and training programs assist individuals and groups to prepare and keep pace in career, occupational, professional, personal, and cultural growth areas. Noncredit courses are delivered in formats that are convenient and flexible for learners of all ages and abilities, including self-directed learning, traditional classroom, small group seminars, conferences, field study, clinical practicum, and digital (distance) learning. Working closely with local businesses, government, and non-profit agencies, WBCE provides customized training that meets specific workplace needs. Through the communication technologies of interactive video, satellite down-link and the Internet, students and employers are linked to regional, national, and global resources."[5]

The Maryland Higher Education Commission's *Space Allocation Guidelines* for community colleges provides guidelines for estimating overall sufficiency of campus-wide supply of space that is considered eligible for capital funding by the State. As earlier mentioned, except for remedial or other prerequisite courses and a modest amount of eligible adjusted noncredit contact hours, noncredit contact hours are not included in the *Guidelines* computations. Consequently, reliance on the *Guidelines* does not offer a realistic view of the total space requirements for an institution. Given this reality, Carroll's existing enrollment reporting systems, for Workforce, Business & Community Education are structured to provide data primarily for operating budget purposes but are not organized to provide data or information that is readily useful for facility planning purposes.

The following table presents data showing that during fiscal year 2023 nearly 21% of Carroll Community College's full time equivalent (FTE) student population is represented by enrollments in State-funded noncredit courses. The Maryland Higher Education Commission (MHEC) projects an increase of approximately 15% by 2033. Although Maryland space planning models do not fully provide for consideration of Workforce, Business & Community Education student enrollment data when determining the need for specific spaces or facilities, it is rather obvious that the implications of such statistics would have a significant impact on Carroll's needs for space.

Table 2.16: FTE (State-funded) Comparisons (2018-2023) Credit vs. Noncredit

	Fiscal Years					
FTE (State-funded)	2018	2019	2020	2021	2022	2023
Credit	1,880	1,844	1,820	1,759	1,568	1,624
Noncredit	464	432	360	307	358	427
Totals	2,344	2,276	2,180	2,066	1,926	2,051
Noncredit %	19.8%	19.0%	16.5%	14.9%	18.6%	20.8%

[5] 2024-2025 Carroll Community College Undergraduate Catalog

The College is seeking to expand its Academic Curriculum and Workforce, Business & Community Education programs. The focus of these expanded programs is to provide career and technology education (CTE) to underserved areas in support of economic development in Carroll County.

In order to expand the variety and scope of programs that can be offered by the College to meet credit and non-credit workforce demands, significantly more space than is currently available in the existing campus buildings is needed. Over time, as more career programs have been offered at Carroll, general classrooms that can be used for multiple purposes (designed for lecture format) have been converted to provide the technology, equipment, and special configurations required to offer programs such as welding and digital design and fabrication. There is no remaining space available to expand and/or to offer new programs, which limits enrollment. This is because all the career and technology programs that are needed require specialized dedicated space and equipment. The need is for facilities that would house programs that have been identified as high-demand or critical workforce needs in Carroll County. In instances where the programs are currently offered in less-than-ideal space, enrollment can increase due to expanded capacity. In order to provide state-of-the-art learning, state-of-the-art facilities are needed.

The most recent *Facility Master Plan 2015-2025* emphasizes the need to provide appropriate facilities so as to counter the disparities and/or contradictions that presently exist between contemporary learning modalities and inadequate and inappropriate infrastructures that exist within many of the Colleges' CTE environments.

Summary of Key Findings

Facilities master planning regimens should strategically focus on programs and projects that will collectively transform the character of Carroll Community College's academic, co-curricular, and administrative activities to create a holistic approach to student success. Strategic focus should allow for flexible, nimble and seamless response to future market dynamics.

Campus-wide Systems and Infrastructure Improvements

There is ongoing need to address condition and capacities of facilities, infrastructure, utilities, technology, campus circulation for pedestrian and various transportation modes, parking and open space. There is also ongoing need for planned renovation, adaptation, replacement or upgrade of the systems of a capital asset. Categories of campus-wide systems and infrastructure improvements include:

- **Facilities Renewal:** There is ongoing necessity to address facility renewal needs including improvements, repairs, and deferred maintenance. Details are appropriately identified in a subsequent chapter.
- **Technology Upgrades:** There is an identified need to provide upgrades to software systems.
- **Classroom Technology Upgrades:** There is an identified need to provide upgrades to classroom technology in buildings not being totally renovated.
- **Systemics:** There is an identified need to provide funding support for systemic repairs/maintenance including life safety, ADA accessibility, roofs, elevators, sidewalks, mechanical, etc.

Athletic Facilities

The demand for athletic fields was identified in the most recent *Facilities Master Plan 2015-2025* as a priority of the College.

On October 18, 2018, Carroll Community College received approval from its Board of Trustees to launch an intercollegiate sports program. Soccer and Cross Country launched in August 2019, and Lacrosse launched in Spring 2021. Currently, the College has just one regulation grass field that accommodates both Soccer and Lacrosse. The College campus also includes a small fitness center, and a gymnasium that does not meet standards for regulation play of any indoor sport.

The College's vision for Athletics includes developing facilities suitable to serve the very active participation rates of Carroll Countians in athletics that are on par with all Community Colleges, especially those in neighboring Frederick, Baltimore, Howard, and Washington Counties.

Health and wellness courses are anticipated to continue to be in demand as our culture embraces nutrition, weight management, and mental and physical fitness as keys to health living and longevity and healthcare cost management.

Carroll proposes the development of a multipurpose Athletic/Health and Fitness Complex on campus including a Physical Education Building, and future Indoor Track facility. In addition, Carroll proposes to

develop a multi-use artificial turf field, an outdoor track, lights, press box and bleachers, and restrooms, concession, ticket, equipment storage building.

Career and Technical Education (CTE) Facilities

Career and Technical Education has been and is now a major federal economic development priority, a priority of the State of Maryland, a priority of Carroll County Government, and consequently, a top priority for Carroll Community College. The demand for CTE facilities was identified in the most recent *Facilities Master Plan 2015-2025* as a priority of the College for some time.

Rapid growth is expected in all entry-level career/job training programs and especially in trades and applied technology. In addition, the growth of the emerging green economy and development of green careers and jobs will soon provide new opportunities for career/job training. Demand for training programs leading to industry certifications and licensures, particularly in the health care and information technology fields, is anticipated to continue well into the future. Artificial Intelligence and Machine Learning will impact jobs and training will need to adapt accordingly.

In a prosperous economy, people have money to spend on leisure time pursuits and that is when the Workforce, Business & Community Education programs experience increases in enrollments in lifelong learning areas particularly in the humanities, the arts and languages. In a slowed economy, people are searching for ways to secure their lives and be more financially prudent. During these times, personal enrichment interest shifts to do-it-yourself classes as well as short inexpensive leisure activities such as crafts and lectures. There has been a rebounding interest in lifestyle activities including cooking and home improvement classes post-Covid.

Carroll's Workforce, Business & Community Education programs are currently being offered in less-than-ideal spaces or not at all. In order to provide state-of-the-art learning, state-of-the-art facilities are needed.

Surge Space

The availability of surge or swing space is so critical when the College plans to renovate existing facilities. There is an ongoing compelling need at Carroll Community College for space to temporarily house academic or administrative units that are displaced because of renovations to their home buildings.

NEEDS ASSESSMENT CONCLUSION

Needs assessment is the process of estimating the needed supply of academic, academic support and other support space given projected demands of: 1) Carroll Community College Mission, 2) Carroll Community College *strategic priorities*, 3) P.P.A.S., pronounced “pass” (Programs, People, Activities and Stuff)™ who or what must be accommodated, and 4) the need for improvement of operations and services. Thus, needs assessment transitions from the language of academic assessment and academic planning to the language of facilities planning and master planning.

Data leading up to and including the quantitative and qualitative needs establishes the necessity for renovated and/or additional facilities at Carroll to meet its present and future requirements for programs and appropriate space. Potential strategies for meeting these requirements are addressed, in physical terms, in the impending chapters.

Carroll Community College’s response to needs for programs and proper spaces manifests itself in a series of projects that will culminate in an orderly long-term physical development of the campus community. Priorities and sequencing of specific projects that allow for integration of this *Facilities Master Plan* into the College’s *Capital Improvement Program* (CIP) and related financial planning required to implement this *Plan* will be presented in a later chapter.

This presentation of Carroll Community College’s quantitative supply of existing and projected spatial and programmatic landscapes and demands against them serves as the context for transitioning into the actual planning for future facilities. The next chapter contains evaluations of buildings and other campus site infrastructure to determine their suitability to support existing and future programs. These evaluations address needs relative to condition of buildings and the other infrastructure.

CHAPTER 3
THE COLLEGE TODAY

A. ACADEMIC PROGRAMS
B. BUILDINGS AND THEIR DEVELOPMENT
C. THE CAMPUS AND SITE INFRASTRUCTURE
D. TECHNOLOGY SYSTEMS
E. SUSTAINABILITY

Chapter 3 ACADEMIC PROGRAMS

PURPOSE

The *Academic Program Review* identifies the priorities and strengths of existing programs and the potential for the development of new programs. The review assesses the extent to which existing and planned programs offered by the college meet the student needs and the workforce needs of the county and beyond for now, and the projected needs 5 to 10 years out. This review is conducted within the context of the Carroll Community College Strategic Plan. Additionally, these analyses and recommendations provide a basis for the implementation of Carroll Community College's Facilities Master Plan project.

INTRODUCTION

Carroll Community College (CCC), located in Westminster, Maryland, is a comprehensive community college serving the local community and offering a wide range of academic programs designed to prepare students for immediate employment or transfer to four-year institutions. The college continues to grow and adapt to the evolving educational and workforce needs of the region, with both current and projected programs that align with the institutional mission and market demands.

APPROVED ACADEMIC PROGRAMS: EXISTING AND PROJECTED

Existing Programs

Carroll Community College offers a broad spectrum of academic programs, primarily divided into transfer programs and career-oriented programs. Offerings include associate degrees, and certificates, and workforce training aimed at short-term training for specific job skills. In addition, CCC provides over 1,000 on-campus, online, and hybrid offerings focused on career enhancement, personal and professional development through Workforce, Business & Community Education. Career Training, Technical Skill Development and Continuing Professional Education offerings are available in the following areas: Nursing and Health Care, Information Technology, Applied Technology, Child Care, a range of Occupational Training Programs, Business Training and Services, Start-Up Business Development and Entrepreneurship, Professional Development, Licensure, and Certification, Life Long Learning and Community Development, Children and Youth enrichment programs, learning opportunities for Older Adults and Retirees, Arts, Humanities, and Personal Development, Adult Education & English for Speakers of Other Languages (ESOL)

Programs are designed to either prepare students to transfer to a four-year institution or provide the technical skills needed to enter the workforce. Specific offerings by area are as follows.

Advanced Manufacturing

Digital Design and Fabrication, A.A.S.

- Digital Design and Fabrication Certificate
- SOLIDWORKS Certificate

Business & Accounting

- Accounting CPA Exam Qualification Certificate
- Accounting Concentration, A.A.
- Business Administration, A.A.
- Business Management, A.A.S.
- Certified Bookkeeping, Certificate
- International Business Concentration, A.A.
- Management Information Systems Concentration, A.A.
- Office Technology Certificate

Communication & Language

- Communication Studies and Journalism Concentration, A.A.
- Creative Writing and Literature Concentration, A.A.
- Secondary Education—English, A.A.T.

Computers & Technology

- Computer Information Systems, A.A.S.
- Computer Programming Certificate
- Computer Science, A.A.
- Cybersecurity, A.A.S.
- Data Science, A.A.
- Data Science Certificate
- Digital Design and Fabrication, A.A.S.
- Digital Design and Fabrication Certificate
- Network Security Certificate
- Management Information Systems Concentration, A.A.
- Small Unmanned Aircraft Systems, A.A.S
- sUAS Pilot Safety Certificate

Environment & Conservation

- Physical Sciences, Geology Concentration, A.S.

English to Speakers of Other Languages

- Academic ESOL

Fitness & Wellness

- Exercise Science Concentration, A.A.
- Massage Therapy, A.A.S. (Transfer Program)
- Public Health Concentration, A.A.

History, Culture & World View

- Psychology Concentration, A.A.
- Sociology/Anthropology Concentration, A.A.

Nursing & Allied Health

- Health Science Certificate
- National Registry Paramedic, A.A.S.
- National Registry Paramedic Certificate
- Nuclear Medicine Technology, A.A.S. (Transfer Program)
- Nursing, Registered Nurse, A.S.
- Practical Nursing Certificate
- Physical Therapist Assistant, A.A.S.
- Respiratory Therapy, A.A.S. (Transfer Program)

Performing Arts

- Music, A.F.A.
- Theatre Concentration, A.A
- Visual Art Concentration, A.A.

Science, Engineering & Math

- Biology, A.S.
- Chemical/Biomedical Engineering Concentration, A.S.
- Electrical Engineering, A.S.E.
- Engineering, A.S.
- Mechanical/Civil Engineering Concentration, A.S.
- Physical Sciences, Chemistry Concentration, A.S.
- Physical Sciences, Geology Concentration, A.S.
- Physical Sciences, Physics Concentration, A.S.

Social Sciences

- Corrections Certificate
- Criminal Justice Concentration, A.A.
- Law Enforcement, A.A.S.
- Law Enforcement Certificate
- Psychology Concentration, A.A.
- Sociology/Anthropology Concentration, A.A.
- Social Work Concentration, A.A.

Teaching & Education

- Early Childhood Education, A.A.S.
- Early Childhood Education/Early Childhood Special Education, A.A.T.
- Elementary Education/ Elementary Special Education, A.A.T.
- Secondary Education—Chemistry, A.A.T.
- Secondary Education—English, A.A.T.
- Secondary Education—Mathematics, A.A.T.
- Secondary Education—Spanish, A.A.T.
- Teacher Education, A.A.

Visual Arts

- Communication Studies and Journalism Concentration, A.A.
- Computer Graphics, A.A.S.
- Computer Graphics Certificate
- Creative Writing Concentration, A.A.
- Entertainment Technology, A.A.S.
- Entertainment Technology Certificate
- Music, A.F.A.
- Theatre Concentration, A.A
- Visual Art Concentration, A.A.

Writing

- Communication Studies and Journalism Concentration, A.A.
- Creative Writing Concentration, A.A.
- Secondary Education—English, A.A.T.

Projected Programs

In response to changes in the regional job market and emerging fields, Carroll Community College may be expected to introduce new programs and offerings in the coming years, particularly in the following areas:

- Healthcare Expansion: Adding new specializations in healthcare-related fields to meet the growing demand for skilled professionals.

- Information Technology and Cybersecurity: Expanding current IT and cybersecurity programs to include advanced certifications in artificial intelligence, data analytics, and cloud computing.

- Sustainability and Renewable Energy: Projected to introduce programs focused on green technologies, energy management, and environmental science to meet the needs of an evolving energy sector.

- WBCE aspires to expand or start new offerings in areas such as construction trades, applied technology, green technology and infrastructure, communications and broadband technology, law and criminal justice, information technology, and health, wellness, and animal care.

- In consideration of the 2025 "Winning the Decade" publication from the Maryland Department of Commerce, Carroll is expected to evaluate program expansion to support economic development strategies included in that report: computational biology (life sciences), quantum computing, and aerospace.

BUILDINGS AND THEIR DEVELOPMENT

MAIN CAMPUS

1601 Washington Road, Westminster, MD 21157

Buildings listed in chronological order of completion:

Designation	Built	Known As – Functions
1. A Building	1990	**The Kahlert Foundation Campus Center** – administration offices, classrooms, labs, central plant, bookstore, and student lounge.
2. C Building	1990	**Classroom Building C** – classrooms, I.T. and science labs, and offices.
3. M Building	1993	**The Virginia S. Minnick Classroom Building** – classrooms, science, dental and engineering labs, conference suite, large meeting room, and offices.
4. L Building	1997	**Penguin Random House Learning Resources Center** – print media stacks, computer workstations and labs, VR lab, academic services center, group study rooms, library offices, library processing and technical services, classrooms, writing lab, board room, lecture hall, and media studio.
5. R Building	1998	**Rotary Amphitheater** – outdoor functions and performances.
6. T Building	2002	**Scott Center for Fine and Performing Arts and Hikel Business Training Center** – theater and related functions, practice rooms, art studios, art gallery, offices, classrooms, Hikel Business Center, training and conference rooms.
7. P Building	2002	**The First Financial Federal Credit Union Life Fitness Center** – practice / half-court gym, fitness center, lockers, offices, classrooms, and acting studio.
8. N Building	2004	**Pappalardo Nursing and Health Care Education Center** – nursing and healthcare labs, classrooms, faculty offices, home and hospital simulation labs, and equipment storage rooms.
9. N/A	2006	**Theater Workshop** – Shop addition to the T Building.
10. N/A	2007	**Theater Workshop Storage Building** – Storage addition to the T Building.
11. K Building	2010	**Drs. Chitrachedu & Vimala Naganna Center for Innovation** – Classrooms; science labs; child development center and lab school; graphics, multi-media, writing, and math development labs; administrative and faculty offices; student life lounge; café and private dining.

Note: Information included in the September 15, 2023 Alpha Facilities Solutions / Brightly *Carroll Community College Facilities Condition Assessment Executive Summary Report* has provided helpful information to the Marshall Craft consultant team and has been used in this report to supplement a more recent assessment developed by the consultant team on the following pages in this section.

Building A – The Kahlert Foundation Campus Center

Building Description

Architectural

Building Designation	A – **The Kahlert Foundation Campus Center**
Number of Floors	3, including basement Central Plant level
Net Assignable Square Feet	37,733
Gross Building Area - GSF	73,000
Net-to-Gross Efficiency	51.7%
Construction Completion Year	1990
Major Renovations	None
Additions	None
Contains	Administration offices, classrooms, labs, central plant, bookstore, student lounge
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

The larger and major of two buildings completed simultaneously on the new campus, providing space for administrative and offices, student services spaces, a student center, classrooms, labs, the College Bookstore, and campus information desk, Building A is the hub of the campus. The large atrium space offers areas for student, staff and faculty interaction, accommodates various events such as college and recruiting fairs, and the seating area on the lower mechanical level just outside the bookstore provides space for readings, small music performances, and casual seating. The atrium space is well known to the citizens of Carroll County. The student center is underutilized by students and would benefit from a study/survey of re-imagined design improvements more in line with the way students would want to use the space. The lower mechanical level provides space for the primary mechanical and electrical systems serving most of the campus buildings, including Building A.

Mechanical Systems

A total of eight (8) York model CS variable air volume (VAV) air handling units (AHUs) are in the mechanical penthouse and utilize chilled and heating water coils to provide ventilation and conditioned air throughout the building. The AHUs range from 30-40 tons of cooling capacity and provide airflow to direct digitally controlled (DDC) VAV terminal units located throughout the building. All AHU controls are DDC, and the associated control panels are in the mechanical penthouse. The terminal units modulate airflow based on thermostatic setpoints and are assumed to have been installed in 1990 as well.

In discussions with facilities maintenance personnel, there are currently no outstanding issues with the terminal units, however, the units as well as their associated controls have exceeded their useful life expectancy. The central plant is in the lower level of Building A where base-mounted end suction pumps circulate secondary chilled water and heating water to the AHUs as well as radiant baseboard heaters installed around the perimeter of the building. All base-mounted end suction pumps are installed on inertia bases with vibration isolation and are variable speed to allow for flow modulation based on capacity demand requirements.

Roof-mounted exhaust fans provide ventilation for multiple public restrooms, electrical rooms, smoke evacuation for the atrium, and a science laboratory with fume hoods. The HVAC system serving the entryway for the A building as well as the connector between the A and N buildings was replaced with a new high-efficiency all-electric variable refrigerant flow system in 2023. In discussions with facilities maintenance personnel, the computer room air conditioning units (CRAC) serving the building IT server room were recently replaced in 2023, however, there are still on-going humidity issues.

An 8-inch water service line extends through the building mechanical room where it splits into a dedicated 6-inch fire service with an alarm check valve and associated valving assemblies. The fire service line extends to stair towers located in the North and South portions of the building to serve standpipes with associated zone valving assemblies and fire department hose end connections. A 4-inch domestic water line extends throughout the building to provide cold water to the corresponding plumbing fixtures. Domestic hot water is provided via a 300-gallon oil fired water heater which also provides domestic hot water to Building C plumbing fixtures. All counter-top sinks were replaced in 2023.

Electrical Systems

The main Central plant for the college is located in the lowest floor of this building. The central plant electrical service serves buildings A, C, M, L, P, and T. The main electrical room of the building is in a separate room within the main mechanical central plant room which includes boilers and chillers and pumps as well as other mechanical equipment. The separate electrical room includes the switchboard, panels, transfer switches, and dry-type transformers as well as the main fire alarm panel.

The Central Plant in building A receives its main electrical service from a pad mounted utility transformer located just outside of the building. The pad mounted transformer is provided by BGE and converts the power company's primary service to a secondary voltage of 480/277V, three phase, four wire. The secondary service is extended underground within a duct bank to the main switchboard located in the center of the electrical room of the central plant. The switchboard has both front and back access. The switchboard was manufactured by Square D and installed in 1990. The switchgear is

4000A, 277/480 volts, three phase, four wire switchboard. Recently the main breakers in the switchgear were replaced. The 2500A main breaker was replaced in March 2023. The other five 800A main breakers were replaced in early 2024. The switchboard is comprised of 7 sections. The distribution sections (2 sections) are served by the 2500A breaker. Three other sections include five main 800A breakers. The switchboard incorporates multiple main disconnects as allowed by the six disconnect exception in the National Electrical Code.

The switchboard contains the following main breakers:

- 800A – Fine Arts Building – Building F
- 800A – Spare
- 800A – LRC – Building L
- 800A – Chiller #1 (Central Plant)
- 800A – Chiller #2 (Central Plant)
- 2500A – Main Distribution Section of Switchboard

The main electrical room includes multiple 480/277V panels including ELDP (300A), EM-T (400A), LP-128 (225A). The room also has 120/208V panels including RP-128 (300A), EPP-AB (60A), and an unidentified panel (400A), DP-A1 (300A), DP-A2 (400A), DP-A3 (400A). All of the panels are in good condition.
The room also includes four Square D 112.5kVA Dry type transformers which are also in good condition and provide power to the 208V panels. These panels provide power to Building A for both receptacles, lighting and mechanical equipment.

A Kohler transfer switch related to the emergency power system is also located in the room and is in good condition. Two Kohler 150kW generators are located outside of the building. The generators appear to be in good condition and provide emergency and standby power to the building.
The mechanical portion Central plant includes a few panelboards, two MCCs (600A) and a dry-type transformer to power equipment in the central plant mechanical room. The panel is a Square D panel named PP-AB2 (60A) and the associated transformer is XFMR-PP-AB2.

Two Kohler 150kW generators are located outside the building. The generators appear to be in good condition and provide emergency and standby power to the building.
The mechanical portion of the Central plant includes a few panelboards, two MCCs (600A), and a dry-type transformer to power equipment in the central plant mechanical room. The panel is a Square D panel named PP-AB2 (60A), and the associated transformer is XFMR-PP-AB2. The room also has a 1200A enclosed circuit breaker related to the PV solar power array located outside of the building on campus.

The existing fire alarm system is currently a Siemens MXL system. The entire fire alarm system for the campus is currently under construction, including new panels and devices, with completion expected in late Fall 2026.

The lighting in this building is LED with many fixtures having been retrofitted to LED lamps. All fluorescent lighting in the building has been replaced. The fixtures in general are in good condition. It should be noted that some of the emergency exit lighting is 20 years old. It should also be noted that the building contains both green and red lettering on the exit lighting.
The majority branch circuit wiring in the building is 35 years old and beyond its useful life.

Building C – Classroom Building

Building Description

Architectural

Building Designation	C – **Classroom Building C**
Number of Floors	2
Net Assignable Square Feet	13,485
Gross Building Area - GSF	21,000
Net-to-Gross Efficiency	64.2%
Construction Completion Year	1990
Major Renovations	None
Additions	None
Contains	Classrooms, I.T. and science labs, offices
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

Completed simultaneously with Building A, as the first buildings on the new campus Building C provides space for classrooms, science and engineering labs, and offices. Like Building A, heating and cooling are provided by way of the central mechanical plant in Building A. The science and engineering labs are crowded, with inadequate storage for science and engineering equipment.

Mechanical Systems

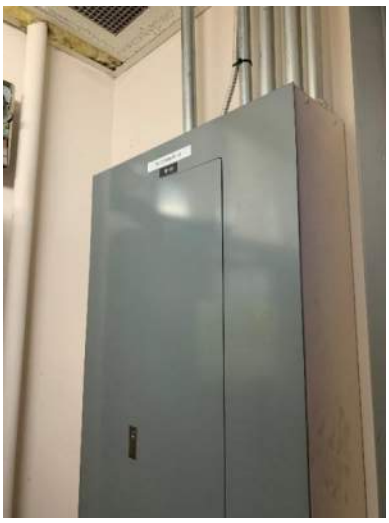
Three (3) York model CS VAV AHUs ranging from 15-25 tons of cooling capacity provide ventilation and conditioned air throughout the building. All three (3) AHUs have chilled water and heating water coils. One (1) AHU is in the lower-level mechanical room and two (2) AHUs are in the mechanical penthouse. Ventilation air is drawn through roof mounted intake louvers and ducted to each AHU. Relief air from the AHUs extends into the mechanical penthouse where air is discharged through exterior wall mounted louvers. The AHUs provide conditioned primary air to zone level VAV terminal units located throughout the building. The AHUs as well as the VAV terminal units are all DDC and modulate airflow based on thermostatic control and differential pressure setpoints to allow for fan power reduction during part loading conditions.

Three (3) base mounted end suction pumps circulate chilled water and heating water to the AHU coils as well as radiant base board heaters located along the perimeter walls of the classroom spaces. The pumps are connected to the central campus distribution loops and provide constant flow through the building secondary loop. Based on differential pressure and water temperature setpoints within the secondary loop, three-way valves are used to bypass flow when full design flowrates through the associated HVAC systems are not required. Although this helps maintain minimum flow capacities seen by the central plant chiller and boilers, this constant flow pumping strategy can lead to unnecessary energy usage during part loading conditions.
A 6-inch fire line extends from Building A and into the lower-level stair tower of Building C to serve a standpipe with an associated zone valving assembly. Domestic cold water and hot water is extended from Building A and into Building C to serve janitorial closets.

Electrical Systems

Building C electrical distribution system is fed from the Building A main switchgear located in the central plant main electrical room. Local distribution and branch panels are in the building in a small electrical room (C067). The building's main distribution panel is DLP-BB. This is 225A, 480/277V, 3 phase, 4 wire main distribution panel. This MDP feeds panel LP-BB (480/277V) as well as a dry-type transformer, XFMR T-BB (75kVA), that provides power to panels PP-BB and PPB-1A (120/208V) located in the same room.

