

# Johnson County Community College Facilities Master Plan

June 2025



#### Dear Friends:

In 2016, the Board of Trustees adopted a comprehensive Facilities Master Plan in connection with our 50th Anniversary to help ensure facilities align with students' needs and best support their success. It was created with a 10-year framework in mind and provided a shared vision and blueprint for making decisions about building and renovation projects that transformed the campus, including construction of the new Fine Arts & Design Studios and the Hugh L. Libby Career and Technical Education Center, renovations of the Welding, Construction and Machining Technology building and the Student Center, new athletic facilities, and consolidation of academic resource centers on the first floor of the Billington Library. These facilities investments helped JCCC realize our mission to "inspire learning to transform lives and strengthen communities."

During the 2024-2025 academic year, with broad participation and input from campus constituents, we have created a new Facilities Master Plan with updated concepts and guiding principles for development of buildings and infrastructure to serve our students and community for the next ten years.

The College engaged with BNIM, an accomplished and highly recognized firm with experience working with JCCC, as partner in this comprehensive planning effort. Professional services from Henderson Engineers and Buro Happold Engineers, Designers and Advisors, added specific expertise to the Plan.

The 2025 Facilities Master Plan aligns with and supports the goals and priorities outlined in the 2025-2027 Strategic Bridge Plan, the Academic Master Plan, the Strategic Enrollment Plan, and the Workforce Development and Continuing Education Strategic Plan. The 2025 Facilities Master Plan will guide wise future capital investments that are sustainable, innovative, and adaptable, to serve students and the community for the next ten years in a manner consistent with JCCC's mission, vision, and values.

Thank you to our Board of Trustees and to our entire campus community for your support in creating a shared vision from which to move forward.

Sincerely,

Judy Korb

Judy Korb

Interim President; Johnson County Community College

JCCC's **mission** is to inspire learning to transform lives and strengthen communities.

JCCC's **vision** is to be an innovative leader in equitable student access, learning and success.

# **JCCC's Values**

**STUDENT-CENTERED** — We promote an environment that shows the deepest care and support for the learning and growth of our students.

**TEACHING and LEARNING** — We believe life-long learning is central to enriching the lives of our students, faculty, staff, and community for success in a global society.

**COMMUNITY ENGAGEMENT** — We value our role as the community's college and commit ourselves to partnerships that respond to the changing needs of those we serve.

**INNOVATION** — We foster an environment of excellence by intentionally seeking new and creative ways to meet the needs of our students, colleagues, and community.

**BELONGING** — We value a collaborative environment where ALL are respected and connected to our mission.

**INTEGRITY** — We hold ourselves accountable for our decisions and actions.

# **Guiding Principles + Strategic Alignment**

The College's mission, vision and values were used throughout this effort to guide the 2025 Facility Master Plan update. Every decision and recommendation described in the following document was created with these in mind to evaluate the success of the plan. The plan update builds upon the foundation established in the 2016 Facilities Master Plan by assessing progress made over the past several years and aligning future development with the College's strategic goals and priorities. It reevaluates priorities considering completed projects, shifting enrollment patterns, and emerging strategic goals, ensuring that campus facilities continue to support student success and institutional resilience.

#### **Guiding Principles**

The Steering committee determined that the guiding principles established in the 2016 Facilities Master Plan remain relevant and continue to reflect the core values and long-term vision of the College. Through a thorough review process, it was determined that these principles still provide a strong foundation for decision-making. Their continued use ensures consistency, alignment with institutional goals, and a clear framework for future planning.

**QUALITY** — Provide 21st century spaces to teach, learn, study, work, and collaborate.

**UTILIZATION** — Improve the utilization of campus space throughout the day.

**TYPE** — Align facilities with college and program goals.

**LOCATION** — Develop appropriate programmatic adjacencies.

**EXPERIENCE** — Make the campus more welcoming, navigable and attractive.

**COMMUNITY** — Encourage community engagement.

**SUSTAINABILITY** — Achieve a more sustainable campus.

**FEASIBILITY** — Optimize cost and implementation feasibility.

**ADAPTABILITY** — Maximize flexibility for future growth.

#### **Strategic Alignment**

The process for the update to the Facilities Master Plan has been closely aligned with the College's operational goals as stated in the Strategic Academic Master Plan, the Strategic Enrollment Plan, and the Workforce Development and Continuing Education Master Plan. These priorities serve as the foundation for the facilities planning effort, ensuring that future facilities directly support academic excellence, enrollment trends, and the evolving needs of the regional workforce. By integrating these frameworks, the College is not only planning for buildings. but is investing in spaces that enable student success, support innovative teaching and learning, and strengthen the College's role as a partner in the community. This alignment ensures that capital planning remains focused, efficient, and fully supportive of the institution's long-term mission.

The 2025 Facilities Master Plan also aligns with and supports the College's 2025-2027 Strategic "Bridge" Plan, which was developed to provide a seamless transition for the incoming President and to guide the College through 2027. The Bridge Plan includes three institutional goals: Student Success, Employee Engagement, and Community Connections.

### **Building on Momentum From the 2016 Master Plan**

#### Implementable Initiatives

A key strength of the 2016 Master Plan was its emphasis on a clear, phased set of implementable initiatives that translated vision into action. The plan identified specific, achievable projects that allowed the College to make steady progress over time. These initiatives provided a practical roadmap for decision making and capital investment. Several of the following initiatives, defined by the 2016 Master Plan, demonstrated the success of this strategy by breaking down long-term goals into manageable components:

**Establish Centers of Excellence for Career and Technical Education and Arts** 

**Prioritize Active Learning Classrooms** 

**Realign Academic Resource Centers** 

**Enhance Campus Front Door and Wayfinding** 

**Activate Collaboration Spaces** 

**Optimize Offices** 

**Create Maker Spaces** 

**Incorporate Sustainability** 

**Strengthen Athletic Facilities** 







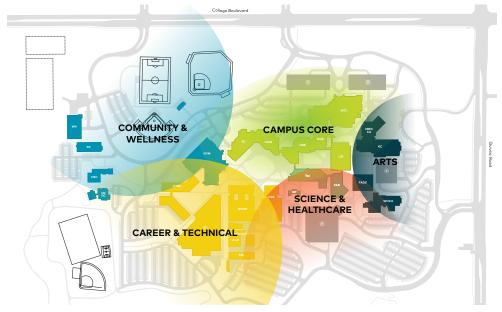








2016 Master Plan Neighborhood Diagram



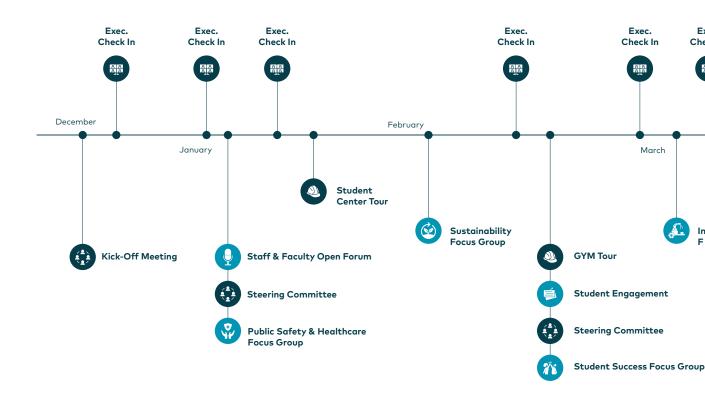
2025 Master Plan Proposed Neighborhood Diagram to include Science and Healthcare

The 2016 Facilities Master Plan represented a milestone in Johnson County Community College's long-term planning efforts, delivering a visionary framework with clear initiatives and strategies that informed the next decade of growth for the campus. The plan introduced a concept anchored by the creation of distinct "neighborhoods" — including a revitalized Campus Core, a Career and Technical Education district, an expanded Arts area, and investments in the Community and Wellness zones. This approach aimed to enhance campus legibility and promote interdisciplinary collaboration. The 2025 Master Plan proposes the addition of a Healthcare and Sciences neighborhood near the existing Science and Classroom Laboratory buildings on the main campus.

#### **Process + Schedule Overview**

#### **DISCOVERY**

# ANALYSIS GOAL SETTING & DEVELOPMENT



The process of developing the 2025 Facilities Master Plan involved broad participation, with approximately 300 faculty, staff, and students from across the College contributing to various committees and focus groups.



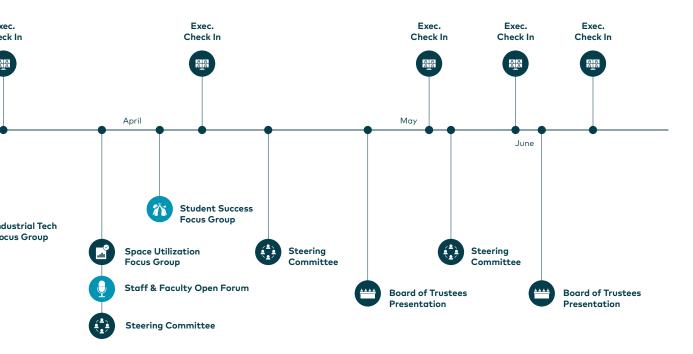
Two open forums were held on campus to invite all faculty and staff to hear about the process and voice opinions, concerns, and feedback to be considered by the design team and executive team.



The design team, referencing the strategic academic and enrollment plans, determined key departments to engage with to better understand current and future needs. Questionnaires, activities, and building tours informed the recommendations in this document.

#### **ALIGNMENT**

### **IMPLEMENTATION**





Multiple activities provided students with the opportunity to engage with the team to share thoughts, ideas, and opinions. Students shared their favorite and least favorite places on campus through mapping activities and identified opportunities to improve.



A retreat was held with the College Board of Trustees, the design team and the executive team, providing the opportunity for the Board to learn more about the process and to provide input and direction.

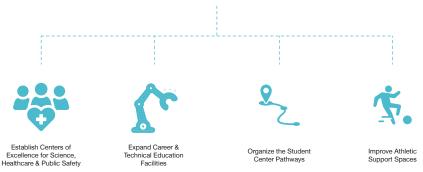
#### The Vision

#### Two Scales of Provocations

Ten strategic initiatives have been developed to provide a clear and actionable framework to organize implementation following the adoption of the Facilities Master Plan. Feedback from engagements with students, faculty, and staff, analysis of current campus utilization data, and objectives set by the strategic enrollment, academic, and Workforce Development and Continuing Education (WDCE) plans have guided the focus of these initiatives to ensure that they support and reflect the college's vision for the future in supporting student success.

These initiatives are broken into two categories: building-specific and campus-wide. The building-specific initiatives target individual facilities and propose renovations, expansions, or new construction to meet programmatic demands responding to feedback received from engagement sessions, utilization data analysis, and objectives set by the College's strategic plans. All suggested expansions or additions consider current and future growth based on regional employment and enrollment data trends. The campus-wide initiatives address broader goals tied to the College's campus experience and performance, such as sustainability, wayfinding, and space management. These are dependent on more coordinated efforts across campus that will have impact at various scales among all campus users. A balance between building-specific and campus-wide implementable initiatives enables JCCC to prioritize investments and create meaningful change that aligns with the College's strategic and operational goals.

### **Building Specific Initiatives**



### **Campuswide Initiatives**



# **Building Specific Initiatives**

Establish Centers of Excellence for Science, Healthcare & Public Safety



**Expand Career & Technical Education Facilities** 



Organize the Student Center Pathways



Improve Athletic Support Spaces



Public Safety and Healthcare fields have substantial and growing workforce demand nationwide. The College has seen strong enrollment interest in these programs, but current limitations in physical space are barriers to expansion. The Public Safety programs lack dedicated spaces and storage, and are dispersed across multiple campus locations, making it difficult to deliver effective training, particularly in indoor and outdoor environments that require specialized facilities. Healthcare programs do not currently have space to grow and are split between main campus (the Science building and Classroom Laboratory Building) and the Olathe Health Education Center (OHEC). The 2025 Facilities Master Plan proposes a renovation and expansion of the existing Regional Police Academy building, which would provide consolidated locations for classrooms, labs, and a high bay space for the EMS, Police, and Fire Science programs. A proposed new Healthcare center would relocate all programming currently held at OHEC to the main campus in a new building strategically placed near SCI and CLB to avoid duplicating investments and create a contiguous, integrated new Science and Healthcare Neighborhood, with proximity to the public safety programs.

Despite the Hugh L. Libby Career and Technical Education Center (CTEC) facility being recently completed as part of the 2016 Facilities Master Plan, many of the programs within the College's Industrial Technology division have already outgrown the space due to high student interest and workforce demand. To address this, proposed renovations within the existing CTEC building to create functional "neighborhoods" will create opportunities for the HVAC (heating, ventilation, and air conditioning) and Automation departments to grow with reorganized classroom and lab spaces. Additionally, a new addition to house dedicated commercial and residential electrical labs and classroom spaces as well as a high-bay space designed for immersive, hands-on training would allow the College to meet the increasing enrollment and workforce demands.

The Student Center serves as a critical hub for current, new, and prospective students, offering essential resources and services that support their success and experience at JCCC. While the first floor recently underwent renovations as a part of the 2016 Master Plan and needs relatively little improvement, the 2025 Master Plan focuses on improving the second and third floors. Specifically, a reorganization of the student success areas to better distinguish student-facing services from internal processing functions is proposed to enhance accessibility, clarity, and efficiency for students seeking support.

The implementation of the 2016 Facilities Master Plan included development of a new softball field, a new soccer field, and a small building for concession sales and restrooms. However, JCCC student-athletes and visiting teams still face challenges due to the distance between outdoor fields and essential athletic support spaces such as locker rooms, treatment areas, and training facilities that are located in the GYM. The 2025 Master Plan proposes a new facility near the newly renovated outdoor fields providing athletes direct access to necessary support spaces. This would in turn allow the existing spaces in the GYM to be renovated to more effectively serve the indoor sports athletes, staff, and coaches.

# **Campuswide Initiatives**

# Support Active Learning



The 2016 Master Plan identified support for active learning classrooms across the campus as a priority. Active learning is the process wherein students actively and experientially work with course material in real time while an instructor simultaneously supports and teaches. The space, furniture, technology and other items that compose the active learning environment are designed to support this learning style. The 2016 Plan called for approximately 50% of instructional spaces to be converted to active learning spaces within the 10-year timeframe, and this initiative has largely been achieved. Active learning space for the 2025 Master Plan is focused on continuing the efforts to update classroom equipment and furnishings, as well as identifying and prioritizing outdoor learning environments. Three outdoor spaces in addition to the on-ground observatory are recommended.

# Strengthen Wayfinding for Pedestrians and Drivers



JCCC lacks wayfinding clarity at several scales, from initial campus entry to interior connections between buildings. This initiative proposes strategies for enhancing understanding of JCCC's front door by elevating the "Cavalier Way" loop road off College Boulevard. This strategy, along with the proposed new parking garage, will support the Student Center, further enhancing the west side of campus as the "front door" of the College. Clearly orienting walking paths on axis with prominent campus entry points will improve safety and mitigate confusion from perimeter parking areas. Creating a consistent and hierarchical universal design strategy for interior and exterior sign types and placement will further strengthen wayfinding once on campus.

# **Ensure Effective Space Management Practices**



JCCC has implemented a comprehensive software system for managing their space portfolio and room scheduling. The scheduling data tracks the credit, non-credit, and event use of more than 500 rooms including classrooms, labs, auditoria, and meeting rooms. While the breadth of the system is a great asset for JCCC, there remain some inaccuracies or gaps in the data due to inconsistency of schedule inputs. This initiative proposes strategies for improving the quality of the dataset and consistency of scheduling behaviors. A more robust and rigorous scheduling approach will ensure that utilization data is aligned with true usage and space management.

#### **Integrate Sustainability**



JCCC has established itself as a leader in campus sustainability, with accomplishments including LEED-certified buildings, a 64% waste diversion rate, and operational carbon reductions of more than 80%. This initiative builds on that legacy by embedding sustainability as a foundational lens for all future planning and design. Strategies include expanding renewable energy generation, transitioning to all-electric systems, and integrating sustainability into academic divisions. New design guidelines will require energy, water, and materials benchmarks. These measures will help ensure JCCC's sustainability commitments are visible, measurable, and tied directly to student success and operational excellence.

# Build Upon Universal Design Strategies



The vast majority of buildings, infrastructure and grounds on JCCC's campus were built prior to the 1990 adoption of the Americans with Disabilities Act. Working towards a more accessible campus and employing best practices in Universal Design Strategies will be achieved over time. Universal Design builds upon the ADA, and its intent is for "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design". The adoption and prioritization of these strategies must be intentional as JCCC embarks on any new or renovation project, including initiatives identified within this Master Plan.

# Address Aging Campus Infrastructure



Many of JCCC's existing facilities and systems are approaching the end of their useful life and present both challenges and opportunities for reinvestment. This initiative proposes a strategic approach to infrastructure renewal, aligning replacement and renovation projects with sustainability and resilience goals. Older HVAC systems, irrigation networks, and envelope assemblies will be upgraded for performance, while targeted investments will improve stormwater management, biodiversity, and indoor environmental quality. Life-cycle cost analysis can be used to guide decision-making to ensure improvements are both cost-effective and future-ready. In doing so, JCCC will transform necessary upgrades into high-impact opportunities that extend asset life, reduce operational costs, and model next-generation campus infrastructure.

# **Timeline for Delivery & Cost Estimating**

#### **Project Cost**

The opinion of probable cost is expressed as Construction Cost or Hard Costs. Project Cost represents the total investment to complete the project, including construction, professional fees, permits, furnishings, and other soft costs. Construction Cost includes only the physical building expenses—labor, materials, and contractor fees. The design team typically applies a multiplier of 1.4 to 1.6 to estimate total Project Cost, though this may vary based on the soft costs specific to each project type. Opinion of probable total project costs exceed \$200m, ranging from \$210m to \$240m.

#### **Budgeting**

These cost projections are a rough conceptual opinion of probable costs for preliminary budgeting purposes. This opinion of probable cost was determined using cost per square foot unit prices and lump sums, based on recently bid BNIM and Kansas City market pricing and historical data for unique project types and programs. Budgeting costs will be refined by JCCC in subsequent phases and confirmed with construction partner estimates as details are refined and defined.

#### **Escalation**

The opinion of probable costs is provided in today's dollars based and should be escalated out upon known timeline. Further Concept Design and programming verification must be completed to provide more accurate cost ranges including escalation to mid-point of construction. An estimated escalation of 1% per month should be expected at this time. As the construction market is variable, appropriate escalation should be verified and updated as necessary once dates of construction are determined.

#### **Prioritization and Phasing**

The College's initial prioritization for implementation of the 2025 Facilities Master Plan Update focuses on aligning physical improvements with institutional goals, workforce needs, and enrollment strategies. Priority is given to projects that support areas of academic growth and high workforce demand, particularly within the healthcare programs, including the new Surgical Technology program and the planned expansion of Registered Nursing (RN) and Practical Nursing (PN), as well as within the Industrial Technology division's skilled trades programs. These initiatives directly advance the objectives outlined in the Academic Master Plan. Additionally, the College is proactively addressing campus parking needs, recognizing the anticipated increase in main campus activity as programs potentially relocate from the Olathe Health Education Center (OHEC) and as new facilities, such as the proposed healthcare building and expansions to CTEC and Public Safety, impact existing surface parking. Improvements to the Student Center have been prioritized to support the Strategic Enrollment Plan by increasing access to essential student resources and support spaces.

# Building Specific Initiatives Campuswide Initiatives

Implementable Initiatives		Opinion of Probable Cost	Planning Start
1A	Establish Centers of Excellence for Science & Healthcare	\$30 Million to \$45 Million	2025
1A	Support Active Learning	\$2.05 Million	2025
	Subtotal	\$47.05 Million	
1B	West Campus Parking Garage	\$8.75 Million	2026
1B	Improve Athletic Support Spaces	\$7.2 Million	2026
1B	Expand Career and Technical Education Facilities	\$19.9 Million	2026
1B	Organize the Student Center Pathways	\$14.6 Million	2026
	Subtotal	\$50.45 Million	
1C	Establish Centers of Excellence for Public Safety	\$26.5 Million	2027
1C	Address Aging Campus Infrastructure	\$15.65 Million	2027
	Subtotal	\$42.15 Million	
1D	Strengthen Wayfinding for Drivers and Pedestrians	\$5.5 Million	2028
1D	Address Aging Campus Infrastructure	NA	2028
1D	Support Active Learning	\$3.78 Million	2028
1D	Ensure Effective Space Management	NA	2028
1D	Integrate Sustainability	NA	2028
1D	Build Upon Universal Design Strategies	NA	2028
	Subtotal	\$9.28 Million	

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An effective Facilities Master Plan is rooted in a strong understanding of geographic, infrastructural, ecological, and academic context. This chapter presents the analysis that informs the physical planning initiatives and space strategies outlined throughout the remainder of the 2025 Facilities Master Plan Update document. While many of these topics were explored in the 2016 Facilities Master Plan, this update re-examines them through a contemporary lens, responding to evolving community needs, institutional priorities, and environmental considerations. The goal is not to duplicate prior work, but to build upon it, offering a supplemental perspective on the current conditions that shape the future of Johnson County Community College.

The discovery and analysis work presented in this chapter provided the planning team, along with feedback from students, staff, and faculty, the basis for all future recommendations. Whether determining where to locate a new Center of Excellence, how to enhance wayfinding through campus, or which academic programs should move to a new location, this ensures that proposals are grounded in data, stakeholder experience, and the long-term strategic goals of the College. By understanding the evolution of the campus over time and as it exists today, JCCC can plan confidently and effectively for the decade to come.

This chapter is organized around three key areas of inquiry:

- **1. Regional Context** examining how JCCC's three sites relate to the broader Johnson County community;
- **2.** Campus Physical Framework analyzing circulation, infrastructure, ecology, and spatial character across the main campus;
- **3. Space Utilization Analysis** assessing how academic and support functions currently occupy space and where potential exists for growth and consolidation.

# **Regional Context**

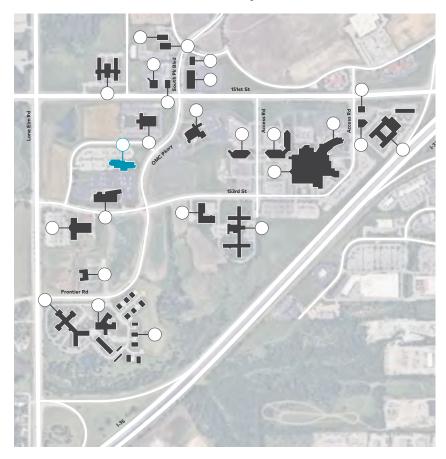
Johnson County Community College operates across three primary locations: the Main Campus in Overland Park, the Olathe Health Education Center (OHEC), and the West Park Campus, which is leased by the College. Each site contributes to the College's regional presence, but evaluating their effectiveness requires understanding how transportation, access, and workforce demands intersect with academic programming. The 2025 Facilities Master Plan Update considers the potential relocation of OHEC's health education programs to the Main Campus in alignment with the Strategic Academic Master Plan, with the goal of improving academic integration, collaboration, and student access to resources and support. The West Park Campus remains an essential resource for serving continuing education and workforce development students, providing flexible access to learning opportunities that support the region's economic growth and educational equity.

#### **OHEC to JCCC Main Campus Relationship**



The Olathe Health Education Center is located approximately a 15 minute (8 miles) drive from the JCCC main campus. This proximity provides a reasonable but not negligible separation that influences how students, faculty, and support services interact across sites. While OHEC benefits from adjacency to Olathe Medical Center (now part of the University of Kansas Health System) and was originally envisioned as a specialized healthcare training site. the distance from the Main Campus creates logistical and experiential barriers for students, particularly in accessing centralized support services such as counseling, academic resource centers, dining options, and campus activities and engagement. The physical disconnection also limits opportunities for interdisciplinary collaboration, especially between practical and registered nursing programs and between healthcare and public safety departments.

#### **Current Olathe Medical Park Adjacencies**



#### **Johnson County Community College**

#### 1 OHEC

#### **Olathe Medical Park**

- 2 OB/NICU Wing
- 3 Olathe Medical Center
- 4 The Doctors Building I
- 5 The Doctors Building II
- 6 Cancer Center
- 7 Hoeger House
- 8 Good Samaritan Society
- 9 KVC Health Systems
- 10 Olathe YMCA
- 11 Hospice House
- 12 Cedar Lake Village (CLV)
- 13 Memory Care Unit (CLV)
- 14 Villas (CLV)

#### **Olathe Medical Park North**

- 15 Johnson County Orthopedics
- 16 Pediatric Associates
- 17 Grin Eye Care
- 18 Vein Care Center
- 19 The Healthcare Resort Olathe
- 20 Pediatrics
- 21 Kansas City Allergy & Asthma

The existing OHEC facility sits in direct proximity to Olathe Medical Park and its network of healthcare providers, including the Olathe Medical Center, cancer treatment facilities, pediatric specialists, memory care units, and wellness organizations. The strategic placement of OHEC within the dense concentration of professional medical services was envisioned as a way to immerse students in a real-world healthcare environment, offering convenient access to clinical experiences, internship opportunities, and potential employment pathways. The map supports the notion that there is an immediate proximity that could offer educational benefits for healthcare students, including the potential for cross-institutional collaboration, guest instruction from professionals, and embedded learning models. However, while the intent of this co-location remains valid in principle, the strategic academic master plan and feedback from students and faculty raises questions about how well the envisioned synergy has been realized. Academic and enrollment goals as well as stakeholder feedback must be weighed alongside this geographic location to determine if continued investment into the off-site building is justified or whether integration into the Main Campus could provide greater benefits.

# **Regional Context**

#### WPK to JCCC Main Campus Relationship



The West Park Center (WPK) is situated approximately four miles north of the Main Campus. Unlike the Main Campus and the Olathe Health Education Center, WPK is located in a leased, commercial development, offering street-level access but lacking the permanence and longterm investment associated with other College-owned facilities. The West Park Center serves as a vital access point for community-focused education, housing the College's Adult Basic Education, GED preparation, and English as a Second Language (ESL) programs. These offerings are critical in supporting workforce readiness, language acquisition, and academic advancement for residents throughout Johnson County and the broader Kansas City region. While the location provides convenience and visibility within the surrounding community, there are limitations to long-term capital investments due to the space being leased.

#### **WPK JCAE Enrollment Heat Map**

This map illustrates the residential distribution of students currently enrolled in Adult Education courses at the West Park Center. Each green dot represents the home location of an individual student, showing a clear concentration of residents in northern and northeastern Johnson County, as well as neighboring areas of Kansas City, Kansas and Missouri. The placement of WPK within the most concentrated cluster reflects an intentionality to meet learners where they are, providing convenient, accessible pathways to courses. For many students served by WPK, particularly those balancing work, family responsibilities, or transportation limitations, proximity is essential to educational access and success. The map highlights that WPK is strategically positioned within the community to reduce barriers to participation for adult learners and those seeking to improve their workforce readiness.



This analysis focuses on a variety of spatial and infrastructural elements—pedestrian, cyclist, and vehicular circulation routes; public transit accessibility; utility infrastructure capacity; ecological systems; parking behavior; and topography. Together, these systems define both the limitations and the potential of the campus as it evolves.

#### **Student Services Heat Map**

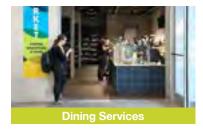
This diagram maps the distribution of key student resources across the Main Campus, illustrating how JCCC has concentrated essential services within the core campus, reflecting one of the initiatives of the 2016 Facilities Master Plan. This emphasized creating an intuitive neighborhood of resources where students can easily access the support that they need. Feedback from students has confirmed that this effort has succeeded in improving awareness and accessibility, particularly because many popular resource and communal spaces are located on the first floor of the core campus buildings, such as the Academic Resource Centers in the Billington Library. However, while the benefits of this centralization are evident, student feedback also highlights an opportunity to supplement this existing strategy with additional distributed resources. Specifically, students expressed a desire for convenient study spaces and dining options to provide accessible options between classes without having to walk or drive back to core campus.

