

From Buildings to Belonging: When Students Author Space

A4LE Learning **SCAPES**
2026
SEATTLE
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KALAMAZOO RESA
Career Connect



Introductions



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Today's Journey

1. The Community Challenge
2. Students Authoring Space
3. From Voice to Place

How can students help shape the places where they learn?



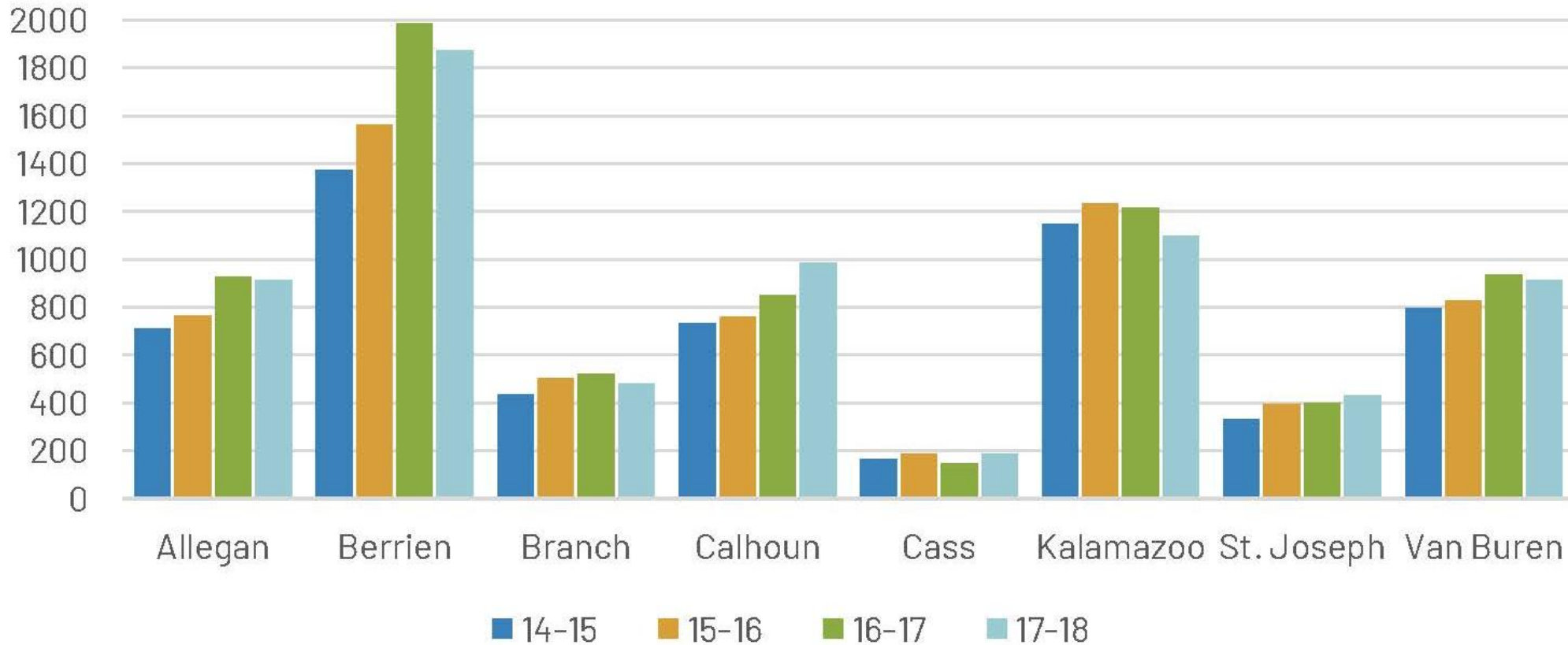
The KRESA Community Challenge

What problem were we trying to solve?