The panels are original to the building and 35 years old and in fair condition. Panel LP-BB serves lighting in the building as well as Panel LP-B1. Panel PPB-1A serves an HVAC unit and some quad receptacles. Additional branch circuit panels are located on all three floors of the building.
First floor panels include 480/277V ELP-BB (60A) which serves emergency lighting and LP-B1 (100A) as well as 120/208V Panel RP-B1 which serves receptacles and some HVAC equipment. PP-B1 (200A) also serves general classroom receptacles as well as Panel PP-B2. All the panels are manufactured by Square D and in good condition.


The panels are original to the building and 35 years old and in fair condition. Panel LP-BB serves lighting in the building as well as Panel LP-B1. Panel PPB-1A serves an HVAC unit and some quad receptacles. Additional branch circuit panels are located on all three floors of the building.
First floor panels include 480/277V ELP-BB (60A) which serves emergency lighting and LP-B1 (100A) as well as 120/208V Panel RP-B1 which serves receptacles and some HVAC equipment. PP-B1 (200A) also serves general classroom receptacles as well as Panel PP-B2. All the panels are manufactured by Square D and in good condition.

Second floor panels include 480/277V panel LP-B2 which serves classroom lighting and 120/208V panel PP-B2 which serves general receptacles in classrooms There is also Panel LAB (150A) which powers the lab tables. All panels are manufactured by Square D and are in good condition. Both 480V/277V and 120/208V panels are located on each floor to serve lighting and receptacle loads as well as HVAC needs. The panels on the floor below feed the panels on the floor above.

The lighting in this section of the building is provided by several different types of lighting fixtures including linear fixtures and 2x4 and 2x2 fixtures as well as some downlighting. All the fixtures now utilize LED lamping, and all appear to be in fair condition. The emergency lighting in the building is 20 years old and nearing the end of its useful life.

Building C does not have a separate fire alarm system but does have addressable devices throughout the building. The building is served by the fire alarm system in the central plant. All the devices report back to the main system.

Building M – The Virginia S. Minnick Classroom Building

Building Description

Architectural

Building Designation	M – **The Virginia S. Minnick Classroom Building**
Number of Floors	2
Net Assignable Square Feet	13,152
Gross Building Area - GSF	21,270
Net-to-Gross Efficiency	61.8%
Construction Completion Year	1993
Major Renovations	None
Additions	None
Contains	Classrooms, faculty and staff offices, dental lab
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

When it was completed in 1993, the rooms in Building M were immediately booked, and it provided essential classroom and office space for the growing College. One of its classrooms is double-sized and can be subdivided to be two classrooms. Building M is now the most centrally located of all campus buildings.

Mechanical Systems

The HVAC systems serving Building M consist of three (3) 30-40-ton VAV AHUs located in the mechanical penthouse. The AHUs provide ventilation and conditioned air to VAV terminal units serving the multiple spaces within the building. The AHUs each have a hydronic heating and cooling coil, and the building's chilled water and heating water piping system is connected to the campus central loops. Three (3) variable speed base mounted end suction pumps circulate chilled water and heating water to the AHUs hydronic coils, radiant baseboard panels, and cabinet unit heaters throughout the building. All HVAC systems are DDC and are connected to the campus central BAS. Two (2) 5-horsepower air compressors and two (2) 1-horsepower vacuum pumps provide lab air to the dental lab and associated equipment.

A 6-inch standpipe and all associated zone valving is in the building's stairwell, and sprinkler piping is routed throughout the building. A 3-inch domestic water service is routed throughout the building to serve the associated plumbing fixtures. A 2-inch domestic hot water pipe extends into the building and serves all the associated plumbing fixtures. All counter-top sinks were replaced in 2023.

Electrical Systems

Building M is served by an MDP (DPB3) which is fed from Building A main switchgear in the Central Plant. The Square D panel is 400A, 480/277V, 3 Phase, 4 Wire with 400A main breaker. The MDP is original to the building and is in fair condition.

The electrical room for this building is located on the lower floor and includes the distribution panel DPB3 (400A) as well as four other 120/208V panels. All the panels in the room are manufactured by Square D and are in good condition. These panels include RPB3 (225A), RP5B3 (225A), RP2B3 (225A) and RP1-B3 (400A).

There are two dry-type transformers located in the room which include the suspended XFMR RPB3 (45kVA)and floor mounted XFMR RP1B3 (112.5kVA). The transformers are manufactured by Square D and are in good condition.

The building includes an attic/penthouse where mechanical equipment is located. Panel PP-P3 is in this penthouse space.

The lighting in this section of the building is mainly 2x4 recessed linear fixtures LED retrofitted and in fair condition.

The emergency power in this building is provided from Panel ELP-B3 (100A) via ELDP in Building A. This panel serves lighting in this building while ERP-B3 (100A) serves other loads.
Similar to Building C, Building M does not have a separate fire alarm system but does have addressable devices throughout the building. The building is served by the fire alarm system in the central plant. All the devices report back to the main system.

Building L – Penguin Random House Learning Resources Center

Building Description

Architectural

Building Designation	L – **Penguin Random House Learning Resources Center**
Number of Floors	3
Net Assignable Square Feet	32,586
Gross Building Area - GSF	57,000
Net-to-Gross Efficiency	57.2%
Construction Completion Year	1997
Major Renovations	None, but several minor renovation projects
Additions	None
Contains	Print media stacks, computer workstations and labs, VR lab, academic services center, group study rooms, library offices, library processing and technical services, classrooms, writing lab, board room, lecture hall, media studio
General Condition	Fair
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

The Learning Resources Center (LRC) is in many ways the learning heart of the campus. Not just a library, the LRC provides the setting for a number of learning experiences, including: spaces for study, both individual and group; a writing center which guides students in the process and craft of writing; an academic services center which provides learning assistance to students, providing support not necessarily available from instructors; computer work areas; a lecture hall; and support spaces, Virtual Reality Lab, One Button Media Studio.

Over time, LRC spaces have given way to functions in support of the larger teaching mission of the College but not related to the library, such as environmental services, faculty offices, mail center, Speech Department, and central warehouse. In addition, the L Building has provided temporary space to functions that couldn't fit in other buildings. These periodic changes required periodic renovations to accommodate changing needs. Furthermore, the unique geometries of the building have led to less than efficient if not awkward configurations of room and furniture layouts.

Mechanical Systems

The HVAC systems serving Building L consist of five (5) AHUs with hydronic chilled water and heating water coils, all located in the mechanical penthouse, with four (4) VAV AHUs and one (1) constant volume 100% outside air AHU serving the lab spaces. The capacities of the AHUs range from 15-70-tons of cooling capacity and provide ventilation and conditioned air to VAV terminal units with hydronic reheat coils. A new 525-ton counter-flow induced draft cooling tower (CT-2) was provided and paired with a new 525-ton (CH-2) water-cooled chiller and connected to the campus central plant located in Building A. The new chiller and cooling tower installations provide additional capacity to the primary loops serving multiple buildings on campus. Chilled water and heating water is circulated through a secondary loop associated with Building L by four (4) variable speed base mounted end suction pumps to AHU heating and cooling coils, radiant baseboard heaters, terminal units, and other miscellaneous equipment. All secondary pumps are in the building's mechanical room and were replaced in 2024.

A 6-inch cold water line extends into the lower-level fire closet where the service splits into a 6-inch fire service and 3-inch domestic cold-water service to serve the building. The main domestic water line serving the building was replaced with new in 2023 as well as all associated valves. Domestic hot water is provided by a 50-gallon electric storage type water heater installed in 2023.

Electrical Systems

Building L is fed from Building A main switchboard located in the Building A main Central Plant. The building is served by Square D 480/277V, 800A, 3 phase, 4 wire switchboard. The switchboard is 27 years old and original to the building and in fair condition. The switchboard powers an MCC, 2 elevators, a cooling tower, a few electrical panels and some HVAC equipment.

The switchboard is located on the lower level of the building in a room with 6 panels. All the panels are manufactured by Square D. The 480/277V panels include ELP (150A) which serves emergency lighting, smoke control fans, an AC unit some, some pumps and other miscellaneous items as well as Panel LPB (225A) which mainly serves lighting.

The 120/208V panels including RPB (225A) which serves receptacles and panel RPB-2. RPB-2 (100A) serves exhaust fans, receptacles and various other devices. Panel RPB-3 (100A) serves a waters heater and the elevator room AC. Panel ERP1(225A) serves elevator cab lights, receptacles and some heaters.

There is also a 75kVA transformer located in the room serving the 120/208V panels.
Five of the electrical panels are original to the building but Panel ELP was recently upgraded 4 years ago.

Additional electrical panels are in the mechanical room on the upper floor including 480/277V panel PLP (125A) which serves penthouse lighting and a Square D transformer. Panel PRP, 120/208V, which serves receptacles, unit heaters and some lights. In addition, MCC-1 is also located in this room. Panel PP-P3, which is 480V, is also located in this area and serves HVAC equipment in the room along with some VFD drives. All the panels are manufactured by Square D and are in good condition.

The fire alarm system was recently upgraded due to a failure of the previous existing equipment but will be upgraded again with the campus upgrade set to occur soon.

Lighting in the building is a combination of linear lighting including 2x4 and 2x2 lighting as well as downlighting. The lighting in the building has been re-lamped to LED lamps or fixtures. The lighting is controlled by a low voltage switching panel.

Building R – Rotary Amphitheater

Building Description

Architectural

Building Designation	R– **Rotary Amphitheater**
Number of Floors	1
Net Assignable Square Feet	2,296
Gross Building Area - GSF	3,595
Net-to-Gross Efficiency	63.9%
Construction Completion Year	1998
Major Renovations	None
Additions	None
Contains	Stage, support spaces
General Condition	Fair
Adequacy of Space	Adequate for functions accomodated in the building
Sprinkler System	Not sprinklered

The Amphitheater hosts theater and musical events during the 'pleasant weather' months of the year, produced by CCC and outside groups and organizations. Improvements to the grassy seating area would help make the building and site more amenable to audience comfort, vision, and listening experiences In recent years, its utilization has diminished.

There are no mechanical systems, and the electrical and lighting systems are therefore not described herein.

Building T – The Scott Center for Fine & Performing Arts and Hikel Business Center

Building Description

Architectural

Building Designation	T – **The Scott Center for Fine & Performing Arts and Hikel Business Center**
Number of Floors	2
Net Assignable Square Feet	22,504
Gross Building Area - GSF	44,050
Net-to-Gross Efficiency	51.1%
Construction Completion Year	2002
Major Renovations	None
Additions	2006 theater workshop, 2007 theater workshop storage
Contains	Hikel Business Center, theater and related functions, classrooms, spaces for the visual and performing arts, rehearsal hall, practice rooms, art studios, art gallery, offices, classrooms, training and conference rooms
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

The Scott Center is essentially two buildings: the theater and related spaces occupy the east bar, while the west bar houses the Business Training Center and art gallery on the lower level and the upper level includes art and music studios, practice rooms, and rehearsal hall. A central mechanical room serves both bars of the building. Theater audience seating is provided on the house level and balcony. Two additions in 2006-2007 provided space for workshop functions and storage. However, there is no green room, and the theater lobby area is limited in size for theater events and related gatherings. The number of performing arts practice rooms is insufficient for the demand and therefore difficult to schedule. Storage space for performing and visual arts are seriously undersized. The Business Training Center spaces appear to be adequate for the purposes of the Center.

Mechanical Systems

The HVAC systems serving Building T consists of three (3) 25-80-ton VAV AHUs with three (3) units located in the second-floor mechanical room and one (1) constant volume AHU 100% outside air unit located backstage to the theatre. All AHUs, other than the constant volume unit serving the backstage theatre, provide ventilation and conditioned air to VAV terminal units with hydronic reheat coils to serve the multiple zones within the building. Outside air is drawn through mechanical louvers with field-fabricated plenum extensions that utilize pneumatic damper linkages to balance airflow, and like the P building, have occasionally failed, resulting in the freeze-stat for each AHU tripping on low temperature, thus causing unit operation to shut down.

Electric heating coils were installed in the outside air ductwork prior to the AHU connections to heat outside air temperatures to a defined setpoint temperature to prevent the freeze-stat from tripping on low-temperature and shutting down unit operation. This is an inefficient approach and raises concerns about the overall ventilation provided for the building. If the outside airflow being introduced to each AHU is larger than originally designed, the associated cooling coils could potentially be undersized to provide sufficient dehumidification and discharge air temperatures. The building chilled water and heating water is connected to the primary campus central loops, and four (4) variable speed base-mounted end suction pumps circulate secondary chilled water and heating water to the associated AHU hydronic coils, perimeter baseboard hydronic heaters, terminal unit reheat coils, and other miscellaneous HVAC equipment. All secondary pumps are in the first-floor mechanical room.

A separate 3-inch domestic water service and a 4-inch fire service are extended into the building on the lower level. The building is fully served by a wet-pipe sprinkler system. Domestic hot water serving the building's plumbing fixtures is generated by a 66-gallon electric storage type water heater rated for 40 kW of electric heating capacity.

Electrical Systems

The main electrical room for the building is in room T330 and is served by the Building A Central Plant. This room contains eleven distribution and branch circuit panels that serve the building. The panels are all manufactured by Square D and are in good condition. The building is served by a Square D 800A, 480/277V, 3 Phase, 4 Wire MDP1. (This provides approximately 15W/sqft for the building). The MDP and other panels in the main electrical room for the building are original installations. The room has four panels that are 480/277V and four panels that are 120/208V with some having multiple sections. The 480V panels include MEP (400A), EP1 (300A), LP1 (100A), and LP1E (100A). The 208V panels include the two section Panel RPE1 (175A), Panel DP1 (400A), two section Panel RP1 (225A) and Panel RP1A.

There are two dry-type transformers (45kVA and 112.5kVA) in the room that are manufactured by Square-D and in good condition. Finally, there are two bypass ATS switches in the room (one manufactured by Onan and the other by Kohler.) Both are in good condition and are original to the building. Building T is served by the 200KW Kohler generator located outside of the building. This appears to be in good condition.

The building also has a remote electrical room on the second level, which contains five electrical panels, a 75KVA dry-type transformer, and a dimmer lighting panel. Two of the panels are 480/277V, which include Panel LPE2 and Panel LP2. There are also three 120/208V panels, including Panel RPE2, Panel RP2 and Panel RP2B. All the panels and transformers are manufactured by Square D and are in very good condition. A lighting dimmer panel is also located in this room.

The building is served by a Cerberus Pyrotronics MXL system that is expected to be replaced next year, which is in the main electrical room T330.

Lighting in the building is LED mainly by retrofit. The lighting in general is in good condition. There is a lighting dimming panel in the main electrical room as well as some lighting control stations in the building. While the theater portion of the building has some specialty lighting, much of the building utilizes 2x4 linear LED fixtures.

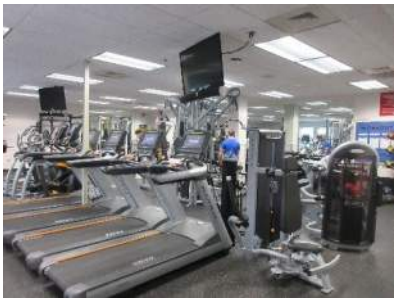
Building P – The First Financial Federal Credit Union Life Fitness Center

Building Description

Architectural

Building Designation	P – **The First Financial Federal Credit Union Life Fitness Center**
Number of Floors	1
Net Assignable Square Feet	11,540
Gross Building Area - GSF	17,540
Net-to-Gross Efficiency	65.8%
Construction Completion Year	2002
Major Renovations	None
Additions	None
Contains	Practice/half-court gym, classrooms, fitness center, offices, acting studio
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

The Life Fitness Center is the only building on campus that provides fitness and recreation facilities. When it was built in 2002, it was acknowledged that it only provided a fraction of the demand (and justification per State guidelines) for those facilities. The basketball court is about 2/3 the size of an NCAA regulation court, with no run-off space. No new athletics facilities have been built in the ensuing years. Other spaces include classrooms, offices, and an acting studio.



Mechanical Systems

The HVAC systems serving Building P consist of three (3) 10-50-ton VAV AHUs located on the mezzanine level. The AHUs provide ventilation and conditioned air to VAV terminal units with hydronic reheat coils serving the multiple building zones. In discussions with facilities maintenance personnel, the existing pneumatic linkages controlling the outside air introduced to the AHUs have occasionally failed and caused the freeze-stat to trip, thus shutting down unit operation during colder winter design day operation. The building chilled water and heating water is circulated through secondary loops attached to the campus central plants.

Four (4) variable speed base-mounted end suction pumps circulate secondary chilled water and heating water to the AHU hydronic coils and other miscellaneous equipment. Four (4) roof-mounted exhaust fans provide ventilation for bathrooms, the locker rooms, and auxiliary spaces.
A separate 3-inch domestic water service and a 4-inch fire service are extended into the building on the lower level. The building is fully served by a wet-pipe sprinkler system. Domestic hot water serving the building's plumbing fixtures is generated by a 100-gallon gas-fired storage-type water heater rated for 200 MBH.

Electrical Systems

Building P is fed electrically from the Building A central plant. The building is served by a 300A, 480/277V, 3 Phase, 4 Wire Main Distribution Panel (MDP2). The panel is original to the building in very good condition. The MEP panel is in room P523. In addition to the MDP, the room contains two dry type transformers including XFMR T-5 (30kVA), and XFMR T-4 (45kVA), 4 panels (2 – 120/208V and 2-480/277V). The 480V panels include Panel EP (100A) and Panel LP (100A). The 120/208V panels in the room are Panel RPE (100A) and the two-section Panel RP (175A). All of the panels are original to the building, manufactured by Square D and installed in 2002.

Emergency power is provided by a generator. There is a Kohler transfer switch located in the main electrical room. The transfer switch is in good condition.

Lighting in the building is LED mainly by retrofit of linear 2x4 fixtures. There is some additional specialty downlighting in the gym. The lighting in general is in good condition.

Building N – Pappalardo Nursing and Health Care Education Center

Building Description

Architectural

Building Designation	N – **Pappalardo Nursing and Health Care Education Center**
Number of Floors	2
Net Assignable Square Feet	19,052
Gross Building Area - GSF	31,557
Net-to-Gross Efficiency	60.4%
Construction Completion Year	2004
Major Renovations	None
Additions	None
Contains	Nursing and healthcare labs, classrooms, faculty offices, home and hospital simulation labs, equipment storage rooms.
General Condition	Good
Adequacy of Space	Undersized for functions housed in the building
Sprinkler System	Fully sprinklered

The Nursing and Allied Health Building is the only building on campus solely dedicated to the professions for which students learn and train. As the nursing and allied health programs have grown, the facilities that house the corresponding learning spaces and equipment have become more in demand. In addition to the rooms, the equipment may also require updating. The College has initiated planning and design for the planned renovation for a large classroom and central Sim Lab; the renovation work is planned for Summer 2026.

Mechanical Systems

The HVAC systems serving Building N consist of two (2) 50-80-ton VAV AHUs. The AHUs provide ventilation and conditioned air to VAV terminal units with hydronic reheat coils serving the multiple zones within the building. The chilled water and heating water loops are de-coupled from the campus central plant, with one (1) 150-ton air-cooled chiller installed in 2024 and two (2) 1014 MBH gas-fired boilers providing the chilled water and heating water service to the building. Gas flue vent piping appears to be new and is in good working condition with no signs of rust or corrosion.

Four (4) base mounted end suction pumps circulate chilled water and heating water to the AHU hydronic coils, terminal reheat coils, radiant baseboard heating panels, and other miscellaneous equipment. All pumps are variable speed with both the chilled water and heating water pumps designed for N+1 redundancy. Boiler blend pumps are provided for each boiler to ensure minimum entering water temperatures are maintained to prevent shock to the boiler and improve efficiency. Five (5) roof mounted exhaust fans are original to the building and provide ventilation to the bathrooms and electrical room. A new DDC controls system was installed in 2024 and integrated with the campus BAS.

A 6-inch water service extends into the building mechanical room where the service splits into a 4-inch fire service and domestic water service. The fire service extends to the building's stairwells to serve standpipe risers with associated zone valving assemblies. Sprinkler piping is routed throughout the building to serve the required zones. The domestic water line shut-off valves, bypass valves and backflow preventer were replaced with new in 2023. The building's domestic hot water is provided by one (1) 125-gallon gas-fired storage type water heater rated for 140 MBH.

Electrical Systems

While Building N is connected to building A via a covered corridor, the building is fed from a separate electrical service from BGE. A pad mounted transformer is located outside of the building and feeds the building switchboard via an underground duct bank.
The building is served by Siemens 800A, 480/277V, 3 Phase, 4 Wire Switchboard (SWBD MDS) located in room N109A.

All the panels in this building are manufactured by Siemens, which is different from most of the panels in the complex which are Square D. It is also noted that the panels indicate that they were installed in 2004 despite the building being built in 1993.

The main electrical room contains nine branch circuit panels. There are three 480/277V panels which include ELP (200A), MP (250A) and LP (125A). There are six 120/208V panels which are the two section Panel ERP (100A), Panel MRP (100A), the two section Panel RP1 (225A) and the two section Panel RP2 (225A). All the panels in the room are in good condition. The room also includes four ceiling suspended dry-type transformers that provide 120/208V power to the panels in the room.

The Fire Alarm panel is in the main electrical room. This is a Sieman MXL-IQ system and appears to be in fair condition. As mentioned previously the fire alarm system in the complex is being upgraded. Building emergency power is provided by a Kohler 150kW generator providing 480V/277V, 3 phase power. The generator was recently replaced last fall in 2024. The generator is located outside in close vicinity to the utility transformer.

Lighting in the building is LED mainly by retrofit and in good condition. All fluorescent lighting in the building has been replaced. The majority of the lighting is linear and 2x4 recessed.
(The building is designed to provide 21 W/sqft.)

Building K – Drs. Chitrachedu & Vimala Naganna Center for Innovation

Building Description

Architectural

Building Designation	K – **Drs. Chitrachedu & Vimala Naganna Center for Innovation**
Number of Floors	2
Net Assignable Square Feet	54,565
Gross Building Area - GSF	80,000
Net-to-Gross Efficiency	68.2%
Construction Completion Year	2010
Major Renovations	None
Additions	None
Contains	Classrooms; science labs; child development center and lab school; graphics, multi-media, writing, and math development labs; administrative and faculty offices; student life lounge; café and private dining.
General Condition	Good
Adequacy of Space	Adequate for functions housed in the building
Sprinkler System	Fully sprinklered

The largest and newest building on campus, Building K, like some other campus buildings, provides spaces for various functions unrelated to each other, yet answering to the need for space. The building works well relative to layout, spatial relationships, efficiency of space, and upkeep. A second floor bridge connects the K Building to the Fine and Performing Arts / Business Training Center.

Mechanical Systems

The major HVAC systems in Building K are de-coupled from the campus central chilled water and heating water loops. Four (4) VAV AHUs ranging from 20-130 tons of cooling capacity provide ventilation and conditioned air to VAV air terminal units with hydronic reheat coils that serve the variety of building zones. VAV exhaust terminal units are used in lab spaces to provide space pressurization and fume hood exhaust. All AHUs have hydronic heating and cooling coils and modulate airflow based on discharge air temperature and system differential pressure setpoints. One (1) packaged direct gas-fired make-up air unit is interlocked with kitchen exhaust operation to provide make-up air during kitchen hood operation. Miscellaneous HVAC equipment such as direct-expansion ductless split systems, cabinet unit heaters, radiant heating panels, and 4-pipe hydronic fan coil units (FCUs) provide conditioned air to auxiliary spaces throughout the building.

A single packaged 385-ton air-cooled chiller is located at the exterior of the building and provides glycol supply water to the different AHU cooling coils. Two (2) 2800 MBH high-efficiency gas-fired boilers provide heating water throughout the building to the AHU heating coils, radiant baseboard panels, and cabinet unit heaters. The boilers heating water supply temperatures are reset based outdoor ambient temperature to produce lower water supply temperatures during shoulder seasons and part load capacity, thus improving overall fuel consumption and increasing the heating plant's efficiency. Blender pumps are installed for each boiler to circulate supply water and mix with return water to ensure consistent temperature differences to increase boiler efficiency and prevent shock. Four (4) base mounted end suction pumps operate at variable speeds to circulate heating and chilled water throughout the building. Variable speed pumping operation allows for flow modulation and increased energy efficiency during part load conditions.

Roof-mounted exhaust fans provide ventilation for restrooms, electrical rooms, mechanical rooms and laboratory classrooms. Fume hoods within the science lab are exhausted through an independent exhaust fan and discharged to the atmosphere. All control systems within the building are pneumatic and are connected to the campus BAS system. It is recommended that all pneumatic controls be replaced with new DDC controls to ensure proper operation and prolonged life expectancies for the associated HVAC equipment.

A 6-inch water service extends into the building’s water room where it branches into a 4-inch fire service and 4-inch domestic water service. The 4-inch domestic water line is metered to monitor water usage for the building. Domestic hot water is generated by a 250-gallon gas fire storage type water heater to provide hot water to the associated plumbing fixtures within the building. A 6-horsepower duplex air compressor and a 10-horsepower duplex vacuum pump provide lab air and vacuum services to the science lab fixtures.

Electrical Systems

Building K is served by a separate electrical service from a BGE pad-mounted transformer located outside the main electrical room (Room K107) to the building just off the loading dock. The pad mounted transformer is owned by BGE, and primary service is converted to 480/277V three phase, 4 wire service. Service entrance is a 2000A Square D 480/277V, three phase, 4 wire switchboard which is original to the building. The equipment is in good condition and is 15 years old. (This provides approximately 20W/sqft to the Building K.)

Located in the main electrical room are a number of 480/277V and 120/208V panels. The 480/277V panels include LP1A (225A), ELP1A (600A). Panel ELP1B (225) which serves some receptacles, some HVAC equipment and fire and security devices on the standby panel. The 120/208V panels include two section panel RP1A (150A), two section panel MRP1A (150A), two section panel ERP1A (150A). Also in the room is the two section panel MP1A. All of the panels are Square D and in good to excellent condition. There are four dry-type transformers in the room including XFMR-ERP1A, XFMR-RP1A, XFMR-KDS, and XFMR KP1A (112.5kVA). All of the transformers are manufactured by Square D and in good condition. The room also holds a Kohler transfer switch which is in good condition. The building is served by a 400KW diesel Kohler generator with subbase diesel tank, is also original to the building.

A dimmer panel for the lighting is located in the electrical room K107. This appears to be in good condition. Additional panels in the building are located in room K126. There are two 480/277V panels ELP1B (225A) which serves emergency lighting and HVAC equipment as well as a boiler and LP1B (600A). This includes 120/208V two section panel ERP1B (150A) which serves receptacles, HVAC equipment and fire and security devices on the standby panel and two section Panel RP1B (150A). All of the panels in K126 are Square D panels and are in good condition. There is a dry-type transformer in the room named XFMR-RP1B (45kVA) serving panel RP1B.