Clear wayfinding and signage are important, particularly for multi-level buildings like the Student Center, where some resources are located on the second and third floors. Feedback from students and staff suggested that these resources on upper levels were more difficult to find, especially for new or prospective students. As building and campus improvements are implemented, special attention to intuitive navigation will be critical to ensure all students can confidently access the full range of academic and support resources available to them.

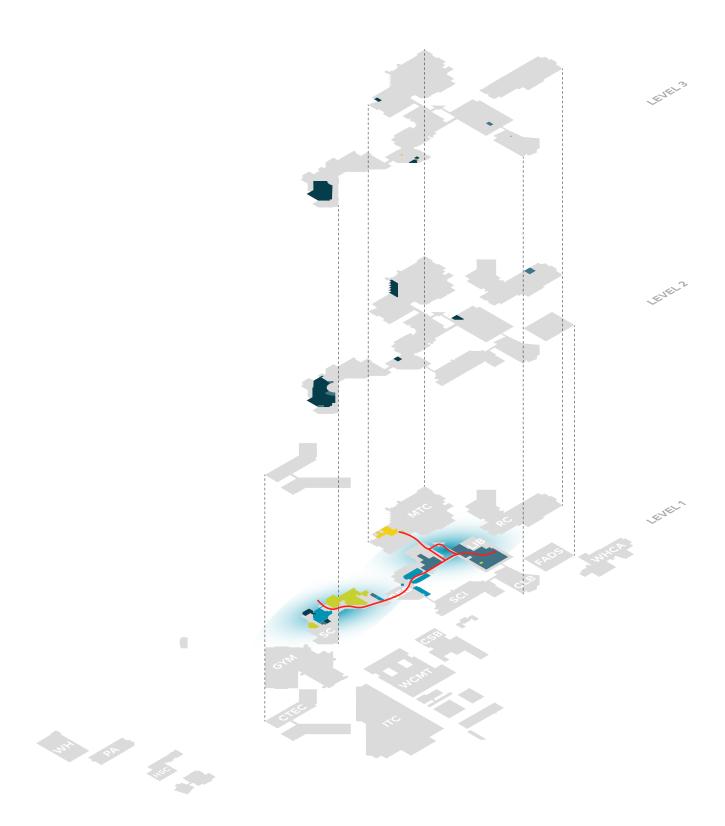














#### **Views and Prominence - External Connections**

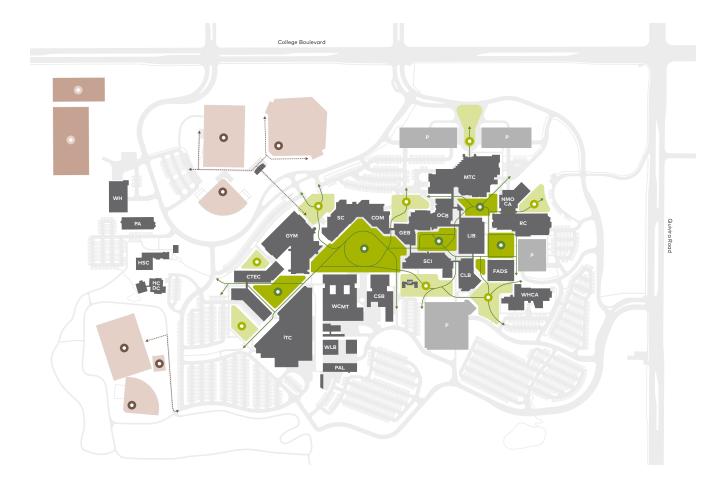
This diagram illustrates the current views, points of prominence, and visual connections across the Main Campus, highlighting how both external and internal perspectives shape navigation, campus identity, and overall user experience. From the external edges on College Boulevard and Quivira Road, certain buildings and landscape conditions are more visually prominent than others, helping visitors and first-time students orient themselves as they approach campus. Other portions of campus, such as the Student Center and the Wylie Hospitality and Culinary Academy, present opportunities to enhance clarity in the arrival experience and campus identity through organization strategies and gateway improvements.

Within the campus interior, visibility from the ring road plays an equally important role in wayfinding and orientation. Buildings that are easily identifiable from the ring road help students, employees, and visitors confidently navigate to where they need to go. Areas with limited visibility or inconsistent signage can lead to confusion, particularly for those unfamiliar with campus.



#### **Campus Perimeter - External Building Edges**

This diagram focuses on the role that external building edges play in shaping the arrival experience and defining gateways into the heart of campus. Many of the campus's primary buildings are positioned to create defined edges along the perimeter, forming outdoor spaces or "pockets" that naturally guide people toward the core. These edge conditions frame pedestrian pathways, gathering spaces, and entry points that contribute to a sense of arrival and orientation. These spaces not only help with wayfinding but also establish moments where landscape, architecture, and open space converge to enhance the first impression of campus. As the College considers future campus development, this analysis suggests opportunities to intentionally reinforce this language of edges and gateways to improve campus identity and to create welcoming entry points.



#### **Linked Campus Experience - Exterior**

At the heart of this network are the campus' core open spaces in the form of courtyards that serve as vital student life hubs, regularly activated through informal use, academic programming, and College events. These spaces play an essential role in supporting student engagement, social interaction, and enhancing campus vibrancy. Surrounding these central spaces, key gateways along the campus perimeter establish welcoming, identifiable entry points that orient visitors and signify transitions into the campus environment.

The diagram also highlights athletic fields and facilities used by student-athletes and community members. These venues not only support athletic programs but also function as points of connection to the community, hosting public events, games, and tournaments that draw thousands of visitors to JCCC's campus annually. Finally, the Open Petal Farm in the northwest corner of campus contributes to both academic programming and sustainability initiatives, representing an important intersection of open space, education, and environmental stewardship.

Future improvements should prioritize strengthening these connections, enhancing wayfinding, and ensuring that exterior space continues to serve as a catalyst for student activity, community engagement, and educational excellence.



#### **Linked Campus Experience - Interior**

This diagram illustrates the interior circulation network that contributes to a linked campus experience, focusing on ground-floor pathways within and between campus buildings. One of the most distinctive characteristics of JCCC's campus is the series of interconnected buildings near the core—including the Student Center (SC), Commons (COM), General Education Building (GEB), Office and Classroom Building (OCB), Billington Library (LIB), Classroom Laboratory Building (CLB), Science Building (SCI), and Midwest Trust Center (MTC). These connections provide continuous interior access, offering students the ability to move between classes, study areas, and support services without stepping outside. This feature is especially valued during periods of inclement weather, enhancing both convenience and comfort for the campus community.

While replicating this extensive level of interior connectivity may not be feasible for all future development, this analysis emphasizes the importance of strategically planning building entrances, exits, and circulation routes in alignment with broader campus pathways.



#### **Pedestrian Circulation**

The analysis reveals a robust network of sidewalks connecting the campus core, and pedestrian entry into campus is concentrated at the north edge of campus, particularly at the east College Boulevard entrance. This point serves as the most popular arrival area for both pedestrians and cyclists, reinforcing the importance of this gateway for orientation into the campus.

The diagram also highlights an area for improvement in the lack of designated pedestrian walkways within surface parking lots. Currently, students and visitors navigating from parking areas to the campus core often do so through informal or undefined paths, which can create safety risks and hinder intuitive wayfinding. As the College considers future campus enhancements, addressing these gaps presents an opportunity to improve safety, accessibility, and experiences for students, staff, and visitors.



Note that this icon indicates number of cyclists entering campus at each entry point.

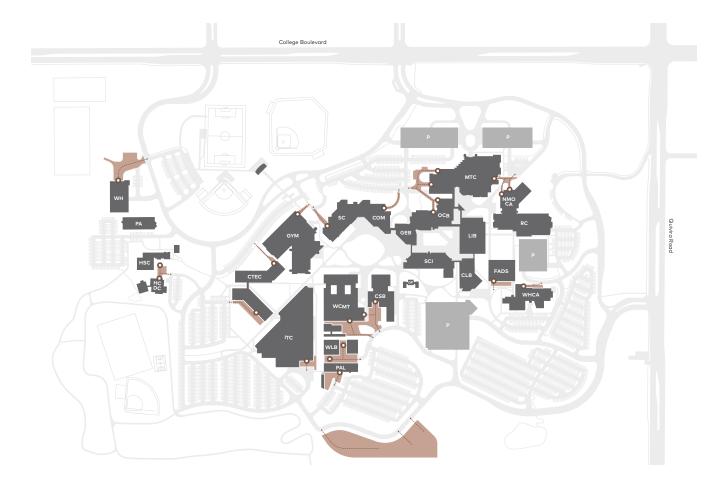


#### **Vehicular Circulation**

This diagram illustrates the vehicular circulation patterns, campus entry points, and parking distribution across JCCC's campus. Understanding how vehicles move through and around campus is essential to enhancing both accessibility and campus identity, particularly as future improvements are considered.

The East College Boulevard and South Quivira Road entrances serve as the two most heavily trafficked vehicular access points. These gateways are currently reinforced with prominent monument signage, making them the most recognizable points of arrival for students, employees, and visitors. Their popularity reflects both convenience and visibility from major public roadways.

Large surface parking lots form a continuous perimeter around much of the campus core, creating a prominent setback between the primary academic and student life buildings and the surrounding road network. While these parking fields provide necessary vehicle storage, they also contribute to a sense of separation, visually and physically, between the campus and the broader community. Future development should consider not only vehicular access and parking capacity, but also how campus edges and arrival experiences can be reimagined to better connect JCCC with the "ring road" and broader community.



#### Campus Back Doors - Service, Loading, and Work Yards

The analysis shows that these service areas are distributed across campus, often located behind academic buildings or along secondary roadways. By nature, these spaces prioritize function over aesthetics and are generally not designed as welcoming, pedestrian-friendly environments. However, their placement has a significant impact on the operational efficiency of the College.

It is also important to note that several of these yard spaces serve dual functions, supporting academic programs in addition to operational needs. Facilities such as the Hugh L. Libby Career and Technical Education Center (CTEC), Welding, Construction, Machining Technology (WCMT), and Fine Arts and Design Studios (FADS) utilize exterior yards and workspaces as extensions of classroom, lab, or handson learning environments.

As JCCC considers future campus improvements, integrating these operational and academic service areas intentionally will be essential. Their design should balance visibility, accessibility, safety, and efficiency while minimizing potential impacts on the pedestrian experience and broader campus environment.



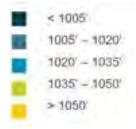
#### **Major Campus Utilities**

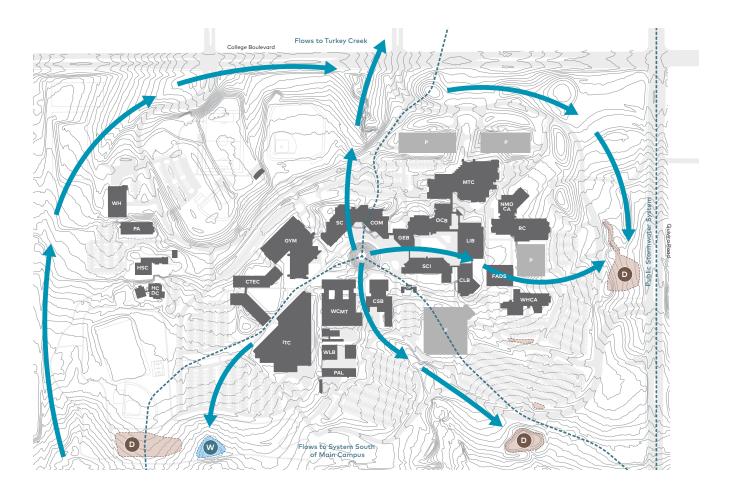
This diagram provides an overview of the major utility infrastructure systems including chilled water, electrical, gas, water, and sanitary sewer lines. The map also identifies the location of the College's two central utility plants, housed within the Campus Services Building (CSB) and the Galileo Parking Garage. Understanding the layout, capacity, and reach of existing utility infrastructure is essential to planning for future development. Utilities not only support day-to-day operations but also determine where and how new buildings, renovations, or campus expansions can occur without requiring significant additional investment in infrastructure upgrades. Further analysis of these utility networks, provided later in this document, will explore system capacities, current limitations, and the ability of the existing infrastructure to support long-term campus development.



#### **Topography**

The campus core and the southwestern portion of campus are at the highest elevations in the area. The lowest areas in elevation are current parking lots, green spaces, and athletic facilities along the exterior perimeter of campus. Topography plays a key role in determining where future development is feasible, cost-effective, and environmentally responsible. Areas with steep slopes, complex grading, or critical drainage paths may limit buildable space or require substantial site work to support new construction.





#### Watershed

Stormwater on site currently flows from the highest point at the center of campus towards the outer property edges and the lower elevations. Several detention areas are located on the south and eastern areas of campus in open green spaces that are not programmed. Areas that serve as primary drainage corridors or detention zones must be preserved or thoughtfully designed to maintain campus functionality and ecological health. Future buildings, parking, and infrastructure should be located with careful consideration of watershed patterns to avoid disrupting flows and to integrate stormwater management strategies that enhance resilience.



#### **Natural Features**

This diagram highlights the existing natural ecological features that contribute to the environmental health, campus character, and sustainability efforts at Johnson County Community College. The campus is home to a diverse system of green spaces, native vegetation, and ecological corridors that play an essential role in stormwater management and habitat preservation. Prominent among these features is Robinson Woods, a mature woodland that provides valuable ecological habitat while also home to an apiary program. To the west of the Galileo Parking Garage, a stream corridor and vegetated area known as "The Marsh" offer another significant ecological asset. The Marsh supports native plant communities, wildlife habitat, and natural drainage functions.

- Tree Cover
- H Landscape / Horticultural Area
- D Detention Area
- Water Basin
- Mound
- Healthy, Undisturbed Soil



# **Campus Frameworks**

#### **Historic Morphology**

Analyzing the historical morphology of JCCC's campus through past aerial images offers insight into how the physical framework of the campus has evolved over time. These images reveal the progression of campus development, providing context for why planning decisions were made, how new buildings were introduced, and how those additions were integrated. Understanding this evolution allows for more informed, intentional future planning that respects existing infrastructure and patterns. The analysis also highlights changes to campus entry sequences from the north and east, which have influenced how students, employees, and visitors arrive at and move through the campus.





1986





1994





2000

















# **Campus Frameworks**

#### **Existing Materiality Mapping**

This diagram examines the material palette of existing campus buildings, identifying patterns that contribute to the visual identity and cohesion of JCCC. While red brick serves as a consistent and unifying material across the entire campus, two distinct groupings of complementary materials have emerged based on building location.

The northeast half of campus features a lighter material palette, including natural stone, exposed concrete, light metal panels, and glass. Examples include the Nerman Museum of Contemporary Art, the Wylie Hospitality and Culinary Academy, the Fine Arts and Design Studios (FADS), and the addition to the Student Center. In contrast, the southwest half of campus incorporates a darker material palette, characterized by shades of black and gray metal panel.

Understanding these material groupings and the architectural language of campus provides a foundation for future development. By drawing inspiration from these established patterns, new building designs can maintain a sense of cohesion while offering opportunities for architectural innovation.



#### **Future Material Opportunities**

The following images show precedent examples of material palettes for exterior conditions that could inform future development projects at JCCC. These precedents illustrate innovative approaches to warm materials, such as red brick and terracotta, and darker and lighter tones in materials other than just metal panels to create visually striking but cohesive architectural and landscape designs.



# **Space Utilization Analysis**

Effective space planning begins with data: how academic and support units currently use space, how intensively that space is used, and what imbalances may exist between program needs and space availability. The space utilization analysis conducted for this plan draws on scheduling data, facility metrics, and stakeholder interviews to create a comprehensive picture of how the College's facilities serve its mission today and where opportunities exist for more effective alignment.

#### **Background**

The Utilization analysis provides a view as to how spaces are scheduled over the course of a day, a week, and a semester. All schedulable spaces on the Main Campus, Olathe Health Education Center, and West Park Center are included in the analysis. The scheduling data includes credit courses, non-credit courses, and events to provide a complete picture of scheduled usage.

It is important to note that scheduling data is a product of process and behavior that is inconsistently followed across academic programs due to sense of ownership of space. For example, some programs schedule their space in the College's scheduling software system 100% of the time to indicate constant usage, while others do not schedule their space at all because it is "assigned" to their program and their constant use of the space is assumed. Additionally, scheduled utilization is just one data point that quantifies how spaces are currently used; it does not take into account the quality or function of a space and does not look forward to how pedagogy is evolving or program needs are changing. The utilization analysis should be considered alongside JCCC's strategic visioning, stakeholder engagement findings, and facility conditions assessment to inform future needs.

The following analysis provides a summary of scheduled utilization of five main space types: traditional classrooms, active learning classrooms, class laboratories, assembly spaces, and meeting rooms. These five categories make up the bulk of the inventory (434 of 564 rooms); the remaining room types range from athletic facilities to exhibition spaces or lab prep rooms and have been omitted from this overview. Included for reference are standard industry utilization targets for each type of space based on the function (general function and shared use have higher targets while specialized function and limited use have lower targets). These targets assume a daily Monday-Friday utilization window (with accommodation for low utilization on Fridays, prevalent in higher education institutions). If a smaller window is analyzed, like JCCC's daily peak hours of 10am - 2pm, we would expect a higher target (shorter timeframe, higher target; longer timeframe, lower target).

#### Classrooms (FICM 110 Category)

There are 134 schedulable classrooms at JCCC at an average size of 780 SF and 27 seats. Of those 134 rooms, 34 are scheduled less than 5 hours a week. The remaining 100 are scheduled at an average of 40% during the week (M-F 8a-5p) and 50% during peak hours (M-F 10a-2p). This is below the standard utilization target of 65%, and there are 17 classrooms that meet or exceed the target. General classrooms have the highest targets because they are not specialized and can serve multiple programs, if shared, rather than assumed as "assigned" to one particular department.



# Active Learning Classrooms (FICM 111 Category)

There are 66 schedulable active learning classrooms at JCCC at an average size of 820 SF and 24 seats (more area is provided per seat to allow for more activity and movement than a regular classroom). Of those 66 rooms, 5 are scheduled less than 5 hours a week. The remaining 61 are scheduled at an average of 46% during the week (M-F 8a-5p) and 61% during peak hours (M-F 10a-2p). Active learning classrooms have the highest scheduled utilization of any room type and are a testament to investments made as a result of the 2016 Master Plan. There is not a standard utilization target for active learning classrooms, but 65% can be used as these classrooms become more prevalent on campuses and pedagogy continues to evolve towards more active learning.



#### Class Laboratories (FICM 210 Category)

There are 170 schedulable class laboratories at JCCC at an average size of 1,220 SF and 17 seats (labs typically take up much more space than classrooms due to the unique equipment). Of those 170 rooms, 50 are scheduled less than 5 hours a week; however, some of these rooms might be better classified as FICM 220 Open Labs if they are meant for unscheduled, open student use. The remaining 120 are scheduled at an average of 44% during the week (M-F 8a-5p) and 50% during peak hours (M-F 10a-2p). This is close to the standard utilization target of 50%; there are 44 labs that meet or exceed the target. Labs have lower targets than classrooms since they are specialized and typically only serve a few or one program.

Additionally, students may need access to these rooms outside of class time to conduct their homework or class project using specialized equipment, which is not reflected in the utilization data.



# **Space Utilization Analysis**

#### Assembly (FICM 610 Category)

There are 5 schedulable assembly spaces at JCCC at an average size of 4,880 SF and 445 seats (this includes auditoria and theaters). Those 5 rooms are scheduled at an average of 29% during the week (M-F 8a-5p) and 39% during peak hours (M-F 10a-2p).

There is not a standard utilization target for assembly spaces as their function is very specific to large lectures and special events.



# Meeting Rooms (FICM 350 and 680 Category)

There are 59 schedulable meeting or conference rooms at JCCC at an average size of 550 SF and 15 seats (used for smaller seminars or simulation debriefing, etc.). Of those 59 rooms, 26 are scheduled less than 5 hours a week; many of these rooms are likely meeting spaces tied to specific administrative or academic departments and unused for courses or events. The remaining 33 are scheduled at an average of 41% during the week (M-F 8a-5p) and 44% during peak hours (M-F 10a-2p).

There is not a standard utilization target for meeting rooms as their function is for both scheduled meetings as well as drop-in usage.



#### Conclusion

Overall utilization of spaces at JCCC is effective, though there are opportunities for improvement. Most importantly, the College should establish and enforce consistency of scheduling practices for all academic and administrative departments to ensure that the data obtained from the scheduling software system represents the actual utilization of campus spaces. Additional strategies include making refinements to the space inventory to ensure accurate categorization, and assessing the quality and function of spaces to ensure they are updated and aligned with institutional needs.

#### Utilization of Schedulable Rooms by FICM Category (Daily, M-F 8am-5pm)

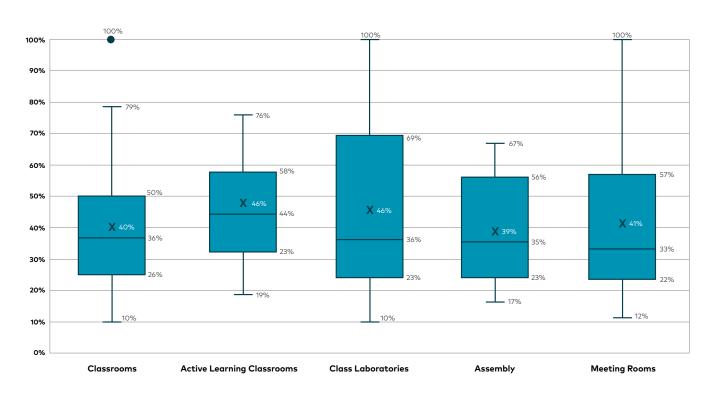
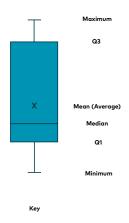


Chart Note: Rooms utilized under 10% were omitted from the chart; percent utilization is the total number of hours scheduled during the week, Monday - Friday, 8:00am - 5:00pm across a 15-week semester divided by the total possible semester room use hours (9 hours per day \* 5 days per week \* 15 weeks per semester = 675 hours max)

FICM, the Facilities Inventory Classification Manual, provides a standardized way to categorize space on university and college campuses







Establish Centers of Excellence for Science, Healthcare & Public Safety



Expand Career & Technical Education Facilities



Organize the Student Center Pathways



Improve Athletic Support Spaces

The 2025 Facilities Master Plan identifies building-specific initiatives that respond directly to evolving academic, workforce, and student support needs. These projects are designed to adapt or expand existing facilities to accommodate program growth, and strategically invest in new spaces that align with the College's strategic academic and enrollment master plans. By focusing on specific buildings and functional areas, these initiatives translate the broader goals of the Facilities Master Plan Update into tangible improvements that enhance learning environments, workforce training capacity, and student services.

Growing fields such as public safety, healthcare, and technical education require specialized spaces that support hands-on learning, collaboration, and emerging technologies. At the same time, aging buildings and outdated infrastructure present barriers to student success, operational efficiency, and campus accessibility. The initiatives outlined in this chapter address these needs through a combination of new construction, targeted renovations, and strategic reorganization of existing spaces. Building-specific priorities include establishing Centers of Excellence for Science, Healthcare and Public Safety to consolidate and expand programs currently spread across and off campus, while also creating modern, high-performance training environments. The plan also proposes expanding the College's Hugh L. Libby Career and Technical Education Center to support workforce-aligned programs in HVAC, automation, and electrical trades, recognizing the critical role these fields play in regional economic development. Additionally, enhancements to the Student Center will improve accessibility and efficiency by reorganizing student-facing services, ensuring the facility continues to serve as a welcoming and functional hub for current and prospective students. Finally, new athletic support spaces are proposed to better meet the needs of student-athletes and visiting teams, while allowing for renovations to existing indoor athletic areas.

# **Establish a Center of Excellence for Public Safety**

#### **Academic Master Plan Alignment**

These recommendations are aligned to the goals outlined in Johnson County Community College's Academic and Strategic Enrollment Master Plans to support the public safety departments. Our planning incorporates expanded instructional space, modernized training facilities, and enhanced technology infrastructure to meet the evolving needs of these programs and to enhance their connectedness to the College's Healthcare programs.

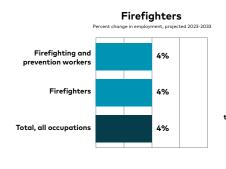
**Goal 1 / Objective 1 / Action Item 2 :** Develop an advanced Emergency Medical Technician credential.

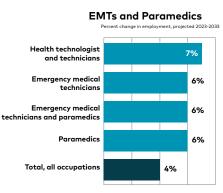
**Goal 1 / Objective 1 / Action Item 9 :** Modify the Paramedic class to allow for flexible schedules for working firefighters

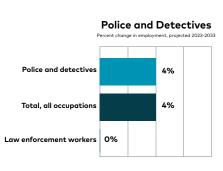
**Goal 1 / Objective 2 / Action Item 1 :** Co-locate facilities on the main campus to house all law enforcement and public safety related programs (Fire Science, Emergency Medical Science, and the Police Academy), to support their growth and collaboration.

#### **Employment Trends**

The public safety facilities proposal is directly shaped by regional employment trends indicating strong and sustained demand for skilled professionals in law enforcement, fire science, and emergency medical services. Enrollment data reinforces this need, guiding the plans to develop flexible, high-capacity spaces that support program growth and evolving training requirements. According to the US Bureau of Labor Statistics Employment Projections Program, there is moderate growth (4-7% projected for Public Safety employment in the next 10 years.







JCCC's Public Safety department currently offers a degree in Fire Science, and Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Fire Administration, Firefighter, and Paramedic certificates. The Johnson County Regional Police Academy, where new police officers receive their basic law enforcement training, is located on main campus.

students enrolled within all public safety degree and certificate programs

students employed immediately following graduation from JCCC

100% 2.515

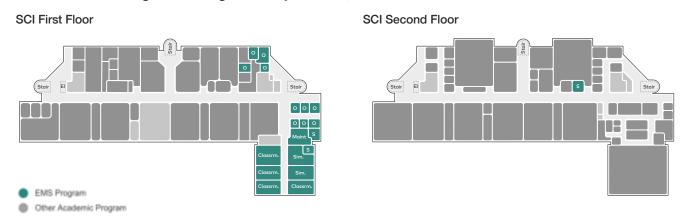
hours of public safety courses offered per semester

#### **Public Safety Focus Group**

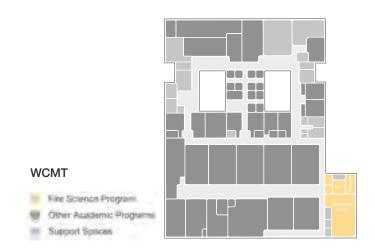
Charles Foat	Director, Emergency Medical Science
Chad Sanner	Dean, Healthcare, Public Safety & Wellness
Sonta Wilburn	Director, Police Academy
Tim Witham	Director, Fire Science

# **Current Public Safety Facilities Use**

#### **Current EMS Program Designated Spaces: 4,820 SF**



## **Current Fire Science Designated Spaces: 2,650 SF**



## **Current Police Academy Designated Spaces: 12,615 SF**



# **Space Utilization Data Analysis**

#### **Utilization Need Takeaways**

**Growth:** Public Safety programs are expecting increased interest in their programs as well as evolving technology and licensure requirements.

**Constrained:** PA is well utilized by the Police Academy but Emergency Medical Science and Fire Science do not currently have appropriate spaces allocated to them in SCI or WCMT.

**Distributed:** These programs share similar space needs, however they are currently distributed in three different buildings.

**Need:** An expanded and co-located facility would enable these programs to collaborate and share key space needs and create intentional instructional spaces tailored to their unique needs.

Note: The Criminal Justice department, currently located in the PA, is not pedagogically related to the Police Academy and could be relocated to core campus.

