Academic Excellence Center
Southeast Community College

June 17, 2022

EXECUTIVE SUMMARY

The new, 52,000 SF interdisciplinary Academic Excellence Center is a pivotal first project in a campus revitalization masterplan for Southeast Community College's Beatrice location in rural Nebraska. This building acts as a gateway into campus, creating a destination for students, faculty, and the community and will be the pattern for future academic development. The facility supports a wide variety of disciplines spanning physics and health sciences to music and fine arts and houses classrooms, studios, offices, a large multipurpose space, and outdoor learning areas.

Attempting to address one of the commuter college's biggest challenges—creating place—the project was approached from the student experience out, letting educational functionality and interactivity drive its design. The role of public space was redefined to help promote community, merging program with traditional circulation space. The design focused on slowing down the broader student experience by expanding both the resources and people students encounter between car-classroom-car.

An interior circulation spine acts as a main "pedestrian street," off which cul-de-sacs connect classrooms, studios, and office program. The exterior fiber-reinforced concrete panels continue into the interior, defining the main street and providing a tactile separation between the interior and exterior experience. Interior transparencies place learning on display, connecting flexible learning spaces to open areas for student-teacher collaboration.

Giving a nod to its humble surroundings, the building celebrates and emphasizes the rural vernacular of Nebraska through color, texture, rhythm, and scale, both inside and out. Building organization further supports wellness through biophilia—providing panoramic views of the pastoral setting beyond and prioritizing daylighting to all program spaces.