MEP Systems – General for All Buildings

Central Plant and Mechanical Infrastructure

The campus central chilled water and heating plant is in the basement mechanical room of Building A and is comprised of two (2) water-cooled chillers, a thermal ice storage system designed for 4,320 Ton-Hours, one (1) plate-and-frame heat exchanger, and (2) oil-fired boilers. The chilled water piping network is designed in a primary-secondary configuration which is used in conjunction with the thermal ice storage system to provide chilled water to the multiple buildings located on campus. Two (2) induced draft counter-flow cooling towers are located at the exterior of Building A and installed on concrete supports. Cooling tower operation is paired with the operation of the water-cooled chillers.

Twelve (12) total pumps, with each pumping network designed for N+1 redundancy, circulate the primary chilled water, primary glycol water and condenser water during off-peak and peak hours of operation. During off-peak conditions determined by the building automation system (BAS), chiller 1 (CH-1) energizes, and pump-1 and pump-2 operate in lead-lag to circulate the primary chilled water supply throughout the associated buildings on campus.

Cooling tower 1 (CT-1) and condenser water pumps 3 and 4 operate in conjunction with CH-1. Chiller 2 (CH-2) operates in ice build mode to provide 22 degrees F. glycol water supply to the thermal ice storage vault. CH-2 does not circulate glycol through the plant heat exchanger. During on-peak conditions as determined by the BAS, CH-1 and pumps 1 and 2 are de-energized. CH-2 and pumps 7 and 8 operate in lead-lag to circulate 39 degrees F. glycol supply water through the heat exchanger. Pumps 9 and 10 operate in lead-lag to circulate primary chilled water through the heat exchanger to maintain a 41 degrees F. chilled water supply temperature that is distributed throughout the campus primary loop. If CH-2 is at full capacity, and the primary chilled water supply temperature is above 41 degrees F., the thermal ice storage system and the associated air pump are energized to maintain a 39 degrees F. glycol supply temperature to the heat exchanger and a 41 degrees F. primary chilled water supply temperature.

Cooling tower 2 (CT-2) will energize based on condenser water supply temperature setpoint and modulate fan capacity based on demand to maintain the pre-determined condenser water supply temperature. In discussions with facilities maintenance personnel, during large event gatherings or peak loading conditions, CH-1 is sometimes energized to operate until full capacity is reached, where the thermal ice storage system is utilized as described above to provide additional cooling capacity for the primary chilled water loop.

Similar to the chilled water system, the central heating plant is configured in a primary-secondary piping arrangement. The primary loop is circulated through the mechanical room and through the associated oil-fired boilers where the primary piping then leaves the mechanical room to be distributed to other buildings on campus. The boilers are designed for N+1 redundancy. The following tables summarize design parameters, installation date, and the estimated connected cooling load and heating load seen by the central plant. It should be noted that buildings not indicated are not currently supported by the central plant and have dedicated HVAC systems.

Table 1: Existing Chillers			
Designation	Manufacturer	Capacity (Tons)	Year Installed
CH-1	York	350	1990
CH-2	York	525	1997
Total Capacity = 525 Tons			

Table 2: Existing Boilers			
Designation	Manufacturer	Capacity (MBH)	Year Installed
Boiler-1	Cleaver-Brooks	14,645	1990
Boiler-2	Cleaver-Brooks	14,645	1990
Total Capacity = 14,645 MBH			

Table 3: Existing Cooling Towers			
Designation	Manufacturer	Capacity (Tons)	Year Installed
CT-1	Evapco	350	2006
CT-2	Evapco	525	1997
Total Capacity = 525 Tons			
Note: During peak cooling operation, only (1) chiller is operational at a time, with the ice storage providing supplemental cooling as needed			

Table 4: Existing Primary Pump Capacities			
Designation	Service	Capacity (GPM)	HP
Pump 1 & 2	Primary Chilled Water	510	15
Pump 2 & 3	Primary Heating Water	590	10
Pump 3 & 4	Condenser Water	1,050	60
Pump 5 & 6	Condenser Water	1,575	60
Pump 7 & 8	Primary Glycol	1,725	125
Pump 9 & 10	Primary Chilled Water	1,700	60

Table 5: Estimated Existing Campus Cooling and Heating Loads			
Building	Occupancy	Cooling Demand (Tons)	Heating Demand (MBH)
A	Office/Academic	150	2,263
C	Academic	55	810
L	Office/Academic	130	2,000
M	Academic	52	790
P	Athletics	50	695
T	Academic	90	1,350
Estimated Central Plant Demand		527	7,908
Note: Estimated cooling and heating demand is based off approximate SF/Ton and SF/MBH			

The chillers, boilers, cooling towers, pumps, and other associated appurtenances are in fair condition and all systems have exceeded their average useful life expectancy. The boilers are operating at capacity requirements during peak conditions that are much lower than what is necessary to handle the estimated demand for all connected buildings. By operating at lower capacities this will affect the overall efficiency of the equipment and could lead to potential shock on the system leading to poor unit performance or even failure. A new boiler for the central in Building A is expected to be underway in January 2026 and completed in June 2027.

Figure 1 : Existing Oil-Fired Boiler

Figure 2 : Existing Cooling Towers

Figure 3 : Existing 525-Ton Chiller

Figure 4: Existing 350-Ton Chiller

Figure 5: Existing Plate and Frame Heat Exchanger

Electrical Systems – General for All Buildings

Existing Capacity: BGE services to the buildings appear to be adequate for the existing loads but will need to be evaluated once the master plan expansion loads are determined. Separate individual BGE services are provided to building A, K and N. Building A feeds all the other buildings.

Main Switchboard Central Plant: The main switchboard has capacity and has been designed for some expansion. Currently the switchboard service entrance has 6 main breakers as listed below which were recently replaced. This includes an 800A spare breaker. No additional mains could be added to the board per code.

Electrical Distribution: Most of the electrical distribution in the buildings appear to be original to the construction of the buildings which vary in years from 1990 to 2010 and appear to be in good condition, however original panels from 1990 closer to end of life.

Lighting: Most of the lighting has been retrofitted with LED lamps and the lighting in the building is in good condition. There are a variety of different lighting controls.

Fire Alarm: The fire alarm system is scheduled to be replaced in all buildings soon under a separate contract.

THE CAMPUS AND SITE INFRASTRUCTURE

THE CAMPUS

Since its inception nearly 35 years ago, the College and its campus have experienced significant growth and change, adding 7 buildings, additional parking, roadways, sidewalks a second entrance, as well as athletics fields. It remains the main and sole campus maintained by the College. As the College has grown, so too has its infrastructure, including storm water management, water distribution, the sanitary sewer system, power, site lighting, and technology cabling and facilities.

Location

Carroll Community College is located about three miles southeast of the city of Westminster, and is bounded by Washington Road / Md Rte 32 to the west, New Washington Road / Md Rte 97 to the east, private property to the north, and the Carroll County Family YMCA to the south.

Character, Connections

The original 'hub and spoke' concept for the buildings has developed a bit differently than as conceived in the first master plan, but, importantly, except for the Amphitheater, all of the buildings are connected to each other so that it is possible to walk from one to the others while remaining inside. One result of that compact and connected distribution of buildings is the relative lack of landscaped and furnished outdoor gathering spaces. Hence, the campus hasn't achieved a 'collegiate' character. This will be a consideration as the concepts for future buildings and additions are considered. The varied topography has made creation of those spaces as well as connecting sidewalks challenging. This can be especially difficult for persons with disabilities, particularly and significantly relative to the uphill climb from the campus buildings to the athletics fields.

Grounds

The 71.4 acre campus landscape reflects some of the rolling, verdant countryside of central Carroll County. The topography of the campus slopes generally northward, with terraces for athletic fields and the main campus, eventually reaching a tributary to Middle Run.

A summary of existing campus land use cover is as follows:

Buildings, parking, roadways, and sidewalks cover approximately 23.6 acres (33% of the property). Forested areas cover approximately 10.3 acres, mostly along the northern boundary but also including a 2.5 acre forest near the middle of the eastern boundary, partially covered by a Forest Conservation Easement. An additional forest stand lies immediately to the south of Building K.

The grounds of the campus are, like the buildings, well maintained. The athletics fields (soccer, baseball, and softball) are adequately if not generously sized, particularly soccer. There are no storage, restrooms or concessions facilities located among the athletic fields complex. The College currently has an active design and construction project to install an outdoor running track and synthetic turf athletic field, known as Lynx Field, at the location of the current natural grass playing field south of Building K. This is noted on the Existing Campus Plan shown below as “Planned”.

Circulation and Parking

The College is accessed by two vehicular entrances on Washington Road leading to three main parking lots and thence to the campus buildings to the east.

Parking lots including handicapped parking provide 1,393 parking spaces. This capacity was needed prior to the COVID pandemic in 2020-22, but since then, with the movement of several in-person courses to online, the need for all of those spaces has diminished. A portion of the main parking lot has been roped off to define the area used for truck driver training.

Outdoor lighting appears to be adequate, and the College has reported that the students feel safe walking to and from their cars at night.

Signage

Building Identity signage located near the main entrance to each building is coordinated for all buildings (except the amphitheater). However, for a first-time visitor, it is not immediately apparent where their destination is located. Readability could be improved, especially to assist first-time visitors to the campus.

SITE INFRASTRUCTURE

Water and Sewer:

The campus is served by public water and sewer systems served by the City of Westminster.

An 8-inch water main forms a loop around the main campus buildings, providing both domestic and fire protection services. Fire hydrants are spaced around the perimeter of the road network for fire coverage.

The sanitary system is collected via a gravity system that directs flow to a central pump station at the northern end of the campus, with a force main conveying all campus flow to the public system in MD Route 32.

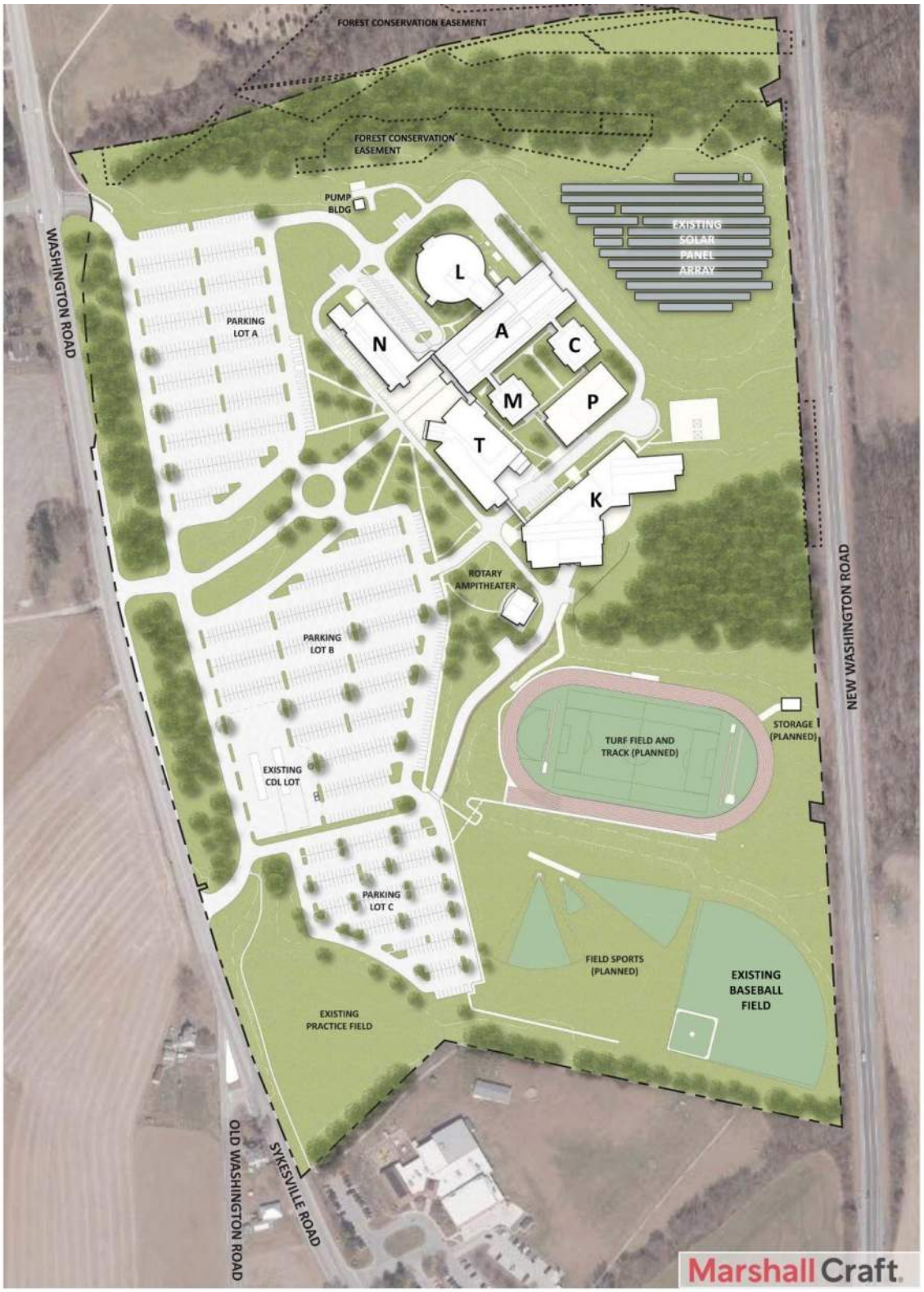
Stormwater Management:

Stormwater is conveyed through a series of pipe networks to an underground treatment facility in the northeast corner of the campus.

A solar panel array is located above this facility, which provides water quality and quantity management for the existing campus. This underground facility was constructed in 2007 to replace an existing pond. At that time of accounting the facility had a balance of 0.03 acres of impervious capacity but for practical purposes will not accommodate future campus development in its present size and configuration.


FAST TRACK YOUR CAREER

EXISTING CAMPUS PLAN



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

EXISTING CAMPUS

JANUARY 2026

0 25 50 100 200

LEGEND

Existing CCC Building

TECHNOLOGY SYSTEMS

Telecommunications Structured Cabling System

Carroll Community College (Carroll CC) currently receives its Wide Area Network (WAN) connection through the Carroll County Public Network (CCPN). The network is supported by two redundant optical fiber connections that are routed via the K and N buildings to the main Data Center located in the A-building. Presently, Carroll CC has sufficient bandwidth to support its operational needs, with the capability to scale by an additional 2 Gigabytes each year. The College provides its own network switches, and the WAN system is functioning efficiently, requiring no immediate enhancements.

Telecommunications Rooms (TRs) vary in adequacy across campus. Buildings T, L, and K have TRs that meet current performance and infrastructure requirements. However, the TRs in buildings A, C, and M are undersized or otherwise non-compliant with modern standards. Common deficiencies include inadequate bonding and grounding, insufficient conduit sleeves, and rack clearances. In several buildings, a single TR supports the entire structure, such as in buildings C and M. All TRs have been upgraded with dedicated A/C units and rack-mounted UPS systems, with batteries replaced as necessary.

Backbone cabling across the campus originates from the A-building Data Center and connects to each TR. The existing optical fiber cabling in buildings A, C, L, N, and M is out of date.

The K Building establishes the current campus standard for horizontal station cabling and backbone optical fiber infrastructure. The K-building utilizes shielded Category 6A cabling for station connectivity, along with an optical fiber backbone composed of twenty-four (24) strand single-mode OS2-rated and twelve (12) strand multimode 50/125 OM4 rated. The optical fiber backbone routes to the A-buildings Data Center. Carroll CC standards are based on Siemons branded copper and fiber infrastructure solutions.

The remainder of the campus continues to utilize existing Category 5e cabling, which, while adequate for present requirements, poses constraints for high-bandwidth applications. Carroll CC plans to upgrade the cabling infrastructure in Buildings A, C, L, M, N, P, and T as part of future major renovation projects.

Wi-Fi coverage on campus currently includes one access point for every two classrooms, though this setup often results in bandwidth limitations, especially inside buildings where cell signals are weak.

Aruba equipment is the campus standard for Wi-Fi infrastructure. Planned improvements include increased classroom coverage, the continuation of a parking lot Wi-Fi project, and transitioning from on-premises to cloud-based management. In addition, A system-wide refresh of the access points is anticipated within the next two years.

Network electronics, including switches, are replaced as they reach their End of Life. This ensures that the network switch is replaced prior to the conclusion of product support. A core network upgrade is in progress, centered in the A-building's Data Center, which serves as the campus's Main Distribution Frame

(MDF). All other building TRs act as Intermediate Distribution Frames (IDFs). Most TRs support Power over Ethernet Plus (PoE+).

A project to install a campus-wide Cellular DAS is currently underway. The infrastructure is in place and antennas have been installed with single-mode fiber. AT&T and T-Mobile are the service providers to the campus. Verizon could be a future addition, but currently lacks available off-air signal and the cost of a direct connection in prohibitive.

At the off-campus Multi-Service Center (MSC), Carroll CC maintains a presence that includes a TR, which is undersized and outfitted with outdated Category 5 cabling.

With the Coppermine Pantherplex project no longer progressing, Carroll Community College is evaluating the possibility of developing a facility at 861 Baltimore Boulevard. If advanced, this location could be connected to the main campus through the Carroll County Public Network (CCPN), which has a local node at the College.

1 Existing bonding busbar in a TR, bonding is not present in all TR's.

2 Typical riser and station cabling conduit

3 Carroll CC standard Building K cabling

Audiovisual Systems

Carroll CC has adopted Extron as the standard control system for most campus AV installations, with exceptions in room K100 and the Board Room which utilize Crestron systems. The campus features a mix of outdated and modern audiovisual technologies. The college is actively upgrading outdated VGA connections to Video Over IP (VoIP) systems and has implemented 15 such systems using Extron encoders and decoders.

Typical classrooms are equipped with a lectern, a laser projector, and either a laptop or a desktop computer. However, much of this equipment is 15 to 20 years old, with some components so outdated that replacement parts are no longer commercially available. Additional components, such as document cameras and Apple TVs, are available upon request, though they are not standard. Flat panel displays are primarily used in smaller classrooms and meeting spaces as the main display.

The college has one Hyflex classroom, located in room K128, and it currently meets the college's needs. In addition, conference carts equipped with 65" displays and cameras are in use for hybrid meetings.

Classroom audio systems vary, with most delivering mono sound. However, enhanced audio systems exist in certain rooms, such as K100 and the tiered classroom L287, which include microphone support.

6 Room K100

5 Existing VoIP Projector

4 Existing Teaching Podium

Technology

The college's current technology refresh cycle for computers is approximately nine years, which is significantly longer than the industry recommendation of five years. Efforts are underway to reduce this cycle. Notably, the simulation labs used by the Nursing program feature equipment that is 9–10 years old and increasingly prone to overheating. The annual technology budget at Carroll CC stands at approximately $500,000.

Monitors and displays across campus also show signs of age, with many units dating back nearly 20 years. While most displays are still high definition (HD), the College is considering the use of 4K displays as part of future upgrades.

Carroll CC has transitioned its web hosting services off-campus to Pantheon, which supports accessibility compliance and provides reliable performance. The college is also in the process of migrating enterprise systems to the cloud and is incorporating AI solutions into its operations. Security remains a central consideration during this transition

Electronic Security

Carroll CC utilizes Genetec for video surveillance and access control, although electronic access control is not yet widely implemented. Most external doors on campus feature electronic access control. A phased implementation of internal door access (e.g., TRs, HR suite) is ongoing.

Security cameras, predominantly from Axis, are strategically deployed throughout the campus; however, some coverage gaps persist in some campus areas, particularly where older camera model reduce effectiveness. To address this, the college is upgrading these areas by replacing outdated single-sensor cameras with advanced fisheye and multi-sensor units, significantly enhancing visibility and minimizing blind spots.

This has been particularly effective in parking areas where the college is replacing outdated cameras with new multi-sensor models.

Parking lot cameras

Interior cameras

Exterior camera

Interior camera

Public Safety Distributed Antenna System (DAS)

The college has recently completed the deployment of a Distributed Antenna System (DAS) for public safety, ensuring reliable emergency communications across campus.

7 New Public Safety DAS wall field

SUSTAINABILITY

Sustainability as a subject can be found in the College's programs, including:

- Environmental Sustainability
- Environment & Agriculture
- Forest Conservation
- Waste & Waste Water Treatment

From the beginning, the College embraced the importance of sustainability on its campus and in its science curriculum. The groves of trees along the north end of the campus, at the lower level of the campus along Maryland Route 97, between Building K and the competition field, the dozens of trees along Maryland Route 32, and more formally defining the main entrance driveway are testimony to preserving forest area and planting trees.

All of the buildings have incorporated brick facades, a long-lasting, durable material still in good condition, and which will last for many more decades, avoiding the need to replace the façade coverings if other materials had been used. Similarly, most of the buildings, and all of the original buildings, have incorporated standing seam metal roofing systems on well-pitched roofs, which have performed very well, and which typically outlast other types of roofing systems for pitched roofs. This has saved frequent and costly replacement, not to mention minimizing the carbon footprint of those roofing systems.

The original campus development included a stormwater pond that filtered stormwater before it flowed downstream. However, the flow of the water slowed significantly over several years, and the area of the pond was regraded and replaced by a solar panel array, resulting in significant energy production and off-site savings to County residents.

The most recent of the developed buildings, Building K, was designed and constructed to meet LEED (Leadership in Energy and Environmental Design) standards, and future buildings will be designed to meet the LEED silver standard.

The original design strategy of centralizing heating and cooling equipment in the boilers and chillers of the central plant should deliver a built-in efficiency for HVAC systems. Furthermore, the regular, routine maintenance of the equipment helps maintain efficiencies in operations. Newer buildings, such as Building K employ variable speed pumping, allowing for flow modulation and increased energy efficiency during part load conditions.

Electrically, all of the building interior light fixtures are now significantly more energy efficient since they have been replaced with LED fixtures or fitted with LED lamps.

Not all aspects of the campus can be viewed as sustainable. For example, the combined large areas of asphalt-paved parking lots result in large heat sinks, and there are few treed islands to help mitigate the build-up and release of heat locally and into the atmosphere. The installed R-value of insulation in the thermal envelopes of the original buildings is much less than the newer buildings, thanks to more effective mandated standards, and as the buildings and insulation age, the effective R-value of the insulation will have decreased.

Section 4-E explores strategies to improve the sustainability features of the campus and its built environment.

CHAPTER 4
PROPOSED CAMPUS DEVELOPMENT

A. THE BASIS FOR STRATEGIC RECOMMENDATIONS
B. THE CAMPUS AND SITE INFRASTRUCTURE
C. MECHANICAL, ELECTRICAL, AND PLUMBING (MEP) SYSTEMS
D. TECHNOLOGY SYSTEMS
E. SUSTAINABILITY
F. COUNTY AND COLLEGE WIDE RECOMMENDATIONS
G. CAPITAL PROJECTS AND CAMPUS DEVELOPMENT
H. BUDGET COST ESTIMATE

Chapter 4 THE BASIS FOR STRATEGIC RECOMMENDATIONS

ACADEMIC PROGRAMS

SIGNIFICANT NEW INITIATIVES WITH FACILITIES IMPLICATIONS

To meet the growing demand for higher education and specialized training, several new projects and expansions may have direct implications for its facilities.

Expansion of STEM Facilities
With an increase in demand for science, technology, engineering, and mathematics (STEM) programs, expanding science labs and technology centers will be essential. This includes adding more laboratory space, upgrading equipment for engineering and robotics, and developing dedicated facilities for IT and cybersecurity training. This also aligns with priorities that have been promoted by the State of Maryland, as documented in the Blueprint For Maryland's Future and Winning The Decade.

Sustainability Initiatives
Incorporating sustainability into its campus infrastructure Initiatives including such factors as the installation of solar panels, the creation of green spaces, and the development of energy-efficient buildings to reduce the campus's carbon footprint would also serve as an opportunity to link directly to curricular and CET offerings.

SPECIFIC ACTIVITIES ON CAMPUS TO BE ACCOMMODATED OVER THE NEXT TEN YEARS

Workforce Development
As part of its mission to serve the community, the College is seeking to increase its workforce development programs in collaboration with local industries. Expanding facilities for non-credit training programs in areas such as trade skills, construction management, and renewable energy will be key considerations.

Athletics, Wellness, and Recreational Facilities
The demand for improved athletic, wellness, and recreational facilities is expected to grow over the next decade. The college will need to expand its existing facilities and develop new outdoor sports fields to accommodate athletic programs, physical education courses, and college and community wellness offerings and events.

INTEGRATED LEARNING PATHWAYS AND FACILITIES PLANNING

Carroll Community College serves diverse student populations with unique educational and career goals—from traditional students seeking degrees to adult learners needing career-focused skills. In recent years, for community college in general, the demand for more flexible, workforce-relevant, and integrative learning options has increased as students seek both academic credentials and practical skills to thrive in today's fast-evolving job market. Integrating continuing education (CE), workforce development (WD), and traditional academic programs offers community colleges a holistic approach to meet these needs, fostering career readiness, lifelong learning, and stronger community connections.

The College exemplifies this strategic integration through its forward-looking 10-Year Facilities Master Plan that proposes to include a transformative capital project that materially supports the fusion of CE, WD, and academic programming. These investments are aligned with the vision articulated in The Blueprint for Maryland's Future and demonstrate how physical infrastructure can serve as a foundation for educational innovation and community advancement.

The Workforce Development / Applied Technology Center component of the Trades, Technology and Training Complex (TTTC) has the opportunity serve as the College's hub for Workforce Development programming. The facility could support training in skilled trades, advanced manufacturing, and information technology by including flexible labs, collaborative learning spaces, and industry-aligned environments that mirror the real world. This facility would further support CCC's commitment to stackable credentials, allowing students to begin with short-term, non-credit CE training and seamlessly transition into credit-bearing certificates or associate degree programs. By integrating workforce training into the academic structure, CCC ensures that students gain both technical skills and academic progress — enhancing employability and mobility across career pathways.

The Physical Education Center of the Trades, Technology and Training Complex will complement this focus by serving programs in physical education, allied health, wellness, and recreation. It has the potential to house both credit and non-credit offerings in health sciences and healthcare certifications, while promoting student wellbeing through fitness and recreation services. This facility underscores CCC's recognition that holistic health is foundational to learning and success —particularly in high-demand sectors such as healthcare. The integration of CE and WD with traditional academic programming in health-related fields will enable students to pursue multiple pathways, from certifications to degrees, all within a supportive and accessible environment.

The typical community college student profile has shifted, with more learners balancing jobs, families, and education. Flexible options that combine CE, WD, and traditional academic offerings are necessary to meet these evolving needs. Integrating these pathways provides students with multiple entry and exit points, the ability to pause and re-enter learning as needed, and the opportunity to build credentials over time. For example, a student may begin with a CE certification in Computer Information Systems and later pursue an associate degree in Business Administration – Management Information Systems.