Bldg	Rm#	*Description	Department	10a-2p	8a-5p		
Police A	Police Academy Schedulable Spaces						
PA	117	Simulation Lab Space*	Police Academy				
PA	124	Active Learning Classroom	Police Academy	100%	100%		
PA	125	Active Learning Classroom	Police Academy	100%	100%		
PA	126	Classroom	Police Academy	100%	100%		
PA	127	Instructional Space	Police Academy	100%	100%		
PA	128	Instructional Space	Police Academy	100%	100%		
PA	129	Instructional Space	Police Academy	100%	100%		

Emerg	ency M	edical Science Schedulable Spa	aces		
SCI	101	Classroom	Emergency Med Science	95%	79%

Fire Sc	ience \$	Schedulable Spaces		
WCMT	113	Active Learning Classroom	Fire Science**	 
GYM	003	Field House	Fire Science**	 

<sup>\*</sup>the sim lab is a dedicated space for Police Academy without formal hours scheduled
\*\*Fire Science does not have any dedicated space allocated to them

# **Public Safety Engagement Feedback**

#### **Focus Group & Questionnaire**

To ensure the updated facilities plan reflects the specific needs of JCCC's public safety programs, the design team actively sought feedback and engagement from program directors and key representatives. We distributed a detailed survey to gather insights on how current spaces are used, as well as challenges and opportunities. Additionally, we held an in-person engagement session where stakeholders shared their vision for the future of their programs and outlined the physical and spatial requirements necessary to support growth, innovation, and student success.

#### What We Heard

- Projected expansion of the structural fire academy and a new Wildland Firefighting Certificate Program and Wildland Firefighting Academy
- New continuing education program for fire officer and chief officer development programs
- Future partnerships on the horizon for the fire science program growth and expansion (including the Kansas Forest Services, Kansas Fire Rescue Training, and the National Fire Academy)
- The Police Academy desires space, resources, and staff to support two simultaneous academy classes to meet growing demand for officers regionally and nation-wide
- Paramedic program currently has adequate facilities, but the EMR and EMT courses have inadequate resources and space for the current and future students

There is a large and growing community, regional, and national demand for public safety professionals.

Even with additional learning space, support spaces (like storage) are critical for program growth.

Dedicated garage, high bay, and outdoor spaces are necessary for growth in public safety programs.

Current space limitations are hindering the ability to grow programs.

The public safety programs are having to compete with other programs for use of shared classrooms and simulation spaces.

The adaptability of learning spaces will be important for longterm use and relevancy.

# **Benchmarking Regional & National Precedents**

#### **Innovation and Standards for Comparable Facilities**

Design trends in public safety training facilities at community colleges increasingly emphasize realism, adaptability, and interdisciplinary collaboration. Modern facilities often include simulation labs, scenario-based training environments, and integrated technology to replicate real-world emergency situations, providing students with immersive, hands-on experiences. Flexible spaces that can accommodate evolving instructional methods and cross-training between fire, police, and EMS programs are also becoming standard. Benchmarking these trends and studying successful precedents is essential for JCCC to remain innovative and competitive, ensuring that its public safety programs not only meet current industry standards but also anticipate future workforce demands. Aligning with these trends supports student success by offering relevant, high-quality education that prepares graduates for the complex challenges of modern public safety careers.



Rogue Community College (Grants Pass, OR)



Blackrock Police Training Center (Bristol, England)



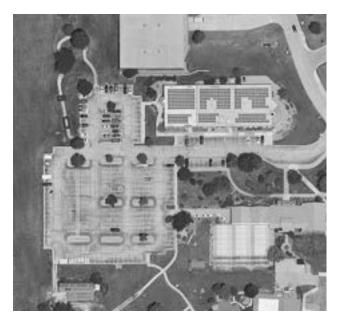
Crafton Hills College (Yucaipa, CA)



Crafton Hills College (Yucaipa, CA)

# **Site Location Studies**





#### Site Option 1

Renovating the existing Police Academy and expanding it to create a Center of Excellence for Public Safety is the preferred site option because it builds on an established foundation already dedicated to law enforcement training, minimizing the need for entirely new infrastructure. This location offers proximity to ample outdoor training areas and allows for consolidation of public safety programs in a centralized, purpose-built environment. While a new building in this location will displace existing surface parking stalls near the Police Academy, the energy and investment that an updated facility will bring can help enliven the West side of campus.



#### Site Option 2

The second option the design team studied was a new, purpose-built building on the site of the old athletic fields. Ultimately this site presented challenges including distance from the central utility plant, a lack of coherence with the rest of the established core and west campus, and a separate facility for the Police Academy from the remaining Public Safety programs.



#### **Site Option 3**

The final option had the opportunity to contribute to the existing campus infrastructure and become an extension of the industrial technology neighborhood, but ultimately was discouraged because of separation from the Police Academy and the desire to co-locate all public safety departments. This option seems more feasible than option 2 due to its closer proximity to the existing utility locations and its direct connection to central campus. Another downside would be the significant reduction of surface parking stalls.

# **Programmatic Considerations**









#### **High Bay Space**

A high bay space would offer a secure area for storing training vehicles such as police cars, ambulances, and fire apparatus. The space can be dual-purpose, offering a flexible indoor environment for hands-on training during inclement weather. This space can act as dedicated storage for training equipment and relieve some of the space being utilized currently in the Fieldhouse.

#### **Outdoor Training Areas**

Dedicated outdoor training areas will be essential to support the physical and skills-based components of the Police, Fire Science, and EMS programs. There should be features such as obstacle courses, fitness and agility testing zones, and a driving skills course for low-speed vehicle training.

#### **Dedicated Classrooms**

Currently, the Fire Science program lacks even a single designated classroom, making it difficult to provide consistent, high-quality instruction. Equipping new classrooms with modern technology will create a stable, program-focused learning environment tailored to the unique needs of EMS and Fire Science. Renovations should be considered to the Police Academy classrooms to support future growth.

#### **EMS Lab Spaces**

While the current EMS facilities are located in the SCI building, relocating to a purpose-built public safety facility with Fire Science and the Police Academy will give the EMS program better resources and opportunities to collaborate with other public safety programs.



#### Office Spaces for Faculty

Existing office spaces for public safety faculty and instructors are limited, with Fire Science specifically being the most in need of dedicated space. Adequate office space is essential for instructors to prepare, meet with students, and effectively manage their programs.



#### **Renovated Simulation Spaces**

The program currently relies on outdated, space-consuming simulation technology that requires frequent maintenance and updates, limiting flexibility and efficiency. Feedback from instructors emphasized that the future of simulation training for law enforcement is shifting toward headset-based VR, which offers an immersive experience and requires significantly less space that is more adaptable.



#### **Locker Room Facilities**

Co-location of all public safety programs into a single facility mean a number of resources could be shared, including locker rooms. These programs require access to spaces that include showers, restrooms, and personal storage to accommodate the physical demands of training and long hours. Police Academy trainees need secure storage areas for firearms and personal gear that other students cannot access.



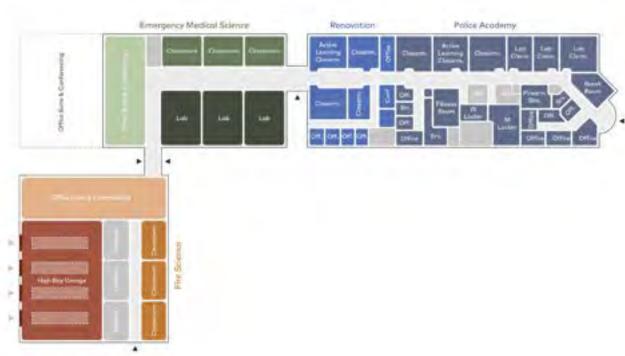
#### **Break Room / Collaboration Space**

A shared space can foster informal interaction, collaboration, and communication between disciplines which is essential to preparing students for the team-based nature of real-world public safety work. This area could include food preparation, seating for studying or group work, and flexible furniture to allow use for scenario-based training exercises.

# A New Center of Excellence for Public Safety

The 2025 Facilities Master Plan Update is proposing the renovation and expansion of the existing Police Academy building to establish a Center of Excellence for Public Safety. This investment will bring together the College's key public safety programs into a single, purpose-built facility that supports workforce alignment, program growth, and modern training requirements. The proposal includes a comprehensive renovation of the existing Police Academy building, along with the relocation of the Criminal Justice program back to core campus. This transition allows for the repurposing of the Criminal Justice program's current classrooms, providing dedicated space to expand the Police Academy's capacity to accommodate anticipated enrollment growth, including the potential addition of a second training class.

The plan also calls for a westward addition to the facility that will house the College's Emergency Medical Science (EMS) program, relocating it from its current space in the Science building. This addition will provide new classroom, lab, and office space designed specifically for EMS training. Dedicated classrooms, computer labs, and office space for the Fire Science program will also be incorporated, addressing a long-standing need for permanent, program-specific facilities. A high-bay space is included in the proposal to support vehicle storage and flexible indoor training for all public safety disciplines. Adjacent to the new addition, an outdoor training area is envisioned to support physical strength development and the obstacle course requirements essential to public safety training.



Police Academy: 16,000 SF Renovation

**EMS:** 9,000 - 12,000 SF Addition

Fire Science: 18,000 - 20,000 SF Addition



**Aerial View Facing Northwest** 



**Aerial View Facing Northeast** 

#### Establish a Center of Excellence for Science and Healthcare

#### **Academic Master Plan Alignment**

These recommendations are aligned to the goals outlined in Johnson County Community College's Academic and Strategic Enrollment Master Plans to support the projected growth of the science and healthcare departments. Our planning incorporates expanded instructional space, modernized training facilities, and enhanced technology infrastructure to meet the evolving needs of these programs.

**Goal 1 / Objective 1 / Action Item 3 :** Modify the Practical Nursing curriculum.

**Goal 1 / Objective 1 / Action Item 4 :** Expand the Practical Nursing program to a capacity of 100 students to meet student and community demand.

**Goal 1 / Objective 1 / Action Item 5 :** Achieve national accreditation for the Practical Nursing program.

Goal 1 / Objective 1 / Action Item 6 : Develop a Surgical Technology program.

**Goal 1 / Objective 1 / Action Item 7 :** Expand the Dental Hygiene clinic to serve increased number of students and to meet community demand.

**Goal 1 / Objective 1 / Action Item 10 :** Expand the Registered Nursing program to include part-time scheduling in order to graduate more nurses.

**Goal 1 / Objective 1 / Action Item 11 :** Rewrite the Licensed Practical Nursing to Registered Nursing bridge for part-time students.

Goal 1 / Objective 2 / Action Item 2: Remodel the first floor of CLB Nursing Lab area.

**Goal 1 / Objective 2 / Action Item 3 :** Identify appropriate space for the proposed Surgical Technology Program

**Goal 1 / Objective 2 / Action Item 6 :** Construct a new astronomical observatory to support student demand in the Astronomy program.

**Goal 1 / Objective 2 / Action Item 9 :** Evaluate current programming at the Olathe Health Education Center (OHEC) and consider a new facility to consolidate all healthcare programs on the main campus.

JCCC's Healthcare program currently offers degrees in Dental Hygiene, Neurodiagnostic Technology, Registered Nursing, and Respiratory Care. Certificates for Medication Aide (CMA), Certified Nurse Aide (CNA), Health Care Interpreting, Medical Coding Specialist, and Practical Nursing (LPN) are also offered in addition to curriculum for Public Health and an LPN to RN bridge. These paths are currently distributed between JCCC's main campus and the Olathe Health Education Center.

744

certificate programs

students enrolled within all healthcare degree and 100% 532

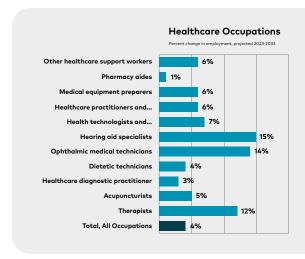
students employed immediately following graduation from JCCC

currently waitlisted students to enroll in healthcare credit and non-credit courses

#### **Healthcare Focus Group**

Kelle Oestreich	Director, Respiratory Care and Neurodiagnostic Technology
Christina Rudacille	Director, Practical Nursing and HOC
Chad Sanner	Dean, Healthcare, Public Safety & Wellness
Lori Shank	Director, Registered Nursing

# **Healthcare Employment Trends**

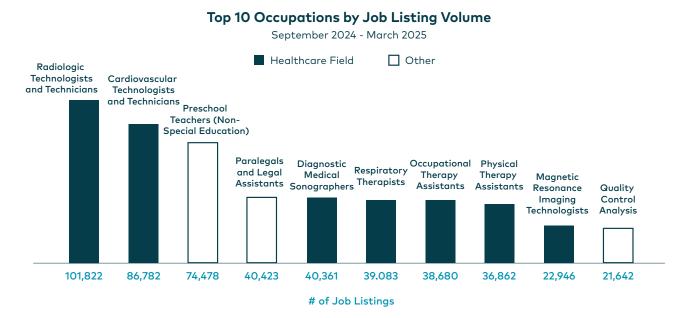


#### **Healthcare Employment Trends**

According to the US Bureau of Labor Statistics Employment Projections Program, healthcare occupations have, on average, a higher growth rate compared to all other occupations. Data shows that community colleges have an instrumental role in meeting the healthcare sector employment demands, with JCCC being in the 97% of community colleges that offer healthcare instruction.

Healthcare employment in the United States is experiencing significant growth, with projections indicating that the industry will add approximately 1.9 million job openings annually through 2033. This surge is driven by factors such as an aging population, increased demand for medical services, and a growing emphasis on preventative care. Community colleges are uniquely positioned to address this demand by offering accessible, affordable, and flexible training programs that prepare students for various roles in the healthcare sector. Institutions like JCCC play a critical role in developing the local healthcare workforce, often in partnership with regional health systems, to ensure graduates are equipped with the necessary skills to meet industry needs.

A chart published in "Top Career Skills For Two-Year College Grads in 2025" by Hanover Research, shown below, highlights that 7 of the 10 most in demand occupations by job listing volume are healthcare related fields.



#### **Olathe Health Education Center**

#### **OHEC History and Development**

The College's Olathe Health Education Center (OHEC), is located at 21201 W 152nd Street in Olathe. Established in 2011, the 50,000 square foot facility was developed to address the growing demand for healthcare professionals in the region and to provide students with direct access to clinical training at the regional hospital. JCCC's credit programs in practical nursing, respiratory care, neurodiagnostic technology, and health occupations, as well as non-credit programs such as phlebotomy, currently reside in the OHEC building, with classrooms, a simulation lab, and a skills lab.

The geographic separation of JCCC's healthcare programs, split between the main campus and OHEC, has introduced logistical challenges and affected student experience and opportunities. Students based at OHEC lack on-site access to essential campus resources such as advising, counseling, financial aid, dining services, bookstore, student life, and tutoring services. Consistent with the College's academic master plan, this physical and operational divide informed why the design team studied a consolidation of all JCCC healthcare programs onto the main campus.

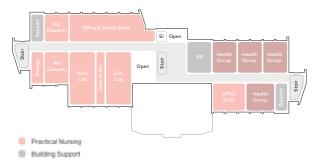


# **Current Healthcare Facilities Use**

# **OHEC First Floor**



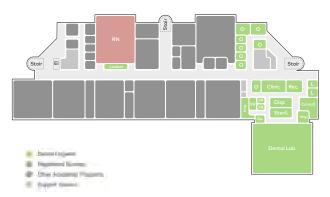
#### **OHEC Second Floor**

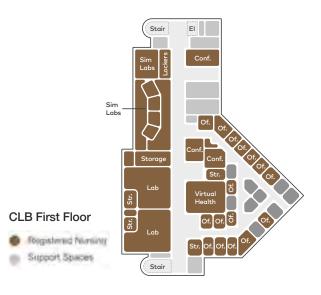


#### **SCI First Floor**



#### SCI Second Floor





# **Healthcare Engagement Feedback**

#### **Focus Group & Questionnaire**

To ensure the updated facilities plan reflects the specific needs of JCCC's healthcare programs, the design team actively sought feedback and engagement from program directors and key representatives. We distributed a detailed survey to gather insights on how current spaces are used, as well as challenges and opportunities. Additionally, we held an in-person engagement session where stakeholders shared their vision for the future of their programs and outlined the physical and spatial requirements necessary to support growth, innovation, and student success.

#### What We Heard - Healthcare

- High Priority Space Needs:
  - Renovations to the Health Resource Center
  - Dedicated Active Learning Classroom for 75-100 Students at Once
  - Interprofessional Education
  - Hybrid Learning Models
  - Active-Learning Strategies
  - High-Fidelity Simulations
  - HOC Needs to Fit 6 Beds (Currently Only 3)
  - Designated Classroom for 48 for PN Program
- Many of the students at OHEC are working parents, from underserved communities, and include international students; while the resources on the main campus are great, there are time and language barriers that discourage these students from accessing them -- consider relocating or consolidating all healthcare programs on main campus
- OHEC does not currently interact with the nearby Olathe Medical Center (now part of the University of Kansas Health System) as envisioned when it opened in 2011
- Proximity to the College's public safety programs on the main campus could provide for collaboration with the healthcare programs
- Simulation Labs are in Very High Demand and Usually at Capacity
- Medical Assistant Program is Requested Frequently by Community & Region
- Nice To Have (Lower Priority) Spaces:
  - Large Dedicated Locked Room for all EEG Carts & Ventilators
  - Dedicated Testing Center With Laptops for Proctored Exams
  - Additional Dedicated Classroom for RN with Adequate Technology
  - JCCC Simulation Hospital to House all Patient Care Programs
  - Smaller Conference Spaces for Students & Faculty

# **Space Utilization Data Takeaways**

#### **Need Statements**

**Growth:** Many JCCC healthcare programs are in demand and can grow enrollment – such as expansion of Practical Nursing and creation of a part-time Registered Nursing – to respond to employment demands; this includes a plan to introduce a Surgical Technology program.

**Constrained:** Currently, there is limited space to expand healthcare-related programs on main campus; spaces allocated to healthcare programs are already actively utilized in CLB and SCI. Healthcare programs have additional demand for new, simulation labs, classrooms, support space, and expanded and accessible clinic.

**Distributed:** Programs are distributed between Main Campus and OHEC. As a result, students at OHEC are without convenient access to on-campus resources.

**Need:** A dedicated facility is needed to accommodate projected growth, address existing constraints, and consolidate programs into a new vibrant hub of interprofessional healthcare education including: Registered Nursing, Dental Hygiene, Neurodiagnostic Technology, Respiratory Care and Practical Nursing.

#### **Healthcare Utilization Analysis Summary**

- There is not enough space in CLB or SCI to accommodate growth or consolidation.
- Registered Nursing heavily utilizes the first floor of the Classroom Lab Building (CLB); this includes the Zamierowski Center for Healthcare Simulation. They are also allocated an Active Learning Classroom in the Science Building (SCI) with moderate utilization (primarily in the evening) though they also schedule space in RC and NMOCA.
- Dental Hygiene is allocated one class lab in CLB and two spaces in SCI an Active Learning Classroom and the Clinic, all of which are fully dedicated to their program.
- Neurodiagnostic Technology has one moderately utilized classroom allocated to them at Olathe Health Education Center (OHEC).
- Respiratory Care has a Simulation Lab (highly utilized) and an Active Learning Classroom (moderately utilized) allocated to them at OHEC.

Bidg	Rm#	Description	Department	10a-2p	Ba-Sp
Registe	ared N	ursing Schedulable Spaces			
CLB	102	Conference Room	Registered Numing	100%	100%
CLB	103	Center for Healthcare Sm.	Registered Nursing	1000	1000
CLB	111	Health Resource Ctr NURS	Registered Nursing	50%	32
CLB	112	Carver Room NURS	Registered Nursing	100%	100%
CLB	112A	Nursing Debrishing Room	Registered Nursing	100%	100%
CLB	1128	Nursing Dibriefing Room	Registered Nursing	53%	97%
CLB	113	Health Resource Cir NURS	Registered Nursing	04%	AP
SCI	222	Active Learning Classroom**	Registered Nursing	34%	29%
Dental	Hygier	ne Schedulable Spaces			
CLB	200	DHYG Class Laboratory*	Dental Hygierie	-	-
SCI	112	Active Learning Classroom*	Dental Hygrene	-	Ç-
SCI	201	Dental Hygiene Citric*	Dental Hygiene		
OHEC	-	dic Technology Schedulable St Classroom	Neurodiagnostic Tech	33%	38%
Respire		T ANT THE PARTY			
a popular partition in	atory C	are Schedulable Spaces			
OHEC	_	Respiratory Care Sim Lati	Respiratory Care	70%	57%
	115		Respiratory Care Respiratory Care	70%	35%
OHEC	115	Respiratory Care Sim Lati		_	
OHEC	115 119 al Nurs	Respiratory Care Sim Lati Classroom - Active Learning		_	
OHEC OHEC Privitio	115 119 al Nurs 205	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces	Respiratory Care	40%	35%
OHEC Privilio	115 119 al Nurs 205 207	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces Classroom - Health Lab	Respiratory Care  Practical Nursing	H614	35%
OHEC Privilio OHEC OHEC OHEC	115 119 al Nurs 205 207 209	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces Classroom - Health Lab Classroom - Health Lab	Practical Nursing  Practical Nursing	80% 84%	35% 90% 83% 68%
OHEC OHEC OHEC OHEC OHEC	115 119 al Nurs 205 207 209 217	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces Classroom - Health Lab Classroom - Health Lab Classroom	Practical Nursing Practical Nursing Practical Nursing	800 8414 78%	35% 90% 83% 68% 76%
OHEC OHEC OHEC OHEC OHEC	115 119 al Nurs 205 207 209 217 223	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces Classroom - Health Lab Classroom - Hisalth Lab Classroom Classroom	Practical Nursing Practical Nursing Practical Nursing Practical Nursing	80% 84% 78% 89%	35% 50% 63% 68% 49%
OHEC Privitio	115 119 205 207 209 217 223 231	Respiratory Care Sim Lati Classroom - Active Learning sing Schedulable Spaces Classroom - Health Lab Classroom - Health Lab Classroom Classroom Conterence Room	Practical Nursing Practical Nursing Practical Nursing Practical Nursing Practical Nursing Practical Nursing	80% 84% 70% 89%	35% 90% 83%

<sup>\*</sup>These spaces are fully dedicated to Dental Hygiene
\*\*SCI 222 is utilized 75% in the evening; Registered Nursing also uses space in RC and NMOCA which reduces utilization of SCI 222

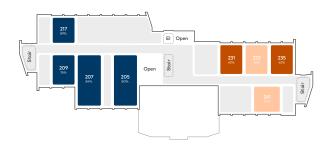
0-24% 25-49% 50-74% 75-100%

# **Classroom and Lab Utilization Mapping**

OHEC Level 1



**OHEC Level 2** 



SCI - Level 1



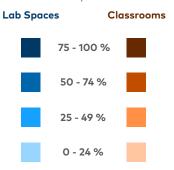
SCI - Level 2



CLB - Level 1



10am - 2pm Data



# **Benchmarking Regional and National Precedents**

#### **Emerging Trends in Healthcare Education Facility Design**

Emerging trends in healthcare education facility design reflect a dynamic shift toward simulation-based, interdisciplinary, and technology-integrated environments that mirror real-world healthcare settings. Modern facilities are prioritizing flexible, multi-purpose spaces that can quickly adapt to evolving educational models, such as hybrid learning and interprofessional training. High-fidelity simulation labs, complete with realistic hospital and emergency care settings including ICU rooms, surgical suites, and ambulance bays—are becoming central components of these buildings, which JCCC has already invested in. In addition, facilities are being designed with student wellness in mind, including dedicated areas for tutoring, mental health support, and study lounges to support retention and success in rigorous healthcare programs.



Santa Ana College (Santa Ana, CA)



Baton Rouge Community College (Baton Rouge, LA)



Tulsa Community College (Tulsa, OK)



MassBay Community College (Framingham, MA)

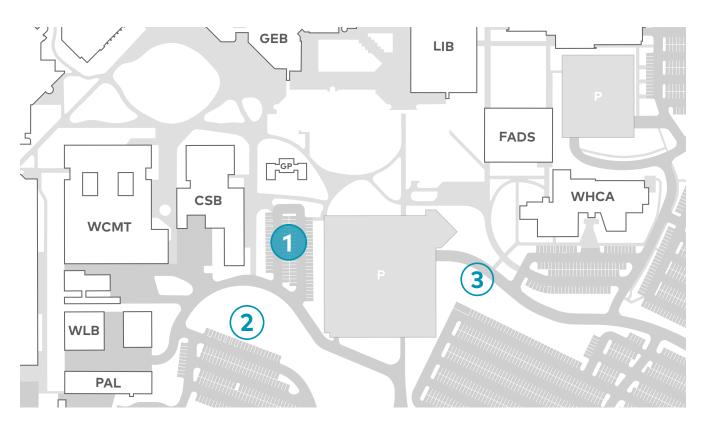


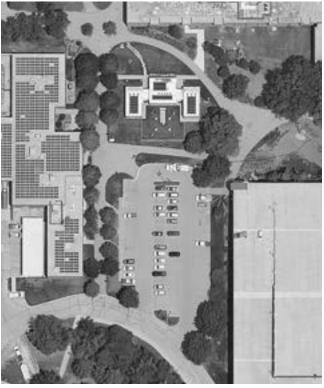
St. Louis Community College (Ferguson, MO)



Southwest Oregon Community College (Coos Bay, OR)

#### **Site Location Studies**





#### Site Option 1

This main campus location for the new Healthcare and Science building strategically maximizes connectivity and efficiency. Positioned adjacent to the existing Science (SCI) and Classroom Laboratory Building (CLB) where substantial investments in renovations, academic resources, and laboratory spaces have already been made. This site location provides the opportunity for a seamless integration into the existing science and healthcare neighborhood. By utilizing the current footprint of the surface parking lot, it can bring the north face of the building up to activate the existing outdoor courtyard space that is currently underutilized and lacks the activity that is present in the core campus courtyards. The location enhances key campus corridors running both north-south and east-west, naturally drawing pedestrian traffic and energizing the area as a vibrant, outdoor space. Its proximity to the Galileo Parking Garage and the utility plants creates logistical efficiencies.



#### Site Option 2

By shifting the footprint of the building farther south, this site location creates additional opportunities for green space but might make the existing courtyard feel even less activated and make the new healthcare building feel less connected to the neighborhood. There is a strong opportunity with this iteration to have direct connection opportunities to the service corridor to the west and a potential dental hygiene drop off access from the garage driveway to the east.



#### **Site Option 3**

The final site option for the new healthcare building that was studied sits to the east of the Galileo Parking Garage. While it has direct access to plenty of parking and utilities, it feels more disconnected from the existing science buildings and would have significant challenges to weave into existing campus circulation routes and outdoor spaces.

# **Programmatic Considerations**









#### **Simulation Lab**

While the College's current investments in simulation labs within the SCI and CLB buildings will continue to serve students, the anticipated expansion of nursing and other healthcare programs as well as the relocation of students from OHEC to the main campus will significantly increase demand. To ensure quality hands-on training, a dedicated simulation lab will likely be necessary in the new facility.

#### **Study Spaces**

Creating both group and private study spaces should be considered as a direct response to student feedback about existing campus study environments. Many students shared that current study areas are often noisy and do not effectively support different learning styles. The new building could accommodate both dedicated areas for healthcare and science students as well as for all JCCC students.

#### **Collaboration Spaces**

Collaboration spaces will foster meaningful interaction, mentoring, and interdisciplinary teamwork which are key components of an effective learning environment. Dedicated areas for engagement for both students and faculty will help strengthen relationships among disciplines and prepare students for the collaborative nature of healthcare professions.

#### **Surgical Technology Classrooms & Labs**

Specialized classroom and lab spaces will be essential to support the launch of a new Surgical Technology program. This growing field requires hands-on, skills-based training in environments that closely replicate real-world surgical settings. Purpose-built instructional and lab spaces will ensure students receive high-quality, immersive training that meets industry standards.