Energy conservation is at the forefront—parametric analysis of daylighting, systems, and assemblies has created a path to meet the 2030 Challenge, and further, integration of PV-ready infrastructure is moving the campus masterplan to consider Net Zero-ready solutions.

Scope & Budget

Following a strategic planning process, Southeast Community College's semi-rural Beatrice Campus—a commuter college with dated facilities—was ready for a complete transformation. The pivotal first project for this campus was an interdisciplinary learning center that could be used by several programs. The building would be the cornerstone of a revitalization masterplan and set the design stage for future academic classroom buildings. With ambitions to create a world-class educational facility with state-of-the-art labs, studios, offices, and progressive learning spaces, the college needed a vision for a center that would match their aspirations.

- **Project cost:** $19M
- **Construction cost:** $16.4M
- **Campus size (faculty, students, staff):** approximately 105 faculty / staff and 1,070 students
- **Size:** 52,000 GSF

School & Community Research and / or Engagement

Community

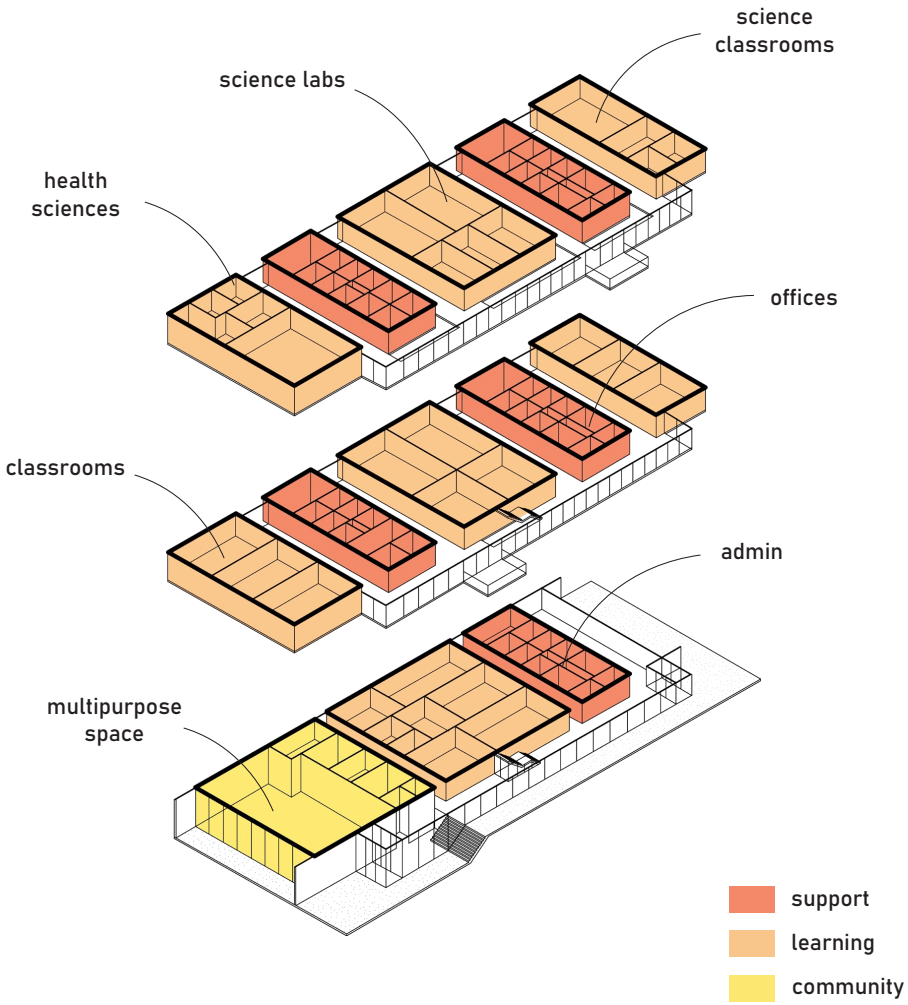
Beatrice is a city in and the county seat of Gage County, Nebraska, located approximately 25 miles south of Lincoln on the Big Blue River and surrounded by lush agricultural country. The Academic Excellence Center—located on Southeast Community College's Beatrice campus—gives a nod to its humble surroundings by celebrating and emphasizing the rural and vernacular culture of this small Nebraska foothold. The college offers degree and certificate options in 11 career and technical programs, as well as an academic transfer program for those planning to complete a bachelor's degree at a four-year college.