Regional CTE Enrollment

2014-2015 through 2017-2018

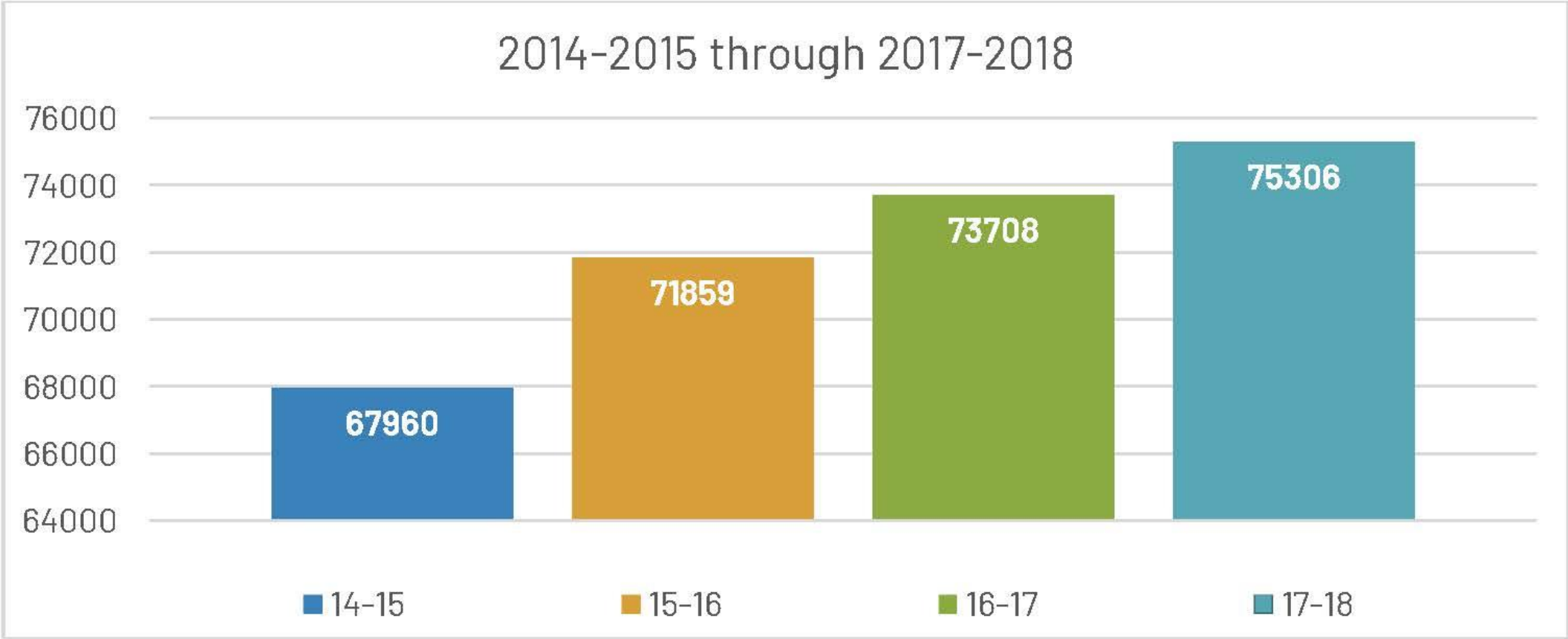


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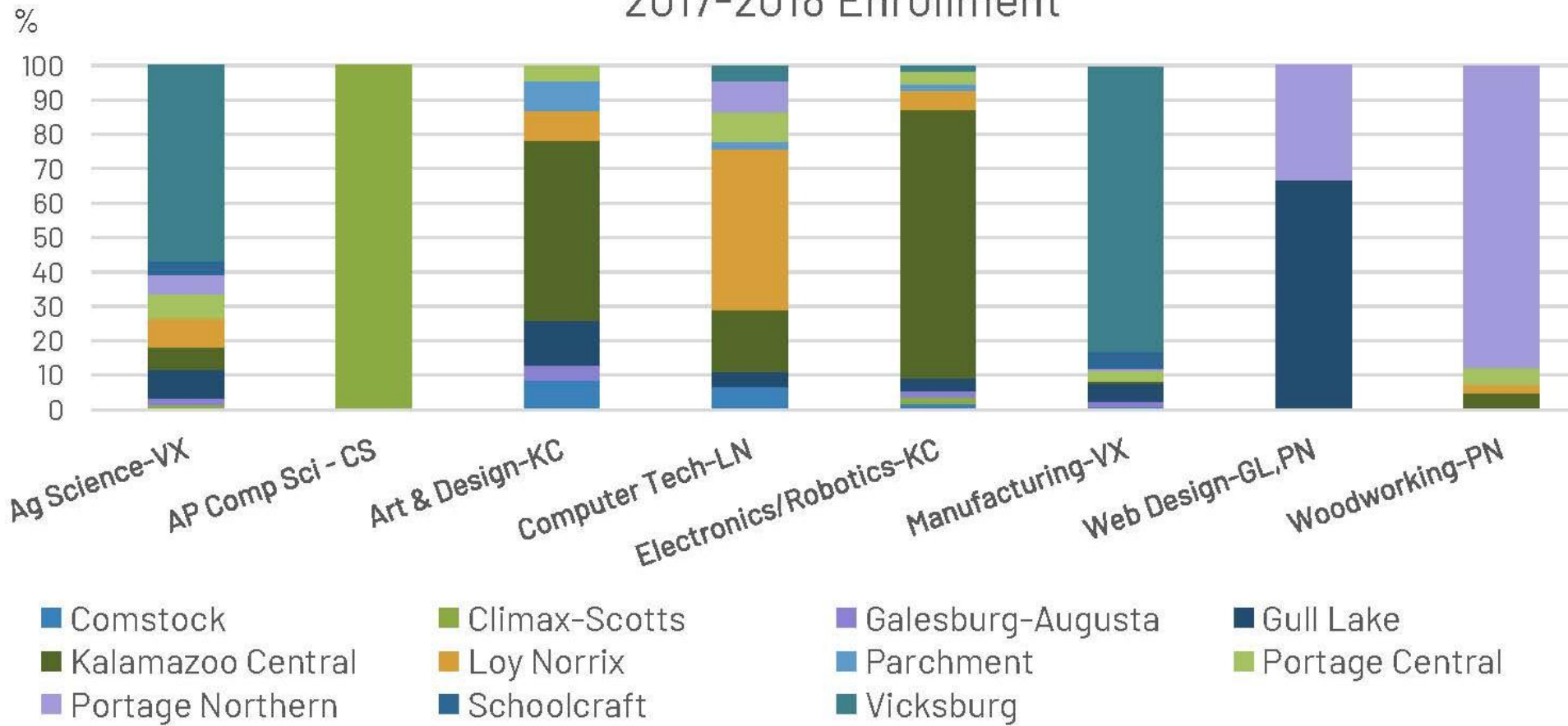
Statewide CTE Enrollment

STATEWIDE CTE ENROLLMENT TREND



CTE Enrollment by High School

2017-2018 Enrollment



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Why was CTE enrollment lower than in peer counties?

Why did participation cluster within individual high schools?



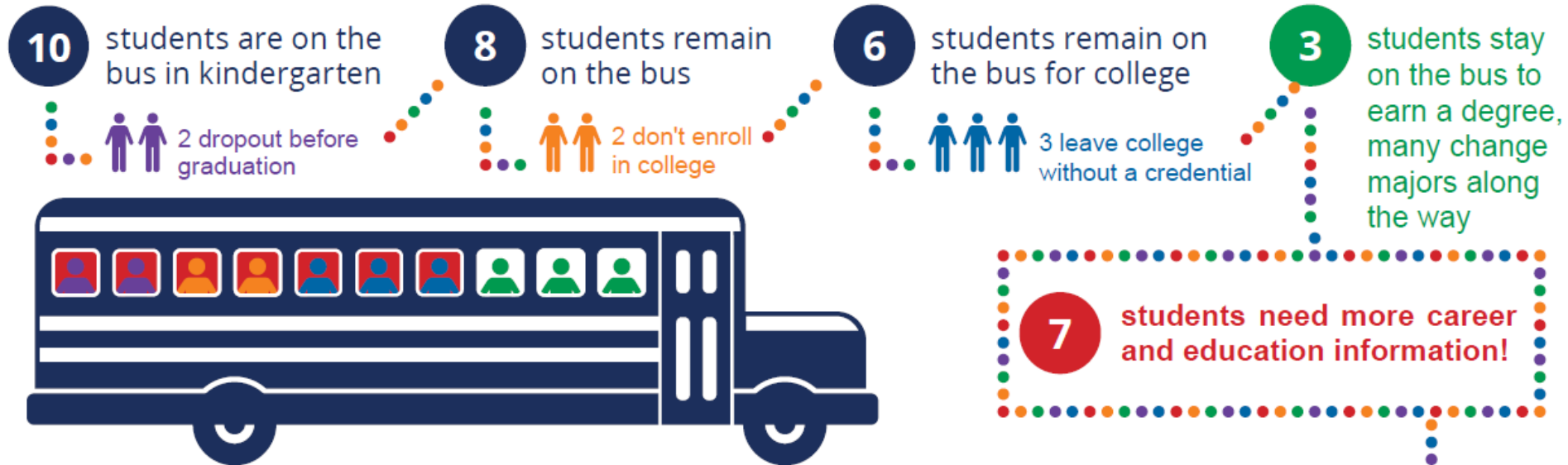
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Barriers to Opportunity

- Programs spread across local high schools
- Complicated transportation between locations
- Uneven career awareness and exploration
- Limited direct oversight of the student experience
- Stigma around vocational education

Students must know what they *CAN* be before they must choose a career!



Let us help you change this statistic to ensure all students are successful!



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Starting with the WHY



requires a Master's degree or more



require a Bachelor's degree



require a professional/skilled trades
1-year certificate or 2-year degree



The Community Ambition

How could CTE expand opportunity and help learners build fulfilling careers in Kalamazoo County?



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Key Priorities for Transformation

- Equitable access
- A welcoming place for students from every district
- Career development embedded in the K-12 experience
- Self-awareness, option awareness, skill development, career pathway planning
- Community partnerships
- Education and industry shaping opportunities together
- A shared home for CTE
- Spaces and staff that support high-quality learning



Pathways of Study

- Preparation for well-paying, in-demand jobs
- Industry-recognized credentials
- Current and emerging technologies
- Curriculum shaped with industry partners