### **Active Learning Classrooms**

Building upon the investments that JCCC has already made in modern active learning classrooms, these spaces will be critical to advancing student success in healthcare professions. Flexible, technology-enhanced spaces will encourage critical thinking, real-time problem solving, and team-based learning that will prepare students for clinical practice and interprofessional collaboration.

### **Computer Labs**

The inclusion of dedicated computer labs and technology-equipped classrooms will directly address feedback from healthcare faculty and staff. Many expressed that current classroom setups do not adequately support the digital testing formats and specialized software required in their programs.

### **Community-Facing Dental Clinic Location**

The college's existing investments in dental learning spaces in the SCI building have been successful, but the clinic's location on the second level poses certain physical and wayfinding challenges. Relocating the clinic to the new facility with direct ground-level access from Galileo Garage and a drop-off zone will create a more welcoming and accessible experience for all.

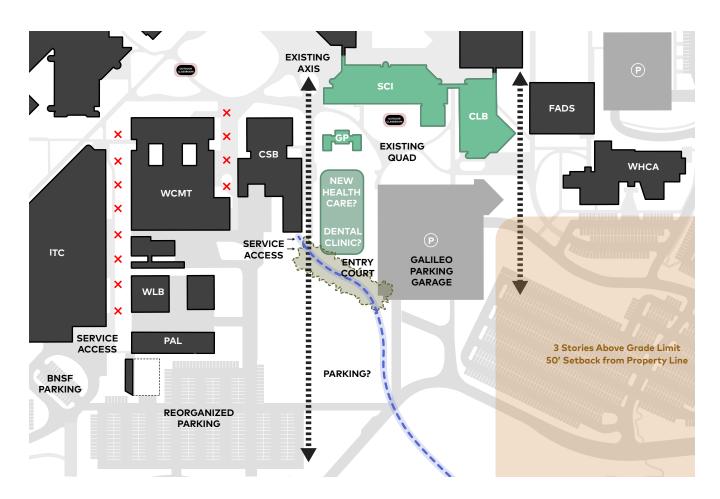
#### **Dedicated Storage Spaces/Solutions**

Secure, dedicated storage space is a critical need identified by healthcare faculty. Current storage solutions in the SCI and CLB buildings are not adequate for the large, specialized equipment used in training, such as manikins, which are not able to be securely stored in between class sessions.

### Establish a Center of Excellence for Science and Healthcare

The 2025 Facilities Master Plan proposes the development of a new healthcare education facility within the new Science and Healthcare neighborhood on the main campus. This new building is intended to consolidate and expand the College's growing healthcare programs, bringing them together into a modern, purpose-built environment that reflects current trends in healthcare education and workforce training. The proposed facility will accommodate programs currently located at the Olathe Health Education Center (OHEC), improving accessibility for students by relocating these programs to the central campus. By doing so, the College can maximize collaboration between healthcare, science, and public safety programs, while ensuring that healthcare students benefit from the full range of campus resources.

The new healthcare building is envisioned as part of a connected academic community alongside the adjacent Science building and the Classroom Laboratory Building (CLB). Together, these facilities will create a collaborative, interdisciplinary environment that supports student success and reflects the evolving nature of healthcare education. The new building should include classrooms, labs, and simulation spaces designed to complement and expand the simulation labs already located within CLB. This coordinated approach will allow for enhanced hands-on training opportunities in environments that mirror hospital and clinical settings.





**View Facing East From Campus Services Building (CLB)** 



**View Facing North From Existing Pedestrian Corridor** 

# **Expand Career and Technical Education Facilities**

### **Academic Master Plan Alignment**

These recommendations are aligned to the goals outlined in Johnson County Community College's Academic and Strategic Enrollment Master Plans to support the projected growth of the Industrial Technology departments. The proposal incorporates expanded instructional space, modernized training facilities, and enhanced technology infrastructure to meet the evolving needs of these programs.

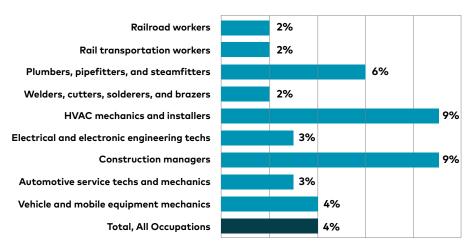
**Goal 1 / Objective 1 / Action Item 1 :** Pursue new programming to further enhance our focus on construction trades and associated programs.

#### **Employment Trends**

Employment trends for industrial technology trades continue to show strong growth across the country, driven by aging infrastructure, increased demand for energy-efficient systems, and the need for skilled workers to support advanced manufacturing and building technologies. As industries increasingly adopt smart systems and automation, the demand for technicians trained in both traditional trades and modern control systems is growing. In the Midwest, these trends are especially pronounced due to the region's strong manufacturing base, ongoing investment in infrastructure improvements, and steady construction activity in both urban and rural areas. States like Kansas, Missouri, and Iowa are seeing a rise in job openings for skilled tradespeople, supported by public and private sector initiatives aimed at bolstering workforce pipelines through community colleges like JCCC and technical training centers.



Percent change in employment, projected 2023-2033



Note: All occupations includes all occupations in the U.S. Economy Source: U.S. Bureau of Labor Statistics, Employment Projections Program JCCC's Industrial Technology department currently offers both degrees and certificates in Automotive Technology, Construction Management Technology, Electrical Technology, HVAC, and Metal Fabrication/Welding. A certificate for Plumbing Technology is also offered.

1,175 88% 25

and certificate programs

students enrolled within all industrial technology degree

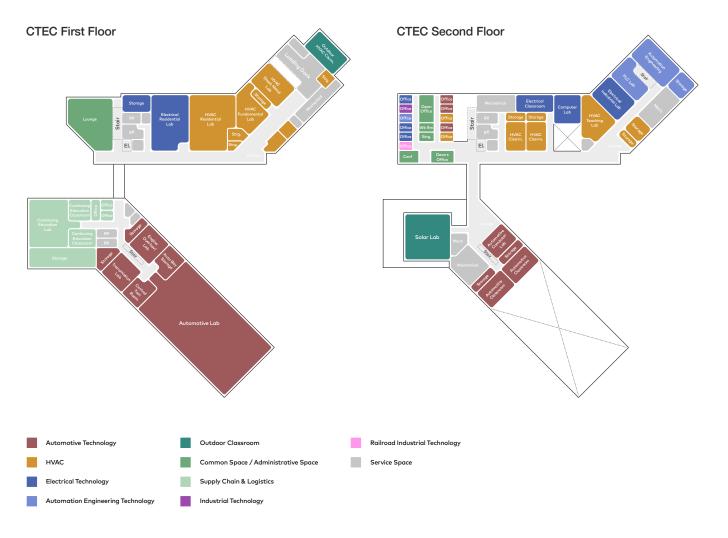
students employed in 6 months following graduation from JCCC

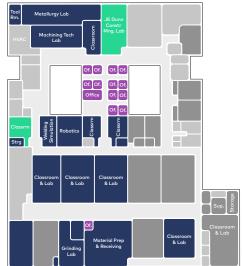
average waitlisted students to enroll in industrial technology credit and non-credit courses

## **Industrial Technology Focus Group**

James Byrnes	Associate Professor. Co-Chair, Electrical Technology
Hugh Clark	Professor, Automation Engineering Technology
Andrew Duckett	Assistant Professor, Co-Chair, Electrical Technology
Terry Harrison	Director, Railroad Operations
Charlie Randazzo	Professor, Electrical Technology
Jhonatan Vallejo	Assistant Professor, Chair, HVAC
Thomas Wheeler	Dean, Industrial Technology

# **Current CTEC Facilities Use**





#### WCMT First Floor

- Welding Technology
- Industrial Technology
- Construction Management
- Service Space

# **Space Utilization Data Analysis**

#### **Need Statements**

**Growth:** Industrial Technology programs are evolving fast with new technologies like automation, robotics, and Al. New programming is projected to enhance construction trades and associated programs such as Automation Engineering Technology. The Hugh L. Libby Career and Technical Education Center (CTEC) was designed and built for the College's programs but the facility needs to evolve beyond what they are today.

**Constrained:** Five programs share space in CTEC with constraints to their use, access, and adaptability such as material access to upper floor Electrical Labs and demand for a high-bay space for simulated home instruction and experiential learning.

**Need:** An expanded facility would provide much needed space for program growth and provide the opportunity to reposition some classrooms and labs to better operate and adapt the space for evolving needs.

#### **CTEC Utilization Analysis Summary**

- Electrical Technology, HVAC, Automation Engineering Technology, Supply Chain & Logistics, and Automotive Technology are all allocated dedicated spaces for their instruction. Spaces are scheduled for courses, especially in the evening, but students are actively utilizing those spaces in and outside of course time.
- There is not sufficient space in CTEC available for the programs to grow or evolve.
- Each industrial technology program has dedicated spaces allotted to them and therefore faculty do not currently schedule or "book" their classrooms and labs in the College's scheduling software system, which is why accurate data is not available.

Bldg	Rm#	Description	Department
Supply	Chain	& Logistics Schedulable Sp	paces
CTEC	141	CE Classroom	Supply Chain / Logistics
CTEC	142	CE Classroom	Supply Chain / Logistics
CTEC	145	CE Lab-Instructional	Supply Chain / Logistics
Autom	ation E	ngineering Technology Sch	edulable Spaces
CTEC	246	Lab-Instructional	Automation Eng. Tech.
CTEC	248	Lab-Instructional	Automation Eng. Tech.
Autom	otive T	echnology Schedulable Spa	ices
CTEC	150	Lab-Automotive	Automotive Technology
CTEC	152	Lab-Automotive	Automotive Technology
CTEC		Lab-Automotive	Automotive Technology Automotive Technology
	154		
CTEC	154 253	Lab-Automotive	Automotive Technology
CTEC	154 253 254	Lab-Automotive Computer Lab-AUTO	Automotive Technology Automotive Technology

Bldg	Rm#	Description	Department
Electric	cal Tec	hnology Schedulable Spaces	
CTEC	110	Lab-Electrical	Electrical Technology
CTEC	233	Classroom	Electrical Technology
CTEC	235	Computer Lab	Electrical Technology
CTEC	243	Class Laboratory	Electrical Technology
HVAC	Sched	ulable Spaces	
CTEC	113	Lab-HVAC	HVAC
CTEC	115	Lab-HVAC	HVAC
CTEC	122	Lab-HVAC	HVAC
CTEC	229	Classroom	HVAC
CTEC	231	Classroom	HVAC
CTEC	239	Lab-HVAC	HVAC

# **Benchmarking Regional and National Precedents**

### **Emerging Trends in Industrial Technology Facility Design**

Industrial Technology training facilities are moving towards flexible and industry-aligned environments that mirror real-world working conditions. There is a strong emphasis on simulation-based learning, with programmable logic controllers, digital twin environments, and augmented reality tools being integrated into curriculum. Maker spaces and innovation labs are becoming standard resources to support interdisciplinary collaboration and hands-on problem solving. Dedicated zones for equipment diagnostics, clean energy systems like solar and geothermal, and EV/alternative fuel vehicle training are also becoming more common in these programs.



Macomb Community College (Warren, MI)



Texas State Technical College (Abiline, TX)



Mountainland Technical College (Lehi, UT)



Treasure Valley Community College (Ontario, OR)

# **Industrial Technology Engagement Feedback**

### **Focus Group & Questionnaire**

To ensure the updated facilities plan reflects the specific needs of JCCC's Industrial Technology programs, the design team actively sought feedback and engagement from program directors and key representatives. We distributed a detailed survey to gather insights on how current spaces are used, as well as challenges and opportunities. Additionally, we held an in-person engagement session where stakeholders shared their vision for the future of their programs and outlined the physical and spatial requirements necessary to support growth, innovation, and student success.

#### What We Heard - CTEC

- Commercial and Industrial electrical labs located on the upper floor lack safe and efficient ways to transport materials and equipment
- Additional space is required to pursue new programming in construction trades
- Additional space is required to accommodate demand for growth in Electrical Technology
- Automation Engineering needs additional space for expansion and classroom space
- Outdoor solar lab needs reciprocal indoor space for class and storage during inclement weather
- HVAC's current residential lab is working well, additional space is required to expand for commercial refrigeration
- Automation Engineering lab is located over the loading dock and is hard to heat in the winters due to the concrete floors being very cold
- Primary lounge space in the building frequently hosts gatherings and experiences auditory issues
- High bay space for electrical training and a house mockup is necessary for training
- The current restrooms in CTEC are not sufficient during high traffic times such as during class breaks. Since the men's restrooms are overutilized, suggest evaluation of all-gender restrooms
- Additional student support spaces for food, studying, and gathering are needed
- Lounge furniture throughout the communal areas in the building should be strategically placed to ensure sufficient access to power outlets
- Sound dampening is needed between the lower and upper floors in the north bar due to the loud lab spaces beneath classrooms

# **Programmatic Considerations**







### **Tall Space for Electrical Labs**

The existing commercial and residential electrical labs in CTEC provide sufficient height for most instructional activities, but they fall short when it comes to accommodating the use of lifts, which are an essential component of real-world electrical work. Faculty have emphasized that most of the work students will perform in the field will require them to be on a lift, making this an urgent training need.

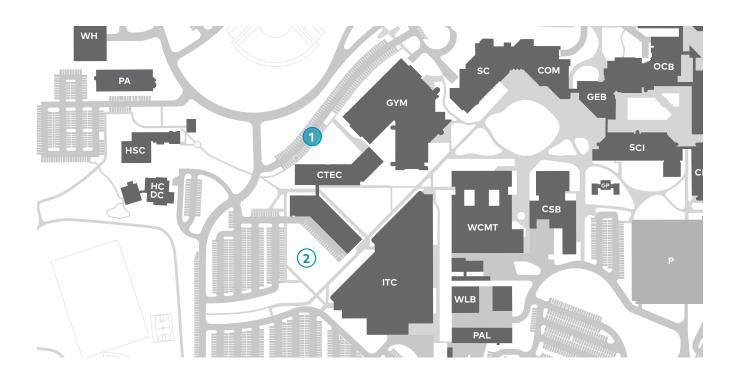
### Mock-Up House Lab

Incorporating a high bay space for a full-scale house mock-up presents a valuable opportunity to create a multidisciplinary training environment that mirrors real-world residential construction. This space could serve as a hands-on learning lab where HVAC, electrical, plumbing, and solar technology students collaboratively practice system installation, troubleshooting, and integration in a realistic, built-to-scale setting. A house mock-up would also offer a flexible framework for scenario-based training, including energy efficiency upgrades and green building techniques. Additionally, the space could lay the foundation for launching a new framing or residential carpentry program at the College, filling a growing workforce need and expanding the range of skilled trades training offered.

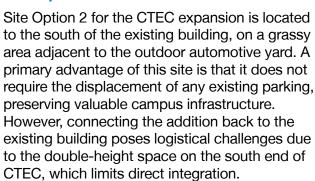
### **Communal Lounge / Break Room**

Students and faculty expressed the lack of a dedicated lounge or break room space in the existing CTEC facility. Industrial Technology students need proper area for warming up meals, enjoying lunch or dinner, studying, and collaborating with each other without disturbing other classes or lab activities happening around them.

### **Site Location Studies**







The suggested siting for a CTEC expansion is located directly north of the existing building and offers several key advantages. It provides ample space for growth, has direct access to the existing service road, and presents the most straightforward opportunity for physical connection to the current facility. However, this option would require the removal of several parking stalls, including the designated electric



vehicle (EV) charging stations.

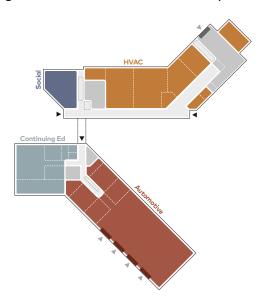
Site Option 1

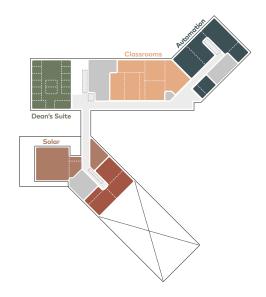


# **Expand Career and Technical Education Facilities**

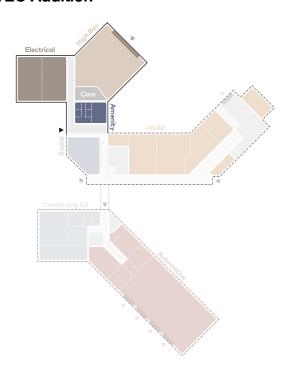
### **Academic Neighborhoods**

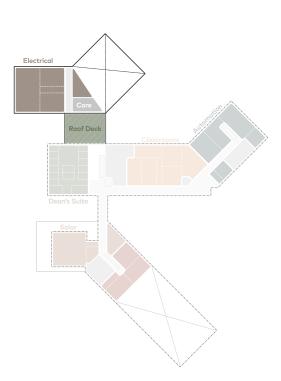
Strategic shifts in the programming of the existing CTEC buildings, primarily within the HVAC and Automation Engineering departments, are being proposed to establish distinct neighborhoods of related programs that support collaboration and a stronger program identity. The plan also includes the concentration of flexible general classrooms on the second level to accommodate shared use and evolving instructional needs across disciplines.





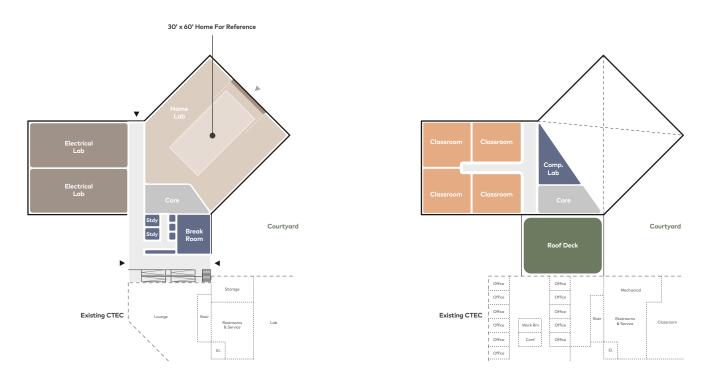
#### **CTEC Addition**







# **Aerial View Facing Northeast**



# **Organize the Student Center Pathways**

### Strategic Plan Alignment

These recommendations are aligned the goals outlined in Johnson County Community College's Strategic Enrollment Master Plan to provide service to students and provide guidance for resource allocation and technology and facilities planning.

**Goal 2 / Objective 1 / Action Item 1 :** Decrease the stigma and increase the interest that people have in seeking financial support to finance their education.

**Goal 2 / Objective 1 / Action Item 2 :** Enhance financial aid awareness and accessibility for students through workshops about financial aid options, scholarships, and tuition assistance programs.

**Goal 2 / Objective 1 / Action Item 3 :** Provide comprehensive support services to guide new and returning students through the financial aid process.

**Goal 2 / Objective 1 / Action Item 4 :** Offer financial literacy workshops and one-on-one counseling sessions to help students make informed decisions about financing their education and managing student debt.

**Goal 2 / Objective 2 / Action Item 1 :** Increase parking availability for prospective students who visit campus.

**Goal 2 / Objective 2 / Action Item 2 :** Ensure campus navigation is made simple through appropriate signage and wayfinding.

**Goal 2 / Objective 2 / Action Item 3 :** Redesign campus driving paths to create an intuitive route to the College's "front door."

**Goal 2 / Objective 2 / Action Item 4 :** Develop digital options, signage, and mapping for the entry to the Midwest Trust Center for those who start there and need redirection.

**Goal 3 / Objective 2 / Action Item 2 :** Ensure that support services, resources, and facilities are accessible to all students, including those with disabilities, diverse learning needs, and non-traditional backgrounds.

**Goal 3 / Objective 3 / Action Item 1 :** Review office hours, delivery methods, and department locations to increase availability and use of services offered to students.

The Student Center is JCCC's "front door" opening to the Student Welcome Desk, the Bookstore and The Market convenience store on the first floor. The second floor Student Success Center includes Counseling, Career Development, Access Services, Admissions, Records, and Financial Aid. The third floor currently houses Testing Services and administrative offices.

2,301

prospective students attended formal tours in academic year 2024

100% 5,360

students taking classes on JCCC's main campus interact with the student success services

incoming student identification cards processed in 2024 by the Student Welcome Desk

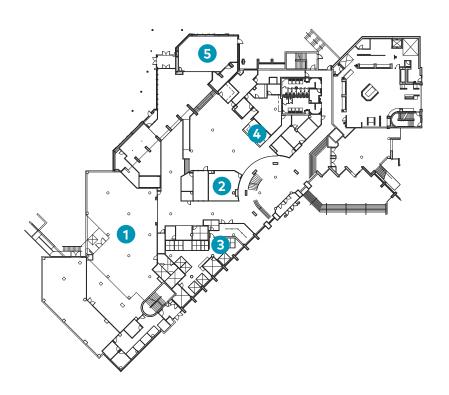
## **Student Success Focus Group**

Shelli Allen	Vice President, Student Success and Engagement, Chief Student Affairs Officer
Pete Belk	Director, Recruitment and Enrollment Strategy
Holly Dressler	Assistant Dean, Access Services
Brent Haverkamp	Coordinator, Orientation and Student Retention
Leslie Quinn	Dean, Enrollment Services
Leslie Washington	Director, Career and Transfer Services
Christal Williams	Director, Student Financial Aid

## **Current Student Center Facilities Use**

#### **Student Center - Level One**

The first floor of the Student Center underwent substantial renovations following the 2016 master plan to enhance the student experience and establish a vibrant new front door for the campus. The redesigned space features a welcoming campus bookstore, a convenient grab-and-go food option, and a dedicated orientation conference room to support new student transitions. It also includes offices for recruitment, a centrally located student engagement desk, and the Bursar's office.

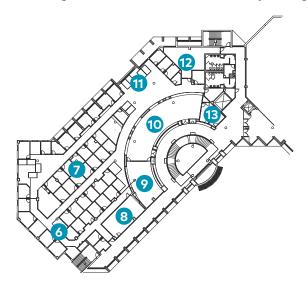


# Key

Bookstore	9	Career Development
Recruitment	10	Student Success Center
Bursar's Office	11	Academic Success Coaches
Student Engagement	12	Financial Aid (Student-Facing)
Orientation Conference	13	Transfer Center
Access Services	14	Admissions Processing
Counselors	15	Financial Aid (Processing)
STAR (Student Transcripts	16	Student Success Administrative
and Registration)	17	Testing Services
	Recruitment Bursar's Office Student Engagement Orientation Conference Access Services Counselors	Recruitment 10 Bursar's Office 11 Student Engagement 12 Orientation Conference 13 Access Services 14 Counselors 15 STAR (Student Transcripts and Registration)

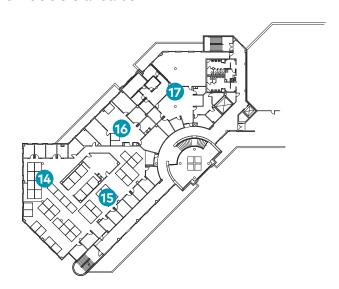
#### **Student Center - Level Two**

Level two of the Student Center is home to the Student Success Center, where students come to access critical support services such as counseling, financial aid assistance, and course registration. While these resources are essential to student success, the current layout is outdated and difficult to navigate due to its fragmented organization and lack of clear wayfinding.



#### **Student Center - Level Three**

Level three of the Student Center primarily functions as a staff workplace, with limited student engagement aside from the frequently used Testing Services Center. The office settings are outdated and should be renovated to better accommodate part-time remote work and elevate the overall quality of the space to meet current JCCC standards.



# **Student Success Engagement Feedback**

### **Focus Group & Questionnaire**

To ensure the updated facilities plan reflects the specific needs of JCCC's student success pathways, the design team actively sought feedback and engagement from program directors and key representatives. We distributed a detailed survey to gather insights on how current spaces are used, as well as challenges and opportunities. Additionally, we held an in-person engagement session where stakeholders shared their vision for the future of their services and outlined the physical and spatial requirements necessary to support student success. Below is feedback received by student success staff in response to the questionnaire.

### What are barriers to best serving the JCCC student population?

- Privacy
- Training and Workshop Spaces
- Clear, Accessible Paths Between Services
- Distance / Lack of Coherence Among Groups
- Clear First Step in the Student Success Process
- So Many Variations in Pathways for Various Demographics

#### How might JCCC offer services effectively for off-site students?

- Counseling Spaces at Off-Site Facilities (Dedicated Private Room)
- Extended Service Hours for Nontraditional Students
- More In-Person Visits to These Locations
- Dedicated On-Site Student Success Staff
- Visits From Recruitment Staff for Credit Courses On-Campus and Bridge Programs
- Guided Tours of On-Campus Facilities (such as the Field House)

#### What We Heard - Student Success

- In terms of dedicated parking spaces for prospective students, invited students have parking spots in front of the Student Center with their names but it would be helpful to have designated stalls for those 'dropping in' or coming without an appointment
- Currently tours and prospective student visits are limited to three students and their families with financial aid and academic programming sessions paired with visits; ideally that number grows
- The testing and accommodations center on the third floor works well where it is; it is nice for it to be in a quieter part of the Student Center, serves both new and current students, and was recently renovated
- Testing Center currently does not offer weekend or evening hours to align with classes that are held during those times; would be beneficial to expand access to this resource
- From the two main campus vehicular entry points, the Midwest Trust Center and Wylie Hospitality and Culinary Arts buildings appear to be the 'front door' of campus; anything to better orient new students and visitors

- Universal design principles and equitable access and wayfinding are missing from the current student success pathway in the Student Center
- Student Success Center overall needs private spaces and conference rooms to have personal conversations and meetings; particular emphasis on additional privacy needed for the Financial Aid and Student Success coaches
- Processing and student-facing Financial Aid staff would benefit to be co-located on one level; it seems to make the most sense that processing moves down with the rest of financial aid team on the second level (possibly even to the ground level near the Bursar's office)
- Admissions and Financial Aid processing teams could benefit from hoteling or benching workspaces as their teams primarily work from home; this would need to be supplemented with private conference or workspaces for meetings and personal conversations
- Recruitment team currently located on the ground level could benefit from private offices with specific viewsheds and adjacencies; recruitment coordinator/manager of campus visits/navigator all need private offices; recruiters are okay with hoteling or benching because they spend so much time off-campus
- Room 101 used for orientations and campus visits would benefit from outlets for students to be able to use computers; Room 105 could be an additional conference/orientation room if recruitment team got a new space
- Break room situation on the second level is not sufficient; it is too small for all that need to use it
  and it has very little privacy so students walking through access services or counseling areas
  overhear and see conversation in break room; third floor break room has more privacy but isn't
  big enough for all Student Success staff
- Waiting system at the Student Success counter that would allow students to walk around and receive a text might help with the 'DMV' feel
- STAR room is not intuitive to find or access and feels disconnected from the pathway
- Calm / sensory room in Access Services area is typically for students who need a space to take a minute when they are overwhelmed or upset; its location in the middle of offices lacks privacy

# **Benchmarking Regional and National Precedents**

### **Emerging Trends in Student Resource Center Design**

Contemporary design trends of student success resource centers reflect a shift toward creating centralized, student-focused environments that promote accessibility, transparency, and collaboration. Institutions are moving away from siloed service models toward "one-stop" hubs that co-locate key resources such as financial aid, counseling, registration, advising, and recruitment in a single, easily navigable space. These centers emphasize open layouts, intuitive wayfinding, and welcoming aesthetics that reduce barriers to access and encourage student engagement. Natural light, comfortable lounge areas, and flexible meeting rooms support both casual interactions and private consultations, while integrated technology (such as check-in kiosks, digital signage, and virtual advising stations) enhances efficiency. Staff workspaces are also being reimagined with collaborative office designs, quiet zones, and wellness-focused features to support productivity and cross-functional teamwork.



Southeast Community College (Lincoln, NE)



City College of San Francisco (San Francisco, CA)

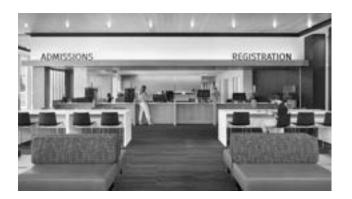


University of Arizona (Tucson, AZ)



Bunker Hill Community College (Boston, MA)

### **Renovation Considerations**







#### **Student Welcome Areas**

Student welcome areas serve as central hubs that clearly guide students to support services like advising, counseling, and financial aid. Designed to be open and accessible, they often include study spaces, computers for completing applications, and informal seating. These spaces help students navigate resources with ease while encouraging engagement and connection.