Stakeholders

- Regional business leaders
- Southeast Community College faculty, staff, and students
- Beatrice, Nebraska, community

Value of Process & Project

This project defines a new era for community college education by meeting the occupational needs of the entire state of Nebraska, as well as creating the **FIRST** purpose-built classroom facility to showcase state STEM programming focused on agriculture business. From collaboration with regional business leaders, **the design team connected focused and meaningful real-world programming to purpose-built environments at three scales:** larger multifunction space serving industry-led seminars and conferences; larger enclosed break-out space for client-connected project discussion with room for ideation; and impromptu break-out space for smaller groups to meet with industry representation on client-connected projects.

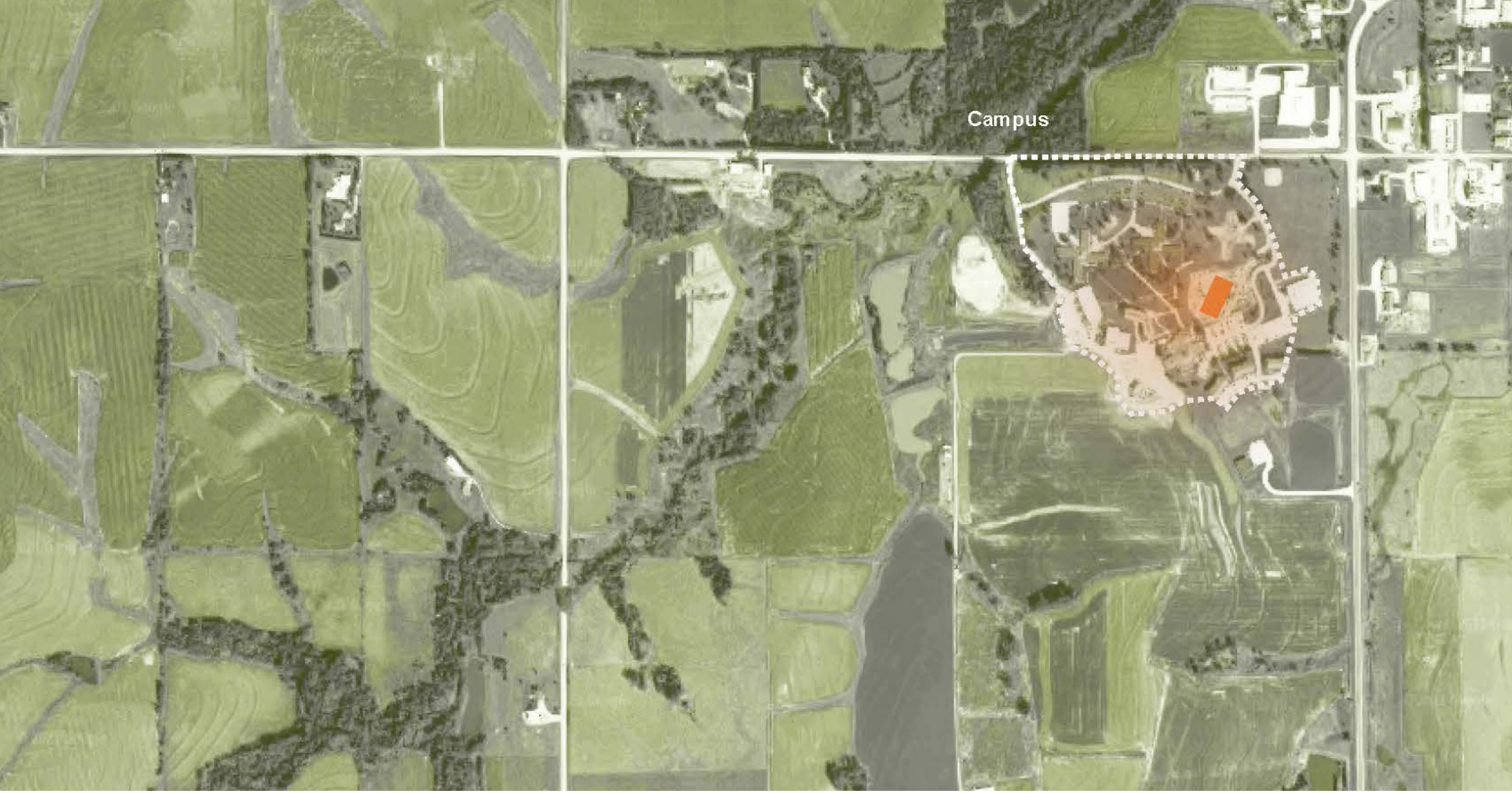


Educational Environment Design

The new Academic Excellence Center needed a guiding vision that matched the college's biggest aspirations: as the cornerstone of a revitalization masterplan, a prototype for future campus development, and a model to support progressive learning practices. To be successful, this project needed to speak to multiple stakeholders and create a community and culture that embraced interaction between students, educators, and industry, both within and outside the classroom.

A rigorous yet simple organization of program spaces intentionally brings together office and support spaces with classrooms, promoting student-teacher collaboration.

With an enrollment majority of non-traditional, commuter students–many of whom have full-time jobs–creating community within a setting where students come and go directly from and to their car is often not a part of the learning experience. To achieve this, the role of public space was redefined, merging program with traditional circulation space while focusing on the broader student experience.