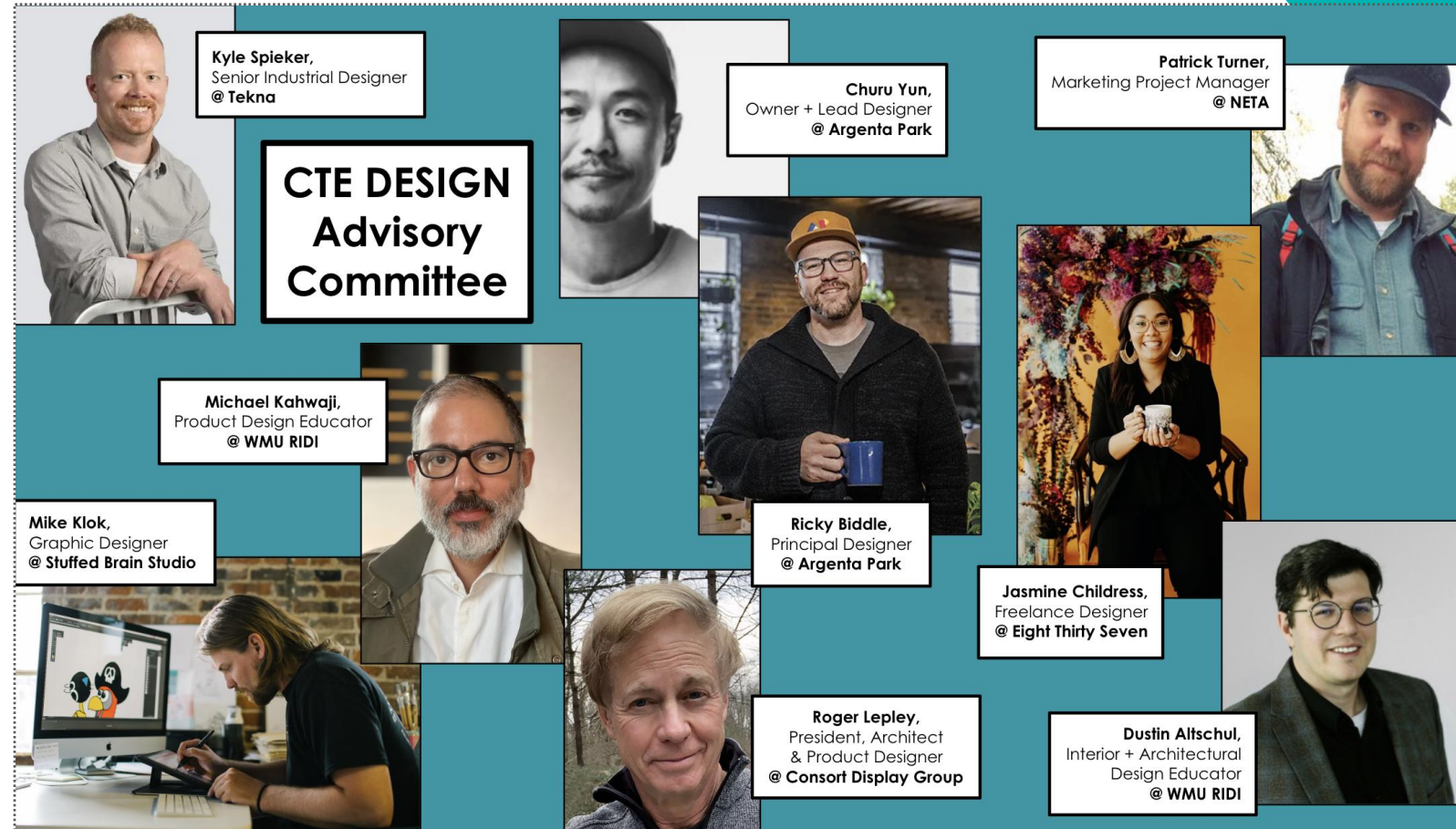
Career Connect Campus Pathways

- ▶ **Agriculture, Food and Natural Resources**
 - Horticulture
 - Veterinary Sciences
- ▶ **Architecture and Construction**
 - Construction Trades
 - Electrical Technology
 - HVAC-R
 - Plumbing
- ▶ **Automotive + Heavy Equipment**
 - Automotive Technology
 - Heavy Equipment Maintenance
- ▶ **Culinary Arts**
- ▶ **Design**
- ▶ **Health Science**
 - Medical Laboratory Science
 - Patient Care Technician
 - Pharmacy Technician
 - Rehabilitation Therapy
- ▶ **Information Technology**
 - Computer Programming
 - Computer Networking
 - Cybersecurity
- ▶ **Manufacturing**
 - Machine Tool + Engineering
 - Mechatronics + Robotics
 - Welding
 - Supply Chain
- ▶ **Educator Academy**



Shared Vision

Educators and industry partners shaping opportunities together



What the Campus Needed to Make Possible

- A place of belonging across nine school districts
- Career awareness and exploration
- Hands-on, relevant learning
- High-level technical skill development
- Pride in a chosen pathway



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Why Students Needed a Voice



Their daily experiences, aspirations, and barriers could help shape what the campus should look and feel like.



Students Helped Author the Space

60 people, four days of co-design



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Workshop Participants

Rostam Ahmad Daud, Loy Norrix
Eric Alburtus, Portage Public Schools
David Allan, Stryker
Shawn Andrews, Duncan Aviation
Lisa Bartell, KRESA
Matt Basse, Comstock
Robert Becker, Portage Northern
Rex Bell, Miller Davis
Mark Bielang, Portage Public Schools
Jill Bland, Southwest Michigan
Ken Briggs, Kalamazoo Promise
Cameron Buck, Kalamazoo Promise
Dave Campbell, Kalamazoo Promise
Issac Carter, CTE
Brent Cole, Climax-Scotts
Matt Dailey, Schoolcraft
Paige Daniels, Kalamazoo Promise
Wendy Maynard-Schultz, Galesburg
Todd McDonald, Comstock
Mindy Miller, KRESA
Tracy Miller, Kalamazoo Promise
Sarah Newman, Parchment
Doug Newington, Climax-Scotts
Jeni Opel, KRESA
Doug Phillips, Plante Moran Cresa
Dr. Rita Raichoudhuri, Kalamazoo Public Schools
Raphael Rittenhouse, Gull Lake
Rob Rohlman, CSM Group

Matt Davis, Wightman
James Devers, Communities in Schools
Paige Egan, KVCC
Sid Ellis, Douglas Community Assoc.
Jack Endres, Mann-Hummel
Diane Fort, KRESA
Rick Frens, Schoolcraft
Cindy Goss, KRESA
Dawn Gurley, KRESA
Dawn Gurley, KRESA
Travis Gurley, Duncan Aviation
Josh Hays, Comstock
Laura Hays, Parchment
Jason Hays, KRESA
Sarah Hays, KRESA
Dave Humphrey, KRESA
Irene Hays, KRESA
Rikki Hays, Kalamazoo Public Schools
Brian Hays, KRESA
Dr. Jeffery Thoenes, Comstock
Bob Wallis, 61 Keys Consulting
Von Washington, Kalamazoo Promise
Kara Wood, WMU
Tom Zahrt, KRESA
Dr. Tricia Zelaya-Leon, Kalamazoo College
Bryan Zocher, KRESA

Students Helped Author the Space

Student Participants

Zoe Whelham, Portage Central
Cameron Dick, Portage Central
Blake Sutherland, Vicksburg
Kyle Mierzewski, Climax-Scotts
Robert Becker, Portage Northern
Faye Scott-Farnsworth, Portage Northern
Mackenzie Ford, Gull Lake

Bryce Soisson, Kalamazoo Central
Jacob Rooney, Comstock
Mason Meach, Comstock
Gabrielle Novak, Parchment
Abby Naugle, Portage Central
Cooper Gheen, Kalamazoo Central



DIG

Understanding the student experience



Your mission: Create a Vision for CTE at KRESA ... for your partner

First Interview - 12 min (2 sessions x 6 minutes each.)

What are the intended
OUTCOMES for the new LRC
environment in your school?

	EDUCATION What are the intended EDUCATIONAL OUTCOMES ? How will the CTE Facility be used educationally?	CULTURE & BEHAVIOR What are the intended CULTURAL OUTCOMES? How will the CTE Facility be used socially?
For Students (3 minutes)	OPPS TO EXPLORE PATHWAYS EXPLORE A VARIETY OF CAREERS PROFESSIONAL & TECHNICAL SKILLS BASIC ACADEMIC SKILLS UNDERSTANDING OF PROFESSIONALISM ABILITY TO WORK COLLABORATIVELY LEARN TO LISTEN AND SYNTHESIZE IDEAS ABILITY TO PRESENT AND COMMUNICATE IDEAS/THEMES CONNECTIONS TO INDUSTRY/PROFESSIONALS (BUILT ON PROFESSIONALISM)	BELONGING ABILITY TO BE SEEN FOR ONE'S UNIQUE IDENTITY WORK WITH DIVERSE TYPES OF PEOPLE
For Teachers & Staff (3 minutes)	ABILITY/TIME/SPACE TO COLLABORATE. FOCUS ON THE STUDENT AND INDIVIDUAL NEEDS SPACE FOR INDIVIDUAL WORK TIME ROOMS (SPACE QUILT SPACE) FOCUS ON FEEDBACK, STUDENTS, PARENTS, BUSINESSES, COMMUNITY.	CULTURE OF RESPECT (STUDENTS/EXPERTS IN FIELD) BEHAVIOR - COLLABORATION BETWEEN STUDENTS AND STAFF. - RESPECTIVE NON-VERBAL -

1. Start with Empathy



Student Priorities

- Hands-on learning and credentials
- Collaboration across programs
- Diversity and inclusion
- A place students want to be

A day in the life... of a typical CTE KRESA Student.

Third Interview - 6 min (2 sessions x 3 minutes each.)

Map the activities of a student's typical day. Tell us about the places he/she will go, the things he/she will do, the people he/she will meet.

- GETTING SIBLING READY FOR SCHOOL - MORNING JOB - ROLED OUT OF BED - NO BREAKFAST - TOOK A BUS / DROPPED OFF / RODE BIKES	- MOVING BETWEEN CLASSES - MEETING FRIENDS - EATING / SNACK / LUNCH - SOCIAL MEDIA - SPORTS / PE / ACTIVITIES	- HOUSEWORK - SPORTS - TUTORING - CLUBS - NOTHING - TV / YOUTUBE - SIBLINGS SLEEPING - WORK
BEFORE School?	DURING School?	AFTER School?

A Day in the Life

- Before school
 - Transportation, food, and getting ready
- During school
 - Hands-on learning and staff support
- After school
 - Work, family, study, and activities

3. Empathy for Students



DIG DEEPER

Exploring possibilities with students



Trends in CTE Design



TABLE 4 TRENDS

- MODULARITY/FLEXIBILITY
- INTERSECTIONS between programs
- Community
- "OPEN" Concept
- INFRASTRUCTURE - OVERHEAD
- CLEAR SPAN SPACES
- Space meeting program needs to encourage focus
- VISIBILITY (GLASS)
- FURNITURE - flexibility/define spaces
- NAVIGATION WITHIN THE BUILDING
- SOUND ATTENUATION

What were your Lessons Learned with CTE Trends?