#### **Conference Rooms**

Smaller rooms are essential for phone calls or one-on-one conversations with students about sensitive topics such as financial aid or personal challenges. Larger conference rooms support group workshops, staff meetings, and collaborative planning sessions, creating flexible, multipurpose spaces that adapt to the diverse demands of student services.

#### **Staff Support Spaces**

Staff support spaces, such as break rooms and work rooms, should be designed with acoustic and visual separation from student areas to provide privacy and a sense of retreat from the demands of frontline service. The inclusion of dedicated wellness spaces is an emerging trend that reflects a growing recognition of the importance of supporting staff mental health and job satisfaction in high-demand settings.

#### **Hoteling / Benching Workstations**

Hoteling and benching workstations provide flexible, space-saving solutions for part-time remote staff who need a place to work when on campus. Prioritizing access to natural light in these areas enhances comfort, focus, and wellbeing. These adaptable workstations support a hybrid workforce by maximizing efficiency without sacrificing the quality of the workplace experience.

# **Organize the Student Center Pathways**

#### The Future of Student Services at JCCC

Proposed renovations to the Student Center building are focused on enhancing functionality, visibility, and student access to key support services. On Level 1, only minimal changes are suggested due to the significant investments already made following the 2016 master plan. Improvements on this floor should include reconfiguring the recruitment staff offices to support more efficient workflows and collaboration. Additionally, upgrades to Room 101 should be considered to improve its technology and better accommodate students using laptops during orientations and workshops.

More substantial changes are being proposed for Levels 2 and 3. Level 2 would remain the home of the Student Success Center, with improvements aimed at co-locating both the student-facing and processing sides of the financial aid team to enhance collaboration and streamline service delivery. Office environments for academic success coaches may be modernized to better reflect their needs, and additional conference rooms of various sizes should be created to support student privacy during one-on-one or small group meetings. To accommodate these changes, Access Services, the Student Transcript and Registration (STAR) room, and the Career Development Center are proposed to move to Level 3. A key organizational improvement under consideration is the creation of welcoming lounge areas at the entrances to Levels 2 and 3, positioned immediately near elevators and staircases, to help students quickly orient themselves to the services they need. Surrounding these hubs with student-facing services such as Financial Aid, Academic Success Coaching, and Counseling on Level 2, and Access Services, Career Development, and the STAR room on Level 3, could significantly improve the student experience by making these offices more visible and intuitively accessible.

### Key

Existing, No Renovations

Existing, Renovations Suggested

Relocation and Renovations

Welcome Lounges

#### **Lower Level**

**Dining Services** 

#### **Level One**

Recruitment

Bursar's Office

**Bookstore** 

Student Engagement

Orientation

#### Level Two

**Transfer Center** 

Counseling and Advising Success Coaches

Financial Aid

#### **Level Three**

**Testing Services** 

**Access Services** 

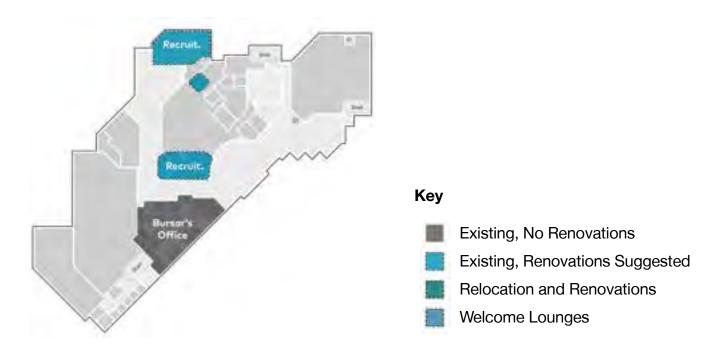
Enrollment, Registration, and Records (STAR)

Career Development Center

Student Services Administrative Offices

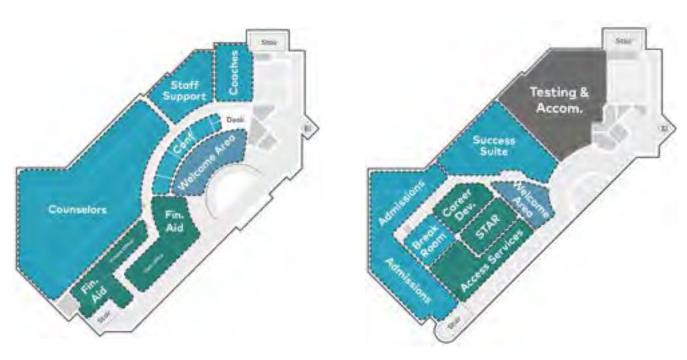
Admissions Processing

### **Student Center - Level One**



### **Student Center - Level Two**

### **Student Center - Level Three**



# **Improve Athletic Support Spaces**

### **Investments Following the 2016 Facilities Master Plan**

Following the adoption of the 2016 Master Plan, Johnson County Community College (JCCC) made significant investments to enhance its outdoor athletic facilities, elevating the quality and functionality. Major improvements were made to the soccer, baseball, and softball fields, including upgraded playing surfaces, improved drainage systems, and the installation of modern lighting for evening events. These enhancements not only provided student-athletes with top-tier facilities for competition but also created a more engaging and comfortable experience for spectators and community members. The 2025 Facilities Master Plan Update will aim to continue the momentum of these investments in athletic training facilities, taking advantage of the existing fields and the small existing concessions and restroom building.



Soccer Pitch



Baseball Field



Softball Field



Concessions and Restroom Building

JCCC offers athletic programs including women's basketball, softball, dance, soccer, and softball; and men's basketball, baseball, and soccer. There are currently 172 student-athletes. Cavalier sporting events brought more than 11,500 spectators to campus during the 2024-2025 seasons.

national championships

158
regional titles

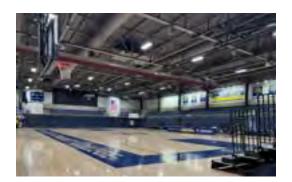
610

NJCAA Academic Award Winners

### **Athletics Focus Group**

Shelli Allen	Vice President, Student Success and Engagement, Chief Student Affairs Officer
Tony Tompkins	Assistant Dean, Athletics Director
Joe Weis	Director/Professor, Health & Wellness

# **Current Athletic Spaces**



**GYM Arena** 



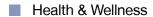
Barbara Gill Lifetime Fitness Center



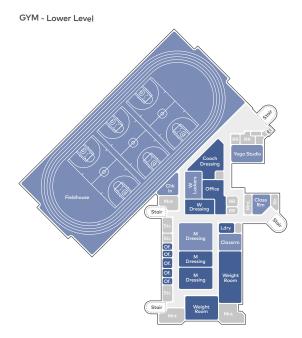
Weight Room

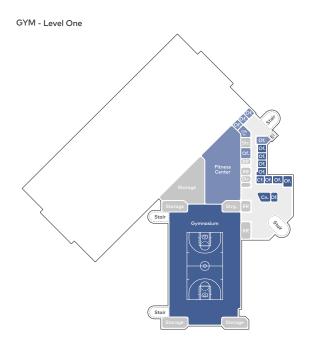


Fieldhouse









# **Athletics Engagement Feedback**

#### What We Heard

- The Gym was renovated as part of the 2016 Facilities Master Plan
- Women's softball and soccer have their own locker rooms, but basketball and volleyball use a shared space with a small lounge
- General women's locker room space has received complaints due to poor sight lines and safety concerns
- The distance between the outdoor fields and the Gym is inconvenient for JCCC teams and visitors, and inaccessible for halftimes during games. It would be extremely beneficial for outdoor sports' (baseball, softball, and soccer) locker rooms and coaches' offices to move to a new location near the fields, along with additional space for training and treatment, and a hospitality area for officials and donors; this would free up space on the lower level of GYM to dedicate to athletics and health & wellness support spaces
- Cav Fit Lab lost its space to become an athletics office and needs to be evaluated for replacement
- Weight room on lower level is shared by students, employees, and athletics; general JCCC community only has access weekdays until 1pm and then it is restricted to athletics only
- Classrooms in GYM are utilized by health and wellness, other academic programs, and athletics; athletics uses classrooms informally for training, watching film, and as conference space; suggestion to use GYM 021 as a recovery/training room with soaking and replace classroom elsewhere
- Athletes mentioned during student engagement that tables and chairs rather than just couches in athlete lounges would be more conducive to studying
- Office spaces for athletics staff are crowded with sometimes 2 or 3 coaches sharing an office making it difficult to schedule private meetings or phone calls; adding outdoor sports offices near field would free up space in GYM
- Fieldhouse is heavily utilized; often used by athletics, general JCCC community, for rentals (archery, cheerleading, fencing, science fairs, gymnastics, taekwondo, etc.), and by academic programs - especially the Fire Science program using it for CPAT testing where trainees come from all over the country monthly
- Storage is a consistent consideration for athletics, academic programs, and recreation in the GYM building

# **Programmatic Considerations**









#### **Locker Rooms**

Relocating outdoor men's and women's locker rooms from the existing Gym to the new outdoor athletic building would improve the experience and logistics for outdoor teams and their opponents and create critical space for renovations to the indoor locker room facilities. This transition would allow indoor teams to have their own locker room spaces and ensure that they don't have to vacate for visiting teams.

### **Treatment Spaces**

The new outdoor athletic building should include treatment space to support injury prevention, recovery, and overall wellness, while the existing treatment area in the Gym building should be renovated to meet similar standards. Typical features of treatment facilities include taping stations, hydrotherapy tubs, treatment tables, and space for rehabilitation exercises to keep student-athletes healthy and game-ready.

#### **Study Areas**

Feedback from students and staff highlighted that existing spaces lack environments that support productive studying. The new building and existing Gym renovations should include study zones in common areas and locker rooms, featuring flexible furniture to accommodate a variety of postures. These additions will create a supportive environment that recognizes the dual responsibilities of JCCC's student-athletes.

#### **Training Room**

A fitness training space designed to meet the conditioning needs of student-athletes should be considered for the new outdoor sports facility. Common features of collegiate fitness spaces include free weights, power racks, cardio machines, and turf areas for dynamic movement. This could provide dedicated, consistent use for student-athletes rather than the existing shared space in the Gym.









#### **Coach Offices**

Dedicated office space for outdoor athletics coaches should be considered, addressing significant space constraints in the current Gym building, where two or more coaches often share a single, undersized office. Modern college athletic programs typically provide coaches with private or semi-private offices to allow for confidential meetings, game planning, recruiting calls, and mentoring student-athletes.

### **Visiting Teams Locker Rooms**

A new outdoor sports facility should include locker rooms for visiting outdoor teams, providing appropriate and conveniently located spaces for opponents to change, meet, and prepare before, during, and after games. While these locker rooms may be smaller than JCCC's locker rooms, they are a critical part of hosting events and ensuring a professional experience for all teams.

#### Conference Room(s)

Flexible conference rooms could act as collaborative hubs for coaches to coordinate, team meetings and film review sessions, and welcoming environments for recruitment activities with prospective student-athletes and their families. These should include adequate seating and technology to support a wide range of academic, athletic, and administrative uses.

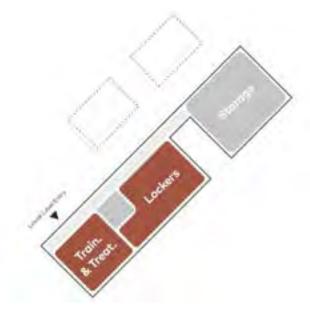
### **Hospitality Space**

A multi-purpose hospitality space could host officials, recruits, and donors. Flexible seating arrangements should be considered to accommodate a variety of uses, from casual events to formal donor events, and should be equipped with a food service area. To enhance the experience, strategically locating the hospitality space with views towards the fields should be considered.

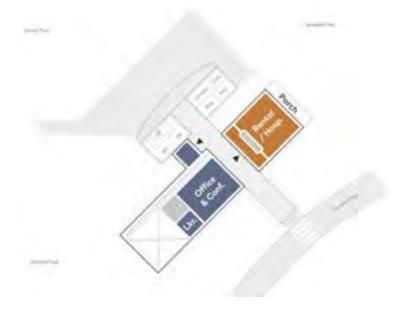
# **Improve Athletic Support Spaces**

The 2025 Master Plan proposes a new facility near the newly renovated outdoor fields providing athletes direct access to necessary support spaces. This would in turn allow the existing spaces in the GYM to be renovated to more effectively serve the indoor sports athletes, staff, and coaches. This new outdoor facility is proposed to be located on the south side of the existing concessions and restroom building near the athletic fields. A new facility should include training, treatment, locker rooms, and support spaces for student-athletes as well as conference, office, recruitment, and hospitality spaces to support the athletic staff and coaches. While a formal programming and design process should follow, the planning team estimates that this new facility is between 7,000 square feet to 9,000 square foot.

#### **Lower Level Plan**



### **Upper Level Plan**





View Facing West From "Cavalier Way"



**View Facing Northeast From Existing Field Sidewalk** 











Strengthen Wayfinding for Pedestrians and Drivers



Ensure Effective Space Management Practices



Integrate Sustainability



Build Upon Universal Design Strategies



Address Aging Campus Infrastructure

As JCCC plans for the next decade of growth and continued investment in student success, a series of campuswide initiatives have been identified to enhance the overall campus experience and operational performance. These initiatives reflect goals that extend beyond individual buildings or projects, focusing instead on the fundamental systems, spaces, and policies that shape how students, faculty, staff, and visitors engage with the campus every day. By addressing both the physical environment and the underlying infrastructure that supports it, these strategies work collectively to create a more accessible, sustainable, and student-centered campus.

The following initiatives are designed to advance JCCC's commitment to academic excellence, inclusive design, sustainability leadership, and operational efficiency. They include enhancing active learning environments, improving wayfinding for all users, ensuring effective space management practices, embedding sustainability in all future planning, building upon universal design strategies, and addressing aging infrastructure. Together, these priorities support a holistic approach to campus planning—one that positions the College to meet current needs while proactively preparing for the challenges and opportunities of the future.

# **Support Active Learning**

### **Evolving Learning Space in Higher Education**

Community college learning environments have continued to evolve over the past decade, driven by advances in technology, research, and a demand for spaces that foster engagement, collaboration, and real-world problem solving. One of the biggest trends in this evolution is a shift towards active learning classrooms which are flexible environments designed to promote interaction, critical thinking, and applied learning.

JCCC's 2016 Facilities Master Plan prioritized the transformation of many traditional, lecture-based classrooms into active learning environments. Since then, the College has made substantial progress in modernizing instructional spaces to support collaborative learning, technology integration, and adaptable layouts. These classrooms often feature reconfigurable furniture, writable surfaces, technology, and layouts that replace passive information delivery with interactive, student-driven exploration. As JCCC plans for the next decade of development on campus, commitment to active learning environments should remain a strategic priority. Building on the successes of the 2016 Master Plan, the 2025 Facilities Master Plan introduces a broader vision for active learning investments that focuses on outdoor settings across the campus, serving multiple academic programs and neighborhoods.

### **Outdoor Learning Environments**

While the transformation of interior classrooms remains a priority for the College, this Facilities Master Plan Update places a focus on investments in outdoor active learning environments. These spaces represent an underutilized opportunity to extend the principles of active learning beyond traditional classroom spaces to enrich student experience. There are several benefits to outdoor learning spaces, including promoting wellness by connecting students with nature and supporting diverse instructional needs across academic programs. These spaces are particularly valuable in the post-pandemic era, where flexible, open-air environments can provide safer, more resilient options for group learning.

Outdoor active learning environments can range from informal gathering spaces to structured, program-specific classrooms. At JCCC, outdoor learning spaces could support academic programs including healthcare, the arts, sciences, industrial technology, and public safety. Potential features and design strategies may include:

- **Flexible Outdoor Classrooms**: Shaded seating areas with moveable furniture, integrated power sources, and digital display capabilities, adaptable to different class sizes and instructional styles.
- **Demonstration Gardens and Living Labs**: Landscaped areas designed for science, sustainability, and horticulture programs to conduct fieldwork, research, and hands-on experiments.
- **Outdoor Performance and Arts Spaces**: Amphitheater-style seating or open stages for music, theater, and visual arts programs to engage in performances, critiques, and exhibitions.
- Simulated Training Environments: Open spaces for public safety and industrial technology programs to conduct scenario-based training exercises, equipment demonstrations, or vehicle operations.

# **Benchmarking National Precedents**

### **Award-Winning Outdoor Learning Environments**

Many higher education institutions have successfully implemented outdoor active learning spaces that can serve as precedents for JCCC's future investments. The following projects represent innovative, design-recognized examples of how outdoor environments can support active learning:





### Arizona State University - Orange Mall Outdoor Classroom

A multi-functional outdoor plaza integrating shade structures, flexible seating, Wi-Fi access, and sustainable landscaping. The space serves as an informal classroom, gathering area, and demonstration site for sustainability practices, supporting both scheduled instruction and spontaneous collaboration.





### Georgia Institute of Technology - Kendeda Building Rooftop Garden & Apiary

Georgia Tech uses this landscape as a living laboratory where both the university and the urban community can learn how innovative water, energy, and food-management solutions within the built environment can contribute to health and well-being.

# **Support Active Learning**

### **Background Summary of Clark & Enersen Outdoor Classroom Feasibility Study**

In 2023, Johnson County Community College (JCCC) requested that Clark & Enersen Architects and Engineers provide assistance in developing conceptual design and initial cost estimates for several new outdoor classroom spaces. Several internal studies and reviews have been completed by JCCC which explored multiple locations on campus, and after discussion during the project, three sites were selected for this study. Below is a summary of each of these areas, along with goals identified for the classroom spaces:



Site A - Amphitheater (Southwest of the Student Center and Commons)

The amphitheater design leverages the natural slope near the chiller facility to create a tiered seating space for up to 100 people, with a shaded stage area. The project includes audio-visual infrastructure and lighting for evening use. Stormwater infrastructure adjustments would be required to accommodate the amphitheater, and its placement in a lower-traffic area provides a unique opportunity for programmed events and outdoor instruction without disrupting daily circulation patterns.



Site B - Treehouse Classroom (South of the Science Building)

This project proposes a covered outdoor classroom with seating for 32 students, designed to function as a traditional learning space in an open-air environment. It includes secured presentation technology and would be connected to the surrounding campus by a new sidewalk system. Existing utilities in the area would need to be avoided during construction.



Site C - Arts Pavilion (Near the Fine Arts Building and Library)

This proposed outdoor space includes seating for 50 people under an overhead structure, providing shade and visual definition within the adjacent quad. The space is intended to support arts instruction and presentations with integrated technology but can transition into a passive plaza or study space when not programmed for specific use.

### 2025 Facilities Master Plan Update Recommendations

While all three outdoor classroom concepts offer different opportunities, the Facilities Master Plan Update recommends prioritizing the Amphitheater project near the Commons Courtyard hill, recognizing its ability to create a large, flexible gathering space in the heart of campus. This project would significantly expand outdoor learning and event capabilities in a centralized location that all academic and student programs could benefit from. Additionally, the Plan supports the implementation of the Science Treehouse Classroom to complement and further invest in the proposed addition of the Science and Healthcare academic neighborhood that surrounds the courtyard where this outdoor learning environment is proposed.

While the Arts Pavilion proposal on the east side of campus has a unique opportunity to display art from the design students, it is recommended that this investment gets redirected to the west side of campus near the Career and Technical neighborhood. Unlike the east side, which already benefits from activation in the Commons Courtyard and Fountain Square, the west lacks the same energy and programming. This outdoor classroom could be suited to industrial technology labs, planted as an ecological demonstration garden, or serve as a general study and meeting space for the broader campus. An investment in the outdoor space on this edge of campus could help to balance campus activity and create a positive experience for pedestrians walking from southern surface parking lots into core campus.



# **Support Active Learning**

## **On-Ground Observatory Proposal**

The JCCC Astronomy department submitted a proposal to construct a new, stand-alone, on-ground observatory to enhance undergraduate research opportunities, improve public engagement, and address limitations of the existing Paul Tebbe Observatory. The proposed observatory is part of a broader effort to expand Course-Based Undergraduate Research Experiences (CURE) within the Astronomy curriculum (ASTR 122) and support hands-on, research-driven learning.

The current observatory atop the Classroom and Laboratory Building (CLB) is suitable for general observing but presents significant barriers to advanced academic use and community events. Structural vibrations, limited access points, and environmental factors hinder research-grade astronomical imaging. To overcome these challenges, the Astronomy faculty proposed an on-ground observatory that would provide stable infrastructure, greater accessibility, and modern equipment deployment.

The proposed observatory would feature:

- A secure, 16' x 20' building with a roll-off roof for telescopic observation
- A dedicated, mechanically isolated steel pier for precise, research-grade imaging
- An 8' x 16' warm room for equipment storage and computer operation
- A 20' x 40' concrete pad providing ample space for public events and additional telescopes
- Electrical systems to support telescopes, CCD cameras, laptops, and low-impact red lighting
- A proposed 5 kW solar power system with battery storage to align with JCCC's sustainability goals

The observatory will be equipped with an existing Meade 12" telescope, Starlock auto guider, and scientific imaging camera. Additional equipment needs include a spectrometer and a calibrated photometric filter set to facilitate advanced undergraduate research.

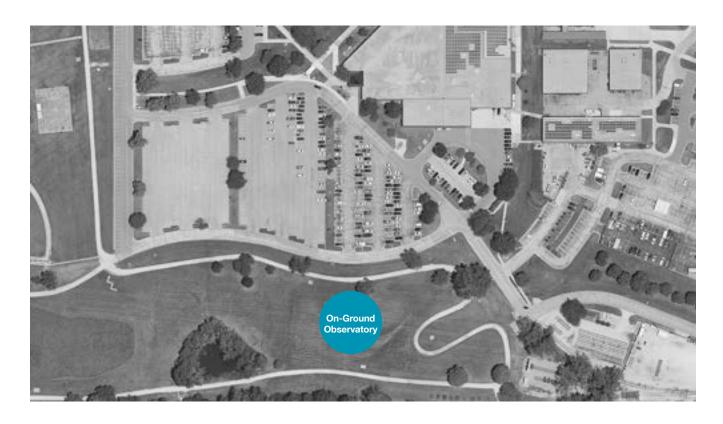
#### **Educational and Community Impact**

The observatory would support research experiences for introductory students, enabling them to collect and analyze original astronomical data. It will also:

- Integrate research opportunities into ASTR 122 and ASTR 120 courses
- Provide students with valuable skills in scientific inquiry and data collection
- Support honors projects and participation in academic conferences
- Enhance public outreach through community events such as "Evening with the Stars"
- Increase accessibility for large groups, improving JCCC's community engagement efforts

### **Recommended Location**

The Astronomy department has proposed a location on the south side of campus, near the "ring road," offering proximity to parking for students and community events and reduced light pollution. The 2025 Facilities Master Plan agrees with this proposal, suggesting the following location for an on-ground observatory facility:



## **Concept Images Provided by Astronomy Department**







# **Strengthen Wayfinding for Pedestrians and Drivers**

### Strategic Plan Alignment

These recommendations are aligned to the goals outlined in Johnson County Community College's Strategic Enrollment Master Plan to support intuitive wayfinding for students, employees, and visitors.

**Goal 2 / Objective 2 / Action Item 2 :** Ensure campus navigation is made simple through appropriate signage and wayfinding.

**Goal 2 / Objective 2 / Action Item 3 :** Redesign campus driving paths to create an intuitive route to the College's "front door".

**Goal 2 / Objective 2 / Action Item 4 :** Develop digital options, signage, and mapping for the entry to Midwest Trust Center for those who start there and need redirection.

#### Overview

Since the completion of the 2016 Facilities Master Plan, Johnson County Community College has made several important investments to improve wayfinding and campus navigation for students, employees, and visitors. These improvements include updated vehicular and pedestrian signage across campus, enhancements to campus maps, new sidewalks, and the installation of two new monument signs at major campus entry points. While these upgrades have resulted in noticeable improvements, feedback from students and employees highlighted persistent challenges experienced by drivers, pedestrians, cyclists, and transit users when navigating campus. Common concerns include difficulty finding building entrances, unclear pathways for pedestrians and bicycles, especially for those needing accessible pathways, limited wayfinding support at key decision points, and barriers to intuitive movement across campus edges.

This Facilities Master Plan Update has taken a broader, holistic look at the campus environment to understand how physical barriers, signage gaps, and circulation patterns may still limit the ability of community members and visitors to navigate campus safely and efficiently. This assessment informs updated strategies that will guide future wayfinding improvements, with the goal of creating a more cohesive, intuitive, and accessible experience for all campus users. This effort takes a multi-scale approach and examines the full sequence of movement for campus users, from the initial arrival at campus entries, to the experience of driving along the internal "ring road," to navigating parking areas, to finding and moving through buildings. One of the primary recommendations from this effort is the development of an interactive, digital mapping and navigation tool that people can access on their mobile devices as a part of a comprehensive wayfinding and signage study that the College should consider commissioning from a signage design firm.

### **Campus Entry Experience**

The campus entry experience is a critical first impression for students, employees, and visitors. JCCC's main campus is served by four vehicular entry points: two along College Boulevard and two along Quivira Road. The two most heavily utilized are the East College Boulevard entrance and the South Quivira Road entrance, both of which feature prominent monument signs installed as part of recent investments in campus identity and wayfinding improvements. Despite these upgrades, feedback from students and employees identified ongoing challenges related to the entry experience. A consistent concern is the difficulty many new visitors face in locating the campus "front door," which is the recently renovated Student Center. While significant investments have enhanced the Student Center arrival area, wayfinding cues throughout campus do not effectively direct people to this resource. Several factors contribute to this challenge:

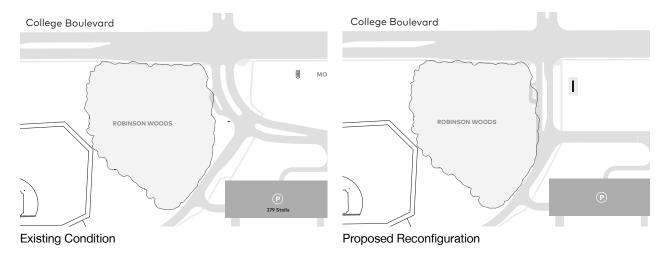
- **Entry Geometry and Traffic Flow**: The current alignment of the East College Boulevard entrance encourages vehicles to veer east, bypassing the direct route to the Student Center.
- **Signage Placement and Visibility**: Signs are located at points after entering campus where drivers have limited reaction time to make directional decisions.
- **Visual Obstructions**: The natural buffer of Robinson Woods along the College Boulevard corridor obscures sight lines toward the Student Center

#### **Opportunities and Strategies for Improvement**

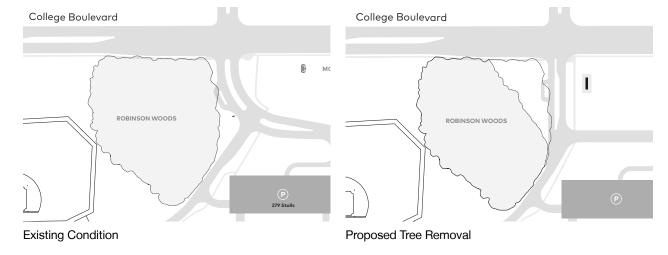
- 1. Increase Utilization of the Lesser-Used Entry Points: encouraging more balanced use of the campus's four entry points can alleviate congestion, improve distribution of traffic, and create new arrival options for students, employees, and visitors. Strategies to support this include:
  - Enhanced Signage Along College Boulevard and Quivira Road: Install additional directional signage well in advance of all campus entry points, giving drivers sufficient time to select alternative entrances.
  - <u>Pre-Arrival Communication</u>: Integrate updated directions into digital platforms, such as the College website, enrollment materials, and future mobile navigation tools, to inform visitors of all available entry options.
  - <u>Wayfinding Reinforcement within Campus</u>: Provide clear internal signage and lane markings that guide drivers from lesser-used entrances to major destinations, including the Student Center, parking areas, and academic buildings.
  - <u>Landscape and Identity Enhancements</u>: Invest in visual markers, lighting, or branded elements along underutilized entry corridors to elevate their prominence and create a consistent campus identity from all access points.