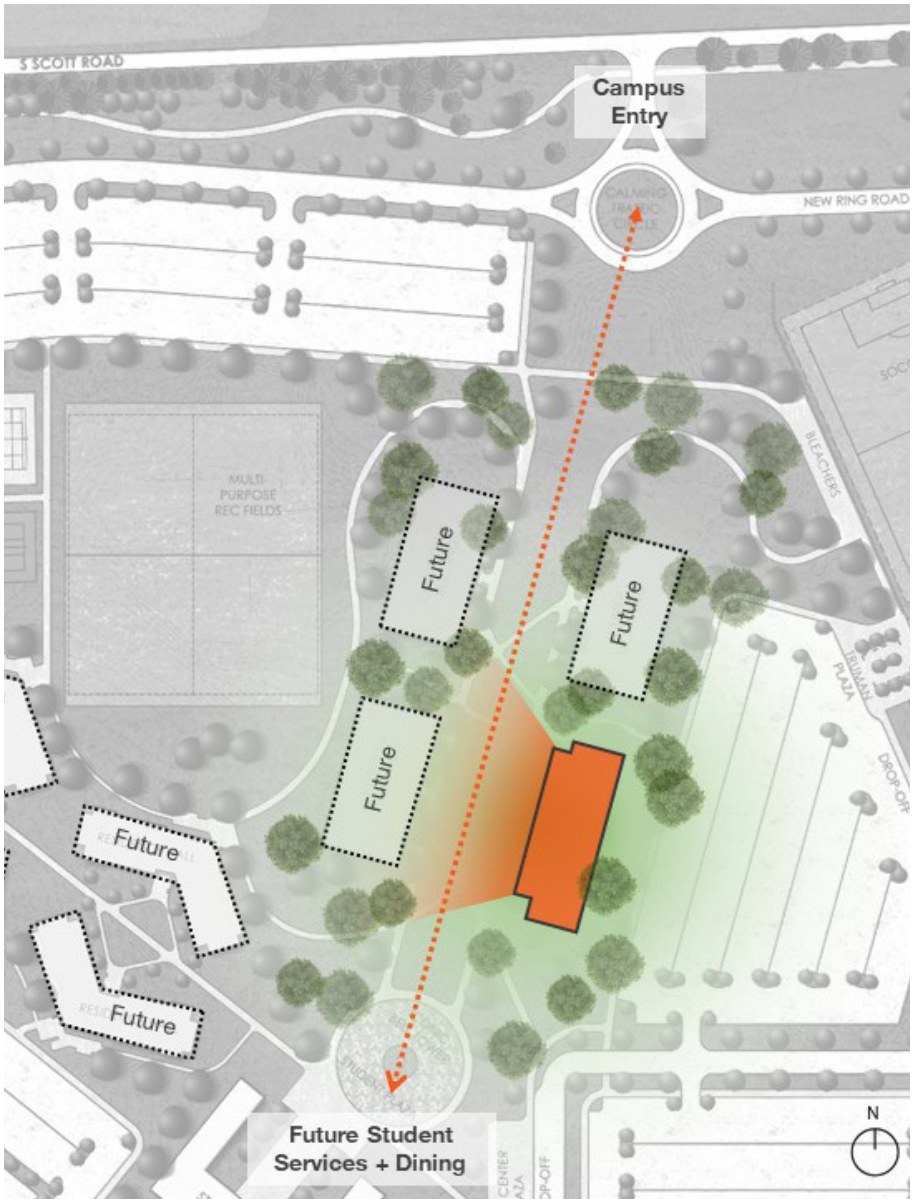


Physical Environment Design

The Academic Excellence Center sits at the heart of a transforming campus, serving as a bridge between old and new, a threshold between college campus and farmlands beyond. As the outcome of a design process grounded in the specific daylight conditions and vernacular of this particular site, the building would neither look, nor function the same, were it designed for in any other location. Inside and out, the center celebrates its local context by referencing the colors, textures, patterns, and materials found in its agrarian setting. It responds to its rural surroundings while setting the stage for a forward-thinking campus.

Physical Environment Design (continued)

Giving a nod to its humble surroundings, the building celebrates and emphasizes the rural vernacular of Nebraska through color, texture, rhythm, and scale, both inside and out. The scrim wall's functional aesthetic nods to both the exposed structure of the metal grain silo and the way light filters through the porous walls of nearby wooden barns—both vernacular "machines" are purpose-built to serve the state's agricultural industry. Building organization further supports wellness through a biophilic connection, providing panoramic views of the pastoral setting beyond and prioritizing daylighting to all program spaces.