- Flexible and adaptable to growth
- Collaborative spaces
- Real-world workplace environment
- New Proudful Culture
- Student-Centered
- Inclusion
- Integration with students and community/industry partners
- Safe & Inviting spaces
- Easy navigation
- Project-based learning
- Visibility throughout
- Intentional collision of programs

Photo Sort Campus Tours – Top Images

Tour 1: Cherry Creek Innovation Campus

Cherry Creek Innovation Campus (CCIC) is a stand-alone college and career preparedness facility for high school students. Courses at CCIC align with industry standards for seven in-demand and growing career pathways including, Advanced Manufacturing, Business Services, Health and Wellness, Hospitality and Tourism, Infrastructure Engineering, IT, STEAM, and Transportation.



Tour 2: West-MEC

West-MEC is a public school district dedicated to providing innovative career and technical education programs that prepare students to enter the workforce and pursue continuing education. Their goal is to empower all students to participate fully in the economy by providing and enhancing Career and Technical Education.



Tour 3: Canyon View High School

Canyon View high school consists of flexible teaching environments reinforced by digital platforms for learning. Ownership of the classroom is transferred to the collective school, allowing faculty to rotate through learning spaces and students to explore academic interests and courses.



Which images resonate with you from the toured facilities?

- Intentional and inspirational branding
- Outdoor learning spaces
- Real-world working environment
- Natural lighting
- Flexible spaces
- Wow! Factor
- Open/ Visible spaces
- Modern & Warm (wood) material
- Purposeful placement of overhead equipment
- Teacher consideration
- Conference space for public
- Multi-story layout



Flexibility

Overhead cord drops distribute power and readily allow reconfiguring of furnishings, fixtures, and equipment (FF&E) to accommodate varying modes of instruction. Mobile FF&E also enables teachers to address students from any place in the classroom or lab. Mobile FF&E enables teaching classes inside or outside.



Collaboration

A beacon in the community, the new facility is open to all Kalamazoo community and facilitates collaboration. The common area design encourages social interaction with industry partners, including informing students and faculty about community and business affairs. Spaces will accommodate events of all types, community meetings, industry partner events, and workforce training.



Culture/Pride

Visitors can view student projects and educational programs in the various labs throughout the facility. Wall-mounted digital displays will enable students to share presentations remotely, in real-time, with visitors and colleagues in other programs. Choreographed student career paths will encourage the engagement of prospective industry partners.



Project-based, Real-world Learning

The CTE educational program will prepare students for business and industry, providing certifications, simulated real-world experience, real-world work environments enabling them to enter the workforce confidently. By partnering with local industries and enterprises, students will have the opportunity to meet their potential employers while learning their specific job skills and developing their harder skills, critical thinking, communication, problem-solving, self-management, and collaboration.



Branding

Students will be active participants in ensuring the facility is representative of their respective interests and aspirations. Student-generated graphics will celebrate and identify each CTE program. Student collaboration in the development of pathway graphics will focus on the importance of CTE education in Kalamazoo county and offer the opportunity for students of different backgrounds to come together and celebrate a common goal, future careers in well-paying jobs.



Inclusion

Designed to foster engagement and collaboration, this facility will be where students want to be. They will arrive early and stay late, and each will feel welcomed as an integral contributor to the learning process. Adhering to universal design principles, the facility will readily serve students, faculty, industry partners, the community, and other community organizations committed to inclusion and equipping all students to be successful in life.



Intersections / Partnering

The opportune intersection of students, faculty, and industry partners is accommodated by the inclusion of multipurpose spaces, flexible scheduling, and a never-go-dark policy encouraging industry partners to conduct training for students on their equipment and technology. The collision of students and industry partners intentionally provides students opportunities to solve real-world problems and develop relationships with potential employers.



Planning for Growth / Future-Proofing

The facility will readily accommodate future growth and expansion of the Kalamazoo CTE Center, including the building, systems, equipment, and technology upgrades. By integrating flexible building systems and equipment, spaces can adapt to reconfiguration to accommodate new or expanding programs and pedagogy for teaching. The latest cutting-edge lab equipment should be easy to install, ensuring students learn the most relevant industry skills.



Ease of Navigation

Wayfinding is critical to the student and visitor experience when engaging with the facility inside and outside. The building entrance must be obvious, and the threshold experience to all that enter should provide the individual with a clear understanding of the facility's purpose, to deliver CTE education, ability to view multiple pathway programs, and a sense of wonder and discovery; wanting to engage with the facility and its users. Developing custom mobile apps and strategically placing interactive displays and signage will provide users with tools to navigate and discover what the facility offers.



Anywhere / Anytime + Outdoor Learning

Indoor and outdoor space design should allow for planned and spontaneous teaching and learning opportunities. Scheduling classes, meetings, and events for students, community members, and industry partners in the evenings will ensure that the facility will never go dark. Outdoor learning spaces provide opportunities beyond walls for study, work, demonstrations, competitions, exhibitions, and many more activities. Every aspect of the facility design should include learning opportunities for students.

Top Ten Design Goals

- 1 Flexibility
- 2 Collaboration
- 3 Culture / Pride
- 4 Project-based, Real-world Learning
- 5 Branding
- 6 Inclusion
- 7 Intersections / Partnering
- 8 Planning for Growth / Future-proofing
- 9 Ease of Navigation
- 10 Anywhere/Anytime + Outdoor Learning

Spaces that Inspire

Fourth Interview - 6 min (2 sessions x 3 minutes each.)

Map the activities of effective learning spaces. What things should change about your existing school facility?

What is your favorite place to learn? These are the characteristics of effective learning spaces... PHYSICALLY COMFORTABLE GOOD LIGHTING NATURAL SPACES CLEAN NOT CLUTTERED SPACES TO DRAW - WRITE (PAPER, WALLS) TAKE TO LEARN - PICTURES + VIDEOS TIME TO THINK. (AND HAVE) (activities, people, physical characteristics, etc.)	To make the proposed CTE Facility more like my favorite educational places, I wish it had... MULTIPLE INDIVIDUAL SPACES SPACE LARGE SMALL INDIVIDUAL SPACES COMFORTABLE SEATING + LIGHT + LOW NOISE NO CONCRETE FLOORS! (activities, people, physical characteristics, etc.)
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Spaces That Inspire Learning

- Natural light
- Comfortable places to work
- Room to move and collaborate
- Spaces for quiet focus

4. Capture Findings



Ideate: generate alternatives to test.

Write

Sketch or

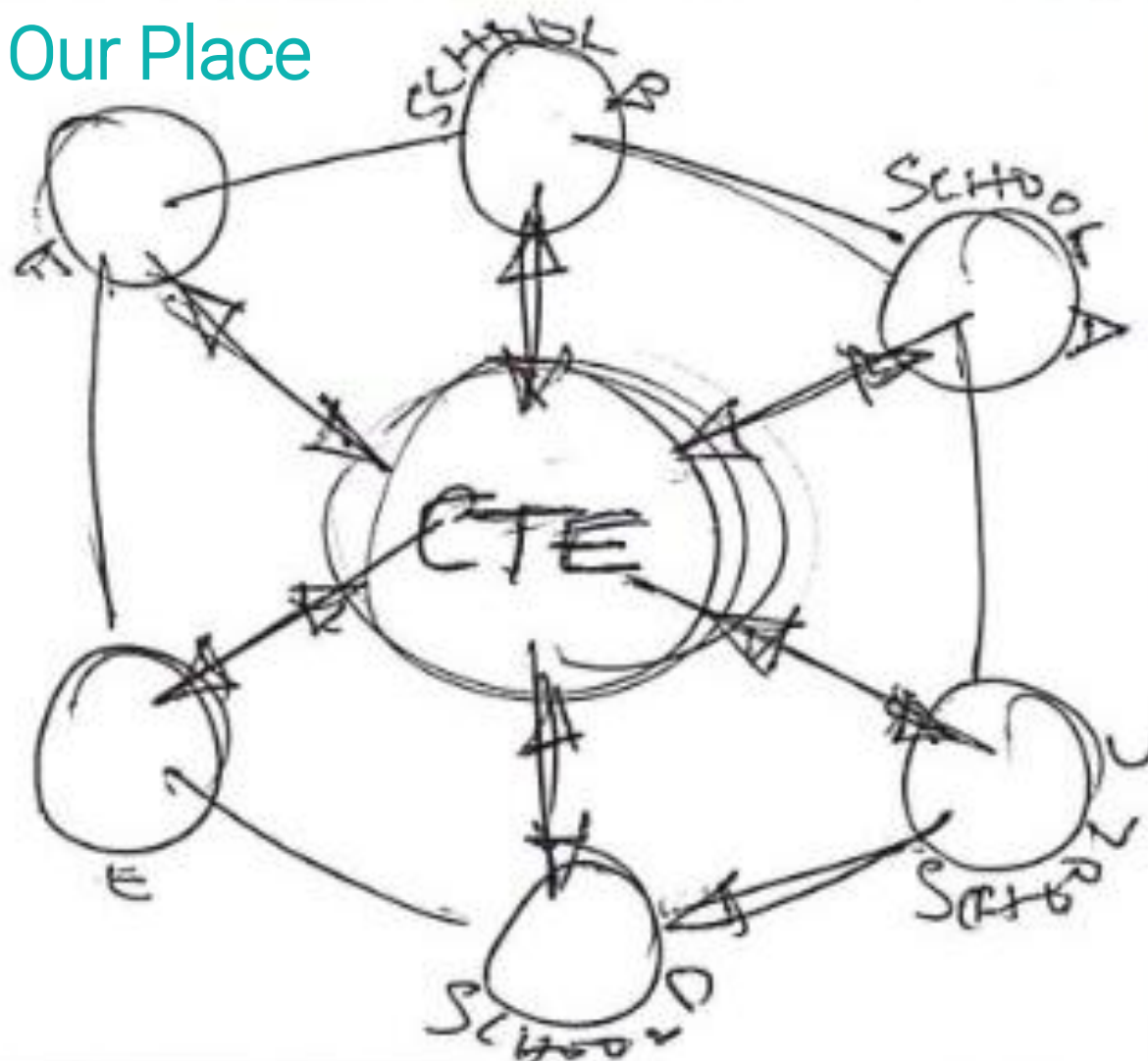
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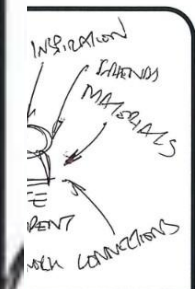
Not
you