# Strengthen Wayfinding for Pedestrians and Drivers

- 2. Improve the Arrival Experience for Drivers Accessing the Student Center: targeted improvements to the east College Boulevard entrance and its circulation patterns can better orient drivers toward the Student Center and reinforce its role as the "front door" of campus:
  - Reconfigure Traffic Flow: Explore adjustments to road geometry or signage within the entrance to encourage direct routing south toward the Student Center rather than defaulting eastward



- Advance Signage Placement: Relocate or add directional signs along Quivira Road farther north
  of the entrance and along College Boulevard father west to provide drivers with more lead time to
  make navigational decisions.
- <u>Selective Clearing and Framing of Robinson Woods</u>: Consider limited, strategic clearing within Robinson Woods to open critical sight lines toward the Student Center. Be mindful of the existing apiary that currently resides within the Robinson Woods and limit number of trees removed to preserve ecology.



Integration with Digital Navigation Tools: Ensure that proposed digital campus maps and
navigation applications emphasize routing to the Student Center, particularly for new students and
visitors.

## Campus Drive - The "Ring Road"

The internal circulation system at Johnson County Community College is defined by a single, continuous roadway known as Campus Drive, often referred to by the campus community as the "ring road." This roadway loops around the core of campus, providing primary vehicular access to academic buildings, parking lots, and campus services. While Campus Drive serves as a critical circulation route, feedback from students, employees, and visitors has highlighted several aspects of the existing condition that create confusion, inefficiency, and safety concerns for drivers, pedestrians, and cyclists:

- Lack of Location Awareness: Because the entire loop shares the same street name, Campus Drive, users often struggle to orient themselves along the ring road or understand which segment of campus they are traveling through.
- Irregular Geometry on the South Side: The southern portion of Campus Drive includes a series of sharp curves and angled intersections, forcing drivers to slow down and navigate unexpected turns, which disrupts traffic flow.
- Insufficient Pedestrian and Cyclist Crossings: There are limited designated crossing points for pedestrians and cyclists, creating potentially unsafe conditions for those moving between parking lots, sidewalks, and campus facilities.
- **Parking Lot Access Points**: Some parking lots connect directly to Campus Drive at inconsistent intervals, with cars entering and exiting the ring road in unpredictable patterns, increasing congestion and potential for accidents.

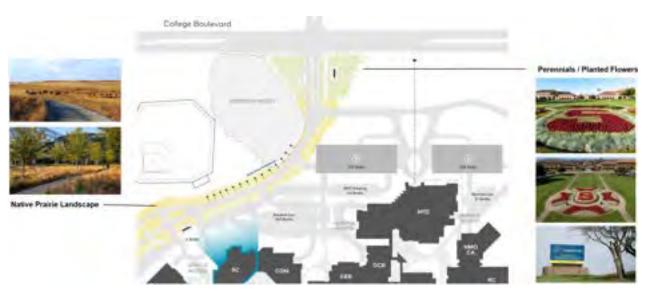
#### **Opportunities and Strategies for Improvement**

- 1. Establish a Distinct Identity for a "Visitor Way" Corridor: create a clearly defined "Visitor Way," which could be an intuitive corridor along the northern portion of Campus Drive that connects the two College Boulevard entries. This strategy would guide visitors and prospective students along a simplified, recognizable route to primary destinations, including the Student Center, athletic fields, and a proposed new parking garage structure:
  - New Roadway Naming Conventions: Rename the northern segment of Campus Drive with an identity-driven name such as "Cavalier Way" that distinguishes it from the remainder of the loop and helps to orient visitors
  - Enhanced Signage and Branding: Install consistent, visible signage along this "Visitor Way" that incorporates campus branding, destination markers, and clear guidance to the Student Center and other key destinations.

# **Strengthen Wayfinding for Pedestrians and Drivers**

• <u>Landscaping and Lighting Enhancements</u>: Use landscape treatments, lighting, and gateway elements (such as the transformation of the existing detention pond at the west Campus Boulevard entry into a constructed inhabitable wetland destination) along the Visitor Way to create a visually distinct, welcoming corridor.





- 2. Simplify and Improve Safety Along the Remainder of the Ring Road: the remaining portions of Campus Drive should be simplified and designed with safety as a priority for all users with the following key strategies:
  - Reconfigure South Side Geometry: Explore realignment to smooth out the sharp curves and awkward intersections on the southern strip of the ring road, promoting consistent speeds and reduced stop-and-go driving.



- <u>Designated Pedestrian and Cyclist Crossings</u>: Install marked, high-visibility pedestrian and cyclist crossings at key points along the ring road, with appropriate signage, lighting, and traffic calming measures, such as speed tables or raised crosswalks, to improve safety.
- Organized Parking Lot Access: Consolidate parking lot entrances and exits to reduce the number of access points along the ring road, minimizing unpredictable vehicle movements.





# **Strengthen Wayfinding for Pedestrians and Drivers**

### **Pedestrian Experience From Parking Lots to Campus Core**

For many students, employees, and visitors, their first interaction with campus begins the moment they exit their vehicle in one of the surface parking lots. This initial transition from car to campus plays a significant role in shaping perceptions of accessibility and safety. Feedback from the JCCC community highlighted that the pedestrian experience within parking lots can be confusing, difficult to navigate at night, and lacking the clear wayfinding cues needed to guide them toward campus entrances with confidence. The current configuration of surface parking lots across campus presents several barriers to creating an intuitive environment:

- Lack of Defined Pedestrian Pathways: In most parking lots, there are no formalized pedestrian walkways connecting parking spaces to sidewalks or campus entry points. As a result, individuals must walk within drive lanes or cut across grass.
- Limited Signage within Parking Areas: Maps, directional signs, and building markers are typically only provided once pedestrians reach formal campus corridors, leaving those navigating parking lots without visual cues to orient themselves.

### **Opportunities and Strategies for Improvement**

- 1. Create Safe, Visible Pedestrian Pathways within Surface Lots: Improving the pedestrian environment within parking areas presents a critical opportunity to enhance the overall campus arrival experience. JCCC can create a network of safe, visible, and accessible pathways that guide users confidently from their vehicles to building entrances with these strategies:
  - Formal Pedestrian Corridors: Introduce clearly marked pedestrian pathways using sidewalks, existing medians, or painted walkways that connect parking rows to primary sidewalks and campus corridors. These should be positioned along direct and logical routes connecting to campus intermittently throughout each surface parking lot.
  - Wayfinding Signage Within Parking Areas: Place directional signage and campus maps within
    parking lots at pedestrian pathways and near accessible parking areas to help orient users.
    Ensure consistent naming of parking areas between road signage, campus maps, and digital
    navigation tools (choose either numbers, colors, or names but not all three)
  - <u>Accessible Routes and Compliance</u>: Ensure that all surface parking lots have at least one
    pedestrian pathway that meets ADA standards for accessibility including appropriate grades,
    surface treatments, curb cuts, and proximity to accessible parking stalls.
  - <u>Integration with Digital Navigation Tools</u>: Coordinate physical pathway improvements with the proposed digital navigation app, enabling users to map their route from their parking stall to campus buildings with real-time guidance.

• <u>Landscaping and Lighting Improvements</u>: Use landscape features, lighting, and visual markers along pedestrian pathways to create inviting and visible routes during both day and night.









## **Navigating To and Through Buildings**

A common challenge reported by the JCCC community, especially those new to campus, was the navigation of the network of interconnected buildings and pathways. While JCCC's cohesive architectural language, anchored by the use of red brick, creates a visually cohesive campus identity, it also contributes to wayfinding difficulties. This sense of disorientation is also influenced by the bridges and interior corridors that link many buildings together. While these connections provide convenience and weather protection, they can also blur the boundaries between buildings, making it harder for users to understand where they are and how to reach their destination.

Following the 2016 Facilities Master Plan, JCCC made significant investments in updating both exterior campus signage and interior building signage. The 2025 Facilities Master Plan Update proposes building upon these investments by refining and simplifying wayfinding strategies rather than simply adding more signage to the existing system. A more holistic approach is recommended, including selectively removing outdated or redundant signage and improving both exterior and interior wayfinding elements to create a clear, consistent, and user-friendly navigation experience.

## **Opportunities and Strategies for Improvement**

- 1. Exterior Campus Wayfinding Signage: Clear, consistent exterior signage and pathways are essential to help pedestrians orient themselves when navigating the campus. To address existing challenges and improve the pedestrian experience, the following strategies are recommended:
  - <u>Building Signage at Multiple Scales</u>: Ensure that all campus buildings have signage that function at multiple distances. This should include large-scale, highly visible signage positioned at locations visible from parking lots and along campus corridors (these would include the existing blue and white circle building names). Additionally, pedestrian-scale signage should be located near building entrances and along walking routes to assist people already beside the building.

# **Strengthen Wayfinding for Pedestrians and Drivers**

Emphasize Popular and High Traffic Corridors: Establish a system of marked exterior paths to
define primary east-west and north-south corridors using distinctive paving materials or color
treatments as well as integrated in-ground directional signage to guide visitors to major
destinations. Feedback from stakeholders identified the routes from the Student Center to the
Midwest Trust Center and from the Student Center to the Regnier Center as key corridors that
could benefit from these treatments.











- 2. Interior Building Signage and Wayfinding: Navigating the interiors of JCCC's connected buildings presents unique challenges, especially at transitional points such as bridges, linked corridors, and shared interior spaces. To address these disorienting moments and improve the overall interior wayfinding system, the following strategies are recommended:
  - <u>Wayfinding at Transitional Moments</u>: Provide clear signage and orientation at building transition zones including at bridges, covered walkways, stairs and elevators, and at disorienting architectural moments such as the circular stairs in campus core buildings.
  - <u>Consistent Room and Building Identification</u>: Ensure all room, department, and building identification is consistent in design and placement to promote visual clarity. Additionally, all signage should be visible from multiple directions, especially in corridors or open spaces.
  - <u>Fixed Signage</u>: Reduce reliance on temporary or movable signage, which often becomes misoriented, outdated, or confusing. Fixed, intentionally places signage ensures that the navigation remains accurate and easy to follow.

# Strengthen Wayfinding for Pedestrians and Drivers

### **Proposed Parking Structure**

As part of this Facilities Master Plan Update, the College has evaluated opportunities to improve parking access, replace displaced stalls from future building projects, and enhance arrival experiences for students, employees, and visitors. One of the key recommendations is the construction of a new parking structure laminated to the west facade of the existing Fieldhouse building. The existing surface lot west of the Fieldhouse is one of the most heavily utilized on campus due to its proximity to the Student Center and athletic facilities. It serves as a convenient parking option for both daily campus users and student-athletes, as well as for visitors attending recruitment events, games, and campus events.

The proposed parking structure would not only support high-demand parking in this area but would also serve a strategic role in compensating for surface parking stalls that may be removed through the implementation of future building-specific initiatives recommended in the Master Plan Update. These projects, such as additions to the Career and Technical Education Center (CTEC) and Public Safety programs, are expected to impact parking availability on campus. The proposed Fieldhouse parking structure represents a proactive, multi-benefit investment that addresses immediate parking needs, supports future development, and enhances overall campus infrastructure.

Benefits of the Fieldhouse Parking Structure:

- Replacement of Displaced Parking Stalls: The structure would replace approximately 158 surface parking stalls that would be lost due to the construction of proposed additions for the CTEC and Police Academy buildings.

GYM Lot 44 Regular Stalls

6 Electric Vehicle Stalls

Police Lot 108 Regular Stalls

152 Regular Stalls

6 Electric Vehicle Stalls

158 Stalls Total Displaced

- **Net Increase in Campus Parking Capacity**: Beyond replacing displaced stalls, the structure would provide an additional 50 to 100 new parking stalls, supporting increased demand for student, staff, and event parking near the campus core.
- Opportunity to Address Fieldhouse Building Envelope Issues: The lamination of the parking structure to the west facade of the Fieldhouse presents an opportunity to address known building envelope performance issues identified in the infrared thermography study conducted by the planning team. By integrating these improvements into the parking structure project, the College can enhance energy efficiency, building durability, and occupant comfort in the Fieldhouse.

- Future-Proofing with Utility Infrastructure Potential: The design of the parking structure could accommodate the potential for a future west utility plant if campus development demands additional utility infrastructure. Locating this plant within or adjacent to the structure would support future campus growth while minimizing impacts on green space and circulation patterns.





# **Ensure Effective Space Management Practices**

### **Background and Observations**

JCCC has made great strides in consolidating and improving the scheduled utilization of instructional spaces. Moving forward, JCCC can address some of the remaining inaccuracies or gaps in the data. This campus-wide initiative proposes strategies for improving the quality of the dataset and consistency of scheduling behaviors. A more robust and rigorous scheduling approach will ensure that utilization data is aligned with true usage and enable effective decision-making about space management.

### **Proposed Solutions**

1. Align Scheduling Database and Space Inventory: With such a robust and comprehensive scheduling database there are inevitable gaps or inaccuracies; keeping up with space function and assignment changes is a constant responsibility. Within the current scheduling database, the building, room number, and name are included with the number of bookings, hours used, hours available, and percent utilized. Ideally, space inventory data is linked or cross reported to the scheduling database as the space inventory provides valuable information such as allocated organization, area, capacity (seats), and FICM category (FICM, the Facilities Inventory Classification Manual, provides a standardized way to categorize space on university and college campuses).

In the scheduling data there are errors or inaccurate categorizations that should be corrected. For instance, there are some gaps in the data (e.g., inventory includes a classroom that is not in the scheduling data), misalignment in room categorization (e.g., a 110 Classroom in the inventory is categorized as a Lab in scheduling data), or a room type is included in the scheduling database that is never or not truly a schedulable space (e.g., 215 Class Laboratory Service in inventory should not be included as a schedulable space). These errors can alter utilization assessments and distract from true usage and effective space management.

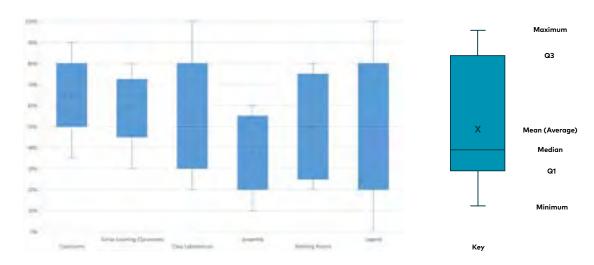
Part of resolving the issue of data alignment will require a consensus on room definition and categorization. First is determining what spaces should be included in the scheduling database (e.g., exclude 215 Class Lab Service or tie their scheduling to associated 210 Lab). Then, building on the FICM categories, create JCCC appropriate definitions that are in tune with the programs and their space use (e.g., is a Simulation Space a 210 Lab or better categorized as a 500 Special Use). See the utilization appendix for a full alignment and accounting of spaces and potential inaccuracies to address.

								0.0	24% 25-41	56-745	75-100%
	Space Inventory					Scheduled Utilization					
Rm#	Description	FICM	Seats	Area	SF/seat	10a-2p	8a-5p	Morning	Afternoon	Evening	Saturday
213	Classroom	110	32	593	19	66%	37%	51%	26%	1%	0%
215	Active Learning Classroom	111	35	580	17	63%	39%	30%	45%	53%	31%

- 2. Ensure Consistency of Scheduling Behaviors: Scheduling is a behavior that is not consistently applied across all programs and departments. For example, some programs schedule their space 100% of the time to indicate constant usage while others do not take the steps to schedule their space at all because it is assigned to their program and their constant use of the space is assumed. It is important for JCCC leadership to encourage good scheduling habits so that data analysis and recommendations can be grounded in truth. If there is a program that demonstrates good scheduling practices, this can be a useful model to illustrate for other groups what works, what doesn't work, and how to implement best practices. Ensuring good scheduling practices also enables greater sharing across programs and more efficient space use.
- 3. <u>Establish JCCC Utilization Targets</u>: Industry standards for each instructional space type are a useful starting point but may not always account for the unique functions and programs of each institution. Generally, targets vary based on the function: a shared space with general function will have a higher target while specialized spaces with limited function or limited sharing will have a lower target. Other things that should be taken into account is the balance of scheduled activities and non-scheduled activities (e.g., set a lower target so that classrooms and meeting rooms are available to students for group projects and labs are available for students to conduct homework on lab equipment). Additionally, anticipated time of use should be taken into account: shorter functional timeframe, higher target; longer functional timeframe, lower target (e.g., large lectures and events requiring an assembly space only happen in the morning or evening).

It is also useful to consider the minimum and maximum thresholds that might signal for JCCC that a space is severely underutilized or overutilized and warrant action (e.g., if a room is over 80% utilized, that is a level of demand that is not sustainable and must be addressed or a room under 20% utilized that must be assessed for functional or qualitative improvements). This may also lead to quartile targets as well (e.g., half of classrooms should be utilized between 50 - 80%). Identifying model programs and space scheduling that achieve ideal targets may be useful to provide a JCCC-specific example, demonstrate best practices, and build consensus.

The following chart illustrates what might be ideal targets for the five primary instruction spaces.



# **Ensure Effective Space Management Practices**

- 4. Address Any Non-Utilized or Significantly Underutilized Spaces: A utilization analysis based on scheduling is a valuable assessment on current space use but it does not account for the quality, functionality, or lack thereof that might impact use of a space. Additionally, it provides a backward-looking assessment rather than an assessment of how pedagogy is evolving and how JCCC would like to use space in the future. If any spaces are deemed underutilized (even with updated database and improved scheduling practices), careful assessment of their quality and functionality should be determined with an eye towards the current challenges and future needs of the programs. Active Learning Classrooms have increased on campus and are among the most utilized of the five primary instructional space types. An underutilized space could be converted to an active learning classroom, if an appropriate size (e.g., ~800SF and ~24 seats). JCCC can continue to grow their inventory of active learning space typologies and provide ongoing support for faculty to adopt and apply this pedagogical approach.
- 5. <u>Administrative Space Guidelines</u>: As part of the 2025 Facilities Master Plan update for Johnson County Community College, the administrative space guidelines were reviewed to ensure alignment with current and future campus needs. Following this review, it was determined that the existing guidelines remain appropriate and effective, and no changes are recommended at this time.

	310	315	350, 355
Employee Classification	Office	Service	Conference
	ASF Range	ASF	ASF
Administrative/Management			
Vice President to Executive VP	160 - 225	25	12
Executive Director to Associate VP	150 - 210	22	10
Directors to Deans	120 - 160	20	8
Managers	110 - 140	18	5
All others	100 - 140	15	5
Faculty, Part-time Staff and Students			
Full-Time Faculty 12, 10 & 9 Month Bargaining Unit	115 - 125	15	8
Full-Time Hourly Staff and FT Temp Hourly	60 - 120	12	6
Full-Time Temp Salaried	60 - 100	8	6
Part-Time Hourly Regular Staff	30-80	4	2
Part-Time Temporary Staff	30 - 80	3	0
Part-Time Faculty Salaried (pooled space)	5	1	0
College Work-Study	25	1	0
Librarians and Library Aides (in Library Guideline)	0	0	.0
ASF = Assignable Square Feet			



## **Section Summary**

Johnson County Community College (JCCC) has established itself as a national leader in campus sustainability through over fifteen years of strategic investments, community engagement, and operational excellence. Early commitments to waste diversion, energy efficiency, and sustainable design have significantly reduced the campus' environmental footprint while reducing operating costs and creating a strong culture of stewardship among students, faculty, and staff. The College has surpassed many of its original goals, including achieving a 64% waste diversion rate, reducing operational carbon emissions by over 80%, and integrating sustainability across academic and student life programs. This work led to JCCC receiving its first Gold STARS rating in 2025 from the Association for the Advancement of Sustainability in Higher Education (AASHE).

Looking ahead to 2035, JCCC envisions a carbon-neutral, zero-waste campus where sustainability drives innovation, operational efficiency, and student success. The focus will shift toward deeper integration across all departments, measurable impact metrics, resilience against climate and economic disruptions, and maintaining leadership through visible, high-value sustainability initiatives. Strategic goals include Scope 1 and Scope 2 carbon neutrality, 90%+ landfill diversion, 25% reduction in potable water use, expanded academic sustainability integration, and enhanced resilience-focused capital planning.

To support this next phase, the Sustainability Focus Group developed a comprehensive Implementation Toolkit, including updated life-cycle cost analysis requirements, LEED standards, and scalable campus design guidelines. These tools will ensure that investments contribute to operational excellence, risk management, student and community engagement, and long-term financial sustainability.

JCCC's achievements thus far provide a strong foundation. The opportunities ahead, combined with the College's proven capacity for innovation, position it to lead not just among peer institutions, but nationally, as a model for holistic, future-ready campus sustainability.

#### **Sustainability Vision for 2035:**

By 2035, JCCC will be a carbon-neutral, zero-waste campus where sustainability drives innovation, operational excellence, institutional resiliency, and student success. The College will model practical, inclusive solutions that improve lives, reduce costs, and prepare learners for the future.

Goal Area	Headline Goal	Specific Performance Targets			
Carbon Neutral Campus	Achieve net-zero Scope 1 and Scope 2 greenhouse gas emissions.	<ul> <li>100% renewable electricity sourcing post-2031.</li> <li>Electrify new building systems and 50% of campus fleet.</li> <li>Reduce EUI by 20% from 2025 baseline.</li> <li>Complete an Energy Master Plan.</li> </ul>			
Zero Waste to Landfill	Divert 90% of campus waste from landfill.	<ul> <li>Achieve 90% waste diversion by 2035.</li> <li>Reduce per capita waste generation 25% from 2025 baseline.</li> <li>Ensure materials management practices promote zero waste goals.</li> </ul>			
Water Stewardship and Landscape Resilience	Cut potable water consumption and restore ecosystems.	<ul> <li>25% reduction in potable water use per capita.</li> <li>50% of landscaped area in native plantings.</li> <li>Complete a Landscape Master Plan.</li> <li>Onsite management of first 1.5 inches of rainfall for new projects.</li> </ul>			
Curriculum and Student Life Integration	Embed sustainability across academics and student engagement.	<ul> <li>100% of academic divisions offering sustainability-linked courses.</li> <li>Launch at least one new sustainability degree/certificate.</li> <li>Double student participation in Sustainability Distinction Program by 2030.</li> </ul>			
Sustainable Transportation	Reduce commuting emissions and enhance mobility options.	<ul> <li>10% reduction in single-occupancy vehicle commuting.</li> <li>Double EV charging stations from 2024 baseline.</li> <li>Complete a Sustainable Transportation Plan.</li> </ul>			
Resilience, Risk Management, and Health	Institutionalize resilience and wellbeing in all projects.	<ul> <li>- 100% of major projects using Life-Cycle Cost Analysis.</li> <li>- All new construction LEED-certified Silver or equivalent.</li> </ul>			

#### Part 1: Where JCCC Has Been

Highlights from the past fifteen years of campus sustainability-focused investments and initiatives include:

<u>LEED-Certified Buildings</u>: JCCC completed multiple LEED-certified facilities, demonstrating leadership in sustainable building design.

<u>PowerSwitch Energy Efficiency Program</u>: Since 2008, JCCC has reduced kwh/SF by 40%, avoiding over an estimated \$10 million in costs.

<u>Open Petal Farm</u>: A model for regenerative agriculture, composting campus organic waste and student experimentation with food systems.

<u>Waste Diversion Success</u>: JCCC achieved a 64% waste diversion rate through extensive recycling and composting programs.

<u>ROSE Program</u>: Reusable Office Supply Exchange program to minimize landfill waste from office materials and furniture repurposed on campus.

Renewable Energy: Participation in the Renewables Direct program to source campus electricity from renewable energy, dramatically reducing emissions.

Student and Faculty Engagement: Sustainability initiatives have been integrated into academics, cocurricular activities, and student life.

<u>Bird-Safe Design Implementation</u>: Campus-led research drove the retrofitting of glazing with bird-safe patterns, reducing bird strikes and inspiring future collaboration with the arts community.

<u>Sustainability Policy</u>: In 2022, the College's Board of Trustees adopted a Sustainability Policy, setting forth the College's commitment to sustainability.

<u>Environmental Art Installations</u>: Public art on campus highlights environmental themes, fostering awareness and integrating sustainability with culture.

#### Challenges Recognized

- Difficulty achieving "zero waste" definitions; a need for more specific metrics
- Gaps in AASHE STARS categories such as water conservation, biodiversity, and embodied carbon
- Limitations in staffing and resource allocation to expand programs, and campuswide collaboration on sustainability initiatives

#### Part 2: Where JCCC is in 2025

JCCC's current sustainability position is strong, with clear areas for advancement:

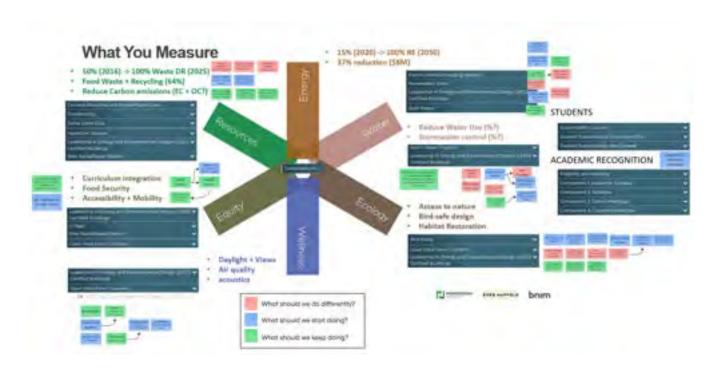
<u>Energy & Carbon</u>: Participation in Renewables Direct program, as well as on-campus renewables, has reduced electricity-related carbon emissions by 90–95% from 2008–09 baselines.

<u>AASHE STARS Progress</u>: In 2025, JCCC achieved the AASHE STARS Gold rating, reflecting sustained improvement across categories.

<u>Facilities Efficiency</u>: Central plant upgrades, HVAC retro-commissioning, and smart irrigation systems have improved performance.

<u>Cultural Integration</u>: Recycling, composting, sustainable transportation options, and inclusive campus resources are embedded in daily operations.

<u>Blind Spots</u>: Opportunities remain to improve in embodied carbon, stormwater management, biodiversity, and native landscapes.



Focus Group Engagement Feedback

#### Part 3: Where JCCC Goes Next

Building on its strong foundation, JCCC has developed a forward-looking vision for 2035 — one that embraces innovation, integration, and leadership at a national level. Participants imagined a campus where sustainability is not simply practiced, but deeply woven into daily life, learning, and operations. Drawing from the visioning exercises (Miro Board), survey responses, and group discussion, several clear priorities emerged. By 2035, JCCC envisions:

A carbon-neutral campus with renewable energy powering all facilities and an electrified fleet.

**Zero waste** operations, with 90%+ diversion rates achieved through upstream waste reduction, circular economy practices, and on-campus composting.

**Regenerative landscapes** that support biodiversity, manage stormwater, and provide hands-on learning labs for students.

**Full integration of sustainability into academics**, with every department contributing to sustainability learning outcomes.

**Expanded public art initiatives** that celebrate environmental themes and foster deeper campus and community engagement.

A **resilient, flexible campus infrastructure** designed to adapt to climate, economic, and societal changes.

**Operational savings and efficiencies** that reinforce sustainability as a driver of financial health and risk reduction.

"We want sustainability to be not just a program but part of how we do everything," one focus group participant summarized.

### Strategic Priorities and Ideas for the Next Decade

## 1. Deepen Carbon Reductions and Energy Resilience

- Expand on-site solar generation; pursue rooftop, ground mount, and parking canopy solar installations.
- Develop a long-range Energy Master Plan to guide electrification of heating/cooling systems fleet electrification, future energy needs, distributed generation, efficiency measures including equipment standards, and storage.
- Evaluate energy storage (battery systems) to enhance resilience and reduce peak demand costs.
- Plan for a smooth transition after the end of the Renewables Direct contract in 2031 to maintain renewable sourcing.