Results of the Process & Project

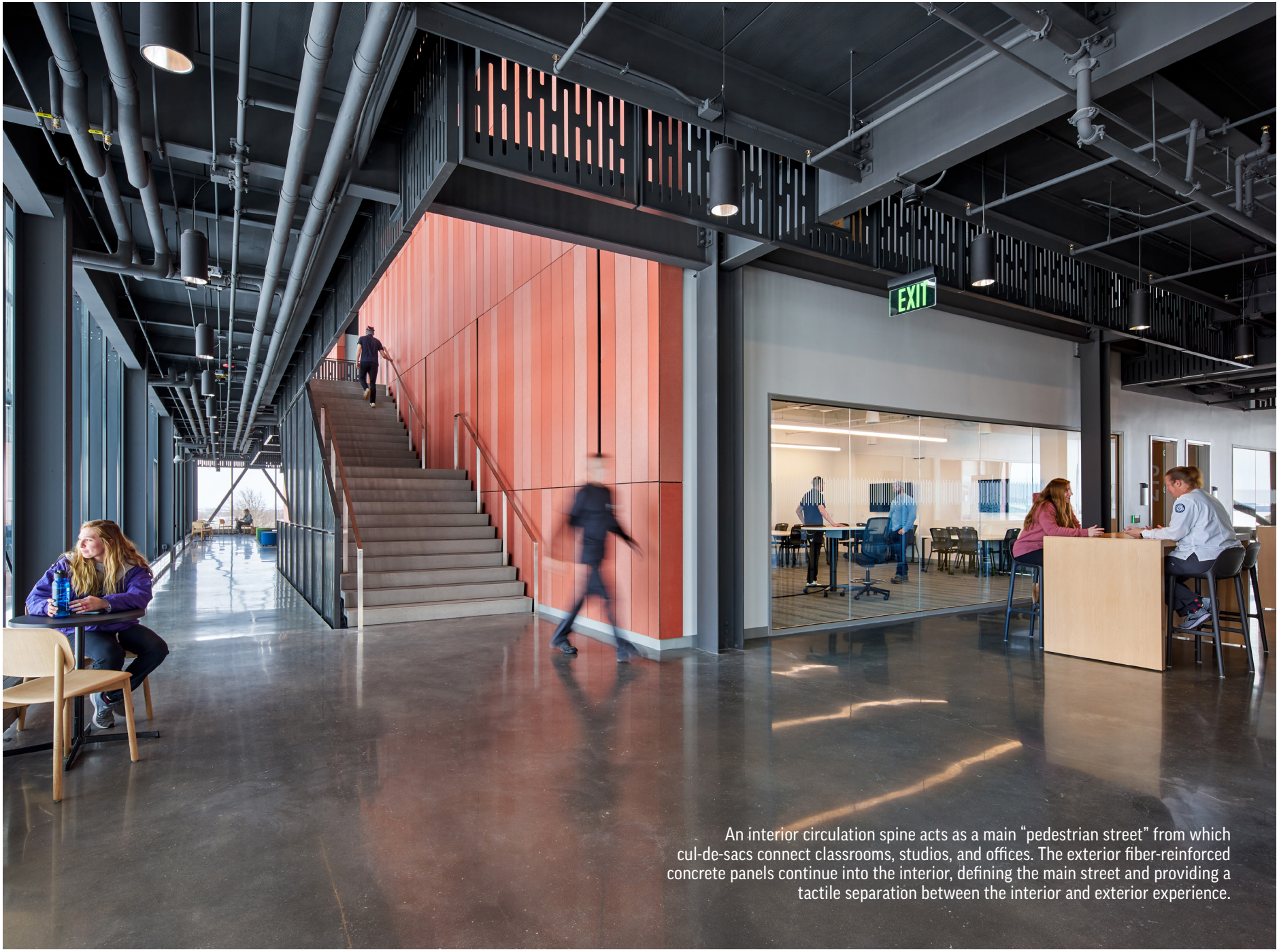
The Academic Excellence Center for Southeast Community College attempts to address one of commuter colleges' biggest challenge—**creating place**. With an enrollment majority of non-traditional students—with whom many have full-time jobs—creating community within a setting where students come and go directly from and to their car is often not a part of the learning experience.

Leveraging a process that focused on this aspect of commuter life created a new model for building programming that challenges the idea that all learning needs to reside within an enclosed classroom of four walls. Foundational to this model, cul-de-sacs—where more traditional teaching/learning spaces connect—create quiet, functional, yet open environments that mix scheduled classroom programming with impromptu classroom break-out and individual/group study. This flexible setting creates opportunity for more robust collaborations—encouraging interdisciplinary interaction, exposure to conversations within adjacent fields of study, and access to a broader community.