Degree programs provide a foundation of knowledge, critical thinking, and academic rigor that prepares students for broader career paths or further education. Integrating CE and WD into these traditional offerings allows colleges like CCC to align academic programs with real-time

labor market demands and evolving industry standards. According to the Community College Research Center, institutions offering stackable credentials and aligning workforce training with credit-bearing pathways experience increased student retention and completion rates. A recent Lumina Foundation study further confirms that students earning both academic and technical credentials see improved employment outcomes and earnings.

The *Blueprint for Maryland's Future* supports and incentivizes this integration by prioritizing access, postsecondary readiness, and workforce alignment. It encourages community colleges to collaborate with K-12 systems and employers, promoting dual enrollment, early college access, and CTE pathways that bridge the gap between education and employment. Carroll's Trades, Technology, and Training Complex will serve as vital infrastructure for this alignment — expanding capacity to deliver career-relevant programs while embedding flexibility for lifelong learning.

Incorporating employer input and community partnerships into program design is essential to maintaining relevance and responsiveness. The facilities at CCC are being developed with this goal in mind—ensuring that new programs not only meet academic standards but also reflect the skills and certifications required in Maryland's evolving economy. Whether through apprenticeship programs based in the Workforce Development / Applied Technology Center of the TTTC or stackable health credentials in the Physical Education Center of the TTTC, CCC is positioned to generate graduates who are both job-ready and academically prepared for further advancement.

According to the American Association of Community Colleges (AACC), colleges that integrate academic and workforce programs report increased employer engagement and better graduate employment rates. These partnerships also open doors to state and federal funding opportunities. In Maryland, the Blueprint emphasizes targeted investment in underserved communities and high-demand industries — both of which are central to CCC's mission and facilities plan.

Furthermore, integrated programs broaden access to financial aid and wraparound support services. Students enrolled in credit-bearing CE courses may be eligible for financial aid, while unified advising can help guide them along complex educational and career trajectories. The Aspen Institute reports that institutions with accessible, flexible learning options see greater participation and success among non-traditional and underrepresented populations — a central goal of both CCC and the Blueprint.

Finally, the vision for CCC's new facilities embraces the notion of lifelong learning. With nearly 50% of employees expected to require reskilling by 2025 (World Economic Forum), the TTTC will provide spaces for alumni and community members to return for upskilling, career changes, or professional development. Whether a business graduate returns for a CE certificate in digital marketing or a healthcare worker earns advanced credentials, CCC will support continuous learning and career evolution.

Carroll Community College's proposed 10-Year Facilities Master Plan reflects a bold, integrative vision for the future of education in Maryland. By strategically investing in the TTTC, Carroll is aligning its infrastructure with its academic aspirations—supporting stackable credentials, expanding access, and building inclusive pathways to opportunity. As a model of integrative planning, CCC demonstrates how community colleges can serve as engines of transformation

within their regions—advancing the goals of the Blueprint for Maryland's Future and aligning with the Maryland Legislature's 2025 Economic Growth Agenda and related multi-million dollar investments specifically in the areas of workforce development, cybersecurity, and life sciences to prepare learners for success in a dynamic world.

IN SUMMARY

Carroll Community College is poised for significant growth and transformation over the next decade. Its broad range of existing and projected academic programs positions the College as a key player in the region's education and workforce development. However, to support this growth, substantial investments in new facilities and infrastructure will be required.
These will not only support academic needs but also enhance campus life, community engagement, and sustainability efforts, ensuring that Carroll Community College remains a vital resource for its students, Carroll County, and the surrounding community.

THE CAMPUS AND SITE INFRASTRUCTURE

CAMPUS PLANNING

Significance of the new project
As the first major capital project to be undertaken since Building K in 2010, the **Trades, Technology, and Training Complex** (TTTC) has the capacity to be transformative, in terms of: meeting the College's needs to accommodate current and new programs; impact relative to the current campus; the College as a dynamic symbol of educational, economic, and cultural driver for the County; opportunities for new and evolving initiatives and technologies; the College's significance within the County; scale; and character of the campus.

Campus, Landscaping, Character
Given the departure from the hub-and-spoke concept of the campus, this project presents an opportunity to enhance the quality of the landscaping and outdoor spaces for use by the College community. This includes developing the spaces around the TTTC and between it and the existing campus buildings to develop settings with friendly connections, pedestrian ways, gathering spaces large and small, and engaging more of the beauty of the campus. The existing forested areas will remain undisturbed, and there will be opportunities to plant more trees and provide shade where it would be welcome. All considered, the opportunity is presented to give the campus a more collegiate character.

Circulation and Parking
The number of existing parking spaces is more than adequate and is expected to accommodate a larger enrollment. Given the trend towards expanded online learning, there should be no need to increase parking spaces. Nonetheless, the proposed development plan includes up to 40 convenience parking spaces near the new building. Existing circulation routes will be maintained, with modifications to provide vehicular access to the Trades, Technology, and Training Complex. The siting of the new building will result in a higher use of the south campus entrance from Maryland Route 32, which may require some widening and upgrades. The pedestrian route from the existing buildings to the new building will need to deal with a long uphill grade. Suggestions include some switch-back routing and places to be able to pause and gather, while also providing places of calm along the way. Needless to say, all will be required to meet accessibility standards. One consideration to mitigate the slope of the pedestrian way could be to establish a lower floor elevation of the building with an at-grade entrance.

Use of the Building
The nature of the building type will result in extended day-and-evening use. Consideration will need to be given to appropriate lighting in areas near the building, as well as pedestrian ways and parking areas. The anticipated use of the building, expanding the relationships of all of the buildings to each other, should result in a greater sense of the vitality of the campus.

Signage
The new, larger, scale of the campus will require signage, which may complement the existing signage or may suggest a new site signage program, including parking areas, vehicular circulation routes, and pedestrian routes. Signage at both Maryland Route 32 entrances should be studied relative to directing vehicles at and from the south and/or north entrances to campus destinations.

INFRASTRUCTURE FOR THE TRADES, TECHNOLOGY, AND TRAINING COMPLEX AND FUTURE PROJECTS - GENERAL

The building proposed in this FMP – the TTTC – will require several overall site infrastructure improvements that are generally the same for any proposed future building project. Those improvements include:

- The capacity of the existing water supply will need verification with the City of Westminster. Projects proposing additional water consumption will need to apply for approval of water allocation with the City. The existing water meter must also be confirmed to ensure adequate domestic flow.
- The capability of the existing sanitary pump station will need review to ensure adequate wet well storage volumes and pump cycle times for increased demands.

INFRASTRUCTURE FOR TRADES, TECHNOLOGY, AND TRAINING COMPLEX

- Requires relocation of 15” and 24” storm water drains.
- Water service is expected to require extension of the main and the addition of hydrants for fire protection.
- Sewer service is expected to be extended and may require additional manholes or directional drilling installation method to avoid significant impacts to the existing retaining wall along the access road to the Amphitheater/Classroom.
- Stormwater management is required before connecting to the existing campus stormwater drainage system.
- The building site generally slopes north toward the track and field, with steep slopes at the project limits preventing treatment options. Open space south of the proposed parking area may be suitable for small surface facilities (micro-bioretention) to provide treatment for the parking lot/roadway.
- Options for stormwater treatment include a green roof or providing treatment elsewhere, e.g. northeast corner of the parking lot, replacing existing bituminous paving with porous paving, or removing excess parking.
- Earthwork is expected to be moderate with minor cuts along the south side and little fill for the building pad. Connection to the existing track and field area is expected to require several feet of fill with a retaining wall in the northeast corner.
- The building site does not impact any area of existing forest and should not result in any additional forest conservation requirements.

MECHANICAL, ELECTRICAL, AND PLUMBING (MEP) SYSTEMS

Existing Facilities Recommendations – Mechanical

The following table provides a summary of the overall mechanical and plumbing systems evaluation for each building. Recommendations are provided based on the Facility Conditions Assessment Executive Summary Report provided by Brightly on September 15, 2023, as well as BKM's site observations. Recommendations are based on physical observation of the mechanical and electrical systems and the average useful life expectancy based on industry standards.

Table 1: Mechanical and Plumbing Recommendations

Building	Mechanical System Evaluation	Plumbing System Evaluation	Recommendations
A	All HVAC systems exceed useful life but remain in good working conditions. New high efficiency, all electric VRF system serves entryway. CRAC units in IT server room replaced in 2023, but humidity issues persist.	Water service lines, fire service system, 80-gallon electric water heater, and domestic water piping all exceed useful life. The water heater, domestic water piping, and plumbing fixtures are in fair condition.	All systems have been well maintained and are fully operational and operating as intended. CRAC units serving IT server room should be evaluated further due to reported humidity issues.
C	All HVAC systems exceed useful life but remain in good working conditions with no outstanding maintenance issues. Constant flow pumping strategy may lead to unnecessary energy usage during part loading conditions.	Fire lines, domestic water piping, and sanitary systems all exceed useful life but remain in fair condition with no outstanding maintenance issues.	All systems have been well maintained and are fully operational and operating as intended. It is recommended that constant volume pumps be replaced with variable speed pumps to provide higher efficiency and flow modulation during part-load conditions.
K	All HVAC systems are in good working conditions, have no outstanding maintenance issues, though approaching end of useful life.	All plumbing systems, fixtures, and equipment are in good working condition with no outstanding maintenance issues, though approaching end of useful life.	All systems have been well maintained and are fully operational and operating as intended. It is recommended to replace pneumatic controls with DDC controls to prolong life expectancy and ensure proper operation.
L	Five (5) AHUs exceed useful life but remain in fair condition with no outstanding maintenance issues. Four (4) secondary pumps replaced in 2024, and a new 525-ton chiller and cooling tower installed in 1997, with no reported issues.	New domestic water line, valves, and 50-gallon electric water heater installed in 2023 are in good working condition. All piping insulation in good condition with no outstanding maintenance issues.	All systems have been well maintained and are fully operational and operating as intended. See central plant in this table for recommendations regarding chiller and cooling tower.

Table 1: Mechanical and Plumbing Recommendations (cont'd)			
Building	**Mechanical System Evaluation**	**Plumbing System Evaluation**	**Recommendations**
M	All HVAC systems exceed useful life but remain in fair condition with no outstanding maintenance issues.	Standpipe, sprinkler piping, and domestic water systems exceed useful life but remain in fair condition. Counter-top sinks replaced in 2023.	All systems have been well maintained and are fully operational and operating as intended.
N	Two (2) VAV AHUs were re-conditioned March 2025 by Aquis. Two (2) boilers and five (5) exhaust fans in fair condition, exceeding useful life. New 150-ton air-cooled chiller and DDC controls installed in 2024. Four (4) variable speed pumps with N+1 redundancy. No outstanding maintenance issues.	Water heater recently replaced and in fair condition. Fire service and sprinkler systems exceed useful life but remain functional. New domestic water line valves and backflow preventer installed in 2023.	Boilers should be replaced with new high-efficiency electric hot water condensing boilers.
P	Three (3) VAV AHUs, four (4) variable speed pumps, and four (4) exhaust fans all exceed useful life and remain in fair condition. Extreme cold conditions and AHU design cause freeze-stat trips during winter operation.	Domestic water service, fire service, and sprinkler system have not exceeded the average useful life but remain functional. New 100-gallon gas-fired water heater installed in 2024 in good working condition.	Ductwork design for outdoor air intake should be evaluated and replaced to prevent reoccurring issues with freeze-stat and overall system operation.
T	Four (4) VAV AHUs and four (4) variable speed pumps exceed useful life but remain in good working condition. Extreme cold conditions and AHU design cause freeze-stat trips and unit shutdowns. Hot water heating coils installed as inefficient workarounds, though they raise ventilation concerns.	Domestic water service, fire service, and sprinkler system exceed useful life but remain functional. A new 66-gallon electric water heater installed in 2022 in good working condition.	Ductwork design for outdoor air intake should be evaluated and replaced to prevent reoccurring issues with freeze-stat and overall system operation.

Table 1: Mechanical and Plumbing Recommendations (cont'd)			
Building	**Mechanical System Evaluation**	**Plumbing System Evaluation**	**Recommendations**
Central Plant	All HVAC systems have exceeded their useful life, (2) gas-fired boilers are operating at low efficiency	N/A	Boilers should be replaced with new high-efficiency condensing hot water boilers, Chillers should be replaced with new high-efficiency water cooled chiller options and configured in parallel, all pumps and associated appurtenances shall be replaced with variable speed pumps. Cooling towers should be replaced with new to match new chiller capacities. Further discussions and evaluation of the existing thermal ice storage system and cooling towers should be had with the college and revisited under future design development.

Existing Facilities Recommendations – Electrical

Building	Panels and Equipment	Branch Circuit Wiring	Fire Alarm and Detection System	Lighting
A	Panel and Equipment in the building are 35 years old and appears to be in good working condition. It should be noted that some of the breakers in the main switchboard have been replaced in recent years as indicated in the report.	Wiring in the building is 35 years old and beyond its recommended useful life and should be replaced.	Fire Alarm is beyond its recommended useful life. Fire alarm system is out to bid and scheduled to be replaced.	Lighting in the building is in good condition and has been retrofitted with LED lighting. Emergency Exit lighting is beyond its recommended useful life and should be replaced.
C	Electrical Panels and Equipment in the building are 35 years old and appears to be in good working condition despite approaching the recommended useful life. No recommended changes at this time.	Branch Circuit Wiring in the building is 35 years old and beyond its recommended useful life and should be replaced.	Fire Alarm in this building is served by Building A and will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. Emergency Exit lighting is beyond its recommended useful life and should be replaced.
K	Electrical Panels and Equipment in the building are 15 years old and appears to be in good working condition. No changes are anticipated related to the electrical panels.	Branch Circuit Wiring in the building is 15 years old and in good condition. No changes are recommended.	Fire Alarm and Detection System will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No recommendations for lighting modifications are needed.

Building	Panels and Equipment	Branch Circuit Wiring	Fire Alarm and Detection System	Lighting
L	Electrical Panels and Equipment in the building are 28 years old and appears to be in good working condition. No changes are anticipated related to the electrical panels.	Branch Circuit Wiring in the building is 28 years old and in fair condition but is approaching the end of the useful life. No changes are recommended.	Fire Alarm and Detection System will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No changes are recommended for general lighting. Emergency exit lighting in the building is beyond its recommended useful life and is recommended to be replaced.
M	Electrical Panels and Equipment in the building are 32 years old and appears to be in good working condition despite approaching the recommended useful life however with continued recommended maintenance, the equipment could continue to function reliably. No changes are anticipated related to the electrical panels.	Branch Circuit Wiring in the building is 32 years old and beyond its recommended useful life and should be replaced.	Fire Alarm will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No changes are recommended for general lighting. Emergency exit lighting in the building is beyond its recommended useful life and is recommended to be replaced.

Building	Panels and Equipment	Branch Circuit Wiring	Fire Alarm and Detection System	Lighting
N	Electrical Panels and Equipment – The equipment and panels in the building are 21 years old and appears to be in good working condition. No changes are recommended.	Branch Circuit Wiring in the building is 21 years old and in good condition. No changes are recommended.	Fire Alarm and Detection Systems will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No changes are recommended for general lighting. Emergency exit lighting in the building are within the useful life and no changes are recommended.
P	Electrical Panels and Equipment in the building are 23 years old and appears to be in good working condition. No changes are recommended.	Branch Circuit Wiring in the building is 23 years old and in good condition. No changes are recommended.	Fire Alarm and Detection System will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No changes are recommended for general lighting. Emergency exit lighting in the building is beyond the useful life and is recommended to be replaced.
T	Electrical Panels and Equipment in the building are 23 years old and appears to be in good working condition. No changes are recommended.	Branch Circuit Wiring in the building is 23 years old and in good condition. No changes are recommended.	Fire Alarm and Detection System will be upgraded with the scheduled upgrade to the fire alarm system.	Lighting in the building is in good condition and has been retrofitted with LED lighting. No changes are recommended for general lighting. Emergency exit lighting in the building are beyond the useful life and are recommended to be replaced.

Proposed New Facilities – Mechanical Systems Considerations

The college is considering future expansions and renovations with a proposed 112,600 square foot structure (Trades, Technology and Training Complex), comprised of a 64,500 square-foot single-story Physical Education Center, a 45,600 square-foot three-story Workforce Development / Applied Technology Center, and a 2,500 square-foot single-story Athletics Support Building

The HVAC and plumbing systems serving the proposed structure will be designed for LEED silver certification as well as Maryland building energy performance standards (BEPS) to further the College's goals towards future sustainability. All mechanical and plumbing systems will adhere to the most up to date International Code Council requirements. With the goal of reducing greenhouse gas emissions and with the understanding that the existing central plant has little to no spare capacity for additional infrastructure, it is recommended that the new proposed structure be provided with its own dedicated central heating and cooling plant. The following table summarizes the estimated cooling capacity and heating capacity requirements for the new structure.

Table 2: Estimated Cooling and Heating Loads for New Central Plant

Use	Occupancy	Cooling Demand (Tons)	Heating Demand (MBH)
Physical Education Center	Athletics	215	2,580
Workforce Development / Applied Technology Center	Academic	155	1,900
Athletics Support Building	Office	6	100
Estimated Central Plant Demand		376	4,580
Note: Estimated cooling and heating demand is based off approximate SF/Ton and SF/MBH			

The new central plant would be designed around fully electric mechanical systems, with the use of a 4-pipe air-to-water heat pump to provide chilled water and heating water to zone level equipment. The use of an air-to-water heat pump will allow for simultaneous heating and cooling to serve the different building zones based on occupancy load and zone desired temperatures. Supplemental heating will also be provided via electric boilers to provide additional heating capacity during colder months, while utilizing the heating capacity contributed from the heat pump system to maximize efficiency and reduce electrical capacity demands. Zone equipment options will be comprised of VAV terminal units with

reheat coils or chilled beams that can be paired with VAV air handling units to provide conditioned primary air to the respective zones. Controls for all HVAC systems will be DDC and will be connected to the campus central building automation system. All unit controllers will be BACnet compatible to allow for seamless integration into the campus controls network.

All chilled water and heating water pumps will be variable speed end suction pumps to allow for flow modulation and increased efficiency during part-loading conditions. The new pumps will be designed for N+1 redundancy to provide full stand-by capacity to ensure cooling and heating operations can be maintained during maintenance or equipment failure. For domestic cold and hot water service, it is recommended that electric storage or heat-pump water heaters be installed within both buildings to serve all applicable plumbing fixtures. All plumbing fixtures are recommended to be energy-star rated to comply with Maryland BEPS and LEED requirements. Metering of utilities will be required to comply with LEED standards and can be monitored through the campus BAS.

An additional alternate and sustainable system approach would be the utilization of a closed loop geothermal ground water system that can be paired with zone level ground source heat

pumps. A proposed location for the geothermal well-field would be either of the field sports areas located to the East and West of the proposed structure location. A ground soil analysis would need to be conducted to determine the required depth and overall size of the associated geothermal wells to accommodate the estimated cooling and heating load capacities listed in Table 2. A geothermal loop would eliminate the requirements for a separate chiller and boiler system while also providing a reduction in overall utility and maintenance costs. First costs for the installation of the system would be higher than other alternative options, however, the average life expectancy for the underground pipe network is 50 years or longer. Variable speed base mounted end suction pumps would be located within the building and designed for N+1 redundancy.

As a result of the newly proposed structure, the gymnasium located within Building P can be renovated to accommodate spaces for different programmatic usage. Any modifications required to the existing HVAC system serving Building P should be evaluated with the college’s plans for future renovations.

Proposed New Facilities – Electrical Systems Considerations

The college is proposing to expand the campus with a 112,600 square foot **Trades, Technology, and Training Complex** (TTTC) which includes an Athletics Support Building, Workforce Development / Applied Technology Center, and a Physical Education Center. This structure will be located on the south part of campus, below the proposed new Turf Field and Track.

It should be noted that the Central Plant in Building A was designed with extra capacity to potentially provide power for a new building or expansion. An 800A spare breaker is provided in the 4000A switchboard for this purpose. However, it should be noted that the proposed building is a considerable distance from Building A, with multiple buildings in between, making it difficult to take advantage of the extra capacity in the switchboard due to challenges with the physical routing of the feeder and the load limitations of the 800A source. Moreover, the load required by the new proposed building would exceed that available from the existing switchgear in Building A.

Building K is the nearest building to the proposed new structures and is currently served by a 2000A, 480V independent service. This provides approximately 20W/sq ft to the building. This current service size is not sufficient to provide power to the existing Building K and the new building.

It is anticipated that a new service would be required for this building, which would involve coordination with the utility company in terms of a new transformer location relative to the building and for connection to the utility company's primary feeder. Based on the size of the building and its functions, it is anticipated that this service would be 4000A, 480/277V, 3-phase service utilizing a 4000A switchboard. Distribution and branch panels at 480V and 208V will be provided throughout the structure to serve the various spaces. Dry-type transformers will be required for the 208V panels. Receptacles and devices will be provided as needed for the different space types. All lighting in the facility will be LED and will include various types of linear, downlighting, and pendant lighting depending on the space. A new voice evacuation addressable fire alarm system would be required that would report back to the main fire alarm system on the campus. Building-mounted lighting for egress and general illumination will be required as well as additional exterior lighting for a new parking lot.

Building P is also scheduled to be renovated in some areas of the building. Modifications to the lighting fixtures and devices will need to be made, removed, or added based on the changes to the spaces.

TECHNOLOGY SYSTEMS

Campus observations and interviews with staff and key stakeholders were conducted as part of a comprehensive assessment. These efforts represent a coordinated initiative to align Carroll Community College's telecommunications, audiovisual systems, security infrastructure, and overall technology framework with both current industry standards and anticipated future requirements. Several critical areas of focus have been identified thus far and are outlined below in order of significance.

AUDIO-VISUAL

- Legacy VGA and RGB video connections should be decommissioned in favor of HDMI-compatible systems that support Voice over IP (VoIP) integration, aligning with current industry standards.

- A phased replacement strategy should be initiated to upgrade obsolete projectors and monitors with high-definition (HD) or 4K-capable displays, enhancing instructional and presentation quality.

- The College should establish a formal set of audiovisual (AV) equipment standards as part of its broader technology planning, specifying approved models and performance criteria for Projectors, Flat-panel displays, Room scheduling panels, Video conferencing systems, Cameras, Digital signage systems, Portable AV carts, AV-over-IP encoders/decoders, microphones, speakers, and other AV components to ensure consistency, interoperability, and long-term support.

TECHNOLOGY

- Establish a formal five-year refresh cycle for all college-owned desktop and laptop computers to ensure optimal performance and reliability.

- Prioritize the replacement of aging technology in simulation laboratories and other mission-critical areas to support academic and operational excellence.

ELECTRONIC SECURITY

- Enhance campus safety by addressing existing security camera coverage gaps, with a focus on parking areas, through targeted upgrades and optimized placement.

- As cameras reach end-of-life, transition to a combination of single sensor camera, fisheye, and multi-sensor models to improve coverage and reduce blind spots.

- Expand the internal access control infrastructure to include all critical areas such as IT rooms, administrative suites, and other high-security zones, supporting a more comprehensive security posture. Carroll is in the process of adding these devices.

TELECOMMUNICATIONS

- Future renovation projects should include upgrades to telecommunications rooms (TRs) that are currently undersized, as well as improvements to cabling infrastructure and electrical systems. These enhancements should include uninterruptible power supply (UPS) updates if needed and proper bonding and grounding.

- To support long-term scalability and maintain consistent network performance, it is recommended to provide a dedicated TR on each floor of a building. In many existing buildings, network cabling currently extends vertically between floors, relying on TRs located above or below the occupied level.
  As part of all major renovation projects, new TRs should be constructed on any floor where this vertical cabling condition exists. This strategy not only aligns with industry best practices, but also improves serviceability, reduces cable lengths, and ensures infrastructure readiness for future technology deployments.

- The existing optical fiber in Buildings A, C, L, N, and M is outdated and should be replaced to align with current standards. Campus standards are twenty-four (24)-strand Single Mode OS2 and twelve (12)-strand Multimode OM4 fiber cabling from each TR to the Building A data center.

- Carroll CC currently relies on Category 5e cabling for most existing facilities. However, during major renovations, the standard recommendation is to upgrade to Siemon shielded Category 6A cabling. This upgrade supports higher data rates, improved electromagnetic interference protection, and future-proofing for emerging technologies.

- Carroll CC is planning a comprehensive, campus-wide wireless network refresh within the next one to two years. This initiative is a key component of the College's broader technology infrastructure strategy and is aimed at addressing existing coverage gaps, increasing network reliability, and supporting the growing demand for high-performance wireless connectivity.

- To ensure consistency, scalability, and long-term reliability of campus technology systems, all major renovation and new construction efforts should be guided by a combination of campus-specific infrastructure recommendations, higher education best practices, and established industry standards. These include, but are not limited to, specifications outlined by the Telecommunications Industry Association (TIA) and the Building Industry Consulting Service International (BICSI).

- This standards-based approach should be applied to all upcoming capital projects, including the development of the proposed *Trades, Technology, and Training Complex*. By aligning these efforts with recognized best practices, Carroll Community College will ensure that its facilities are technologically resilient and capable of supporting both current demands and future innovation.

SUSTAINABILITY

The exciting prospect of improving and expanding the built environment of the campus offers a unique opportunity to develop the campus smartly and with an eye to incorporating sustainable features in the process, especially relative to proposed capital projects. Given the practices and traditions of Carroll County to respect the land, water, and air in its large expanse of rolling hills, farms, residences, businesses, and institutions, it is more than appropriate to improve the sustainable features of the campus as a model for preservation and development of other parcels in the County.

If there is to be a County-wide leader relative to thoughtful stewardship of its land, Carroll Community College is particularly well-suited to be an exemplary institution as it maintains and sustainably improves its built environment forward in the next decades. The College and County together are well-positioned to build on their history of care and respect for the Carroll Community College campus and the buildings within which exemplary teaching and learning take place.

The following considerations are some of the myriad opportunities for the College to support and encourage the County to enable both entities, working together, to help make the College, and in turn the County, a better, healthier place to live, work, and learn. The College stands ready to do its part in adopting and implementing an enhanced focus on sustainable practices on campus.

Administrative

- Develop and adopt policies and procedures to set standards and guidance for the sustainable care and development of the campus.
- Operationally, set achievable goals for maintaining and improving the quality of the upkeep of and improvements to building systems and the outdoor environment.
- Adopt a requirement for all major building projects, both new and major renovations, to meet current LEED Silver standards in place at the time of design. Consider achieving a higher standard, such as Gold.
- Promote educational coursework that explores and studies the health of the environment, the health of our world, and of Carroll County.
- Promote better access to the County's Trailblazer public bus system to and from the campus and to expand routes helpful to the College.
- Engage design consultants who have demonstrated successful implementation of sustainable design strategies.

The Campus

- Save the existing trees where possible and guard against potential threats by disease.
- In landscaping the campus, avoid use of pesticides.
- Use native plantings friendly to pollinators. Avoid plantings sensitive to drought.
- Consider development of meadowlands in portions of current large grassy areas (and save the cost of cutting the grass in those areas).
- Where it exists now, preserve and enhance areas of natural habitat; consider creating more habitat, such as meadows.
- Reduce the footprint of the parking lots. Also, introduce islands where trees can be planted. Both of these strategies will reduce the heat island effect of the paved areas and reduce water run-off . The islands also provide shade and a place to deposit plowed snow.