• Explore refrigerant replacements with ultra-low or no carbon equivalent emissions to replace existing refrigerants in the campus' chilled water plants.

#### 2. Define and Achieve "Zero Waste" with Updated Metrics

- Shift from an undefined "zero waste" goal to a measurable target:
  - 90%+ waste diversion rate by 2035
  - Per capita waste generation reduction goal (pounds/student/year)
- Expand recycling and composting at campus events with responsibilities shared across campus.
- Integrate regular waste audits to inform improvements.
- Introduce more reuse programs (materials exchange, food recovery initiatives).

#### 3. Scale Regenerative Landscapes and Stormwater Management

- Complete a Landscape Master Plan.
- Transition additional campus lawns to native prairie landscapes to improve biodiversity and reduce maintenance and water demand, ensuring appropriate levels of maintenance staffing and expertise.
- Install additional bioswales, rain gardens, and green roofs if feasible and consistent with building purpose.
- Set a goal for onsite retention of the first 1.5 inches of rainfall on new projects.
- Integrate these systems visibly as outdoor learning labs for environmental science, landscape design, and engineering programs.

#### 4. Advance Sustainable Transportation and Mobility

- Complete a Sustainable Transportation Plan recommendations include:
  - Expand EV charging stations significantly.
  - Increase incentives for public transit use, biking, and carpooling, while considering affordability and accessibility
  - Improve pedestrian and bicycle infrastructure (safe paths to nearby neighborhoods and bus stops).
- Electrify campus fleet vehicles where feasible.
- Explore partnerships for micro-transit or flexible shuttle options.

## 5. Expand Academic Integration

- Embed sustainability across general education increase the number of course sections with sustainability content.
- Create new sustainability-focused degree or certificate programs, such as:
  - Environmental and Sustainability Studies
  - Renewable Energy Technology
  - Sustainable Agriculture Expansion
- Formalize campus as a living laboratory:
  - Expand Open Petal Farm as a food system and carbon sequestration demonstration site.
  - Use stormwater systems, solar panels, and native landscapes as teaching tools.
- Continue faculty innovation grants, such as the Sunflower Project, to integrate sustainability into curriculum and research.

## 6. Strengthen Art, Culture, and Communication

- Expand the environmental art program integrate rotating installations, student collaborations, and storytelling about sustainability themes.
- Build on the bird-safe design initiative by linking arts and sustainability efforts.
- Develop interpretive signage across campus to highlight sustainability features for visitors, reinforcing JCCC's leadership.





## 7. Institutionalize Decision Frameworks for Long-Term Success

- Require Life-Cycle Cost Analysis (LCCA) on major capital projects and retrofits.
- Adopt formal LEED New Construction (NC) for new buildings.
- Consider LEED Operations and Maintenance (O+M) for major renovations, as determined appropriate.
- Finalize and implement Campus Sustainable Design Guidelines, scaled to project size.

#### Immediate Actions for 2025 - 2027

To build momentum, the group suggested several first-phase initiatives:

Celebrate the 2025 AASHE STARS Gold Rating, a milestone achievement.

Launch a working group to begin Energy Master Planning and post-2031 renewable strategy.

**Expand and enhance reuse and surplus property operations,** including robust tracking and goal-setting.

Complete a Landscape Master Plan, focused on native plants, biodiversity, and habitat.

Launch a Sustainable Mobility and Transportation Task Force to develop priority projects and incentives.

**Identify and pursue grants** for green infrastructure and renewable energy.

**Expand sustainability storytelling** through signage, art, and digital media platforms.

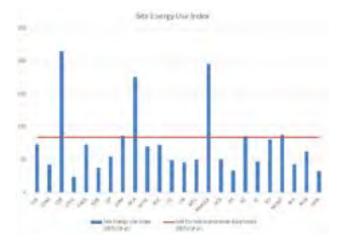
In summary, the emerging vision combines ambition and pragmatism. It extends JCCC's leadership into new areas like regenerative ecology, academic innovation, and resilience while reinforcing successful core efforts like energy and waste. Guided by strong community support and clear operational benefits, JCCC is well-positioned to become a national model for holistic, resilient, and equity-driven campus sustainability.

### **Campus Energy Use Analysis**

Henderson Engineers conducted an in-depth analysis of campus energy use across all buildings and systems. Building level energy use data was reviewed for electricity, chilled water, and natural gas. An analysis based on this review demonstrates the energy use intensity (EUI) of various buildings and allows comparison of their operation to national baseline data. Henderson reviewed on-site PV generation and compared the on-site energy generated to campus energy usage on an annual basis. Analysis indicates that the campus is producing greater than 11% of total electricity consumed on premises.

## **Building Level Energy Use**

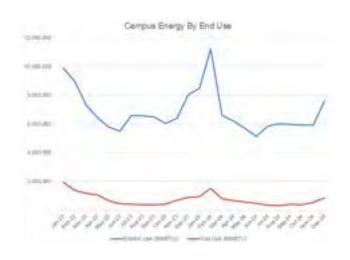
- The buildings with the highest EUI are the Campus Service Building (CSB), Wylie Hospitality Culinary Academy (WHCA), and the Nerman Museum of Contemporary Art (NMOCA)
- CSB houses the West Chiller Plant and is expected to have outlier high use
- National Median Benchmark EUI for College/ University is 84.3 kBTU/sf/year





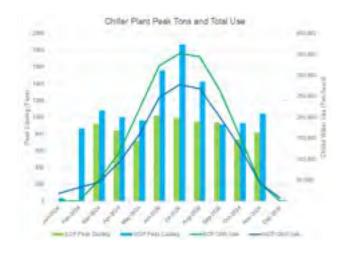
### **Campus Energy Breakdown**

- Campus energy use is mostly electrified with minimal natural gas use. Over 90% of energy used is electricity.
- Energy use peaks in winter with electrical heating in most buildings.
- A portion of the electricity is generated on-site through solar photovoltaic arrays, and the remainder is purchased renewable energy from an off-site wind farm operated through a utilityagreement.



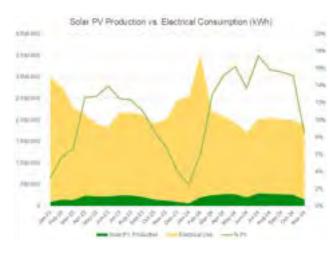
## **Chiller Plant Cooling Production**

- The West Chiller Plant has three chillers and a total nominal capacity of 3,450 tons. The plant peaked at 1,868 tons in July 2024 at 54% of capacity.
- The East Chiller Plant has two chillers and a total capacity of 2,600 tons. The plant peaked at 1,023 tons in June 2024 at 39% of capacity.



#### **Electrical Demand and PV Production**

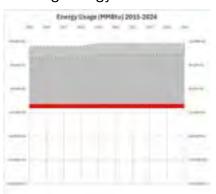
- On-site installed solar photovoltaic arrays total 2,554 kW DC capacity.
- The solar PV arrays produced 2,865,540 kWH in fiscal year 2024.
- This represents 11.7% of total electricity used by JCCC over the year.

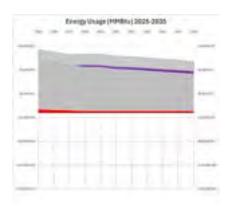


## **Energy Considerations**

Energy demand is directly related to campus C02e (carbon dioxide equivalent) emissions. JCCC has taken steps over the past 10 years to reduce emissions through systems electrification and on and off site renewable energy production and agreements. To further understand the emissions profile and future steps for investment, BNIM and Henderson Engineers isolated measured and modeled energy demands, which are then combined to provide an understanding of past, current, and future energy measures.

### **Building Energy Demand**



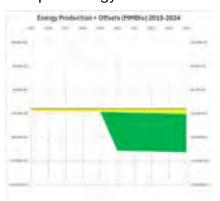


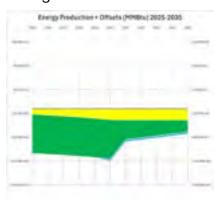
#### **Key Building Strategies**

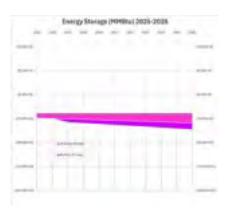
New building added energy demand should be minimized by prioritizing energy reduction strategies - and must be balanced with existing building energy reductions, accomplished through strategic building envelope and systems renovations and replacements.

Net building energy demand should no longer grow over time.

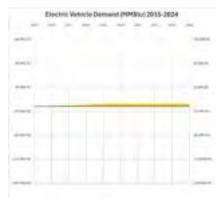
## Campus Energy Production and Storage

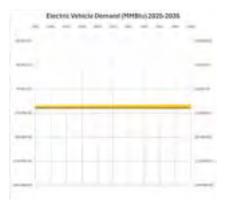






#### Electric Vehicle Demand



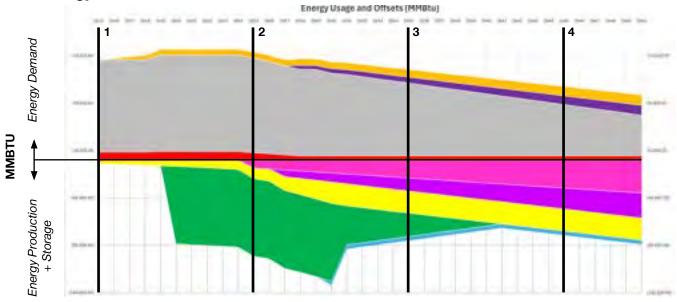


#### **Load Shedding Opportunities**

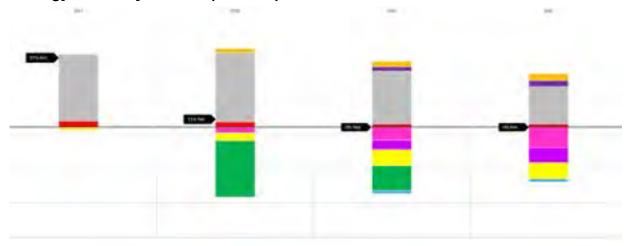
Review of load shedding measures revealed that between leveraging existing thermal energy storage (TES) and introducing battery energy storage systems (BESS), the college could yield the most energy cost savings potential per year by introducing BESS sized for the maximum solar PV output day of the year.



## **Net Energy Timeline**



## **Net Energy Profile by Decade (MMBTU)**



#### (1) 2015

- · Pilot PV installations
- Early electrification
- LEED for new construction

#### (2) 2025

- Growing PV installations
- Substantial electrification
- LEED for new construction

#### (3) 2035

- · Reduced total demand
- Expanded PV installations
- Continued electrification
- LEED for new construction with energy emphasis
- Energy focused targeted renovations of existing bldgs
- Activation of thermal storage
- Early battery installations
- Step-down RECs (renewable energy certificates)

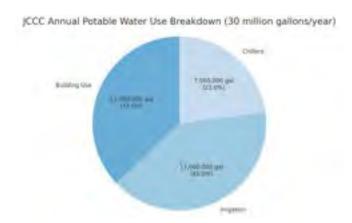
#### (4) 2045

- · Reduced total demand
- Completed PV installations
- Completed electrification
- LEED for new construction with energy emphasis
- Energy focused targeted renovations of existing bldgs
- Expanded thermal storage
- Continue battery installations
- Zero use of RECs

#### **Water Considerations**

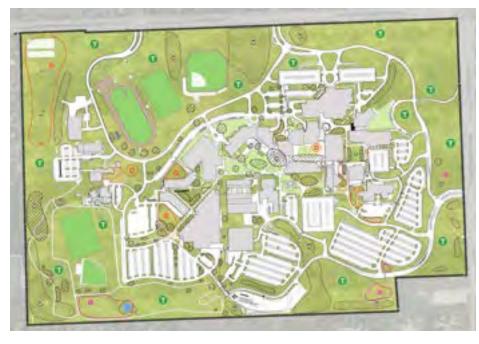
Water demand includes demands primarily from central chiller plants, irrigation, and interior plumbing fixtures. In addition to these demands, site stormwater management and hydrology are important considerations that influence site layout and approach to soils, planting, and infrastructure.

While 2024 water demand is estimated at approximately 30 million gallons, the campus only includes partial water system submetering, making it difficult to evaluate the building-level and system-level demands. Water estimates show that approximately 11.1 million gallons (37%) is dedicated to building water demand as well as a few un-metered irrigation systems. The central plant chilllers demand approximately 6.9 million gallons (23%), and the remaining 12 million gallons is used in metered irrigation systems.



### **Building Use**

Building water fixture improvements are among the easiest and most straightforward strategies for water demand reduction. Reviewing campus design standards and flow rates for toilets, urinals, sinks, lavatories, and other fixtures represents a way to address water demand through ongoing maintenance and establishing LEED-aligned thresholds for reducing demand.





## **Cooling Tower Water Demand**

In early 2019, Henderson Engineers tested the JCCC cooling towers in both East and West plants and found that Conductivity is the primary factor triggering blow down, with the west tower measured slightly above the LEED recommended maximum value. The other key measures - including calcium, alkalinity, Si02, and CI - were shown to be under half of the recommended maximum values for blowdown. This means that addressing the conductivity in the cooling towers (e.g., ElectroCell technology) could reduce the frequency of blowdown, and resulting potable water demand, by up to 50% - a savings of approximately 3.5 million gallons of water per year.

With the majority of water use dedicated to irrigation, common sense strategies for reduction include:

- 1. Add submeters to the remaining un-metered irrigation systems
- 2. Review campus planting and vegetation, and strive to make campus-scale investments in native plantings that can both absorb stormwater on site as well as reduce the demand for irrigation.
- 3. Incorporate smart irrigation controls that respond to weather forecasts
- 4. Evaluate planting bed organic matter levels through testing, and prioritize planting zones to receive additional mulch and organic matter tilling to improve soil water storage capacity.
- 5. Explore water reclamation and stormwater collection to replace potable water for irrigation.

#### **Stormwater**

The JCCC main campus encompasses a 220 acre area, including 58% impervious surfaces. Stormwater is partially addressed by existing landscape, bioswales, and designated detention areas. A key strategy for stormwater outflow reduction will be to develop stormwater storage and native-planting filter strips along perimeter roadways, improving soils with organic matter, and strategically reducing impervious land-cover campus-wide.





## Waste Diversion and Recycling

Through robust recycling, composting, and reuse programs, JCCC dramatically cut waste sent to landfills. The campus achieved a 64% waste diversion rate, surpassing its interim goal of 50% diversion by 2016.

Innovative efforts like the Reusable Office Supply Exchange (ROSE) and surplus resale programs kept materials in use and generated savings (over \$450,000 reinvested into student scholarships from recycling revenue).

Food waste from dining services is composted at the Open Petal Farm, and the campus has moved away from single-use plastics in many areas. While true "zero waste" is an ongoing challenge, JCCC has maintained well above 50% diversion for several years. The focus now is on improving the quality of recycling (reducing contamination) and expanding compost and reuse programs campuswide.

The College is exploring updated waste targets to replace the all-or-nothing zero waste goal – for instance, aiming for a 90% diversion rate as a more attainable definition of zero waste. There is also discussion of adding waste reduction goals (not just diversion), such as per-capita waste generation rates, to capture source reduction efforts.

#### **Evaluate and Define**

Conducting a campus waste audit and zero waste strategy report is a foundational step that should be considered in the near term. This evaluation should include:

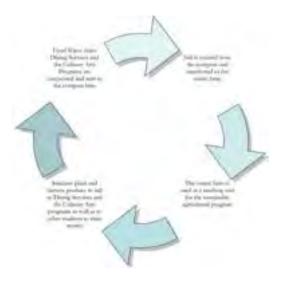
- 1. Volume and/or weight metrics for each waste stream
- 2. Review of collection and hauling service sizes and frequency
- 3. LEED-aligned calculation that evaluates total diverted waste and landfill amounts in both a percapita as well as area-intensity metric.
- 4. Complete a baseline TRUE (Total Resource Use and Efficiency) certification evaluation scorecard to guide holistic campus conversations about refining zero-waste goals, metrics, and strategies. This can become a strategic guide to ongoing improvements.

#### Research

The campus waste-to-soil circular approach to waste is unique to JCCC, and offers a clear opportunity to grow visibility and develop new research avenues for students and partners. Future research that could be incorporated into curriculum and developed with industry and academic partnerships include ideas such as:

- Soil organic material amendments impact on stormwater control and storage
- Carbon sequestration rates and best practices through engineering soil composition
- Net impact studies on calorie production, carbon reduction, landfill diversion, stormwater absorption, ecology improvement, etc.

Developing new research around soil and compost C02e sequestration values represents a body of research that is mostly missing from academic and institutional research, and an opportunity for JCCC to gain further visibility locally, regionally, and nationally as a leader in sustainability and integrated research.



#### Part 4: JCCC Core Goals and Metrics

The table provided in this section of the Master Plan summarizes the following categories, expanded upon here for additional information about recommended metrics and impact categories.

### 1. Achieve Carbon Neutrality by 2035

- Eliminate or offset 100% of Scope 1 and Scope 2 greenhouse gas (GHG) emissions.
- Develop a post-2031 renewable energy plan to replace Renewables Direct.
- Electrify building systems and fleet vehicles where feasible.
- Expand on-site renewable energy generation and investigate battery storage options.

#### Metrics:

- Annual GHG inventory (Scopes 1, 2, and select Scope 3)
- Energy Use Intensity (EUI) targets by building type
- 50% of campus fleet electrified

#### 2. Achieve Zero Waste to Landfill by 2035

- Attain and maintain 90%+ diversion rate campuswide.
- Implement per capita waste reduction targets.
- Expand composting and reuse programs campuswide.
- Integrate circular economy principles into materials management.

#### Metrics:

- Annual landfill diversion rate (%)
- Pounds of waste generated per campus user annually
- Percentage of surplus property reused on campus or donated to community organizations

### 3. Reduce Campus Water Use and Restore Ecosystem Health

- Cut per capita potable water use by 25% relative to 2025 baseline.
- Expand native landscaping across all campus grounds.

- Manage the first 1.5 inches of rainfall on-site for new construction and major renovations.
- Strengthen campus biodiversity and pollinator habitats.

#### Metrics:

- Gallons of potable water per campus user
- % of campus landscaped with native species
- Acres of green stormwater infrastructure installed
- Annual biodiversity monitoring reports

## 4. Fully Integrate Sustainability Across Curriculum and Student Life

- Ensure 100% of academic divisions offer sustainability-focused courses or modules.
- Create at least one new academic program, certificate, or specialization in sustainability (e.g., Renewable Energy Technology, Environmental Studies).
- Expand student engagement, research opportunities, and academic projects linked to campus sustainability initiatives.

#### Metrics:

- % of academic programs with sustainability integration
- Number of sustainability-focused degrees, certificates, or badges awarded
- Student participation rates in sustainability projects or programs, clubs, and activities

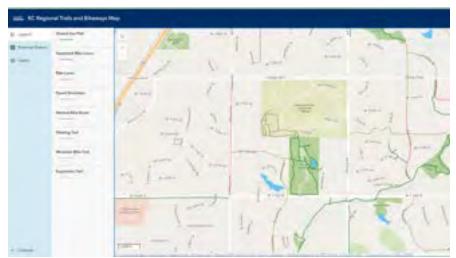
#### 5. Create a Sustainable Transportation Ecosystem

- Reduce single-occupancy vehicle commuting by 10% by 2035.
- Expand EV charging stations by at least 200% from 2024 baseline.
- Complete a campus Sustainable Transportation Plan.
- Increase participation in carpool, biking, public transit, and walking programs.

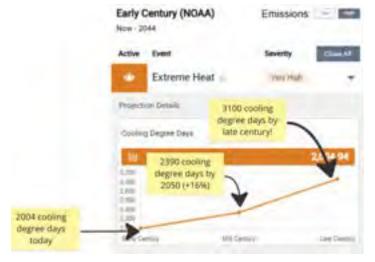
## Metrics:

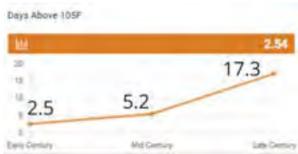
- Mode split data for campus commuters
- Number of EV charging stations installed
- Parking space per capita reduction
- Public transit ridership linked to campus

# **Integrate Sustainability**









## 6. Embed Resilience, Risk Management, and Health into Campus Operations

- Require Life-Cycle Cost Analysis (LCCA) and Life-Cycle Analysis (LCA) on major capital and renovation projects starting in 2025.
- Consider LEED Operations + Maintenance (O+M) for major renovations, as determined appropriate.
- Build facilities and landscapes that support human health, biodiversity, and operational flexibility.

#### Metrics:

- % of capital projects using LCCA and LCA
- % of new projects achieving LEED certification or equivalent
- Annual resilience and risk reports tied to capital planning
- Health and wellbeing survey scores for campus users

# **Integrate Sustainability**

## Part 5: Implementation Toolkit and Design Framework

#### **Recommended Tools:**

Life-Cycle Cost Analysis (LCCA): Prioritize lowest total cost of ownership, not just upfront project costs.

<u>Life-Cycle Assessment (LCA)</u>: Seek to decarbonize existing and new buildings and offset new embodied carbon emissions with campus sequestration. Track via carbon modeling software.

<u>LEED Standards</u>: Continue LEED New Construction (NC) for all new buildings; consider LEED Operations and Maintenance (O+M) for major renovations.

## Campus Design Guidelines:

- Set energy and water performance benchmarks.
- Require native landscaping and green infrastructure on all projects.
- Mandate accessibility and wellness design features.
- Scale documentation based on project size (budget or square footage).

#### **Decision-Making Frameworks:**

- Apply resilience matrices to evaluate campus projects.
- Track cost savings, risk mitigation, and community engagement benefits alongside environmental metrics.
- Publish regular progress updates to sustain momentum and public trust.

To move from vision to action, JCCC must adopt structured, scalable tools that ensure sustainability is embedded in every capital project, operational practice, and planning decision. The Sustainability Focus Group emphasized that consistent frameworks will help safeguard sustainability progress, particularly as campus leadership evolves and external conditions change.

This Implementation Toolkit outlines the recommended systems, policies, and evaluation methods to translate goals into measurable, cost-effective results.

## **Core Decision-Making Tools**

#### 1. Life-Cycle Cost Analysis (LCCA)

- Apply LCCA on all major new construction and major renovation projects.
- Evaluate alternatives based on total cost of ownership (construction, operation, maintenance, and end-of-life), not just initial cost.
- Use LCCA to prioritize investments in efficiency, durability, and resilience (e.g., HVAC upgrades, solar panels, enhanced building envelopes).

#### Benefits:

- Protects against "lowest bidder" short-termism
- Builds a strong financial case for sustainable design choices
- Supports long-term operational savings and risk reduction

## 2. Sustainability Certification Standards

- Maintain LEED Silver for New Construction (LEED-NC) as a baseline for all new buildings and major additions.
- Consider LEED for Operations and Maintenance (LEED-O+M) for major renovations and existing buildings undergoing significant upgrades.
- Consider pursuing additional performance certifications where appropriate, such as:
  - SITES (sustainable landscaping)
  - WELL (health and wellbeing)
  - TRUE (zero waste certification)

#### Benefits:

- Ensures best practices are applied consistently
- Provides third-party verification to validate progress
- Reinforces campus leadership and public credibility









# **Integrate Sustainability**

#### 3. Sustainable Campus Design Guidelines

Create and adopt a comprehensive set of Campus Sustainability Design Guidelines, scaled by project size and type:

Project Size	Requirements	
<\$250K or <2,500 SF	Checklist-based alignment with energy, water, and materials goals.	
\$250K-\$2M or 2,500-10,000 SF	Sustainability analysis addressing key metrics (energy, waste, water, site)	
>\$2M or >10,000 SF	Full LEED certification required	

#### Key elements to include in guidelines:

- Energy performance targets (e.g., Energy Use Intensity benchmarks)
- Water efficiency standards (indoor fixtures, irrigation, stormwater)
- Biodiversity and native landscape requirements
- Low-carbon material and procurement standards
- Waste reduction and material diversion strategies
- Daylighting, indoor air quality, and occupant health measures

#### Benefits:

- Provides clarity and consistency across all projects
- Simplifies decision-making for project teams
- Protects campus character and operational goals

## **Strengthening Internal Capacity:**

#### **Staff Training and Engagement:**

- Educate facilities, planning, and procurement teams on new sustainability design standards, life cvcle costing, and resilience tools.
- Expand professional development opportunities for faculty to integrate sustainability across disciplines.

#### Institutionalizing Sustainability Roles Beyond the Center for Sustainability:

- Create or formalize sustainability liaisons within each major division or department or consider a committee to help implement goals and track progress.
- Expand student sustainability engagement opportunities tied directly to operational and academic projects.

#### **Data Systems and Monitoring:**

- Invest in enhanced metering (energy, water, waste) for real-time tracking.
- Implement a dashboard for sustainability metrics to share progress publicly with campus users and leadership.

In summary, this Implementation Toolkit gives JCCC the structure needed to further integrate sustainability across campus operations. It ensures that every dollar spent, every building built, and every student engaged moves the College closer to its 2035 vision of a thriving, resilient, and innovative campus community.

# Integrate Sustainability

# Core Performance Elements and Metrics for Campus Design Guidelines

Category	Guideline Focus	Key Metrics / Requirements
Energy Efficiency and Performance	Design for low energy intensity and full electrification readiness.	<ul> <li>Meet or exceed campus Energy Use Intensity (EUI) target of &lt; 30 kBTU/sf/year for new buildings.</li> <li>On site renewable energy to be evaluated on all new buildings.</li> <li>All-electric building systems where feasible.</li> <li>Commissioning and post-occupancy measurement required.</li> </ul>
Water Efficiency and Stormwater Management	Reduce potable water use and enhance on-site rainwater management.	<ul> <li>Indoor fixtures: 40% below baseline (per LEED v4 standards) minimum.</li> <li>Outdoor irrigation: smart controllers, 25% potable water reduction (min).</li> <li>Capture and retain first 1.5 inches of rainfall onsite.</li> </ul>
Biodiversity and Landscape Restoration	scape ecosystems and	<ul> <li>Minimum 70% of landscape plantings must be native or adapted species.</li> <li>No invasive plant species allowed.</li> <li>Incorporate pollinator-supportive plantings in all open spaces.</li> <li>Integrate Open Petal Farm and ecological corridors into design concepts.</li> </ul>
Material Health and Circularity	Promote low-carbon, transparent, and circular materials.	<ul> <li>Construction materials to meet material transparency standards (HPD, EPD, Declare labels preferred).</li> <li>Prioritize materials with recycled content, low embodied carbon, and end-of-life recyclability.</li> <li>Target 75% construction waste diversion (min).</li> <li>Furniture and interior finishes prioritized for reuse and circular sourcing.</li> </ul>
Lighting Design and Night Sky Protection	Minimize light pollution and energy waste.	<ul> <li>All exterior lighting must meet DarkSky International (formerly IDA) compliance standards.</li> <li>Light trespass, uplight, and glare limits based on LEED v4 credit thresholds.</li> <li>Shield all fixtures and prioritize systems with timers and CRI of 90% (min).</li> </ul>

Category	Guideline Focus	Key Metrics / Requirements
Bird-Safe Design Standards	Reduce bird collisions through design.	<ul> <li>Glass and façade systems must comply with American Bird Conservancy (ABC) bird-safe design guidelines.</li> <li>Include visible patterns (dots, fritting, UV treatments) with spacing no greater than 2x2 inches.</li> <li>Limit highly reflective glazing adjacent to vegetation.</li> </ul>
Human Health, Daylighting, and Indoor Environmental Quality	Optimize wellness and comfort through design.	<ul> <li>Maximize daylight penetration to 75%+ of regularly occupied spaces.</li> <li>Meet or exceed ASHRAE 62.1 standards for ventilation.</li> <li>Target low-VOC materials for all interior finishes.</li> <li>Plan for biophilic design elements: indoor plants, natural materials, outdoor views.</li> </ul>
Construction and Operations Alignment	Extend sustainability through construction and maintenance practices.	<ul> <li>Contractors must submit waste diversion and IAQ management plans.</li> <li>Specify green cleaning-compatible finishes.</li> <li>New spaces must be maintained using updated green cleaning and integrated pest management standards.</li> <li>Update campus policies for green procurement during operations (cleaners, fertilizers, de-icing materials).</li> </ul>

## **Additional Requirements for All Design Teams**

- Complete a preliminary LEED Scorecard during concept design to map credit opportunities.
- Align all designs with JCCC's existing campus graphics and environmental branding standards (specific resources to be provided by the College).
- Coordinate early with campus services and sustainability staff to review material selections, landscape strategies, and innovation opportunities.
- Submit a Sustainability Narrative with design development submissions, outlining how the project meets the above guidelines and supports JCCC's 2035 sustainability goals.