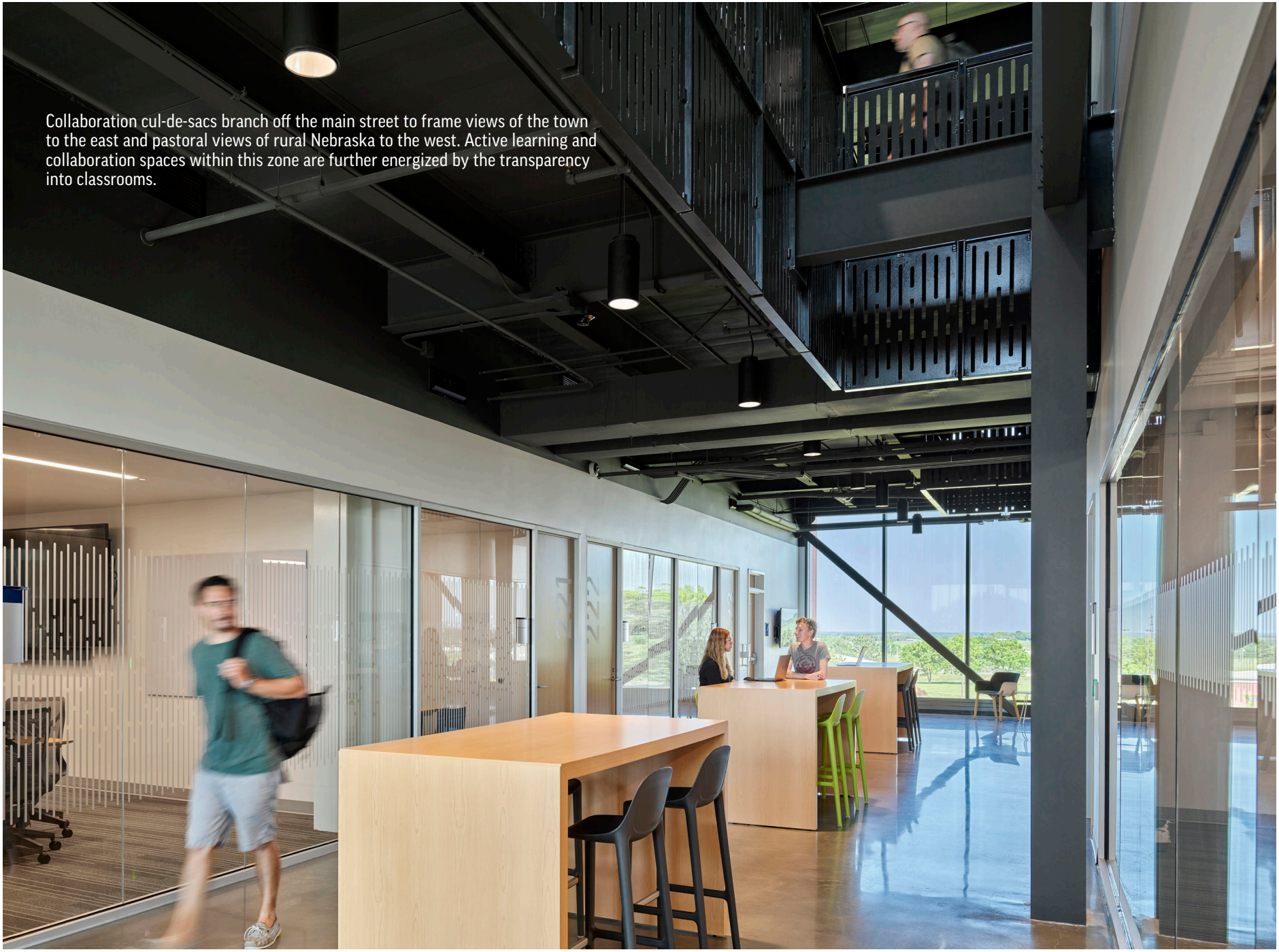
To achieve this, the role of public space was redefined, merging program with traditional circulation space while focusing on the broader student experience. The result of this effort is **creating space for community**—leveraging design to slow down the student experience by expanding the resources and people to which each student has access in this critical moment between car-classroom-car.

This project directly serves its community by supporting Agriculture Sciences, Ag-Business, Criminal Justice, and Continuing Ed programming focused on injecting talent and innovation within the regional economy. **Conversations with regional business leaders kick-started the design process to discuss the WHY and HOW around industry-related programming.**