Our Place



or space?

er.



ine how

T-A-L-K

Presenting ideas and discussing tradeoffs



Students authored their space by informing designers of what they wanted:

- Bridges + Trails
- Nature + Water
- Daylight
- Visibility
- Warmth
- Collision



A "Slice of Nature"

Kalamazoo, Michigan

Natural Landscape

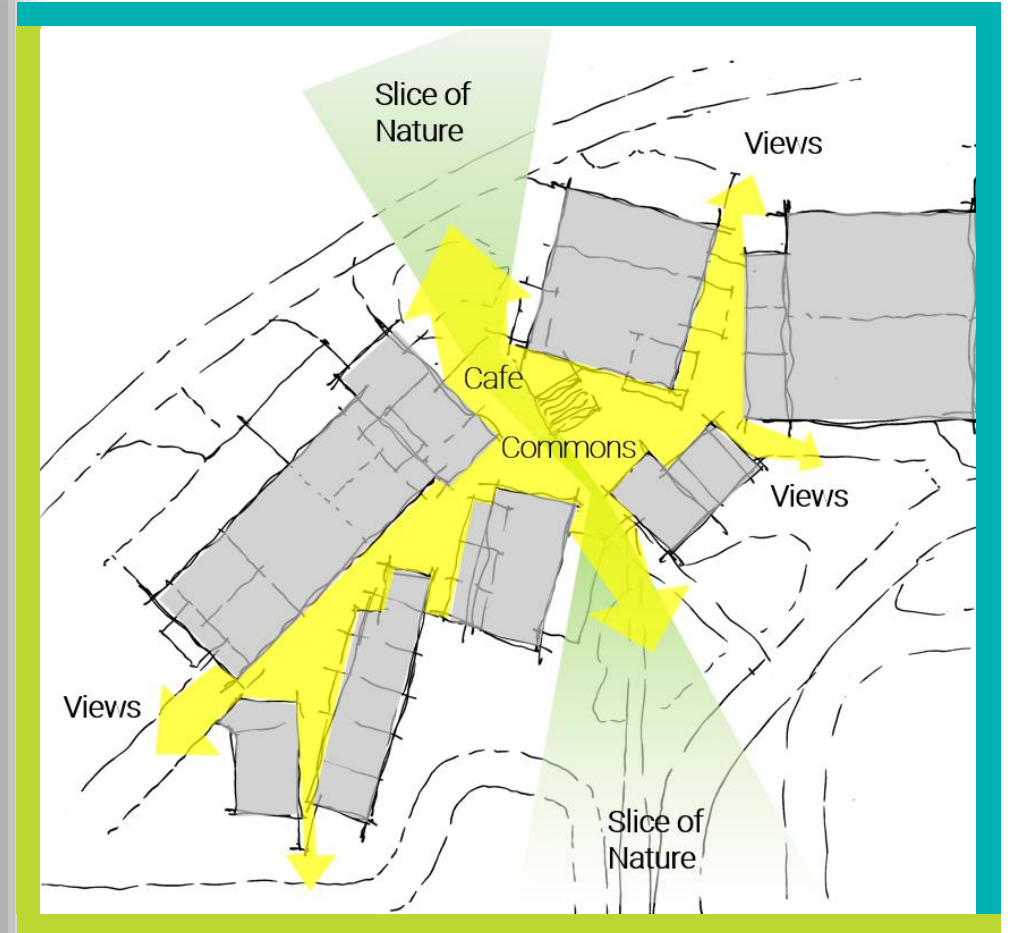


TABLE #2

1. NATURE - Central "core" → "slice of nature" w/courtyard(s)
- greenery around exterior
2. Natural Daylighting - core of windows, visibility to pathways
3. Student vs. Visitor experience - separate entries, never go dark space
4. Parking - Varied student/Faculty parking, spread throughout site
5. Yes for expansion - Not an afterthought w/commons connection + location to 94

"Slice of Nature" sets it apart

- view from entries through building
- Bridge connections visible from "Slice"



An Invitation to Discover

KALAMAZOO RIVER VALLEY TRAIL



Discovery Trail

- Natural Light - North Star in Student Commons
- Moved parking (Able to be used in future expansions)
- Open, enclosed Courtyard (flexible seating) (wood, plants, water, light) (collaborative space)
- Expansions are attached in natural way
 - Reservable space to Partners
 - B+I Presentations
 - Job Fairs
- Student Recognition/Meeting Space Can expand from Student Commons into Courtyards (Built in overflow)
- Controlled access - Student Commons

#3

“Discovery Trail”

Table 3

I LIKE

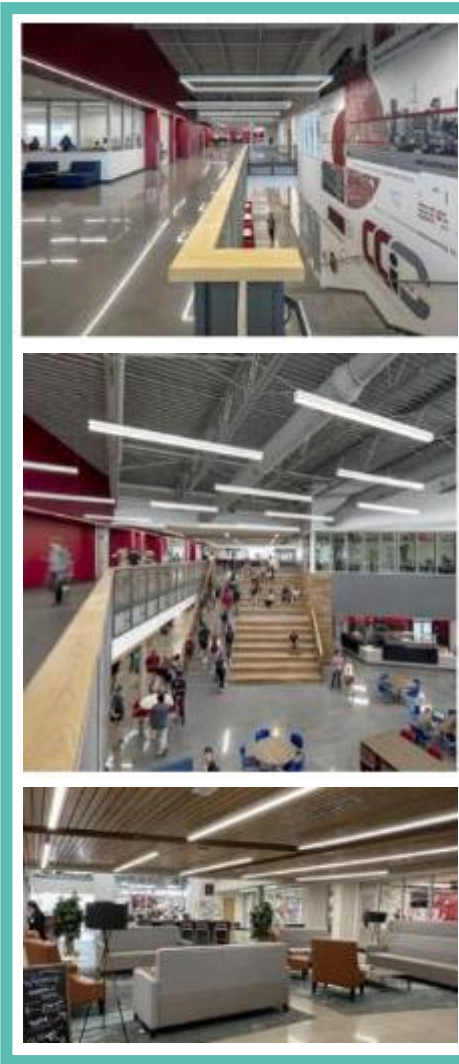
- Bridge and North Star concepts
- Configuration of stairs, connections, and elevations
- Journey concept
- Home Base concept
- Connection to Michigan and Kalamazoo
- Central Park concept is calming
- Inclusion of multi-purpose and meeting spaces

I WONDER

- Is there too much emphasis on connections to nature?
- What metaphors can relate to the city?
- Is the commons similar to an indoor mall?
- How are instructional spaces utilized?
- How to make the facility readily accessible to all?



A Different School Experience



A Visible Community Presence

How are you going to conquer the challenges identified?