# **Build Upon Universal Design Strategies**

## Background

Many of the core academic buildings at JCCC were designed and constructed prior to the passage of the Americans with Disabilities Act (ADA) in July 1990. Like many community colleges nationwide, JCCC's initial campus development occurred during a time when accessibility standards were not yet federally mandated, resulting in infrastructure that often lacks equitable ease of access for individuals with physical, sensory, cognitive, or learning disabilities.

The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including education. It established minimum standards for accessible design, such as the inclusion of ramps, elevators, signage, and restroom accommodations, to ensure basic physical access. However, while compliance with the ADA is essential, it does not fully encompass the broader philosophy of universal design. Universal design is an approach to creating environments that are inherently accessible to people of all ages, abilities, and backgrounds. Rather than focusing solely on retroactive accommodations, universal design strategies proactively integrate features that anticipate a wide range of needs, including cognitive, physical, sensory, and social, from the beginning of design. These strategies benefit not only those with permanent disabilities, but also aging populations, temporary injuries, parents with strollers, and individuals navigating campus with carts, bicycles, or other tools.

JCCC has already demonstrated a strong commitment to improving campus accessibility through targeted infrastructure investments. For example, the College has initiated assessments of key aging facilities, such as the Midwest Trust Center, to address challenges in vertical circulation, restroom access, and emergency egress. Other recent renovations across campus have upgraded signage, adjusted furniture layouts for mobility clearance, and retrofitted building entrances with automatic doors. This chapter outlines a comprehensive strategy for incorporating universal design principles into all renovations and new construction projects at JCCC over the next decade. It builds upon the College's ongoing commitment to accessible and inclusive environments and provides actionable guidance to ensure that physical infrastructure supports student success, well-being, and belonging.

Key recommendations include:

- Enhancing exterior pathways and transitions to eliminate physical hazards
- Leveraging inclusive wayfinding and communication tools
- Updating aging facilities with accessible fixtures and spatial layouts
- Commissioning a comprehensive universal design assessment
- Embedding universal design principles into the planning process for all future development projects

These efforts align with JCCC's vision to be an innovative leader in equitable student access, learning and success.

#### **Universal Design Strategies and Guidelines**

The following strategies are intended to guide future planning, renovation and new construction efforts. Each recommendation includes an overview of the strategy and specific examples of implementation. Also included are references to BNIM's Universal Design Guide, the "ALL" book.

"ALL – The Making of the Tom and Ruth Harkin Center" is a two-part book co-published by BNIM, The Harkin Institute, Drake University, and MillerKnoll in 2022. The first part provides a detailed case study of the Harkin Center's design and construction, and the second part is a guidebook of strategies for inclusive design framed under four guiding principles: generous space, equitable experiences, clear path, and individual empowerment. The book was created to reframe inclusive design as a norm rooted in empathy, equity, and human dignity.

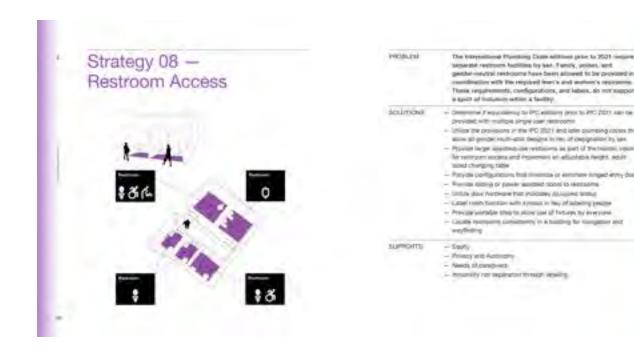


Learn more in the online publication of ALL: The Making of the Tom and Ruth Harkin Center + A Guidebook of Strategies for Inclusive Design

- 1. Prioritize Smooth, Level Pathways Across Campus: Cracked, uneven, or sloped walkways pose significant hazards to individuals using wheelchairs, walkers, or canes, as well as to those with visual impairments or anyone navigating campus while pushing equipment, strollers, or carts. Even minor pavement irregularities can discourage mobility impaired individuals from accessing certain parts of campus or increase risk of injury.
  - Conduct an audit of all exterior pedestrian routes with a focus on ADA compliance and universal usability
  - Prioritize repairs around high-traffic buildings and along critical east-west and north-south corridors
  - Incorporate tactile pavers at crossings and changes in grade and ensure curb ramps are consistently sloped and marked with visual contrast
  - Continue annual maintenance plans that prioritize proactive repair of cracks and surface disruptions before they become accessibility barriers

# **Build Upon Universal Design Strategies**

- 2. Integrate Inclusive Wayfinding Technologies: Wayfinding is not simply a signage issue. Users with visual impairments, cognitive processing differences, or language barriers often face significant challenges navigating large, complex campuses. A well-designed mobile wayfinding application can reduce confusion, foster independence, and support a sense of belonging for all students.
  - Commission a mobile app platform with optional screen reader functionality, live navigation, and audio directions.
  - Ensure the application includes maps of accessible entries, elevators, single-user restrooms, and accessible emergency exit routes.
  - Supplement the digital system with physical signage that uses icons, high-contrast colorways, and consistent naming conventions.
  - Engage users with varying abilities in the design and testing of wayfinding systems to ensure solutions are user-centered and effective.
- 3. Flexible, Intuitive Restroom Facilities: Restroom access continues to be one of the most common barriers in campus buildings designed before the 1990 ADA regulations. While code-required fixtures are necessary, they often fail to meet broader needs, such as caregivers with children or students needing a private space for medical use. Universal design addresses these realities through flexible, inclusive configurations.
  - Transition older multi-stall restrooms to include at least one adjacent single-user, all-gender restroom.
  - Upgrade existing facilities with automatic door operators, sensor-activated fixtures, and consistent grab bar placement.
  - Ensure there are accessible restrooms located near key academic, performance, and recreation venues. Clearly identify where the nearest accessible restrooms are located.
  - Include accessible changing tables and sharps disposal containers to meet a wider range of social and health-related needs.



- 4. Ensure Visibility and Transparency in Entry and Circulation: Legibility of space is a key principle of universal design. Individuals with cognitive disabilities, visual impairments, or sensory sensitivities often benefit from clear sightlines, consistent lighting, and environments that offer cues to guide movement. Entrances and interior corridors that lack natural light, have abrupt transitions in lighting, or lack intuitive signage can cause disorientation and anxiety.
  - Use consistent lighting levels in hallways, avoiding areas of high glare or sudden dimness which can be confusing or disorienting.
  - Develop building signage standards that support universal design through large font sizes, icons, Braille, and directional arrows at key junctions.
  - Maximize transparency and sight lines at entry zones and vestibules, ensure that all entries have accurate signage and wayfinding tools.

# **Build Upon Universal Design Strategies**

- 5. Embed Inclusive Design into Furniture and Fixtures: Inaccessible furniture choices can hinder academic participation, especially for students using mobility devices, individuals with back or joint conditions, or those who benefit from varied seating options. Fixed desks and heavy chairs also limit flexibility in teaching approaches, collaboration, and student support services. Offering a range of seating and layout options ensures all students feel welcome and supported.
  - Ensure at least 5% of seating in all rooms and lounges accommodate mobility device users with integrated desk space.
  - Include adjustable-height tables in classrooms, study zones, and dining areas to accommodate a wider spectrum of users.
  - Implement universal design furniture configurations in high-use areas such as the Student Center, advising offices, or library spaces.
  - Provide reachable, intuitive and consistent access to power, data, and technology
  - Use eased edges and rounded corners on furniture with hard materials
  - Include accommodations for personal belongings such as bag and coat hooks





- **6. Plan Accessible Routes During Construction:** Temporary detours often unintentionally exclude mobility-impaired users. Maintaining uninterrupted access is vital to creating an equitable experience for all students, employees, and visitors.
  - Require accessibility plans for all projects during pre-construction.
  - Clearly sign accessible detours and provide digital updates via campus apps and emails.
  - Use slip-resistant temporary walkways (e.g., plywood with skid coatings) to maintain ADA compliant route slopes.
  - Regularly audit construction zones to ensure paths remain navigable, especially after weather events.

# **Address Aging Campus Infrastructure**

## **Background**

Many of JCCC's existing facilities and systems are approaching the end of their useful life and present both challenges and opportunities for reinvestment. This initiative proposes a strategic approach to infrastructure renewal, aligning replacement and renovation projects with sustainability and resilience goals. Older HVAC systems, irrigation networks, and envelope assemblies will be upgraded for performance, while targeted investments will improve stormwater management, biodiversity, and indoor environmental quality. Life-cycle cost analysis can be used to guide decision-making to ensure improvements are both cost-effective and future-ready. In doing so, JCCC will transform necessary upgrades into high-impact opportunities that extend asset life, reduce operational costs, and model next-generation campus infrastructure.

The College has undertaken a series of targeted infrastructure assessments to support the long-term functionality, safety, and adaptability of its campus facilities. These studies, completed by Clark & Enersen Engineers, evaluate building conditions, infrastructure systems, accessibility, and space needs across key facilities. Their purpose is to identify necessary improvements, address aging systems, and align building functionality with the College's evolving programs and operational standards. These assessments are intended to guide future renovations and capital investments, ensuring that JCCC's buildings remain safe, efficient, and responsive to the needs of students, faculty, and staff.

# Library Video Services Infrastructure Study (October 2024)

The Library Video Services study focuses on the existing conditions and space needs within Billington Library, specifically the area serving the College's Video Services department. Although portions of the library have been recently renovated, the Video Services area remains outdated and disconnected from the rest of campus operations. Key issues identified include poor accessibility to studios, inefficient office layouts, aging production equipment infrastructure, and a lack of organized storage. The mechanical assessment highlights deficiencies in HVAC systems, particularly insufficient cooling for data racks and outdated air handling equipment. Recommendations include reconfiguring office and production spaces, consolidating equipment racks, addressing accessibility barriers, modernizing HVAC and electrical systems, and considering future-proofing technology upgrades.





## Midwest Trust Center (MTC) Infrastructure Study (October 2024)

The MTC Infrastructure Study provides an evaluation of the performing arts facility located on the north edge of campus. Originally constructed in 1990, the building houses Yardley Hall, Polsky Theatre, the box office, classrooms, administrative offices, and the campus police. Major recommendations include significant accessibility improvements for lobby areas and theaters, reconfiguration of lobby circulation to improve safety and gathering spaces, expansion and modernization of the box office, and upgrades to the back-of-house areas, including additional dressing rooms, improved workshop spaces, and storage enhancements. The study also highlights mechanical and electrical system needs, such as replacing aging air handling units, improving chilled water capacity, and updating exhaust and ventilation systems to meet current codes.





## Commons (COM) Infrastructure Study (May 2024)

The Commons building, constructed in 1971 and home to the campus food court, was assessed with a focus on outdated infrastructure and the need for significant system replacements. The study identifies critical improvements for aging mechanical, electrical, and plumbing systems, many of which have surpassed their expected service life. Key recommendations include replacing outdated air handling equipment, upgrading exhaust and kitchen ventilation systems to meet modern efficiency and safety standards, addressing deficiencies in plumbing, storm drainage, and hot water distribution, and expanding fire suppression systems to meet NFPA 13 standards. The study also recommends major architectural renovations to update finishes, address accessibility concerns, improve elevator systems, and expand or relocate the kitchen to meet contemporary food service needs.



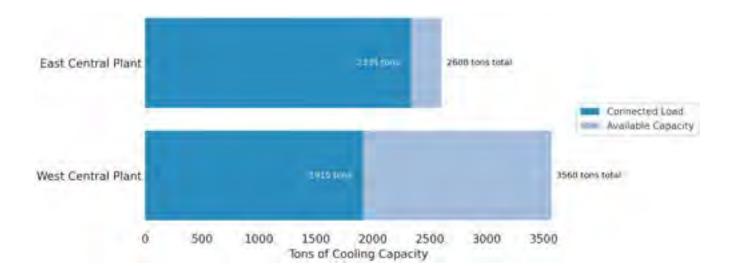


# **Address Aging Campus Infrastructure**

#### **Chilled Water Study**

Campus chilled water is produced by two independent chilled water plants which serve different portions of campus. The West Central Plant (WCP) is located in the Campus Services Building (CSB) and provides chilled water to buildings in the central and west portions of campus. It is also connected to the underground chilled water storage tank.

The East Central Plant (ECP) is located in the Parking Garage at Galileo's Garden (PGGG) and provides chilled water to the buildings on the east side of campus. Henderson Engineers analyzed utilization of each existing central plant using historical data to evaluate the possibility of adding new load associated with the new spaces proposed within the Master Plan study. Both central plants are determined to have some capacity, allowing Henderson to recommend connecting new buildings on campus to the existing chilled water plants where access to chilled water infrastructure permits.



#### **Campus Central Plant Capacity Summary**

West Central Plant (WCP)

3,560 Tons Capacity

2,600 Tons Capacity

1,915 Tons Connected Load

2,335 Tons Connected Load

1,665 Tons Available

265 Tons Available

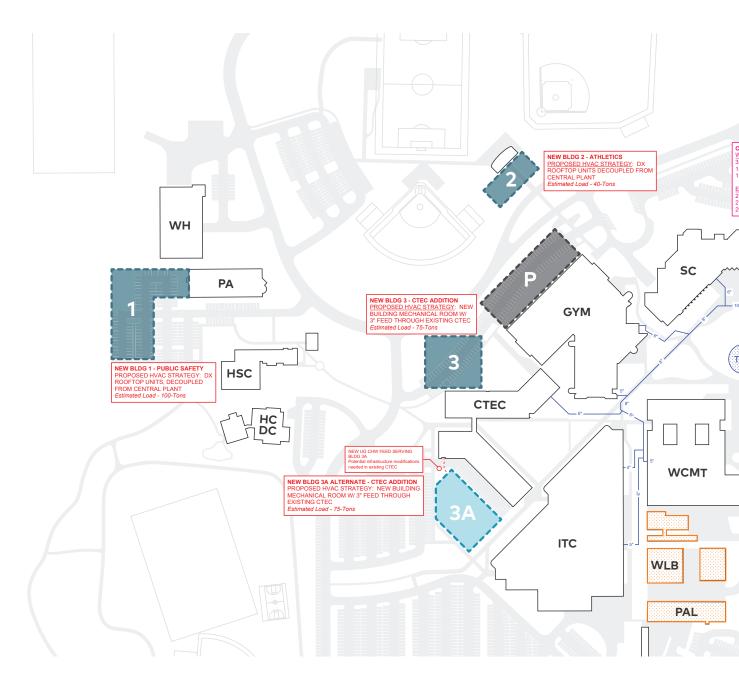
As a supplement to the chilled water plant analysis, the Henderson team also analyzed the existing pipe main distribution throughout the campus for both plants to determine how close the existing underground pipe distribution is operating relative to their limits based on the gathered trend and industry standard data. This analysis revealed the following:

- Hugh L. Libby Career and Technical Center (CTEC) The feed serving this building is oversized
  relative to its operating limits, so it is capable of handling additional load from the proposed addition.
  Either CTEC addition option can be fed through the existing building, which should be further
  explored for any ancillary infrastructure impacts.
- West Center Plant (East Branch) There is a run of 10" piping between the GEB and SCI buildings that is oversized relative to its operating limits.
- Proposed New Construction Healthcare Building To serve the proposed new healthcare building, the main after CLB would need to be extended with an 8" chilled water (CHW) line and a new branch feeding the new facility. This line extension could also tie into the ECP as well as extending an 8" line for future point of connection should the college consider expansion towards the south.
- East Central Plant While this plant has around 260-Tons of available capacity, the existing 14" main fed from the plant appears to be exceeding operating limits. For that reason, any expansion to this part of campus introduces the potential to expand the central plant and upgrade pipe mains. Specific for the proposed healthcare building, the addition of a 5" feed from the ECP main would trigger upgrading the main to a 16" and potentially introduce impacts associated with a plant expansion.

## **Proposed Athletics and Public Safety Buildings**

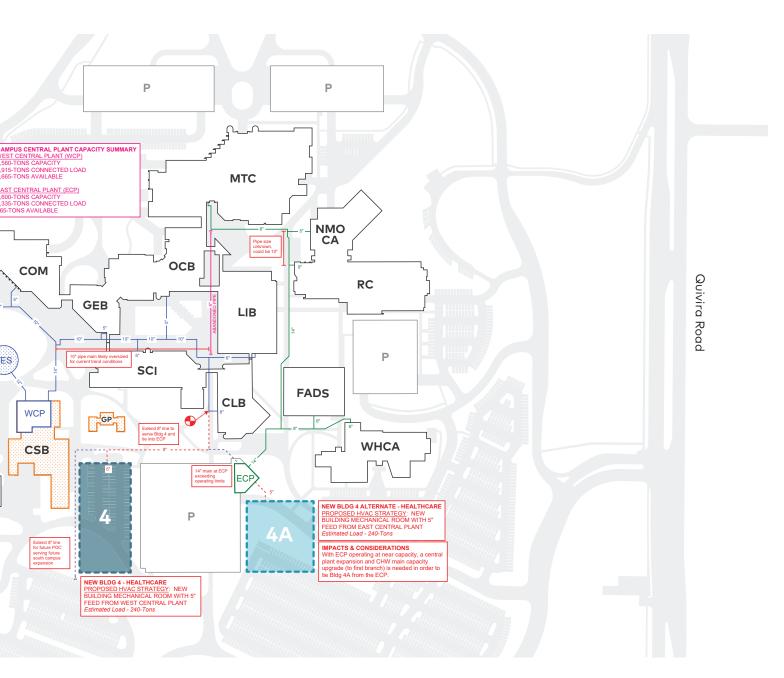
Due to the distance these buildings are from the main campus central plants and infrastructure, the proposed Athletics and Public Safety buildings would be best suited with standalone HVAC systems that are decoupled from the central plant, however integrated into the campus building management systems.

# **Address Aging Campus Infrastructure**



## **Plant Interconnection Opportunities**

It would be worthwhile for the College to explore an interconnection between the central plants on campus, which introduces opportunities for load sharing and added redundancy across the campus chilled water systems. This study would warrant an in-depth analysis of the campus chilled water pumping infrastructure and controls strategies to ensure the interconnection can operate effectively while also exploring the ability for the campus to expand its chilled water network as part of their master planning.



# **Plant Equipment Refrigerant Phaseout**

The current chiller equipment on campus is operating off of refrigerants that are expected to phase out by 2030. The 5 total chillers in the WCP and ECP all operate off of R-123 which has been phased out as of 2020 but will continue to be available for servicing through 2030. One chiller in the WCP can be overhauled with a newer more environmentally friendly refrigerant (R-514A) without needing a full chiller replacement. A similar overhaul package can be implemented for the 2 chillers in the ECP and the older 2 Chillers in the WCP, however due to the age of the chillers, new impellers, orifice plates, and compressors will be necessary for complete refrigerant conversion to R-514A.

# Section 5 Implementation



The recommendations outlined in the 2025 Facilities Master Plan are intended to guide the physical evolution of Johnson County Community College in alignment with the institution's mission, vision, and values, and strategic and operational plans. While the plan identifies a series of initiatives to address critical facility needs across campus, successful implementation requires a flexible, phased approach that can respond to changing conditions, funding, and priorities. This section provides a framework for how the College can translate long-term vision into actionable, incremental steps that support student success, enhance campus functionality, and strengthen the institution's role within the region.

The implementation strategy prioritizes projects that directly support areas of programmatic growth, workforce alignment, and campus-wide improvements, while also considering operational impacts such as parking, accessibility, and student experience. The plan is designed as a living document that is adaptable to evolving circumstances and intended to provide the College with clear, actionable tools for decision-making. The recommendations are structured to offer both near-term and long-range options, ensuring that as needs evolve, the College remains prepared to advance initiatives that reinforce its mission, community partnerships, and institutional resilience.

# **Prioritization and Conceptual Budgeting**

## **Project Cost**

The opinion of probable cost is expressed as Construction Cost or Hard Costs. Project Cost represents the total investment to complete the project, including construction, professional fees, permits, furnishings, and other soft costs. Construction Cost includes only the physical building expenses—labor, materials, and contractor fees. The design team typically applies a multiplier of 1.4 to 1.6 to estimate total Project Cost, though this may vary based on the soft costs specific to each project type. Opinion of probable total project costs exceed \$200m, ranging from \$210m to \$240m.

#### **Budgeting**

These cost projections are a rough conceptual opinion of probable costs for preliminary budgeting purposes. This opinion of probable cost was determined using cost per square foot unit prices and lump sums, based on recently bid BNIM and Kansas City market pricing and historical data for unique project types and programs. Budgeting costs will be refined by JCCC in subsequent phases and confirmed with construction partner estimates as details are refined and defined.

#### **Escalation**

The opinion of probable costs is provided in today's dollars based and should be escalated out upon known timeline. Further Concept Design and programming verification must be completed to provide more accurate cost ranges including escalation to mid-point of construction. An estimated escalation of 1% per month should be expected at this time. As the construction market is variable, appropriate escalation should be verified and updated as necessary once dates of construction are determined.

## **Prioritization and Phasing**

The College's initial prioritization for implementation of the 2025 Facilities Master Plan Update focuses on aligning physical improvements with institutional goals, workforce needs, and enrollment strategies. Priority is given to projects that support areas of academic growth and high workforce demand, particularly within the healthcare programs, including the new Surgical Technology program and the planned expansion of Registered Nursing (RN) and Practical Nursing (PN), as well as within the Industrial Technology division's skilled trades programs. These initiatives directly advance the objectives outlined in the Academic Master Plan. Additionally, the College is proactively addressing campus parking needs, recognizing the anticipated increase in main campus activity as programs potentially relocate from the OHEC and as new facilities, such as the proposed healthcare building and expansions to CTEC and Public Safety, impact existing surface parking. Improvements to the Student Center have been prioritized to support the Strategic Enrollment Plan by increasing access to essential student resources and support spaces.

# Key:

# **Building Specific Initiatives**

Campuswide Initiatives

Implementable Initiatives		Opinion of Probable Cost	Planning Start
1A	Establish Centers of Excellence for Science & Healthcare  - New Construction (40,000 - 60,000 SF) @ \$600 - \$750 / SF	\$30 Million to \$45 Million	2025
1A	Support Active Learning  - Observatory  - Outdoor Classroom / Amphitheater	<b>\$2.05 Million</b> \$500K \$1.55 Million	2025
	Subtotal	\$47.05 Million	
1B	West Campus Parking Garage - New Construction (225 - 250 Stalls)	\$8.75 Million	2026
	@ \$28K - \$35K / Stall *Excludes a West Central Plant Expansion		
1B	Improve Athletic Support Spaces	\$7.2 Million	2026
	<ul><li>New Construction (7,000 - 9,000 SF)</li><li>Gym Renovation (4,000 - 5,000 SF)</li></ul>	\$5.8 Million \$1.4 Million	
1B	Expand Career and Technical Education Facilities	\$19.9 Million	2026
	<ul><li>CTEC 23,500 SF Addition (\$500 - \$650/SF)</li><li>CTEC 12,000 SF Renovation (\$250 - \$350/SI</li></ul>	\$15.7 Million F) \$4.2 Million	
1B	Organize the Student Center Pathways	\$14.6 Million	2026
	- SC L1 4,000 SF Light Renov. (\$250 - \$350/SI		
	- SC L2 19,000 SF Heavy Renov. (\$300 - \$400 - SC L3 14,000 SF Heavy Renov. (\$300 - \$400		
	Subtotal	\$50.45 Million	

# **Prioritization and Conceptual Budgeting**

Bui	lding & Campuswide Initiatives	Opinion of Probable Cost	Planning Start
1C	Establish Centers of Excellence for Public Safety	\$26.5 Million	2027
	<ul> <li>Police: 16,000 SF Renov. (\$250 - \$350 / SF)</li> <li>EMS: 9,000 - 12,000 SF Addition (\$500 - \$650 - Fire: 18,000 - 20,000 SF Addition (\$500 - \$650</li></ul>		
1C	Address Aging Campus Infrastructure	\$15.65 Million	2027
	- MTC: 86,000 SF (MEP, ADA, Box Office, BOLLight Architectural Renov.)	H \$8.45 Million	
	- Library Video Services: 6,000 SF Light Renov. - COM: 76,000 (MEP/F, Kitchen 15ksf & Light F		
	Subtotal	\$42.15 Million	
1D	Strengthen Wayfinding for Drivers and Pedestrians	\$5.5 Million	2028
	<ul><li>Comprehensive Graphics &amp; Wayfinding</li><li>Cavalier Way &amp; Entry Renovation</li></ul>	\$2.5 Million \$3 Million	
1D	Address Aging Campus Infrastructure	NA	2028
	- WPK: 27,000 SF (Light Renov. +/- 10K SF)	NA	
1D	Support Active Learning	\$3.78 Million	2028
	- Outdoor Classrooms (Site B: Healthcare \$2.1 (Site C: CTEC \$1.68 M)	1 M) \$2.1 M / \$1.68 M	
	- Ground Floor Student Active Learning Expan	nsion NA	
1D	Ensure Effective Space Management	NA	2028
1D	Integrate Sustainability	NA	2028
1D	Build Upon Universal Design Strategies	NA	2028
	Subtotal	\$9.28 Million	

Total	\$135 Million	+/- \$148.93 Million	\$165 Million
Campuswide Initiatives	\$22 Million	+/- \$26.98 Million	\$30 Million
<b>Building Specific Initiatives</b>	\$110 Million	+/- \$121.95 Million	\$130 Million

Section 6
Acknowledgements

WELC

The development of the Johnson County Community College 2025 Facilities Master Plan Update has been an iterative and engaging process shaped by the voices of the campus community. Over the course of this effort, more than 300 students, faculty, and staff contributed their ideas, experiences, and aspirations for the future of JCCC. In addition, the Board of Trustees and the College's executive leadership provided critical insights that helped align the plan with institutional priorities and long-term goals. This collective input has been essential to creating a plan that reflects the needs of the people it is designed to serve. A feedback-driven approach is vital to ensuring this document builds upon the exceptional work already happening across JCCC's campuses. By listening to the individuals who learn, teach, and work here every day, the planning team has been able to better understand both current challenges and future opportunities.

# **Acknowledgements**

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Tom Hall, Associate Vice President Campus Services/Facilities Planning

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Gurbhushan Singh, Vice President, Academic Affairs/Chief Academic Officer (CAO)

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## **Public Safety & Healthcare Focus Group**

Chad Sanner, Dean, Healthcare, Public Safety & Wellness
Christina Rudacille, Director Practical Nursing and HOC
Kelle Oestreich, Director Respiratory Care and Neurodiagnostic Technology
Sonta Wilburn, Director Police Academy
Charles Foat, Director EMS
Tim Witham, Director Fire Science
Lori Shank, Director of Registered Nursing (LPN & RN)

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Jay Antle, Professor of History/Executive Director, Center for Sustainability
Michael Rea, Sustainability Project Manager/Center for Sustainability
Krystal Anton, Coordinator Zero Waste/Center for Sustainability
Rachel Rost-Allen, Sustainability Education and Engagement Coordinator/Center for Sustainability
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