Transportation

- Install electric vehicle charging stations in existing parking lots.
- Purchase all-electric vehicles for the College's fleet.
- Use traffic paint markings to define bike-only lanes.
- Provide bike racks convenient to campus buildings.

Water Quality and Use

- Install building-level water metering.
- Reduce use of outdoor watering.
- Use low-flow plumbing fixtures.

Energy

- Investigate providing additional roof-mounted solar panels and solar arrays in all parking lots.
- Only provide and use energy-efficient heating and cooling equipment.
- For future HVAC systems, first investigate all-electric systems.

Indoor Air, Lighting, and Acoustic Quality

- Provide and operate only HVAC systems meeting minimum air quality performance requirements.
- Use only low-emitting materials in interior construction projects.
- Ensure access to natural daylight in all occupiable spaces and, to the extent feasible, provide access to views of outside spaces.
- Ensure even, consistent thermal comfort in all occupiable interior spaces.

Miscellaneous

- Provide healthy food options at food service operations.
- Provide sortable containers for recycling, trash, and compost.

COUNTY AND COLLEGE-WIDE RECOMMENDATIONS

PROCESS - OVERVIEW

- Submit the reviewed and approved Facility Master Plan (FMP) to the Carroll Community College Board of Trustees for review and approval.
- Submit the reviewed and approved-by-the-college FMP to the following State Agencies for review and approval:
    - Maryland Higher Education Commission (MHEC)
    - Maryland Department of Planning
    - Department of General Services (DGS)
    - Department of Budget and Management (DBM)
- Develop the building program for the Trades, Technology, and Training Complex, presumably with the assistance of a professional team experienced in building programs.
- County Commissioners and Carroll Community College develop a timeline for the following:
    - State and local funding process
    - RFP for design services and solicit proposals, accordingly
    - Select and engage a professional architectural and engineering design team (A/E)
    - A/E designs and develops contract documents for the project, including documenting the process for engaging the construction team, to be determined by County Commissioners
    - During the design process, select an interior design consultant to select furnishings (with input from the College) and develop a procurement process
    - Solicit proposals for the construction work and select the construction team
    - Construction team initiates the construction process, including pre-construction activities
    - Oversee the construction to completion
    - Furnish, move into, and occupy the building(s)

IN GENERAL:

- Ensure that the County continues its commendable job of maintaining, upkeep, and upgrades to the College's facilities.
- Promote awareness of the process and recommended project(s) – within the College and locally within the County.
- Expect disruption to normal activities on campus.
- Expect to develop contingency plans, e.g. delays in funding.

DESIGN RECOMMENDATIONS FOR THE BUILDING(S) AND BUILDING SYSTEMS

- Refer to specific design recommendations in Chapter 4 of the FMP, Sections 4-B through 4-E, founded on The *Basis for Strategic Recommendations*, Section 4-A.

PROJECT APPROACH

- Approach the project with the expectation that:
    - The College and the County deserve this project.
    - The State of Maryland, Carroll County, and the College's Trustees and Senior Leadership have and/or will find the right tools, strategies, and wherewithal to make this project happen.
    - The standards for the design and construction of this project should be best-in-class and nothing less.

CAPITAL PROJECTS AND CAMPUS DEVELOPMENT

Proposed Projects

As documented in earlier sections of this report, the College's needs for improving its facilities are significant, with space needs for 1) workforce-related trades and training, and 2) physical education, recreation, and wellness being the most critical to fulfilling the college's mission. Within the context of a ten to twenty-year master planning horizon, approximately eight projects merited consideration for inclusion in this study. All address current and anticipated future needs of the College, and all will improve CCC's operations, delivery of programs, and ability to respond to the needs of the community served by the College. The estimated size of these buildings, as well as a more informed narrative of the functions to be included in each, will be developed in future programming efforts for each project.

After reviewing these needs with the College's leadership, the Marshall Craft consultant team has prioritized the proposed projects into two groups:

- Critical projects that are needed within the 2026-2036 planning horizon, shown on the **Ten-Year Campus Development Plan** exhibit, and,
- Future development beyond 2036, titled the **Long Term Campus Development Plan** exhibit**.**

To allow the College, Carroll County, and the State of Maryland to focus resources where they are needed the most, the leadership of Carroll Community College has decided to include only one major capital project in the ten-year facilities master plan. This project involves the construction of a multi-use facility that will address the need for workforce development, trades training, and applied technology in addition to program space for physical education, fitness & wellness, recreation, and athletics. Although detailed building program requirements will be developed as part of subsequent State-mandated Part I/II programming processes, Marshall Craft has included a conceptual enlarged plan for the ten-year development plan project to test feasibility and provide a general sense of the proposed relationship between the building and other campus features. A single, multi-use building is expected to optimize efficiency and funding through shared support functions such as mechanical / electrical systems, loading areas, storage, and facilities maintenance functions that would typically need to be duplicated in separate buildings. Each phase of the planning, programming, and design process will add specificity to the size, layout, and cost of the proposed projects.

In addition to the project indicated in the ten-year master plan, there are a number of additional facilities needs that have been identified through the planning process that are addressed in the long-range plan for consideration after 2036. These include potential projects to utilize the current gym and fitness in Building P for meeting space, expand space for the Nursing program, consolidate and improve science laboratories, and possibly repurpose the existing Amphitheater Building.

The proposed projects are described below. The ten-year development plan project is sited on an existing relatively level athletic practice field and does not result in a net loss of current parking. Projects shown in the long-range plan may impact campus vehicular circulation and parking. Further study may be necessary to determine if replacement or additional parking will be needed.

FACILITIES MASTER PLAN PROPOSED PROJECTS: 2026-2036

Carroll Community College proposes a single project to be completed within the ten-year master planning horizon.

1. Trades, Technology, and Training Complex (TTTC)

- The building includes three distinct zones to accommodate functions that have been prioritized by the College:
  - Workforce Development Center, with classroom, class laboratory, and shop areas, also including Applied Technology, Continuing Education, and Construction Trades.
  - Physical Education Center, to provide indoor activity and support spaces related to physical education courses, recreation, athletics, and fitness & wellness programs for use by students, staff, and the greater Carroll County community.
  - Athletic Support Building to accommodate spaces that are needed to support the synthetic turf playing field and running track facility that is currently being developed by the College and Carroll County.
- Estimated Building Size: 112,600 gross square feet, broken down as follows:
  - Workforce Development - Three stories, 45,600 GSF, 26,000 NSF at 57% (mid-point) efficiency per MD DGS design guidelines
  - Physical Education – One story, 64,500 GSF, 44,500 NSF at 69% (mid-point) efficiency per MD DGS design guidelines
  - Athletic Support – One story, 2,500 GSF, 1,800 NSF at 71% (high-end) efficiency per MD DGS design guidelines
- Program Functions Included:
  - Workforce Development – Academic program space related to the following CCC course offerings: Automotive Technician, Computer Aided Design, Computer Science, Construction Trades, Cyber Technology, Data Science, Digital Design and Fabrication, Engineering, Hybrid/Electric Vehicle Technician, Manufacturing Skills, OSHA Safety, Small Unmanned Aircraft Systems, STEM, Water & Wastewater Treatment, and Welding.
  - Physical Education – Activity spaces to support programs in Exercise Science, Health Science, Massage Therapy, Physical Therapy, Public Health, Fitness & Wellness, Athletics, Recreation, and Student Support Services. Associated program support spaces will include offices, meeting rooms, locker rooms, athletic training, and storage.
  - Athletic Support – Concessions, restrooms, ticketing, and storage spaces that are needed to optimize the usefulness of the turf playing field and running track facility. The current design plans indicate a future grandstand, which could be built as a separate project or as part of the TTTC Building project.
- Site work associated with this project will include a vehicular access road, small parking lot, and turnaround circle on the south side of the building; loading dock area at the southwest corner; a 20-foot-wide pedestrian walkway / fire lane and hardscape plaza on the north side of the building; and related landscape improvements. The pedestrian paths are also intended to provide small vehicle

service access by CCC staff and Fire Department access. If required by the permitting authorities having jurisdiction, the eastern site area, between the proposed building and the existing baseball diamond, may be constructed as a reinforced turf fire lane if emergency personnel access is needed on all four sides of the building.

- Because the proposed building will occupy field space that is currently slated for shot put, discus, and javelin field sports, field space for these activities is proposed to be located at the southwest corner of the CCC campus, where the former softball diamond was located. A minimal amount of grading work for the javelin runway may be required.
- It should be noted that the Turf Field and Running Track facilities, which are shown as existing, are part of a current design and construction project that the College and County have funded. The Grandstand facility is expected to be designed and constructed as part of a subsequent phase of the current project.
- The project could be designed to be bid and constructed in multiple phases if that is advantageous to the College, the County, and the State.
- This project will serve all members of the CCC community, including students, athletes, faculty, staff, and Carroll County residents.

PROPOSED PROJECTS: LONG TERM CAMPUS DEVELOPMENT PLAN

Although the Trades, Technology, and Training Complex is the highest priority project for the College, there are a number of additional facilities needs that have been identified in the course of the master planning process. These are depicted in the Long Term Campus Development Plan, which shows potential projects that are beyond the 2026 – 2036 master plan window. If supplemental funding becomes available, the College should consider starting the project justification, programming, and design process to allow these projects to be initiated before 2036.

1. **Renovation of Building P.** Building P currently accommodates the college's fitness center, half-court gymnasium, and exercise science lab, which are planned to be replaced by improved facilities as part of the Trades, Technology, and Training Complex project. Given the identified need for additional large group meeting, training, and collaboration spaces on campus, it is proposed to renovate the existing spaces to address this need. Ideally, programming for this project would start when the Trades, Technology, and Training Complex project enters the construction phase to allow the renovation project to proceed shortly after completion of the larger building.

2. **New Facilities Storage Building.** General-use Facilities Department storage space is currently spread across multiple buildings, occupying space that ultimately may be better used to support academic programs. In order to centralize and expand available storage, the College should consider the construction of a new building to accommodate Facilities storage and possibly some administrative functions. A primary reason for this project is to make existing space available for academic programs that are lacking adjacent expansion space.

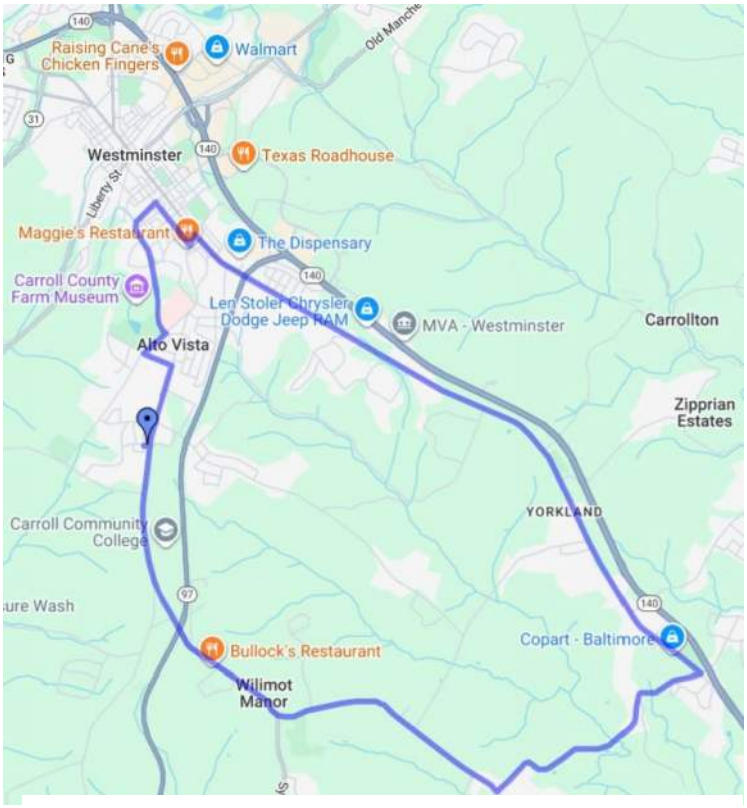
3. **Nursing Building Renovation.** Additional space is expected to be needed to support the college's Nursing curriculum. In order to provide more immediate incremental facilities improvements, it is proposed that the two large storage rooms at the north end of the N Building be renovated to provide academic expansion space that is contiguous with the current nursing program space.

4. **Nursing Building Expansion.** If additional academic space is needed for the Nursing program beyond that provided in Project 3, it is possible to expand the N Building to the west. This would provide contiguous additional program space, and would require alterations to the current access road, with vehicle circulation to the north side of campus provided through the existing drive aisle of Parking Lot A.

5. **Renovations to consolidate Science Laboratories.** The college's existing science laboratories are located in buildings A, C, M, and K. Departmental identity and efficiency of operations can be achieved by renovations to create better adjacencies between science labs, classrooms, and faculty offices. The relocation of Engineering/Physics Labs from Building M to the Trades,

Technology, and Training Complex will make some space available for this consolidation, but a comprehensive study of space needs and the existing buildings will be required to determine the optimal space fit.

6. **Bicycle Parking Areas.** As detailed elsewhere in this master plan, the provision of a bicycle plan for campus is a requirement for State-approved plans. All three Carroll Community College entrances are accessed from Washington Road, which is a designated bike route by Carroll County government. It is therefore possible for commuters to arrive at campus on bike, and the purpose of the bike plan is to provide conveniently located bike parking areas that will minimize the potential for bike-vehicle and bike-pedestrian conflicts on campus. To that end, three designated bike parking areas are identified in this master plan, one at the north end of campus, one in the center zone, and one at the south end that is proposed to be constructed as part of the Trades, Technology, and Training Complex. These locations allow cyclists to quickly park their bikes near campus entrance points and transition to circulation as pedestrians on the campus sidewalk network designed for that purpose.

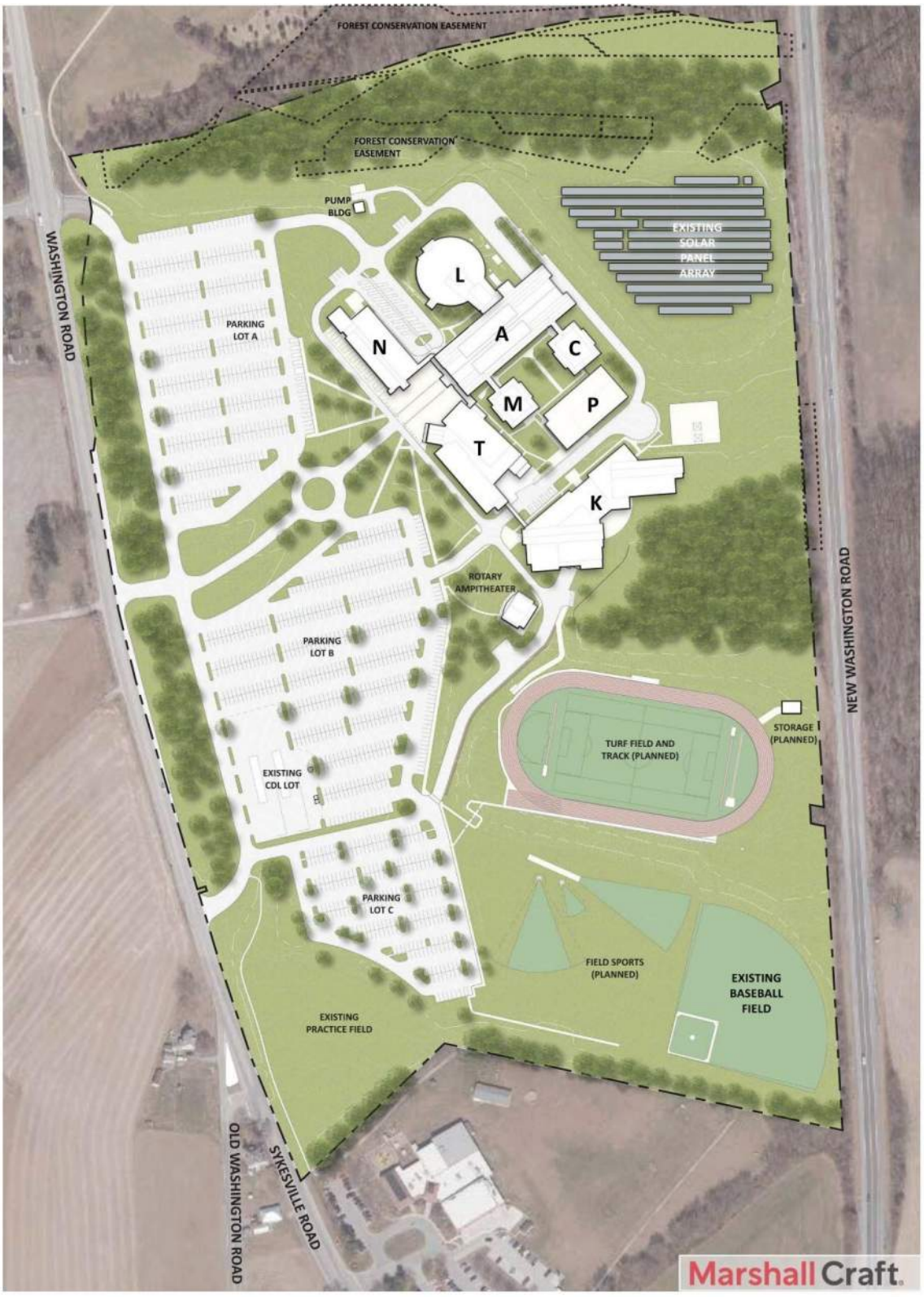


7. **Repurpose Existing Amphitheater.** The Rotary Amphitheater provides a unique feature to the Carroll Community College campus, but interviews during the master planning process have shown that it is very infrequently used for College programs or functions. Its primary use is by the Carroll County Arts Council, which hosts free outdoor movies one day per week for a portion of the summer months. More extensive use for College programs could well justify the maintenance and operations cost associated with the building, but if this does not occur, the College should consider the future renovation or replacement of the building to provide needed expansion space. One option discussed is to relocate the campus security offices or another administrative function that does not require immediate adjacency to the academic core spaces to this location.

CAMPUS DEVELOPMENT

Refer to the following exhibits illustrating the existing conditions and proposed campus development:

- Existing Campus Site Plan
- Ten-Year Campus Development Plan (2026-2036)
- Long Term Campus Development Plan
- Long Term Campus Development Plan – Bike Plan
- Trades, Technology, and Training Complex Enlarged Plan



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

EXISTING CAMPUS

JANUARY 2026

0 25 50 100 200

LEGEND

Existing CCC Building

CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

TEN YEAR CAMPUS DEVELOPMENT PLAN (2026-2036)

JANUARY 2026

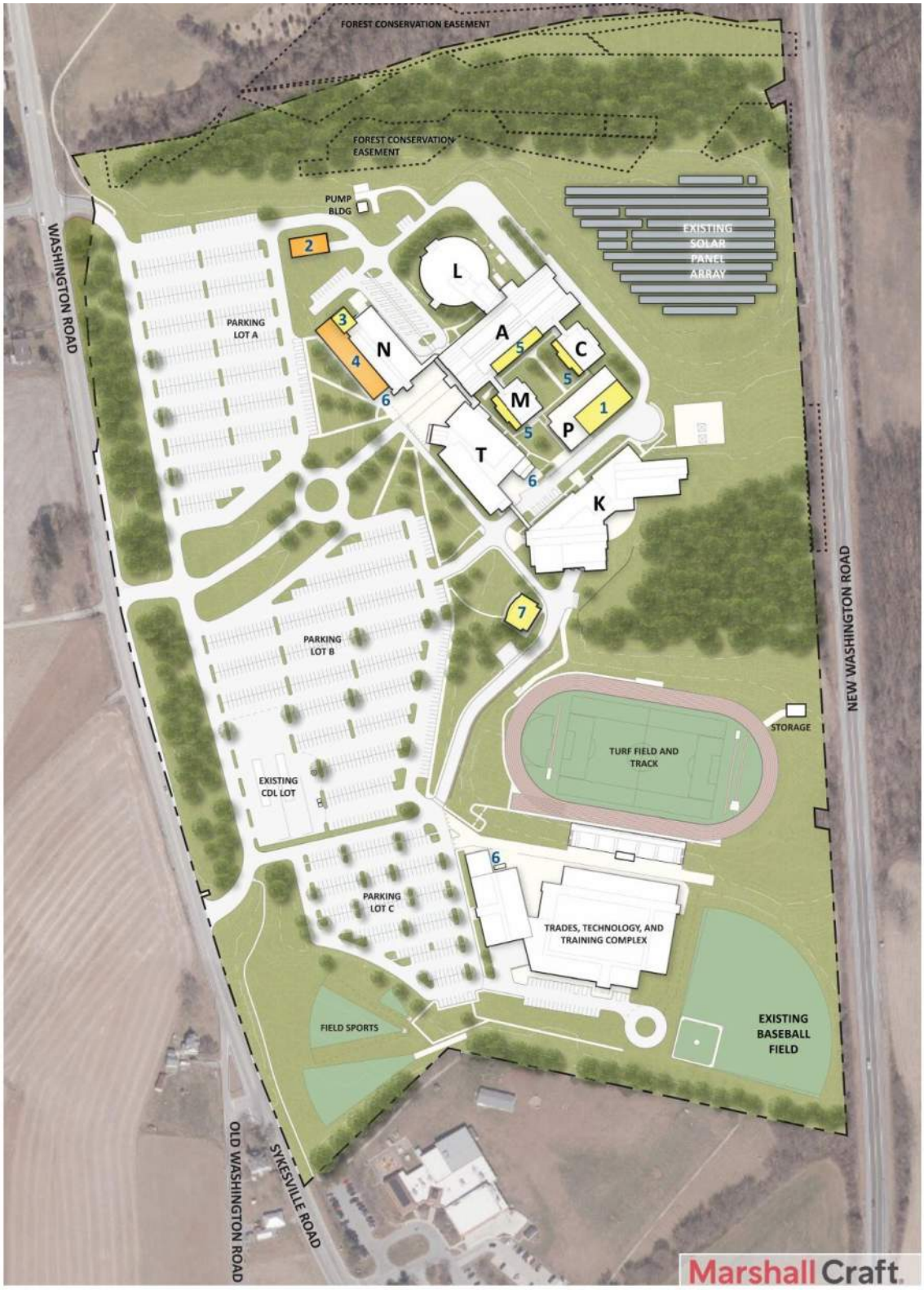
0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction

PROPOSED PROJECTS

1 Trades, Technology, and Training Complex
2 Bicycle Parking Area



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

LONG TERM CAMPUS DEVELOPMENT PLAN

JANUARY 2026

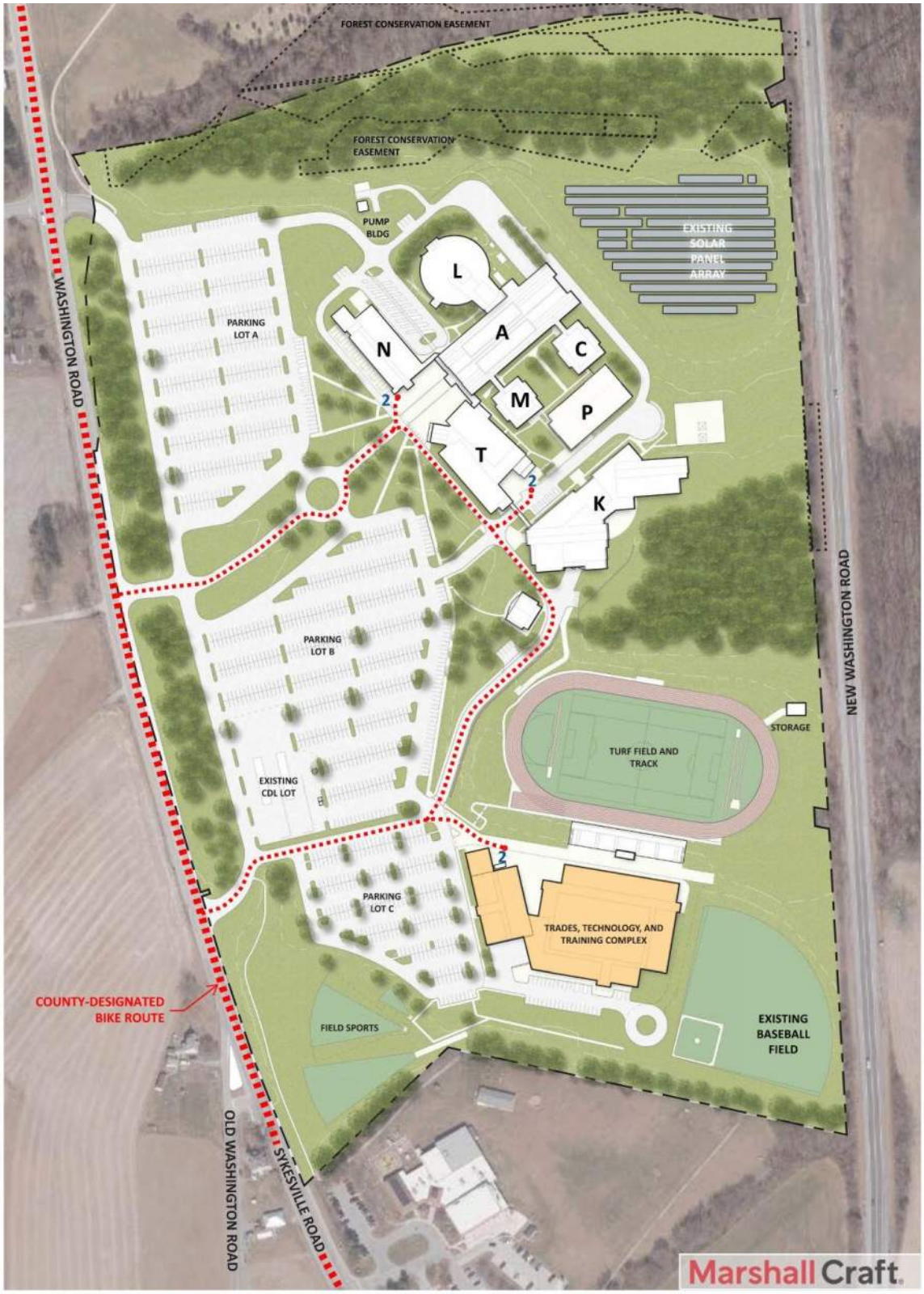
0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction
- Renovation

PROPOSED PROJECTS

1. Renovate Building P for Meeting Space
2. Facilites Storage Building
3. Nursing Renovation
4. Nursing Expansion
5. Consolidate Science Labs
6. Bicycle Parking Area
7. Renovate Existing Ampitheatre