- Give students a voice
- "Never go dark"
- Hands-on problem-based learning
- Engage with industry partners
- Community Space
- Centralized common space
- Diversity training
- Ease of navigation and proximity
- Natural and organic collaboration
- Make the building VISIBLE and inviting to all
- Provide support services for learners

Discovery Trail

- Natural Light - North Star in Student Commons
- moved parking (Able to be used in future expansions)
- Open, enclosed Courtyard (flexible seating) (wood, plants, water, light) (collaborative space)
- Expansions are attached in natural way
 - Reservable space to Partners
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- Student Recognition/Meeting Space
Can expand from Student Commons into Courtyards (Built-in overflow)
- Controlled access - Student Commons

#3



Learning Through Practice

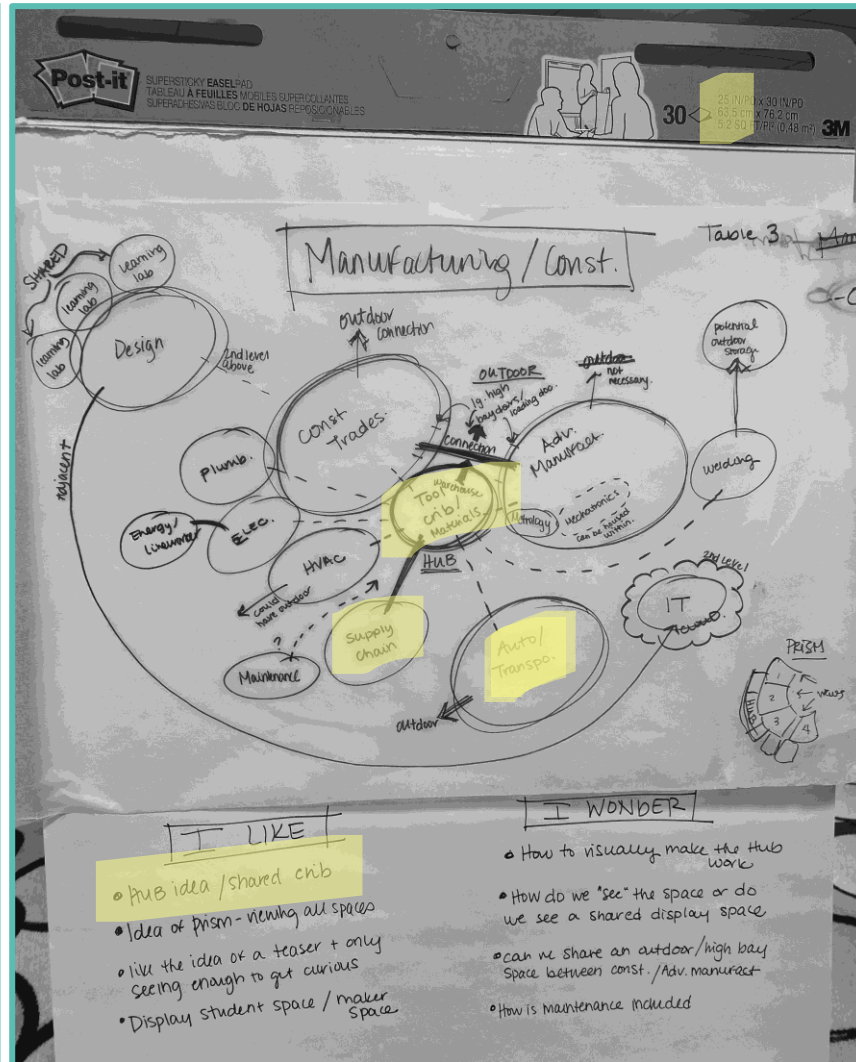
Transportation, Distribution, & Logistics

I LIKE

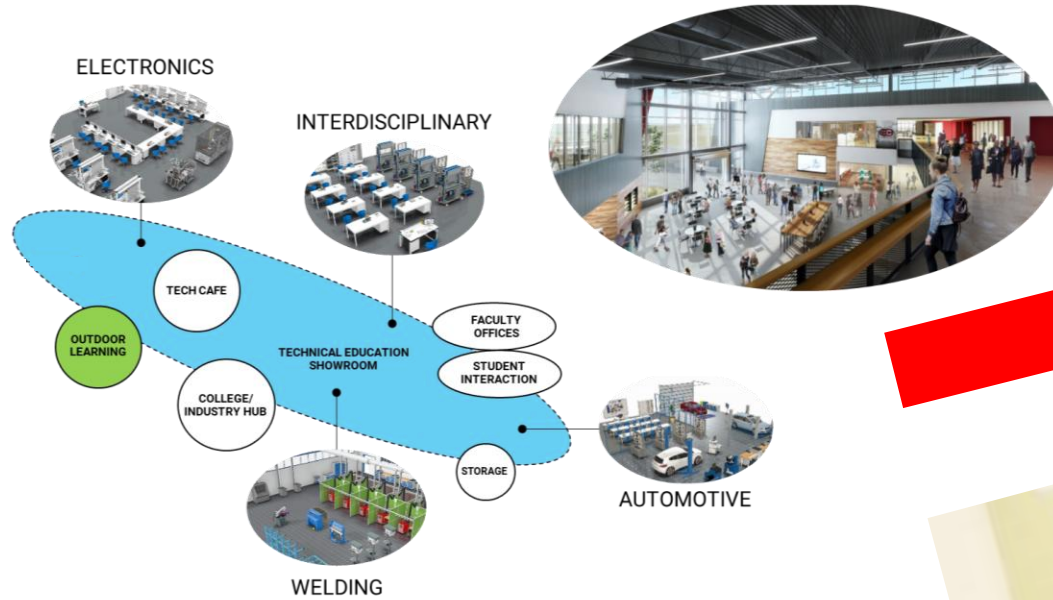
- Large overhead doors
- Ample daylighting
- Proximity to Supply Chain
- Drop-down power supply

I WONDER

- How many car lifts are needed?
- Is proximity to Welding and I.T. desirable?
- Can vehicles enter and exit without delay



Collaboration – Accidental Collisions



“...a goat was in our commons...”



THE PREMISE

Students were not the audience. They were part of the authorship.



13 STUDENT PARTICIPANTS

Table #1 - The Hub; Bridge



Table #2 - The Vision Center; United



6 TEAMS / 4 WORKSHOPS

Table #3 - Discovery Trail; Tail Head



Table #4 - Tributary; K-Verge



Table #5 - The Bridges; The Pathway



Table #6 - The Bridge

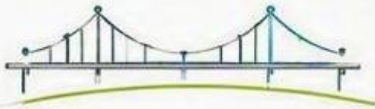


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WHAT WE HEARD

The recurring wishes became design criteria.