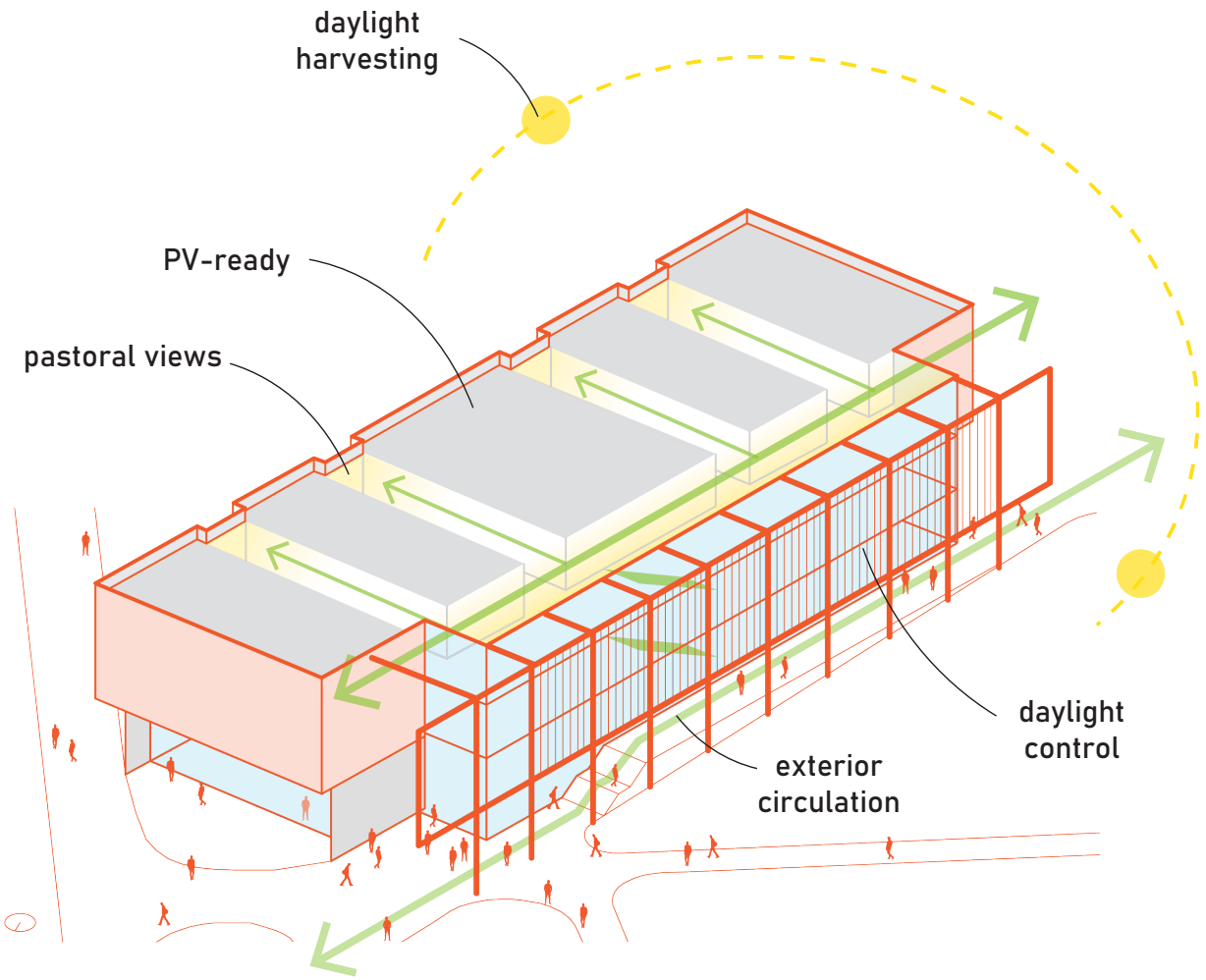
From this collaboration, we connected focused and meaningful real-world programming to purpose-built environments at three scales: larger multifunction space serving industry-led seminars and conferences, larger enclosed break-out space for client-connected project discussion with room for ideation, and impromptu break-out space for smaller groups to meet with industry representation on client-connected projects. Programmatically these spaces purposely connect to the learning cul-de-sacs, off the primary pedestrian circulation spine, to activate and bring real-world learning to the forefront of the design, as well as foster a sense of community.



An interior circulation spine acts as a main “pedestrian street” from which cul-de-sacs connect classrooms, studios, and offices. The exterior fiber-reinforced concrete panels continue into the interior, defining the main street and providing a tactile separation between the interior and exterior experience.



Collaboration cul-de-sacs branch off the main street to frame views of the town to the east and pastoral views of rural Nebraska to the west. Active learning and collaboration spaces within this zone are further energized by the transparency into classrooms.



Sustainability & Wellness

Wellness and biophilia are at the heart of this project's sustainability story. The filtration of natural light and expansive views create comfortable and dynamic spaces all year round. Building orientation, form, and solid-to-glass ratio optimizes controlled passive daylight to all learning environments. Primary classrooms leverage indirect daylight from the adjacent cul-de-sacs while a balance of direct and indirect daylight is distributed along the primary west circulation spine and connecting cul-de-sacs to provide a dynamic, yet functional learning environment serving break-out, study, and impromptu interaction. Parametric analysis of daylighting, systems, and assemblies created a path to meet the 2030 Challenge, as well as a 70% energy reduction target (in 2019) compared to projects of similar type and climate. Further, integration of a PV-ready infrastructure was part of the initial planning process, a strategic move toward a Net Zero masterplan.