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

LONG TERM DEVELOPMENT PLAN - BIKE PLAN

JANUARY 2026

0 25 50 100 200

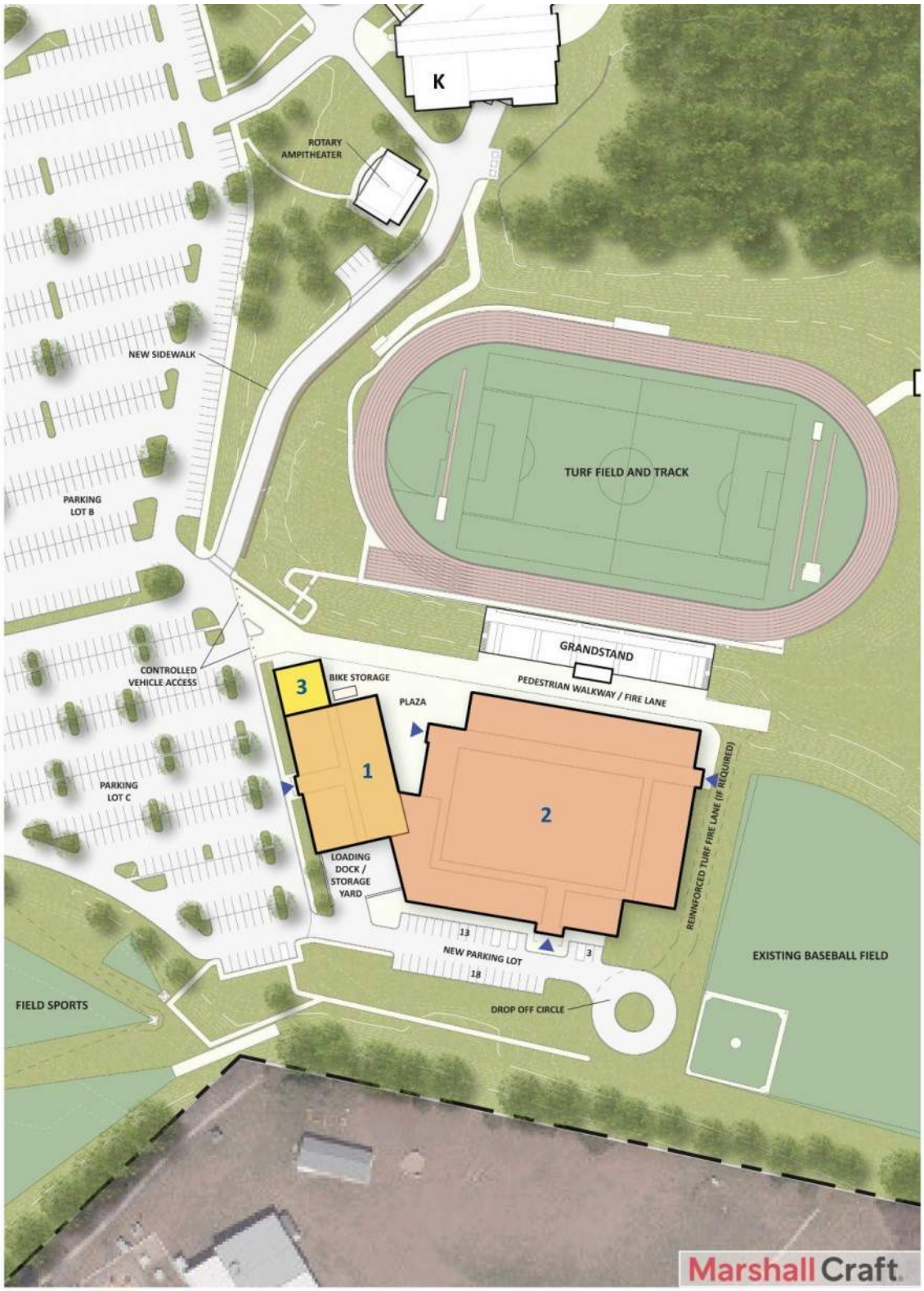
LEGEND

- Existing CCC Building
- New Construction
- Revised Bike Route

PROPOSED PROJECTS

1 Not Used

2 Bicycle Parking Area



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

ENLARGED TRADES, TECHNOLOGY, AND TRAINING COMPLEX PLAN

JANUARY 2026

0 10 25 50 100

LEGEND

- Existing CCC Building
- New Construction
- Building Entrance

PROPOSED PROJECTS

Trades, Technology, and Training Complex

1 Workforce Development / Applied Technology Center
2 Physical Education Center
3 Athletic Support Building

BUDGET COST ESTIMATE

BUDGET PROJECT COST ESTIMATE

A budgetary estimate of probable construction cost has been created for the Trades, Technology, and Training Complex project based on the early-stage concept plans for the proposed facility. The estimate has been assembled using a combination of quantity take-offs and historical cost data for similar projects. Following is a summary of expected project costs in the Maryland State Cost Estimate Worksheet (CEW) format used by DGS and DBM, and the planning team's detailed Budget Cost Estimate. Due to the uncertain schedule for advancement of the project by Carroll County and the State of Maryland, fifteen percent contingency has been included in addition to cost escalation in accordance with State guidelines. At this stage, the estimate anticipates that funding will be in place to allow the selected A/E to start design in July of 2027.

DBM Capital Budget Information System (CBIS)

DGS COST ESTIMATE WORKSHEET (CEW)

Refer to Section IX of the CBIS Manual for specific instructions on completing this CEW

Blue highlighted cells will pull from the CBIS "Entire Worksheet" Screen tab.

Project Number		Escalation is set at 7.5% for 2023, 5.5% for 2024, and 5% for 2025 and each succeeding calendar years. Escalation for 2022 was set at 9.00%.	
CEW Title	Trades, Technology, and Training Complex (TTTC)		
Project Title			
Agency	Carroll Community College	**Date Estimate Completed**	11-Aug-25
Sub Agency		**Estimate Reference Point**	Aug-25
Location	Westminster, MD	**Source of Estimate**	CostCon Construction S
Prepared By	Marshall Craft Associates, Inc.	**Recommended By**	

1. Design Phase	Budget			**2. Project Type**	New Construction		
3. Design Period	Jul-27	Nov-28	16 months	**4. Est. Bid Date**	Jan-29		
5. Construction Period	Jul-29	Jul-31	24 months	**6. Est. Mid-Point Date**	Jul-30	58 months from reference point	

7. Area	**GSF**	**NSF/NASF**	**Eff. Factor**	**% Efficiency**
A1. New:			1.56	64.21%
B1. Renovation:				

Total GSF	112,600
Total NSF	72,300

8. Structure	**GSF**		**$/SF**		**Amount**
A1+A2 Basic: New	112,600	x	411		46,275,222
B1+B2 Basic: Renovated Area	-	x			-
C. Asbestos Removal					
D. Built-in Equipment					746,968
E. Interior Demolition					
F. Info. Tech. / AV / Security				+	1,122,150
G. Subtotal					48,144,340
H. Subtotal with RCF	G. x	1.00			48,144,340
I. Escalation to Mid-Pt	H. x	30.23%			14,554,034
J. Structure Subtotal					**62,698,374**

9. Site					
A. General Site Work		of line 8G			-
B. From Estimate				+	1,544,790
C.				+	
D. Subtotal					1,544,790
E. Subtotal with RCF	G. x	1.00			1,544,790
F. Escalation to Mid-Pt.	H. x	30.23%		+	466,990
G. Site Subtotal					**2,011,780**

10. Utility					
A. General Utility		of line 8G			-
B. From Estimate				+	1,975,000
C. Subtotal					1,975,000
D. Subtotal with RCF	G. x	1.00			1,975,000
E. Escalation to Mid-Pt.	H. x	30.23%		+	597,043
F. Utility Subtotal					**2,572,043**

11. Subtotal (8J + 9G + 10F) 67,282,197

		Amount
12 a.	Total Construction Contingency	15.0% 10,092,330
b.	Green Building Premium	-
c.	CM Cost Construction Share	-
d.	Public Art Premium	-
13.	Inspection and Testing	0.5% 336,411
14.	CPM Schedule	
15 a.	Miscellaneous Construction Cost	
16.	A/E Basic Services	8.0% 6,189,962
17.	A/E Special Services	1.0% 773,745
18 a.	Bldg. Equip. Commissioning	0.3% 188,000
b.	CM Pre-Construction Fees	0.2% 134,564
c.	C. Miscellaneous Design Cost	
19 a.	Movable Equipment	3,000,000
b.	Information Technology Equipment	1,000,000
20.	Acquisitions	

21. TOTAL PROJECT COSTS

a.	Acquisitions	-
b.	Total Design Funds and Related Cost	7,286,000
	b1. Prior Design Funds -	
	b2. New Design Funds Required	7,286,000
c.	Total Construction and Related Costs	77,711,000
	c1. Prior Construction Funds -	
	c2. New Construction Funds Required	77,711,000
d.	Total Equipment Costs	4,000,000
	Total Project Cost	**88,997,000**

Structure Cost at Mid-Pt	$557/GSF
Building, Structure, and Utilities Cost at Mid-Pt	$598/GSF
Total Cost	$790/GSF

CEW Notes:

COSTCON CONSTRUCTION SERVICES

08/06/25

TRADES, TECHNOLOGY, AND TRAINING COMPLEX

Construction Cost Estimate Summary

CARROLL COMMUNITY COLLEGE
FACILITIES MASTER PLAN

ESTIMATE CALCULATED IN 3rd QUARTER 2025: US DOLLARS

CSI DIVISION	SITEWORK	WORKFORCE DEVELOPMENT CENTER	PHYSICAL EDUCATION CENTER	ATHLETIC SUPPORT BUILDING	PROJECT TOTALS
01-General Conditions	$1,261,454.57	$781,358.84	$1,572,139.63	$52,779.95	**$3,667,732.98**
02 – Existing Conditions	$40,000.00	$0.00	$0.00	$0.00	**$40,000.00**
03 – Concrete	$0.00	$937,200.00	$1,419,000.00	$48,750.00	**$2,404,950.00**
04 – Masonry	$0.00	$904,824.00	$1,392,206.00	$188,070.00	**$2,485,100.00**
05 – Metals	$0.00	$2,748,820.00	$5,391,206.00	$55,000.00	**$8,195,026.00**
06 – Wood, Plastics, and Composites	$0.00	$255,800.00	$295,250.00	$14,900.00	**$565,950.00**
07 – Thermal and Moisture Protection	$0.00	$1,420,220.00	$4,283,055.00	$120,250.00	**$5,823,525.00**
08 – Openings	$0.00	$1,405,345.00	$1,039,335.00	$27,410.00	**$2,472,090.00**
09 – Finishes	$0.00	$2,236,300.00	$2,119,187.50	$39,375.00	**$4,394,862.50**
10 – Specialties	$0.00	$221,160.00	$467,625.00	$28,644.00	**$717,429.00**
11 – Equipment Division	$0.00	$28,500.00	$718,468.00	$0.00	**$746,968.00**
12 – Furnishings	$150,000.00	$486,160.00	$225,170.00	$7,200.00	**$868,530.00**
13 – Special Construction	$0.00	$0.00	$0.00	$0.00	**$0.00**
14 – Conveying Equipment	$0.00	$184,559.98	$0.00	$0.00	**$184,559.98**
21 – Fire Suppression	$0.00	$410,400.00	$580,500.00	$22,500.00	**$1,013,400.00**
22 – Plumbing	$0.00	$638,400.00	$516,000.00	$50,000.00	**$1,204,400.00**
23 – Heating, Ventilating, and Air Cond	$0.00	$3,192,000.00	$3,225,000.00	$87,500.00	**$6,504,500.00**
25 – Integrated Automation	$0.00	$0.00	$0.00	$0.00	**$0.00**
26 – Electrical	$0.00	$2,705,600.00	$2,902,500.00	$125,000.00	**$5,733,100.00**
27– Communications	$0.00	$182,400.00	$96,750.00	$0.00	**$279,150.00**
28 – Electronic Safety and Security	$0.00	$456,000.00	$387,000.00	$0.00	**$843,000.00**
31 – Earthwork	$425,000.00	$0.00	$0.00	$0.00	**$425,000.00**
32 – Exterior Improvements	$1,119,789.88	$0.00	$0.00	$0.00	**$1,119,789.88**
33 – Utilities	$1,975,000.00	$0.00	$0.00	$0.00	**$1,975,000.00**
34 – Transportation	$0.00	$0.00	$0.00	$0.00	**$0.00**
SUBTOTAL	**$4,971,244.44**	**$19,195,047.82**	**$26,630,392.13**	**$867,378.95**	**$51,664,063.34**
Contingency-Design 15%	$745,686.67	$2,879,257.17	$3,994,558.82	$130,106.84	$7,749,609.50
Escalation (not included) 0.00	$0.00	$0.00	$0.00	$0.00	**$0.00**
TOTAL	**$5,716,931.11**	**$22,074,304.99**	**$30,624,950.94**	**$997,485.79**	**$59,413,672.84**
		$484.09	$474.81	$398.99	

COSTCON CONSTRUCTION SERVICES

CARROLL COMMUNITY COLLEGE FACILITIES MASTER PLAN

SITEWORK

FEASIBLE COST OF CONSTRUCTION / ORDER OF MAGNITUDE ESTIMATE FOR THE FACILITIES MASTER PLAN

ESTIMATE CALCULATED IN 3rd QUARTER 2025: US DOLLARS

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
01	01-General Conditions					$1,261,454.57
01 00 00	general requirements					
	general requirements-percent of subcontracts	%	10.00%	$3,709,789.88	$370,978.99	
	liability insurance	%	1.20%	$4,080,768.86	$48,969.23	
	bond	%	2.00%	$4,129,738.09	$82,594.76	
	general contractors overhead and profit	%	10.00%	$4,212,332.85	$421,233.29	
	prevailing wage	%	5.00%	$4,633,566.14	$231,678.31	
	phasing	%	0.00%	$0.00	$0.00	
01 32 23	survey and layout data					
	surveying	ls	1.00	$75,000.00	$75,000.00	
01 56 26	temporary fencing					
	temporary fencing	ft	1500.00	$14.00	$21,000.00	
01 74 23	final cleaning					
	final cleanup-site	ls	1.00	$10,000.00	$10,000.00	
02	02 – Existing Conditions					$40,000.00
02 41 13	selective site demolition and clearing					
	selective site demolition and clearing	ls	1.00	$40,000.00	$40,000.00	
03	03 – Concrete					$0.00
03 00 00	concrete					
	concrete	not required	0.00	$0.00	$0.00	
04	04 – Masonry					$0.00
04 00 00	masonry					
	masonry	not required	0.00	$0.00	$0.00	
05	05 – Metals					$0.00
05 12 00	metals					
	metals	not required	0.00	$0.00	$0.00	
06	06 – Wood, Plastics, and Composites					$0.00
06 00 00	wood, plastics and composites					
	wood, plastics and composites	not required	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
07	07 – Thermal and Moisture Protection					$0.00
07 00 00	thermal and moisture protection thermal and moisture protection	not required	0.00	$0.00	$0.00	
08	08 – Openings					$0.00
08 00 00	openings openings	not required	0.00	$0.00	$0.00	
09	09 – Finishes					$0.00
09 00 00	finishes finishes	not required	0.00	$0.00	$0.00	
10	10 – Specialties					$0.00
10 00 00	specialties specialties	not required	0.00	$0.00	$0.00	
11	11 – Equipment Division					$0.00
11 00 00	equipment equipment	not required	0.00	$0.00	$0.00	
12	12 – Furnishings					$150,000.00
12 00 00	furnishings furnishings	not required	0.00	$0.00	$0.00	
12 93 00	site furnishings site furnishings	ls	1.00	$150,000.00	$150,000.00	
13	13 – Special Construction					$0.00
13 00 00	special construction special constructions	not required	0.00	$0.00	$0.00	
14	14 – Conveying Equipment					$0.00
14 00 00	conveying conveying	not required	0.00	$0.00	$0.00	
21	21 – Fire Suppression					$0.00
21 00 00	fire suppression fire suppression	not required	0.00	$0.00	$0.00	
22	22 – Plumbing					$0.00
22 00 00	plumbing plumbing	not required	0.00	$0.00	$0.00	
23	23 – Heating, Ventilating, and Air Cond					$0.00
23 00 00	hvac hvac	not required	0.00	$0.00	$0.00	
25	25 – Integrated Automation					$0.00
25 00 00	integrated automation integrated automation	not required	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
26	26 – Electrical					$0.00
26 00 00	electrical					
	electrical	not required	0.00	$0.00	$0.00	
27	27– Communications					$0.00
27 00 00	communications					
	communications	not required	0.00	$0.00	$0.00	
28	28 – Electronic Safety and Security					$0.00
28 00 00	electronic, safety and security					
	electronic, safety and security	not required	0.00	$0.00	$0.00	
31	31 – Earthwork					$425,000.00
31 23 16	excavation					
	excavation	ls	1.00	$350,000.00	$350,000.00	
31 25 00	sediment and erosion control					
	sediment and erosion control	ls	1.00	$75,000.00	$75,000.00	
32	32 – Exterior Improvements					$1,119,789.88
32 00 00	exterior improvements					
	exterior improvements	see below	0.00	$0.00	$0.00	
32 12 13	asphalt paving					
	asphalt paving	sq ft	33667.65	$5.50	$185,172.08	
	asphalt patching and repairs	ea	1.00	$35,000.00	$35,000.00	
32 12 13	special paving					
	reinforced turf fire lane	sq ft	6995.59	$12.00	$83,947.08	
32 13 13	concrete paving					
	heavy concrete paving	sq ft	3963.17	$24.00	$95,116.08	
	paving at bike parking area	sq ft	847.61	$12.00	$10,171.32	
32 16 13	concrete curb and gutter					
	curb and gutter	ft	1628.15	$28.00	$45,588.20	
32 16 23	sidewalks					
	pedestrian paving (can support for small vehicle service)	sq ft	22640.01	$12.00	$271,680.12	
	concrete sidewalks- patching and repair to existing	ls	1.00	$15,000.00	$15,000.00	
32 17 23	pavement markings and site signage					
	marking and site signage	ls	1.00	$50,000.00	$50,000.00	
32 32 13	masonry site walls					
	screen walls at loading dock	sq ft	919.00	$85.00	$78,115.00	
32 91 19	landscaping					
	landscaping allowance	ls	1.00	$250,000.00	$250,000.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
33	**33 – Utilities**					**$1,975,000.00**
33 00 00	**utilities**					
33 19 00	**water- utility**					
	connection allowance	allowance	1.00	$150,000.00	**$150,000.00**	
33 31 13	**sanitary-utility**					
	connection allowance	allowance	1.00	$100,000.00	**$100,000.00**	
33 51 13	**natural gas utility**					
	connection allowance	allowance	1.00	$75,000.00	**$75,000.00**	
33 71 13	**electrical utility**					
	connection allowance	allowance	1.00	$450,000.00	**$450,000.00**	
33 71 13	**site lighting**					
	site lighting	allowance	1.00	$450,000.00	**$450,000.00**	
33 44 00	**stormwater management**					
	stormwater management	ls	1.00	$750,000.00	**$750,000.00**	
34	**34 – Transportation**					**$0.00**
34 00 00	**transportation**					
	transportation	not required	0.00	$0.00	**$0.00**	
					TOTAL	**$4,971,244.44**
01 21 16	**contingency allowance**					
	contingency allowance-design	ls	15.00%	$4,971,244.44	**$745,686.67**	**$745,686.67**
					TOTAL	**$5,716,931.11**

COSTCON CONSTRUCTION SERVICES

CARROLL COMMUNITY COLLEGE FACILITIES MASTER PLAN

WORKFORCE DEVELOPMENT CENTER

FLOOR	AREA
1ST FLOOR	15200.00
2ND FLOOR	15200.00
3RD FLOOR	15200.00
TOTAL	45600.00

FEASIBLE COST OF CONSTRUCTION / ORDER OF MAGNITUDE ESTIMATE FOR THE FACILITIES MASTER PLAN

ESTIMATE CALCULATED IN 3rd QUARTER 2025: US DOLLARS

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
01	01-General Conditions					$781,358.84
01 00 00	general requirements					
	general requirements-percent of subcontracts	%	10.00%	$6,266,864.00	$626,686.40	
	liability insurance	%	1.20%	$626,686.40	$7,520.24	
	bond	%	2.00%	$634,206.64	$12,684.13	
	general contractors overhead and profit	%	10.00%	$646,890.77	$64,689.08	
	prevailing wage	%	5.00%	$711,579.85	$35,578.99	
	phasing	%	0.00%	$0.00	$0.00	
01 32 23	survey and layout data					
	surveying	see sitework	0.00	$0.00	$0.00	
01 56 26	temporary fencing					
	temporary fencing	see sitework	0.00	$0.00	$0.00	
01 74 23	final cleaning					
	final clean	sf allowance	45600.00	$0.75	$34,200.00	
02	02 – Existing Conditions					$0.00
02 41 13	selective site demolition					
	selective site demolition	see sitework	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
03	**03 – Concrete**					**$937,200.00**
03 30 00	**cast-in-place concrete-foundations**					
	concrete foundations	sf allowance	45600.00	$7.00	**$319,200.00**	
	concrete elevator pit	ls	1.00	$10,000.00	**$10,000.00**	
03 30 00	**concrete slab on grade**					
	concrete slab on grade-6"thk	sf	15200.00	$15.00	**$228,000.00**	
03 30 00	**concrete fill on metal deck**					
	concrete fill on metal deck	sf allowance	30400.00	$11.00	**$334,400.00**	
03 30 00	**concrete miscellaneous**					
	concrete miscellaneous and housekeeping pads	sf allowance	45600.00	$1.00	**$45,600.00**	
04	**04 – Masonry**					**$904,824.00**
04 00 00	**masonry**					
	masonry foundation walls	sf	2232.00	$45.00	**$100,440.00**	
	brick veneer					
	brick veneer	sq ft	9462.00	$32.00	**$302,784.00**	
	cmu backup					
	cmu backup	not required	0.00	$0.00	**$0.00**	
	interior partitions					
	interior cmu partitions	sf allowance	45600.00	$8.00	**$364,800.00**	
	masonry-miscellaneous					
	miscellaneous masonry	sf allowance	45600.00	$1.00	**$45,600.00**	
	staging-access and scaffolding- all trades					
	staging-access and scaffolding- all trades	sf allowance	45600.00	$2.00	**$91,200.00**	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
05	05 – Metals					$2,748,820.00
05 12 00	metals					
	steel frame-columns and beams	sf allowance	45600.00	$32.00	$1,459,200.00	
	open web joists					
	floor joists	sqft	30400.00	$7.00	$212,800.00	
	roof joists	sqft	15200.00	$6.00	$91,200.00	
05 36 00	metal deck					
	metal floor deck	sqft	30400.00	$6.50	$197,600.00	
	metal roof deck	sqft	15200.00	$5.50	$83,600.00	
05 41 00	cold formed metal framing- backup assembly					
	cold formed metal framing-backup assembly-studs-sheathing-vapor barrier-insulation and gwb-finished	sqft	18930.00	$24.00	$454,320.00	
05 51 00	stair #1- metal pan stairs/rails/concrete fill					
	stairs-mid-landing	sqft	50.00	$145.00	$7,250.00	
	risers	risers	52.00	$950.00	$49,400.00	
	stair #2- metal pan stairs/rails/concrete fill					
	stairs-mid-landing	sqft	50.00	$145.00	$7,250.00	
	risers	risers	52.00	$950.00	$49,400.00	
05 12 00	miscellaneous metals					
	lintels angles and bracing	sf allowance	45600.00	$2.00	$91,200.00	
	inserts and anchors	sf allowance	45600.00	$1.00	$45,600.00	
06	06 – Wood, Plastics, and Composites					$255,800.00
06 00 00	blocking					
	blocking	sf allowance	45600.00	$3.00	$136,800.00	
	plywood on walls-electric/it	ls	1.00	$5,000.00	$5,000.00	
	installations					
	installation of toilet accessories and miscellaneous	sf allowance	45600.00	$1.00	$45,600.00	
	installation of doors frames and hw (hollow metal and wood) per l	sf allowance	45600.00	$1.50	$68,400.00	
	installation of windows and glass	see cat 800	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
07	07 – Thermal and Moisture Protection					$1,420,220.00
07 00 00	thermal and moisture protection					
	thermal and moisture protection	see below	0.00	$0.00	$0.00	
07 17 00	waterproofing					
	foundation waterproofing drainage and protection board	sq ft	520.00	$6.00	$3,120.00	
	waterproof elevator pit	ls	1.00	$7,500.00	$7,500.00	
07 21 00	insulation					
	perimeter slab insulation	sq ft	1040.00	$2.00	$2,080.00	
	partition insulation	see cat 90	0.00	$0.00	$0.00	
	roofing insulation	see below	0.00	$0.00	$0.00	
07 27 00	vapor barriers					
	see backup assemblies	see assembly	0.00	$0.00	$0.00	
07 41 16	insulated panels					
	exterior metal panel system	sq ft	9462.00	$60.00	$567,720.00	
07 50 00	roofing					
	roofing assembly-membrane-insulation-flashing and sheetmetal	sq ft	15200.00	$50.00	$760,000.00	
07 82 00	fireproofing					
	fireproofing	not required	0.00	$0.00	$0.00	
07 84 00	fire stopping					
	fire stopping	sf allowance	45600.00	$0.75	$34,200.00	
07 92 13	sealants-exterior					
	caulking-interior	sf allowance	45600.00	$0.75	$34,200.00	
	sealants-exterior	sf allowance	45600.00	$0.25	$11,400.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
08	08 – Openings					$1,405,345.00
08 00 00	**openings**					
	openings	see below	0.00	$0.00	$0.00	
08 12 00	**door frames**					
	door frames	sf allowance	45600.00	$0.95	$43,320.00	
08 12 00	**sidelights**					
	sidelights	sf allowance	45600.00	$1.00	$45,600.00	
08 17 00	**doors**					
	hollow metal-solid core wood doors	sf allowance	45600.00	$7.00	$319,200.00	
08 30 00	**hardware**					
	door hardware	sf allowance	45600.00	$4.50	$205,200.00	
08 33 23	**overhead coiling doors-motor operated**					
	overhead coiling doors-motor operated-20x10	ea	2.00	$8,000.00	$16,000.00	
08 41 00	**storefront- interior**					
	interior storefront	sf allowance	15200.00	$9.00	$136,800.00	
08 51 00	**exterior glazing**					
	exterior glazing- insulated storefront / curtain wall etc-ave	sq ft	4735.00	$135.00	$639,225.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
09	09 – Finishes					$2,236,300.00
09 00 00	finishes					
	finishes	see below	0.00	$0.00	$0.00	
09 21 00	Partitions-gwb					
	gwb partitions	sf allowance	45600.00	$24.00	$1,094,400.00	
09 69 00	flooring					
	floor prep	sf allowance	45600.00	$1.00	$45,600.00	
	1st floor 50% sealed concrete	sq ft	7600.00	$1.25	$9,500.00	
	1st floor 50% epoxy non slip	sq ft	7600.00	$14.00	$106,400.00	
	2nd and 3rd floor- ave	sq ft	30400.00	$6.00	$182,400.00	
09 51 00	ceilings					
	c1-susp. act	sq ft	45600.00	$9.50	$433,200.00	
	bulkhead allowance	sf allowance	45600.00	$1.00	$45,600.00	
09 03 00	painting					
	painting-allowance	sf allowance	45600.00	$3.50	$159,600.00	
09 30 00	ceramic tile					
	ceramic wall and floor tile	sf allowance	45600.00	$3.50	$159,600.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
10	10 – Specialties					$221,160.00
10 00 00	specialties					
	toilet accessories	sf allowance	45600.00	$2.00	$91,200.00	
	ta-soap dispenser	see above	0.00	$0.00	$0.00	
	ta-ada grab bar set	see above	0.00	$0.00	$0.00	
	ta-toilet paper dispenser	see above	0.00	$0.00	$0.00	
	ta-paper towel dispenser	see above	0.00	$0.00	$0.00	
	ta-toilet seat cover dispenser	see above	0.00	$0.00	$0.00	
	ta-coat hook	see above	0.00	$0.00	$0.00	
	ta-plate glass mirror	see above	0.00	$0.00	$0.00	
	ta-wall mounted hand dryer	see above	0.00	$0.00	$0.00	
	ta-waste receptacle	see above	0.00	$0.00	$0.00	
	ta-sanitary napkin dispenser	see above	0.00	$0.00	$0.00	
	ba-ada shower grab bar set	see above	0.00	$0.00	$0.00	
	ta-toilet partition	see above	0.00	$0.00	$0.00	
	ta-mop hanger	see above	0.00	$0.00	$0.00	
	ba-foldable shower seat	see above	0.00	$0.00	$0.00	
	ba-towel hook	see above	0.00	$0.00	$0.00	
	fire extinguishers and cabinets	see above	0.00	$0.00	$0.00	
10 06 10	interior signage					
	interior signage allowance	sf allowance	45600.00	$1.00	$45,600.00	
10 11 00	display boards					
	white boards and tack boards	sf allowance	45600.00	$1.35	$61,560.00	
	interactive displays-sb	by owner	0.00	$0.00	$0.00	
10 50 00	lockers					
	lockers	sf allowance	45600.00	$0.50	$22,800.00	
10 56 00	manufactured shelving					
	metal shelving	by owner	0.00	$0.00	$0.00	
11	11 – Equipment Division					$28,500.00
11 00 00	equipment					
	equipment- unless noted below all equipment by owner	by owner	0.00	$0.00	$0.00	
11 00 00	pallet racks and storage					
	pallet racks -special storage	ls	1.00	$25,000.00	$25,000.00	
11 44 00	kitchen equipment					
	residential equipment- refrigerator and microwave	ls	1.00	$3,500.00	$3,500.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
12	**12 – Furnishings**					**$486,160.00**
12 00 00	**furnishings**					
	ff&e owner provided and owner installed	note	0.00	$0.00	**$0.00**	
12 24 00	**window treatments**					
	assume 2" aluminum blinds at all exterior windows-see sheet a920b	sqft	4735.00	$16.00	**$75,760.00**	
12 30 00	**Casework**					
	manufactured casework	sf allowance	45600.00	$9.00	**$410,400.00**	
13	**13 – Special Construction**					**$0.00**
13 00 00	**special construction**					
	special construction	see below	0.00	$0.00	**$0.00**	
14	**14 – Conveying Equipment**					**$184,559.98**
14 00 00	**elevator**					
	base system-hydraulic elevator-passenger	ls	1.00	$90,500.00	**$90,500.00**	
	increase speed to 150 fpm	ls	1.00	$3,700.00	**$3,700.00**	
	travel over 20vlf	ft	10.00	$1,300.00	**$13,000.00**	
	number stops over 2	ea	1.00	$14,918.00	**$14,918.00**	
	door-2 speed	ls	1.00	$4,866.00	**$4,866.00**	
	add for 4500# capacity	ls	1.00	$13,833.00	**$13,833.00**	
	stainless steel doors-cab	ls	3.00	$4,898.00	**$14,694.00**	
	stainless steel walls	ls	1.00	$4,716.00	**$4,716.00**	
	stainless steel returns	ls	2.00	$1,530.49	**$3,060.98**	
	stainless steel doors-hall	ea	2.00	$1,860.00	**$3,720.00**	
	stainless steel frames-hall	ea	2.00	$1,938.00	**$3,876.00**	
	hall lanterns	ea	2.00	$968.00	**$1,936.00**	
	position indicators	ea	2.00	$695.00	**$1,390.00**	
	intercom service	ls	1.00	$650.00	**$650.00**	
	cab floor	ls	1.00	$3,500.00	**$3,500.00**	
	set of cab pads	ls	1.00	$1,200.00	**$1,200.00**	
	1 yr. maintenance	ls	1.00	$5,000.00	**$5,000.00**	
	temp use of elevator during construction	not included	0.00	$0.00	**$0.00**	
21	**21 – Fire Suppression**					**$410,400.00**
21 00 00	**fire suppression**					
	fire suppression	sf allowance	45600.00	$9.00	**$410,400.00**	
22	**22 – Plumbing**					**$638,400.00**
22 00 00	**plumbing**					
	plumbing allowance	sf allowance	45600.00	$14.00	**$638,400.00**	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
23	23 – Heating, Ventilating, and Air Cond					$3,192,000.00
23 00 00	hvac					
	hvac allowance	sf allowance	45600.00	$65.00	$2,964,000.00	
	mechanical premium for 1st floor	allowance	15200.00	$15.00	$228,000.00	
25	25 – Integrated Automation					$0.00
25 00 00	integrated automation					
	integrated automation	not required	0.00	$0.00	$0.00	
26	26 – Electrical					$2,705,600.00
26 00 00	electrical					
	electrical allowance-includes emergency generator	sf allowance	45600.00	$56.00	$2,553,600.00	
	electrical-premium allowance for 1st floor	sf allowance	15200.00	$10.00	$152,000.00	
27	27– Communications					$182,400.00
27 00 00	communications					
	communications	see below	0.00	$0.00	$0.00	
27 33 00	telecom-data and av					
	telecom-data and av raceway only	sf allowance	45600.00	$4.00	$182,400.00	
28	28 – Electronic Safety and Security					$456,000.00
28 00 00	electronic-safety and security					
	electronic-safety and security	see below	0.00	$0.00	$0.00	
28 30 00	security system					
	security system	sf allowance	45600.00	$6.00	$273,600.00	
28 40 00	fire alarm system					
	fire alarm system	sf allowance	45600.00	$4.00	$182,400.00	
31	31 – Earthwork					$0.00
31 00 00	excavation					
	excavation	see sitework	0.00	$0.00	$0.00	
32	32 – Exterior Improvements					$0.00
32 00 00	exterior improvements					
	exterior improvements	see sitework	0.00	$0.00	$0.00	
33	33 – Utilities					$0.00
33 00 00	utilities					
	utilities	see sitework	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
34	**34 – Transportation**					**$0.00**
34 00 00	**transportation** transportation	not required	0.00	$0.00	**$0.00**	
					TOTAL	**$19,195,047.82**