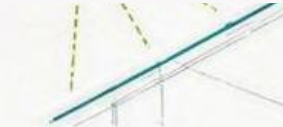
BRIDGES + TRAILS

A Journey, Not A Corridor



NATURE + WATER

Green Space, Water, Outdoor Learning



DAYLIGHT

Views Outside, Skylights, Clerestories



VISIBILITY

See Programs; See One Another



WARMTH

Modern + Warm Wood Material



COLLISION

Commons That Spark Collaboration

FROM VOICE TO PLACE

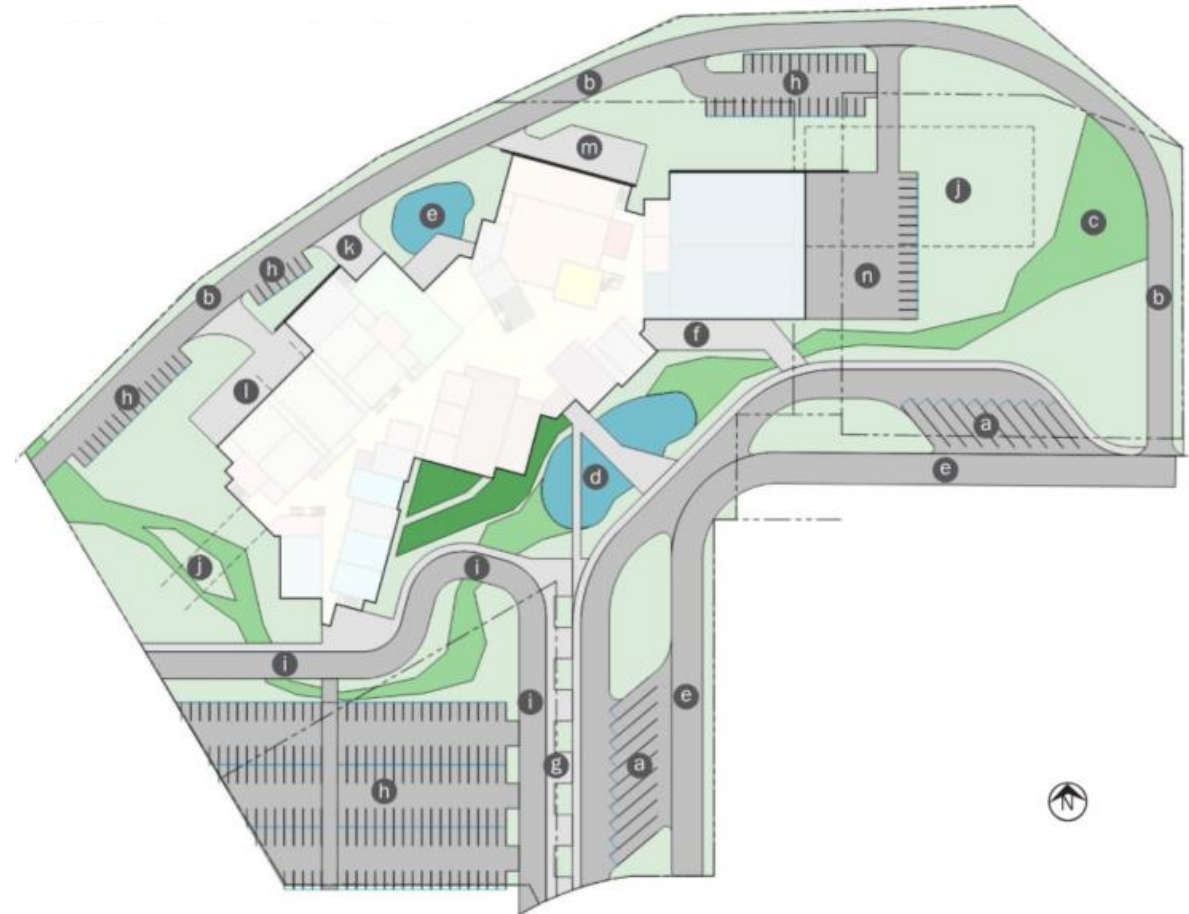
“Bridges through the slice-of-nature areas.”

Design Response: the arrival sequence literally crosses water and turns “bridge” into the first act of belonging.

“Nature: greenspace, water, bridges.”

key

- | | | | |
|---|-------------------------------|---|-----------------------|
| a | Bus drop off | g | Pedestrian Connection |
| b | Emergency / service loop | h | Parking |
| c | Bioswales / Rain Garden | i | Car Drop-Off |
| d | Water Feature w / Bridges | j | Future Expansion |
| e | Water Feature & Outdoor Event | k | Receiving Yard |
| e | Two Way Traffic | l | Construction Yard |
| f | Transportation Event Space | m | Welding Yard |
| | | n | Transportation Yard |



Design Response: bioswales, pond, native planting, and the bridge make nature part of the daily threshold, not decoration.

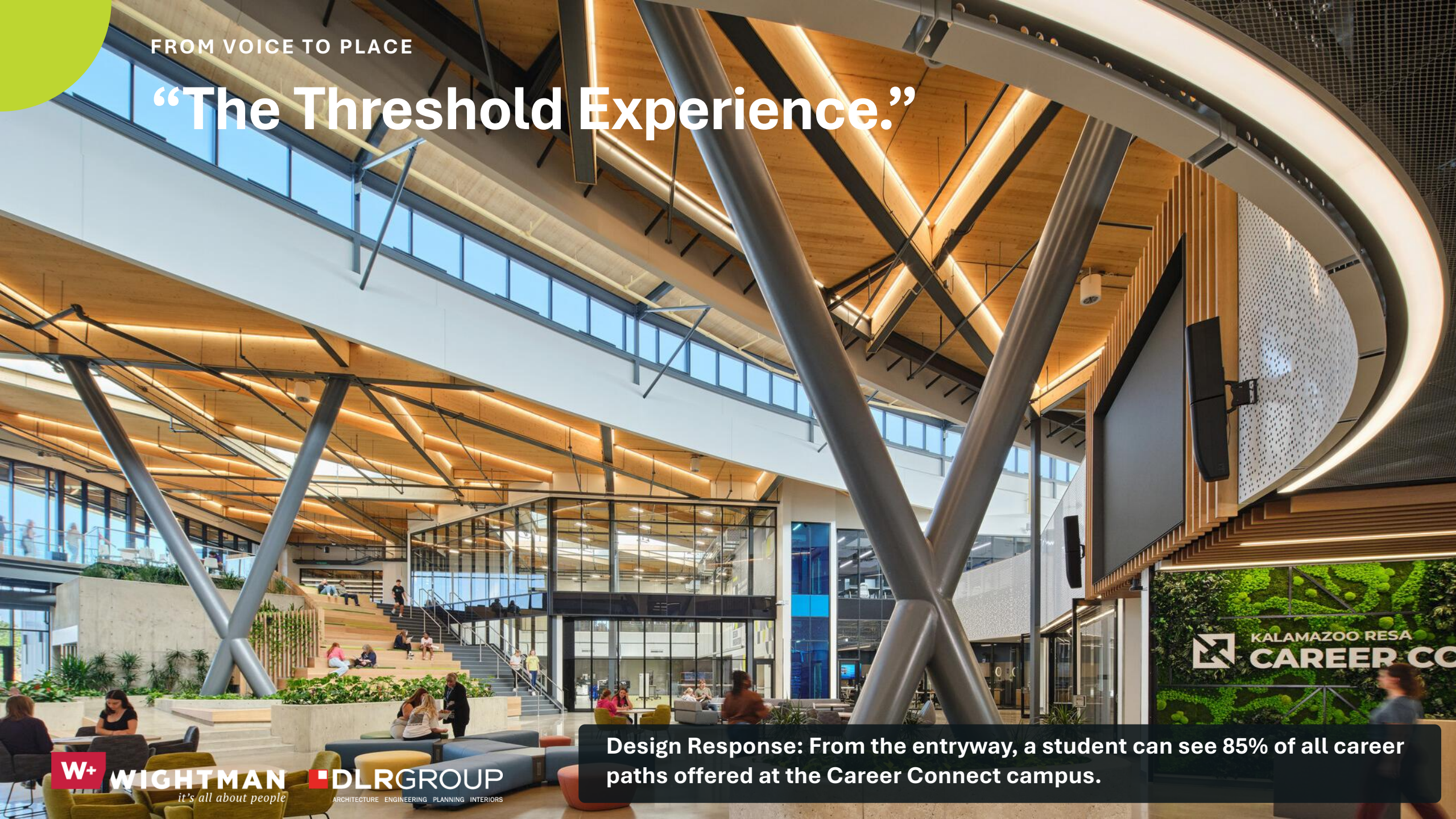
FROM VOICE TO PLACE

“Nature: greenspace, water, bridges.”

Design Response: bioswales, pond, native planting, and the bridge make nature part of the daily threshold, not decoration.

FROM VOICE TO PLACE

“The Threshold Experience.”



Design Response: From the entryway, a student can see 85% of all career paths offered at the Career Connect campus.

W+

WIGHTMAN
it's all about people

DLRGROUP
ARCHITECTURE ENGINEERING PLANNING INTERIORS

FROM VOICE TO PLACE

“Visibility of all programs.”



Design Response: The Commons is a visual crossroads; students can see across levels, into labs, and toward multiple pathways.



WIGHTMAN
it's all about people

DLRGROUP
ARCHITECTURE ENGINEERING PLANNING INTERIORS

FROM VOICE TO PLACE

“Ample daylighting.”

Design Response: Clerestories and skylights pull daylight deep into the building while exposed wood keeps the light warm.

FROM VOICE TO PLACE

“Centralized common + collaboration space.”

Design Response: The commons became the building's social glue, many scales of seating, movement and informal encounter.

FROM VOICE TO PLACE

“A journey... connections... elevations.”

Design Response: The learning stair serves as circulation, seating, an overlook, and a gathering place.