01 21 16	**contingency allowance** contingency allowance-design	ls	15.00%	$19,195,047.82	**$2,879,257.17**	**$2,879,257.17**

TOTAL	**$22,074,304.99**

COSTCON CONSTRUCTION SERVICES

CARROLL COMMUNITY COLLEGE
FACILITIES MASTER PLAN
PHYSICAL EDUCATION CENTER

FLOOR	AREA
1ST FLOOR	64500.00
TOTAL	64500.00

FEASIBLE COST OF CONSTRUCTION / ORDER OF MAGNITUDE ESTIMATE FOR THE FACILITIES MASTER PLAN

ESTIMATE CALCULATED IN 3rd QUARTER 2025: US DOLLARS

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
01	01-General Conditions					$1,572,139.63
01 00 00	general requirements					
	general requirements-percent of subcontracts	%	10.00%	$12,780,717.00	$1,278,071.70	
	liability insurance	%	1.20%	$1,278,071.70	$15,336.86	
	bond	%	2.00%	$1,293,408.56	$25,868.17	
	general contractors overhead and profit	%	10.00%	$1,319,276.73	$131,927.67	
	prevailing wage	%	5.00%	$1,451,204.40	$72,560.22	
	phasing	%	0.00%	$0.00	$0.00	
01 32 23	survey and layout data					
	surveying	see sitework	0.00	$0.00	$0.00	
01 56 26	temporary fencing					
	temporary fencing	see sitework	0.00	$0.00	$0.00	
01 74 23	final cleaning					
	final clean	sf allowance	64500.00	$0.75	$48,375.00	
02	02 – Existing Conditions					$0.00
02 41 13	selective site demolition					
	selective site demolition	see sitework	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
03	03 – Concrete					$1,419,000.00
03 30 00	cast-in-place concrete-foundations concrete foundations	sf allowance	64500.00	$7.00	$451,500.00	
03 30 00	concrete slab on grade concrete slab on grade	sf	64500.00	$14.00	$903,000.00	
03 30 00	concrete miscellaneous concrete miscellaneous and housekeeping pads	sf allowance	64500.00	$1.00	$64,500.00	
04	04 – Masonry					$1,392,206.00
04 00 00	masonry masonry foundation walls	sf	2232.00	$45.00	$100,440.00	
	brick veneer brick veneer	sq ft	6660.00	$32.00	$213,120.00	
	cmu backup- assembly cmu backup assembly- includes vapor barrier	sf	22643.00	$22.00	$498,146.00	
	interior partitions interior cmu partitions	sf allowance	64500.00	$6.00	$387,000.00	
	masonry-miscellaneous miscellaneous masonry	sf allowance	64500.00	$1.00	$64,500.00	
	staging-access and scaffolding- all trades staging-access and scaffolding- all trades	sf allowance	64500.00	$2.00	$129,000.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
05	05 – Metals					$5,391,206.00
05 12 00	metals					
	steel frame-columns and beams	sf allowance	64500.00	$26.00	$1,677,000.00	
	open web joists					
	roof joists	sq ft	64500.00	$5.50	$354,750.00	
05 36 00	metal deck					
	metal roof deck	sq ft	64500.00	$5.50	$354,750.00	
05 41 00	cold formed metal framing- backup assembly					
	cold formed metal framing-backup assembly-studs-sheathing-vapor barrier-insulation and dg wb-finished	not required	0.00	$0.00	$0.00	
05 12 00	miscellaneous metals					
	lintels angles and bracing	sf allowance	64500.00	$2.00	$129,000.00	
	inserts and anchors	sf allowance	64500.00	$1.00	$64,500.00	
06	06 – Wood, Plastics, and Composites					$295,250.00
06 00 00	blocking					
	blocking	sf allowance	64500.00	$2.00	$129,000.00	
	plywood on wall ls-electric/it	ls	1.00	$5,000.00	$5,000.00	
	installation					
	installation of toilet accessories and miscellaneous	sf allowance	64500.00	$1.00	$64,500.00	
	installation of doors frames and hw (hollow metal and wood)	sf allowance	64500.00	$1.50	$96,750.00	
	installation of windows and glass	see cat 800	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
07	07 – Thermal and Moisture Protection					$4,283,055.00
07 00 00	thermal and moisture protection					
	thermal and moisture protection	see below	0.00	$0.00	$0.00	
07 17 00	waterproofing					
	foundation waterproofing drainage and protection board	sq ft	1200.00	$6.00	$7,200.00	
07 21 00	insulation					
	perimeter slab insulation	sq ft	2400.00	$2.00	$4,800.00	
	partition insulation	see cat 90	0.00	$0.00	$0.00	
	roofing insulation	see above	0.00	$0.00	$0.00	
07 41 16	Insulated Panels					
	exterior metal panel system	sq ft	15983.00	$60.00	$958,980.00	
07 50 00	roofing					
	roofing assembly-membrane-insulation-flashing and sheetmetal	sq ft	64500.00	$50.00	$3,225,000.00	
07 82 00	fireproofing					
	fireproofing	not required	0.00	$0.00	$0.00	
07 84 00	fire stopping					
	fire stopping	sf allowance	64500.00	$0.75	$48,375.00	
07 92 13	sealants-exterior					
	caulking-interior	sf allowance	64500.00	$0.35	$22,575.00	
	sealants-exterior	sf allowance	64500.00	$0.25	$16,125.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
08	08 – Openings					$1,039,335.00
08 00 00	openings					
	openings	see below	0.00	$0.00	$0.00	
08 12 00	door frames					
	door frames	sf allowance	64500.00	$0.50	$32,250.00	
08 12 00	sidelights					
	sidelights	sf allowance	64500.00	$0.25	$16,125.00	
08 17 00	doors					
	hollow metal-solid core wood doors	sf allowance	64500.00	$2.00	$129,000.00	
08 30 00	hardware					
	door hardware	sf allowance	64500.00	$2.00	$129,000.00	
08 41 00	storefront- interior					
	interior storefront	sf allowance	64500.00	$3.00	$193,500.00	
08 51 00	exterior glazing					
	exterior glazing- insulated storefront / curtain wall etc	sq ft	3996.00	$135.00	$539,460.00	
09	09 – Finishes					$2,119,187.50
09 00 00	finishes					
	finishes	see below	0.00	$0.00	$0.00	
09 21 00	Partitions-gwb					
	gwb partitions	sf allowance	64500.00	$10.00	$645,000.00	
09 69 00	flooring					
	floor prep	sf allowance	64500.00	$1.00	$64,500.00	
	moisture mitigation under gym area flooring	sq ft	24145.00	$3.50	$84,507.50	
	gymnasium flooring-cushion-athletic viny floor	sq ft	24145.00	$14.00	$338,030.00	
	1st floor-balance- ave	sq ft	30400.00	$6.00	$182,400.00	
09 51 00	ceilings					
	c1-susp. act	sq ft	40500.00	$9.00	$364,500.00	
	bulkhead allowance	sf allowance	64500.00	$1.00	$64,500.00	
09 03 00	painting					
	painting-allowance	sf allowance	64500.00	$3.50	$225,750.00	
09 30 00	ceramic tile					
	f2-ceramic porcelain tile	ls	1.00	$150,000.00	$150,000.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
10	10 – Specialties					$467,625.00
10 00 00	specialties					
	toilet accessories	sf allowance	64500.00	$2.00	$129,000.00	
	ta-soap dispenser	see above	0.00	$0.00	$0.00	
	ta-ada grab bar set	see above	0.00	$0.00	$0.00	
	ta-toilet paper dispenser	see above	0.00	$0.00	$0.00	
	ta-paper towel dispenser	see above	0.00	$0.00	$0.00	
	ta-toilet seat cover dispenser	see above	0.00	$0.00	$0.00	
	ta-coat hook	see above	0.00	$0.00	$0.00	
	ta-plate glass mirror	see above	0.00	$0.00	$0.00	
	ta-wall mounted hand dryer	see above	0.00	$0.00	$0.00	
	ta-waste receptacle	see above	0.00	$0.00	$0.00	
	ta-sanitary napkin dispenser	see above	0.00	$0.00	$0.00	
	ba-ada shower grab bar set	see above	0.00	$0.00	$0.00	
	ta-toilet partition	see above	0.00	$0.00	$0.00	
	ta-mop hanger	see above	0.00	$0.00	$0.00	
	ba-foldable shower seat	see above	0.00	$0.00	$0.00	
	ba-towel hook	see above	0.00	$0.00	$0.00	
	fire extinguishers and cabinets	see above	0.00	$0.00	$0.00	
10 06 10	interior signage					
	interior signage allowance	sf allowance	64500.00	$0.75	$48,375.00	
10 11 00	display boards					
	white boards and tack boards	sf allowance	64500.00	$0.50	$32,250.00	
	interactive displays-sb	by owner	0.00	$0.00	$0.00	
10 50 00	lockers					
	lockers	sf allowance	64500.00	$4.00	$258,000.00	
10 56 00	manufactured shelving					
	metal shelving	by owner	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
11	11 – Equipment Division					$718,468.00
11 00 00	equipment					
	athletic and fitness equipment by owner unless noted below	by owner	0.00	$0.00	$0.00	
111 66 00	gymnasium equipment					
	acoustical wall	not included	0.00	$0.00	$0.00	
	large projection screen and projector	ls	1.00	$90,000.00	$90,000.00	
	scoreboard	ls	1.00	$20,000.00	$20,000.00	
	volleyball equipment	ls	1.00	$7,000.00	$7,000.00	
	sound system	ls	1.00	$35,000.00	$35,000.00	
	basketball backstops	ea	10.00	$15,000.00	$150,000.00	
	bleachers-pull out	ls	1.00	$180,000.00	$180,000.00	
	divider curtains-electrically operated	ft	118.00	$576.00	$67,968.00	
	wall pads	ls	1.00	$15,000.00	$15,000.00	
	wall mirrors	ls	1.00			
	lockers	ls	1.00	$150,000.00	$150,000.00	
11 44 00	kitchen equipment					
	residential equipment-refrigerator and microwave	ls	1.00	$3,500.00	$3,500.00	
12	12 – Furnishings					$225,170.00
12 00 00	furnishings					
	ff&e owner provided and owner installed	note	0.00	$0.00	$0.00	
12 24 00	window treatments					
	assume 2" aluminum blinds at all exterior windows-see sheet a920b	sq ft	3995.00	$16.00	$63,920.00	
12 30 00	Casework					
	manufactured casework	sf allowance	64500.00	$2.50	$161,250.00	
13	13 – Special Construction					$0.00
13 00 00	special construction					
	special constructions	not required	0.00	$0.00	$0.00	
14	14 – Conveying Equipment					$0.00
14 00 00	conveying					
	conveying	not required	0.00	$0.00	$0.00	
21	21 – Fire Suppression					$580,500.00
21 00 00	fire suppression					
	fire suppression	sf allowance	64500.00	$9.00	$580,500.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
22	**22 – Plumbing**					**$516,000.00**
22 00 00	**plumbing** plumbing_allowance	sf_allowance	64500.00	$8.00	**$516,000.00**	
23	**23 – Heating, Ventilating, and Air Cond**					**$3,225,000.00**
23 00 00	**hvac** hvac allowance	sf allowance	64500.00	$50.00	**$3,225,000.00**	
25	**25 – Integrated Automation**					**$0.00**
25 00 00	**integrated automation** integrated_automation	not_required	0.00	$0.00	**$0.00**	
26	**26 – Electrical**					**$2,902,500.00**
26 00 00	**electrical** electrical_allowance	sf_allowance	64500.00	$45.00	**$2,902,500.00**	
27	**27– Communications**					**$96,750.00**
27 00 00	**communications** communications	see below	0.00	$0.00	**$0.00**	
27 33 00	**telecom-data and av** telecom-data and_av raceway_only	sf_allowance	64500.00	$1.50	**$96,750.00**	
28	**28 – Electronic Safety and Security**					**$387,000.00**
28 00 00	**electronic-safety and security** electronic-safety_and_security	see below	0.00	$0.00	**$0.00**	
28 30 00	**security system** security_system	sf_allowance	64500.00	$2.00	**$129,000.00**	
28 40 00	**fire alarm system** fire alarm_system	sf_allowance	64500.00	$4.00	**$258,000.00**	
31	**31 – Earthwork**					**$0.00**
31 00 00	**excavation** excavation	see sitework	0.00	$0.00	**$0.00**	
32	**32 – Exterior Improvements**					**$0.00**
32 00 00	**exterior improvements** exterior improvements	see sitework	0.00	$0.00	**$0.00**	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
33	33 – Utilities					$0.00
33 00 00	utilities utilities	see sitework	0.00	$0.00	$0.00	
34	34 – Transportation					$0.00
34 00 00	transportation transportation	not required	0.00	$0.00	$0.00	
					TOTAL	$26,630,392.13

01 21 16	contingency allowance contingency allowance-design	ls	15.00%	$26,630,392.13	$3,994,558.82	$3,994,558.82

TOTAL	$30,624,950.94

COSTCON CONSTRUCTION SERVICES

CARROLL COMMUNITY COLLEGE
FACILITIES MASTER PLAN
ATHLETIC SUPPORT BUILDING

FLOOR	AREA
1ST FLOOR	2500.00
TOTAL	2500.00

FEASIBLE COST OF CONSTRUCTION / ORDER OF MAGNITUDE ESTIMATE FOR THE FACILITIES MASTER PLAN

ESTIMATE CALCULATED IN 3rd QUARTER 2025: US DOLLARS

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
01	01-General Conditions					$52,779.95
01 00 00	general requirements					
	general requirements-percent of subcontracts	%	10.00%	$426,970.00	$42,697.00	
	liability insurance	%	1.20%	$42,697.00	$512.36	
	bond	%	2.00%	$43,209.36	$864.19	
	general contractors overhead and profit	%	10.00%	$44,073.55	$4,407.36	
	prevailing wage	%	5.00%	$48,480.91	$2,424.05	
	phasing	%	0.00%	$0.00	$0.00	
01 32 23	survey and layout data					
	surveying	see sitework	0.00	$0.00	$0.00	
01 56 26	temporary fencing					
	temporary fencing	see sitework	0.00	$0.00	$0.00	
01 74 23	final cleaning					
	final clean	sf allowance	2500.00	$0.75	$1,875.00	
02	02 – Existing Conditions					$0.00
02 41 13	selective site demolition					
	selective site demolition	see sitework	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
03	03 – Concrete					$48,750.00
03 30 00	cast-in-place concrete-foundations					
	concrete footings	sf allowance	2500.00	$5.00	$12,500.00	
03 30 00	concrete-slab on grade					
	concrete slab on grade	sq ft	2500.00	$14.00	$35,000.00	
03 30 00	concrete-miscellaneous					
	concrete miscellaneous	sf allowance	2500.00	$0.50	$1,250.00	
04	04 – Masonry					$188,070.00
04 00 00	masonry					
	masonry foundation walls	sf	400.00	$45.00	$18,000.00	
	masonry backup assembly					
	assembly- 8" cmu-reinforced-insulation and vapor barrier	sq ft	2400.00	$35.00	$84,000.00	
	brick veneer					
	brick veneer	sq ft	2400.00	$28.00	$67,200.00	
	masonry partitions					
	interior cmu partitions	sq ft	840.00	$18.00	$15,120.00	
	staging-access and scaffolding- all trades					
	staging-access and scaffolding- all trades	sf allowance	2500.00	$1.50	$3,750.00	
05	05 – Metals					$55,000.00
05 12 00	metals					
	metals	see below	0.00	$0.00	$0.00	
05 15 16	joists					
	roof joists	aq ft	2500.00	$12.00	$30,000.00	
05 30 00	metal deck					
	metal roof deck	sq ft	2500.00	$7.00	$17,500.00	
05 12 00	miscellaneous metals					
	lintels angles and bracing	sf allowance	2500.00	$2.00	$5,000.00	
	inserts and anchors	sf allowance	2500.00	$1.00	$2,500.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
06	06 – Wood, Plastics, and Composites					$14,900.00
06 00 00	blocking					
	blocking	sf allowance	2500.00	$2.00	$5,000.00	
	installations					
	installation of toilet accessories and miscellaneous	sf allowance	2500.00	$3.00	$7,500.00	
	installation of doors frames and hw per leaf	leaf	6.00	$400.00	$2,400.00	
	installation of windows and glass	see cat 800	0.00	$0.00	$0.00	
07	07 – Thermal and Moisture Protection					$120,250.00
07 00 00	thermal and moisture protection					
	thermal and moisture protection	see below	0.00	$0.00	$0.00	
07 17 00	waterproofing					
	foundation waterproofing drainage and protection board	sq ft	400.00	$6.00	$2,400.00	
07 21 00	insulation					
	perimeter slab insulation	sq ft	800.00	$2.00	$1,600.00	
	partition insulation	see cat 90	0.00	$0.00	$0.00	
	roofing insulation	see above	0.00	$0.00	$0.00	
07 41 16	insulated panels					
	insulated panels	not required	0.00	$0.00	$0.00	
07 50 00	roofing					
	roofing assembly-membrane-insulation-flashing and sheetmetal	sq ft	2500.00	$45.00	$112,500.00	
07 82 00	fireproofing					
	fireproofing	not required	0.00	$0.00	$0.00	
07 84 00	fire stopping					
	fire stopping	sf allowance	2500.00	$0.50	$1,250.00	
07 92 13	sealants					
	caulking-interior	sf allowance	2500.00	$0.75	$1,875.00	
	sealants-exterior	sf allowance	2500.00	$0.25	$625.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
08	08 – Openings					$27,410.00
08 00 00	openings					
	openings	see below	0.00	$0.00	$0.00	
08 12 00	door frames					
	door frames	ea	6.00	$400.00	$2,400.00	
08 17 00	doors					
	insulated- 3070 hm doors	ea	6.00	$1,100.00	$6,600.00	
08 30 00	hardware					
	hardware allowance per leaf	leaf	6.00	$1,200.00	$7,200.00	
	hardware-other	sf allowance	2500.00	$2.00	$5,000.00	
08 33 00	overhead coiling shutter					
	concession-overhead coiling shutter (4x6)-stainless-manual	ls	1.00	$3,400.00	$3,400.00	
	concession-stainless steel sill	ft	6.00	$90.00	$540.00	
	ticketing-overhead coiling shutter (3x4)-stainless-manual	ls	1.00	$2,000.00	$2,000.00	
	ticketing-stainless steel sill	ft	3.00	$90.00	$270.00	
08 41 00	storefront-interior					
	interior storefront	not required	0.00	$0.00	$0.00	
08 41 00	storefront- exterior					
	storefront- exterior	not required	0.00	$0.00	$0.00	
08 51 00	windows					
	windows	not required	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
09	09 – Finishes					$39,375.00
09 00 00	finishes					
	finishes	see below	0.00	$0.00	$0.00	
09 21 00	partitions					
	gwb partitions	not required	0.00	$0.00	$0.00	
09 69 00	flooring					
	floor prep	sf allowance	2500.00	$1.00	$2,500.00	
	f3-sealed concrete	sq ft	2500.00	$1.25	$3,125.00	
09 51 00	ceilings					
	ceilings average-suspended gwb and suspended act and grid	sq ft	2500.00	$9.00	$22,500.00	
	bulkhead allowance	sf allowance	2500.00	$1.00	$2,500.00	
09 03 00	painting					
	painting-allowance	sf allowance	2500.00	$3.50	$8,750.00	
09 30 00	ceramic tile					
	ceramic tile	not required	0.00	$0.00	$0.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
10	10 – Specialties					$28,644.00
10 00 00	specialties					
	ta-soap dispenser	ea	6.00	$70.00	$420.00	
	ta-ada grab bar set	ea	2.00	$175.00	$350.00	
	ta-toilet paper dispenser	ea	2.00	$85.00	$170.00	
	ta-paper towel dispenser	ea	2.00	$80.00	$160.00	
	ta-toilet seat cover dispenser	ea	7.00	$65.00	$455.00	
	ta-coat hook	ea	7.00	$25.00	$175.00	
	ta-plate glass mirror	ea	25.00	$275.00	$6,875.00	
	ta-wall mounted hand dryer	ea	2.00	$1,600.00	$3,200.00	
	ta-waste receptacle	ea	2.00	$500.00	$1,000.00	
	ta-sanitary napkin dispenser	ea	4.00	$116.00	$464.00	
	ta-toilet partition	ea	7.00	$1,600.00	$11,200.00	
	ta-urinal screen	ea	2.00	$650.00	$1,300.00	
	ta-mop hanger	ea	1.00	$500.00	$500.00	
	fire extinguishers and cabinets	ea	1.00	$500.00	$500.00	
10 06 10	interior signage					
	interior signage allowance	sf allowance	2500.00	$0.75	$1,875.00	
10 11 00	display boards					
	display boards	not required	0.00	$0.00	$0.00	
10 50 00	lockers					
	lockers	not required	0.00	$0.00	$0.00	
10 56 00	manufactured shelving					
	m-metal	by owner	0.00	$0.00	$0.00	
11	11 – Equipment Division					$0.00
11 00 00	equipment					
	equipment	note	0.00	$0.00	$0.00	
11 44 00	kitchen equipment					
	kitchen equipment	not required	0.00	$0.00	$0.00	
12	12 – Furnishings					$7,200.00
12 00 00	furnishings					
	ff&e owner provided and owner installed	note	0.00	$0.00	$0.00	
12 30 00	casework					
	concession-base-wall cabinet- solid surface countertop	ft	8.00	$900.00	$7,200.00	

CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
13	13 – Special Construction					$0.00
13 00 00	special construction					
	special constructions	not required	0.00	$0.00	$0.00	
14	14 – Conveying Equipment					$0.00
14 00 00	conveying					
	conveying	not required	0.00	$0.00	$0.00	
21	21 – Fire Suppression					$22,500.00
21 00 00	fire suppression					
	fire suppression	sf allowance	2500.00	$9.00	$22,500.00	
22	22 – Plumbing					$50,000.00
22 00 00	plumbing					
	plumbing allowance	sf allowance	2500.00	$20.00	$50,000.00	
	domestic piping	see above	0.00	$0.00	$0.00	
	hw tank	see above	0.00	$0.00	$0.00	
	toilets	see above	0.00	$0.00	$0.00	
	sinks	see above	0.00	$0.00	$0.00	
	hose bibs	see above	0.00	$0.00	$0.00	
	piping insulation	see above	0.00	$0.00	$0.00	
23	23 – Heating, Ventilating, and Air Cond					$87,500.00
23 00 00	hvac					
	hvac allowance	sf allowance	2500.00	$35.00	$87,500.00	
	cabinet heaters-3ea	see above	0.00	$0.00	$0.00	
	area heaters-1ea	see above	0.00	$0.00	$0.00	
	exhaust fans-3ea	see above	0.00	$0.00	$0.00	
	ductwork	see above	0.00	$0.00	$0.00	
25	25 – Integrated Automation					$0.00
25 00 00	integrated automation					
	integrated automation	not required	0.00	$0.00	$0.00	
26	26 – Electrical					$125,000.00
26 00 00	electrical					
	electrical allowance	sf allowance	2500.00	$50.00	$125,000.00	
	power	see above	0.00	$0.00	$0.00	
	distribution	see above	0.00	$0.00	$0.00	
	lighting	see above	0.00	$0.00	$0.00	
	switches and receptacles	see above	0.00	$0.00	$0.00	
	data and telecom	see above	0.00	$0.00	$0.00	
	fire alarm	see above	0.00	$0.00	$0.00	

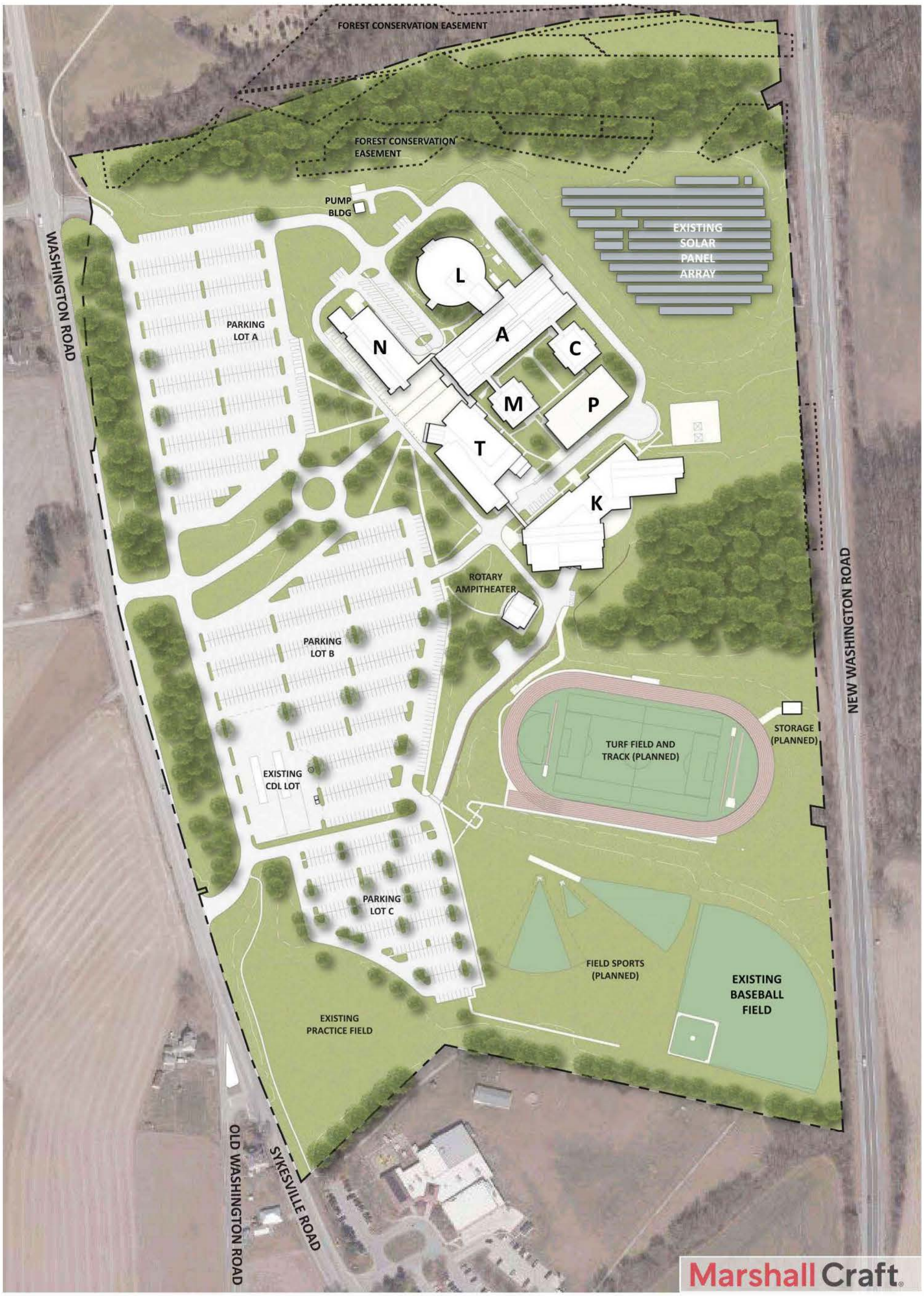
CSI Divisions	Task Description	Unit	Unit Count	$/Unit	Sub Total	Total
27	27– Communications					$0.00
27 00 00	communications					
	communications	not required	0.00	$0.00	$0.00	
28	28 – Electronic Safety and Security					$0.00
28 00 00	electronic-safety and security					
	electronic-safety and security	see above	0.00	$0.00	$0.00	
31	31 – Earthwork					$0.00
31 00 00	excavation					
	excavation	see sitework	0.00	$0.00	$0.00	
32	32 – Exterior Improvements					$0.00
32 00 00	exterior improvements					
	exterior improvements	see sitework	0.00	$0.00	$0.00	
33	33 – Utilities					$0.00
33 00 00	utilities					
	utilities	see sitework	0.00	$0.00	$0.00	
34	34 – Transportation					$0.00
34 00 00	transportation					
	transportation	not required	0.00	$0.00	$0.00	
					TOTAL	$867,378.95

01 21 16	contingency allowance					
	contingency allowance-design	ls	15.00%	$867,378.95	$130,106.84	$130,106.84

TOTAL	$997,485.79

APPENDIX

A. EXISTING AND PROPOSED CAMPUS DEVELOPMENT PLANS
B. EXISTING BUILDING FLOOR PLANS



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

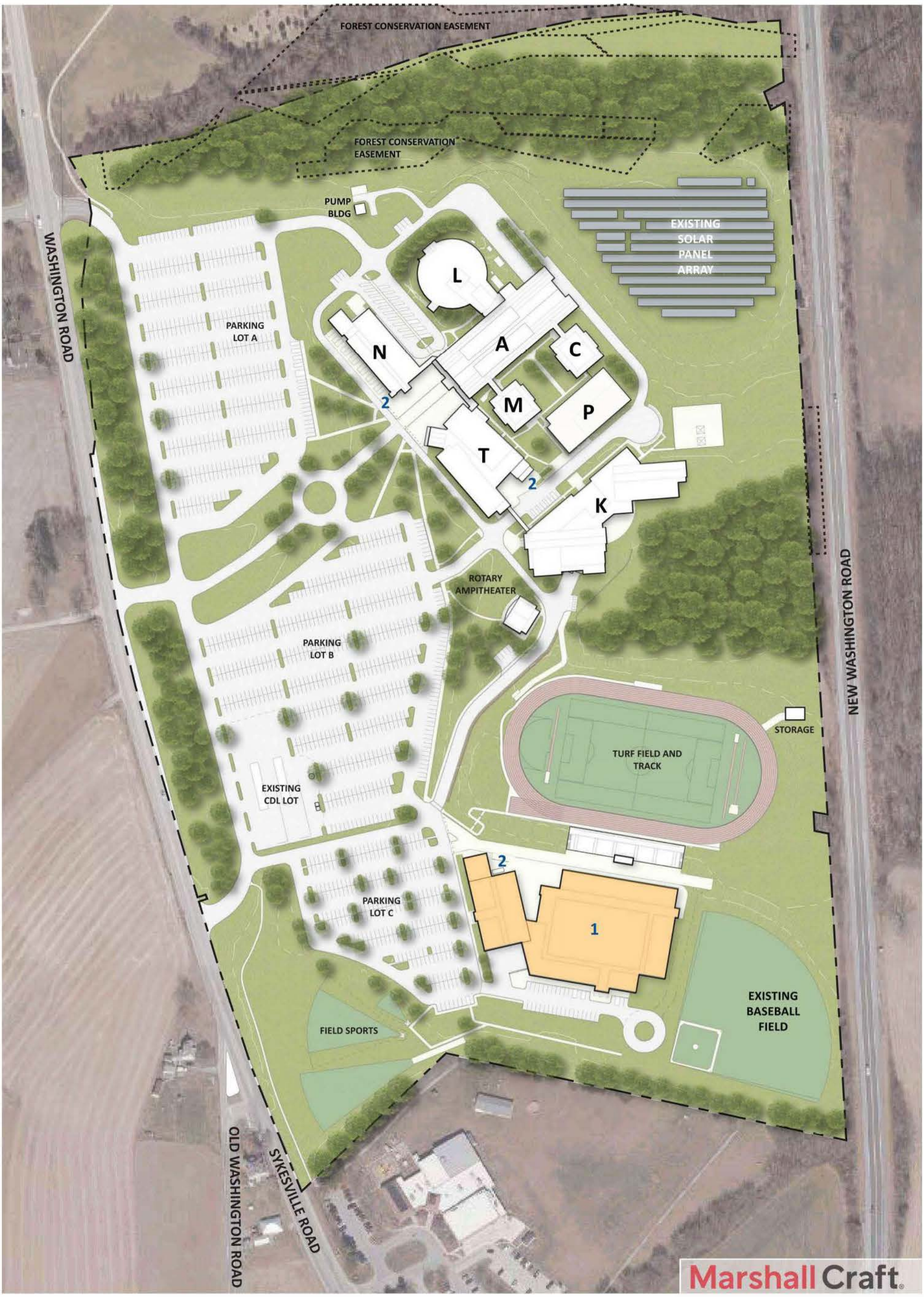
EXISTING CAMPUS

JANUARY 2026

0 25 50 100 200

LEGEND

Existing CCC Building



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

TEN YEAR CAMPUS DEVELOPMENT PLAN (2026-2036)

JANUARY 2026

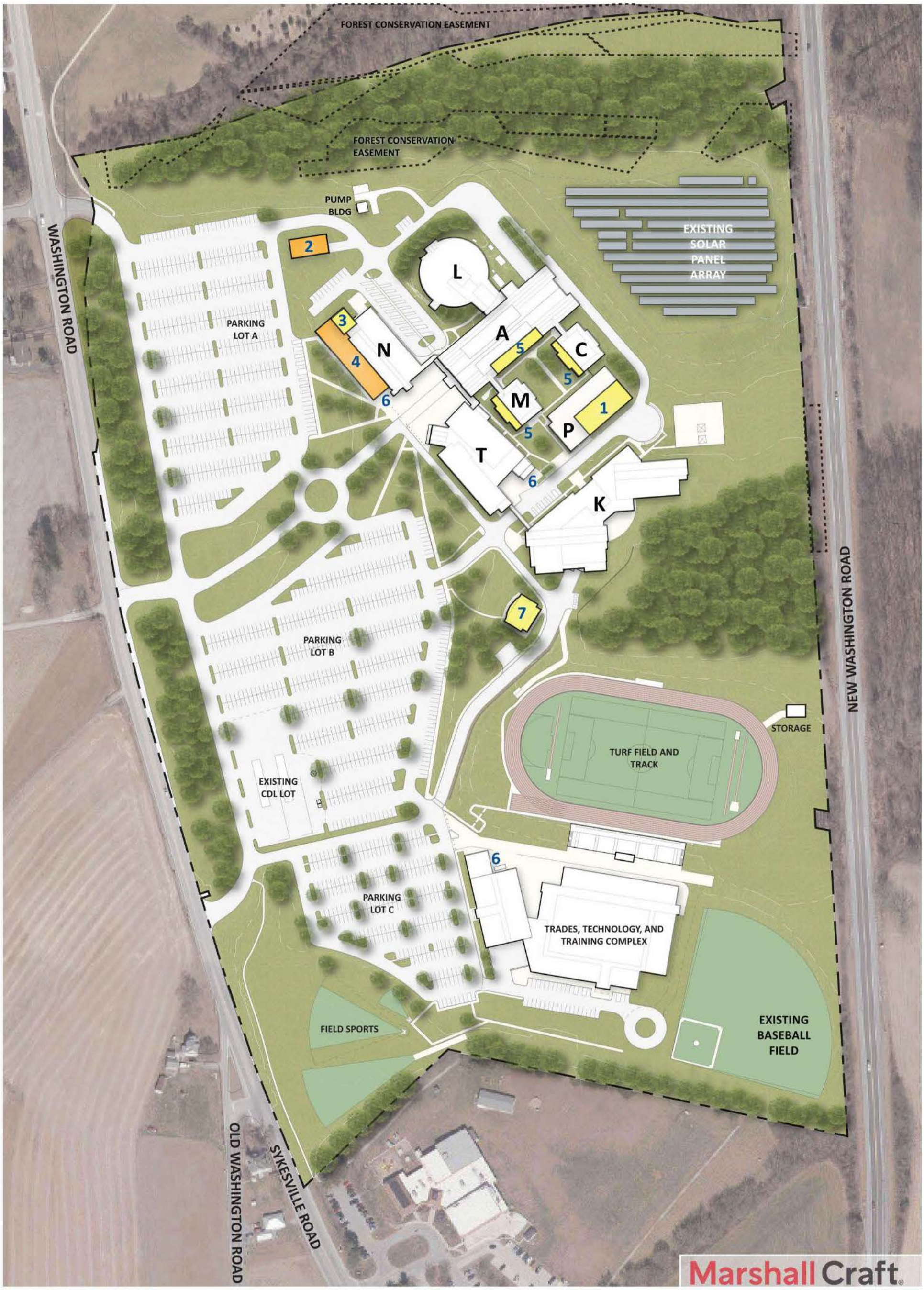
0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction

PROPOSED PROJECTS

1 Trades, Technology, and Training Complex
2 Bicycle Parking Area



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

LONG TERM CAMPUS DEVELOPMENT PLAN

JANUARY 2026

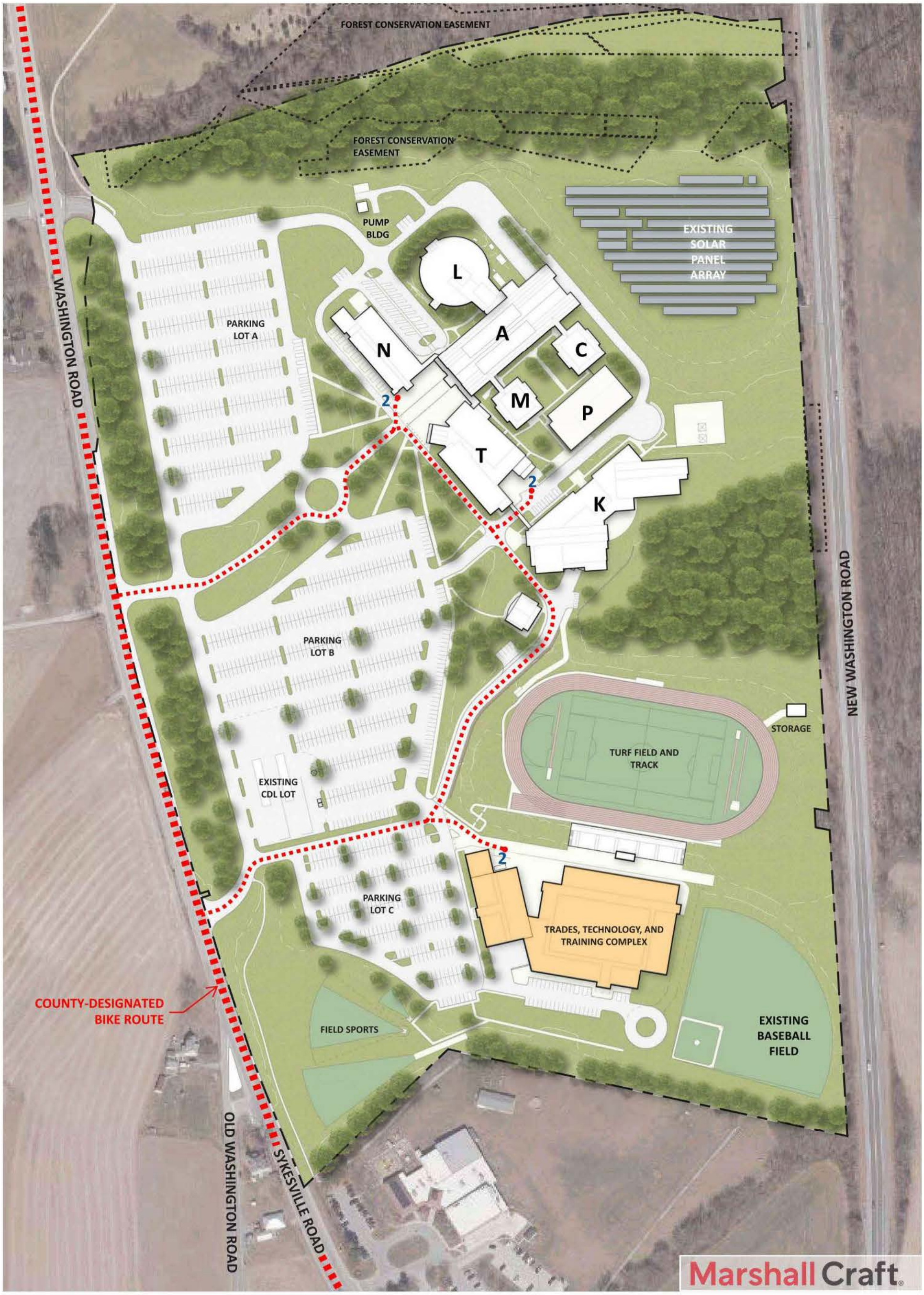
0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction
- Renovation

PROPOSED PROJECTS

1 Renovate Building P for Meeting Space
2 Facilites Storage Building
3 Nursing Renovation
4 Nursing Expansion
5 Consolidate Science Labs
6 Bicycle Parking Area
7 Renovate Existing Ampitheatre



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

LONG TERM DEVELOPMENT PLAN - BIKE PLAN

JANUARY 2026

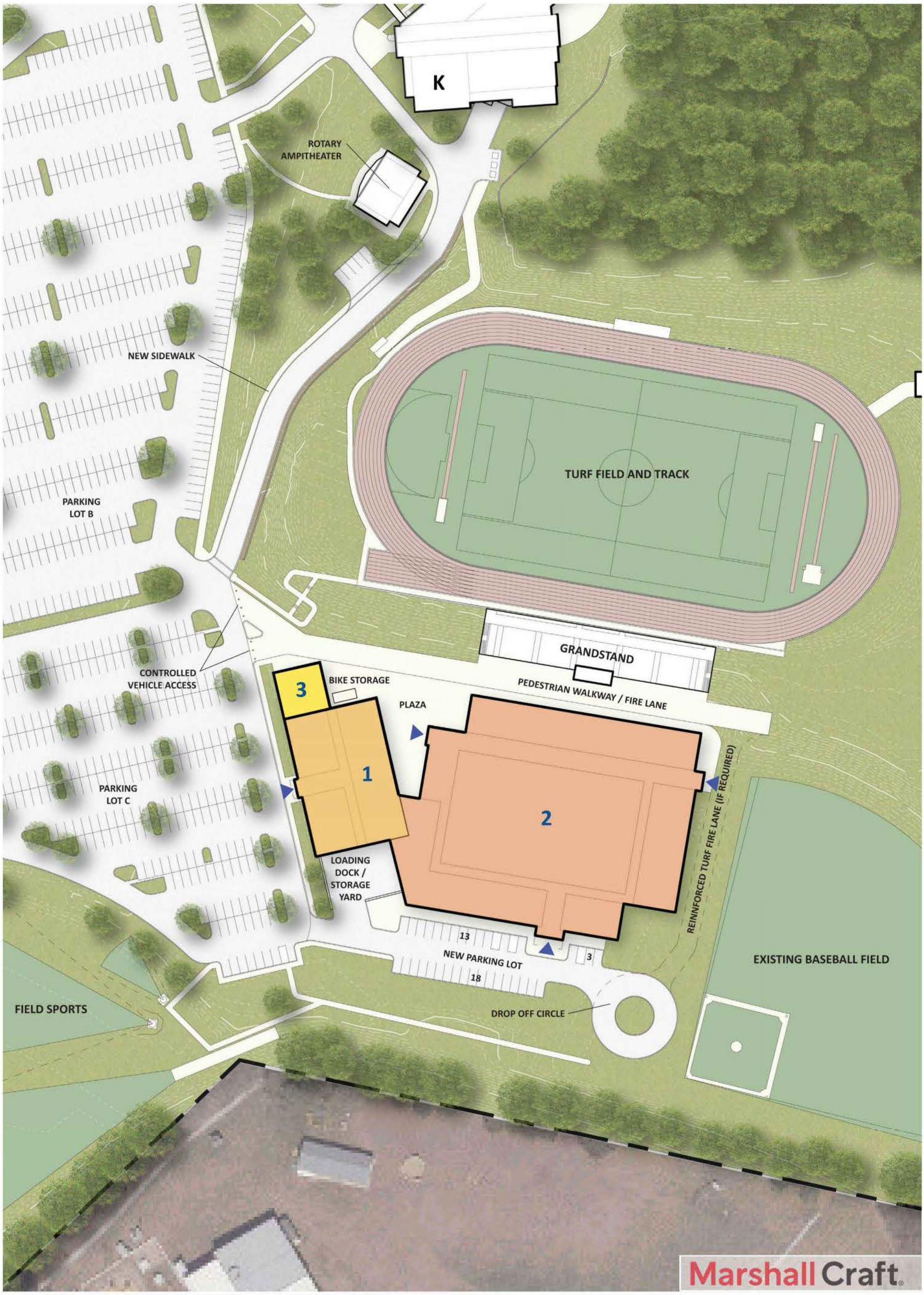
0 25 50 100 200

LEGEND

- Existing CCC Building
- New Construction
- Revised Bike Route

PROPOSED PROJECTS

1 Not Used
2 Bicycle Parking Area



CARROLL COMMUNITY COLLEGE | FACILITIES MASTER PLAN

ENLARGED TRADES, TECHNOLOGY, AND TRAINING COMPLEX PLAN

JANUARY 2026

0 10 25 50 100

LEGEND

- Existing CCC Building
- New Construction
- Building Entrance

PROPOSED PROJECTS

Trades, Technology, and Training Complex

1 Workforce Development / Applied Technology Center
2 Physical Education Center
3 Athletic Support Building

Building Layout

Carroll Community College

A — THE KAHLERT FOUNDATION CAMPUS CENTER

- Academic and Student Affairs
- Administrative Services
- Admissions, Articulation and ADA Support Services
- Advising, Career and Transfer Services Center
- Bookstore
- Business Office/Cashier
- Campus Police
- Food Locker
- Great Hall
- Financial Aid
- Human Resources
- Information Center
- IT Support
- President's Suite
- Records and Registration
- Student Engagement
- Student Center
- Testing Center
- Veterans Resource Center
- Workforce, Business & Community Education (Registration)

C — CLASSROOM BUILDING

F — LYNX FIELD

K — DRS. CHITRACHEDU & VIMALA NAGANNA CENTER FOR INNOVATION

- Café/Student Lounge
- Child Development Center
- Bollinger Conference Center
- Effectiveness, Integrity & Accountability
- Strategic Marketing and Brand Management
- Workforce, Business & Community Education

L — PENGUIN RANDOM HOUSE LEARNING RESOURCES CENTER

- Academic Center
- Board Room
- Library
- Relaxation Station
- Spirituality Space

M — THE VIRGINIA S. MINNICK CLASSROOM BUILDING

- Institutional Advancement and College Foundation

N — THE PAPPALARDO NURSING AND HEALTH CARE EDUCATION CENTER

P — THE FIRST FINANCIAL FEDERAL CREDIT UNION LIFE FITNESS CENTER

- Black Box Studio
- Fitness Center
- Gym

R — ROTARY AMPHITHEATER

T — THE SCOTT CENTER FOR THE FINE AND PERFORMING ARTS

- Art Gallery
- Rehearsal Hall
- Theater
- Workforce, Business & Community Education

IN CASE OF EMERGENCY CALL CAMPUS POLICE

On-campus phone: x8123
Off-campus/cell phone: 410-386-8123

- Accessible Parking
- Evacuation Locations
- Electric Car Charging
- Faculty/Staff Parking
- 30-Minute Visitor Parking

CARROLL COMMUNITY COLLEGE

1601 Washington Road
Westminster, MD 21157

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081-02-24-0824

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