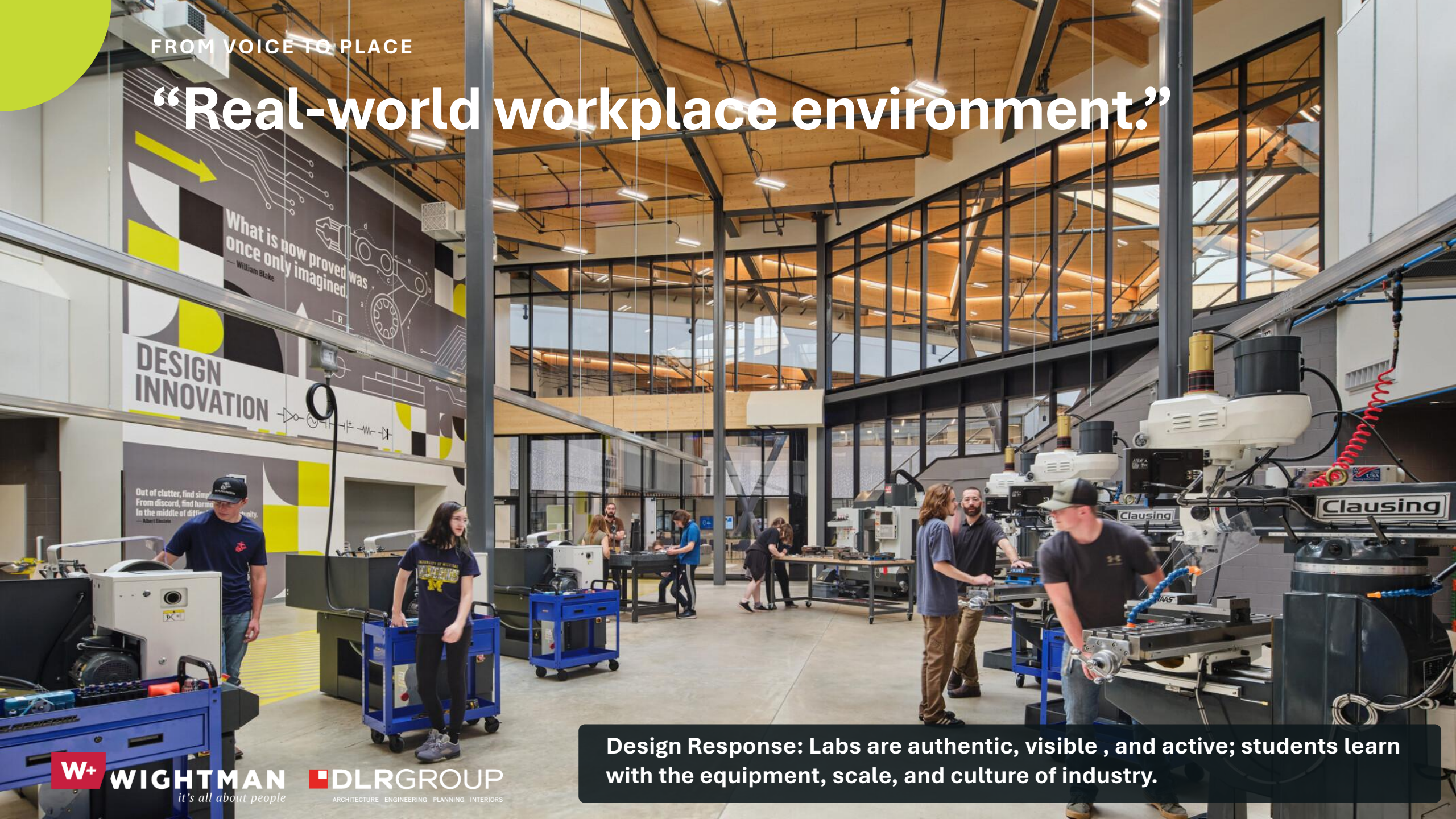
FROM VOICE TO PLACE

“Modern & warm (wood) material.”

Design Response: Mass timber and wood surfaces soften an industrial CTE vocabulary, making large spaces feel human-scaled.

FROM VOICE TO PLACE

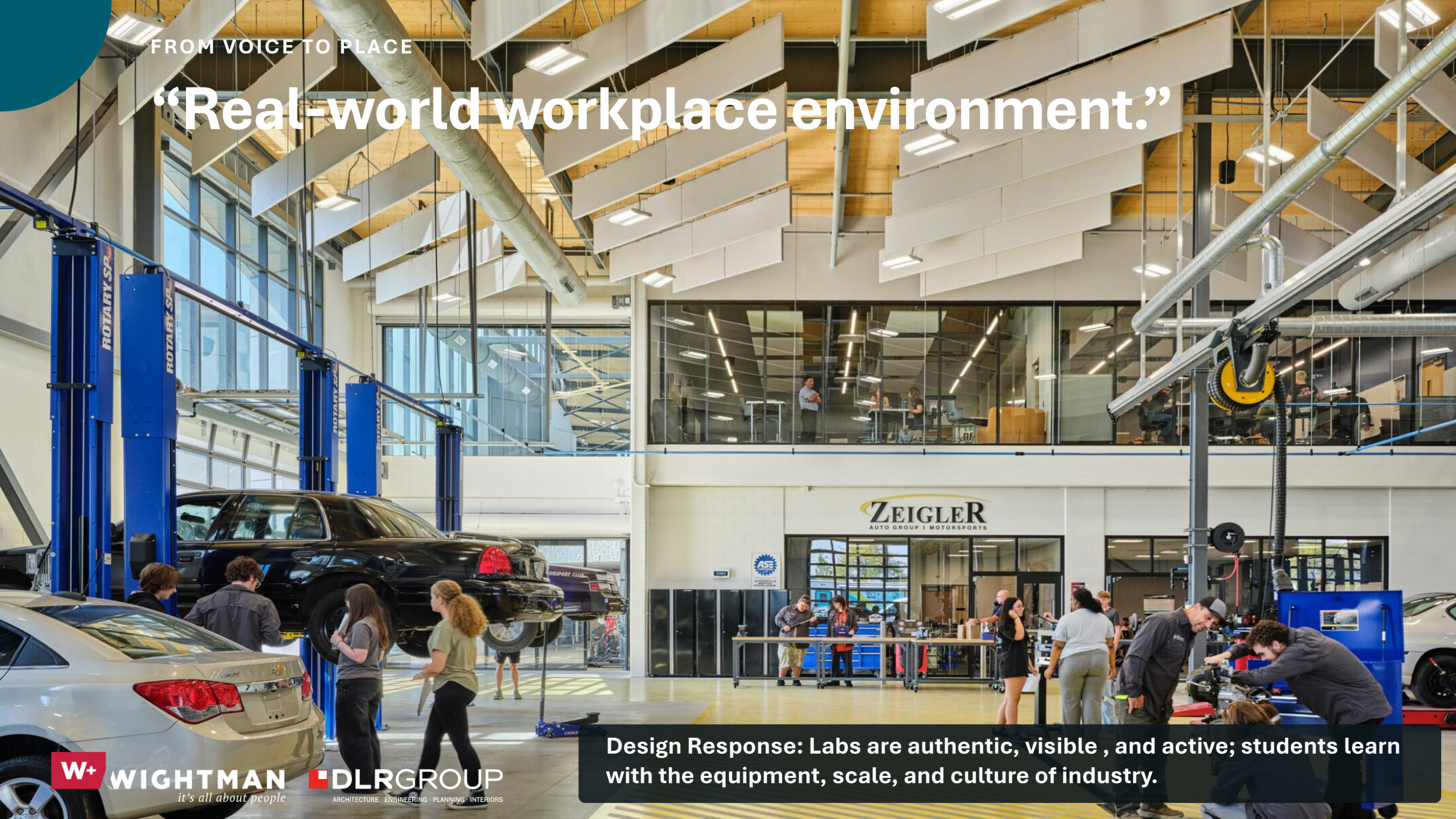
“Real-world workplace environment.”



Design Response: Labs are authentic, visible , and active; students learn with the equipment, scale, and culture of industry.

FROM VOICE TO PLACE

“Real-world workplace environment.”



Design Response: Labs are authentic, visible , and active; students learn with the equipment, scale, and culture of industry.

FROM VOICE TO PLACE

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Design Response: Labs are authentic, visible , and active; students learn with the equipment, scale, and culture of industry.

FROM VOICE TO PLACE

“Real-world workplace environment.”



Design Response: Labs are authentic, visible , and active; students learn with the equipment, scale, and culture of industry.

FROM VOICE TO PLACE

“Collaboration across pathways.”



Design Response: Instruction happens in the lab, not apart from it, supporting demonstration, teamwork, and immediate application.

FROM VOICE TO PLACE

“Students’ Story on the Walls.”



Design Response: Student ideas and language became bold graphics that give each space identity and make learning visible.

FROM VOICE TO PLACE

Belonging is what happens when students recognize their ideas in the place.

Students produced a language for the building: discovery, visibility, nature, warmth, connection, and real work.

FROM VOICE TO PLACE

We didn't just listen to students. We built their ideas into the space and place.



WIGHTMAN
it's all about people

DLRGROUP
ARCHITECTURE ENGINEERING PLANNING INTERIORS

What began as student voice became space, experience, and identity, creating a place where students can see their ideas, connect, and belong.



Thank You

Concept Book



Stay in Touch

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Revise



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