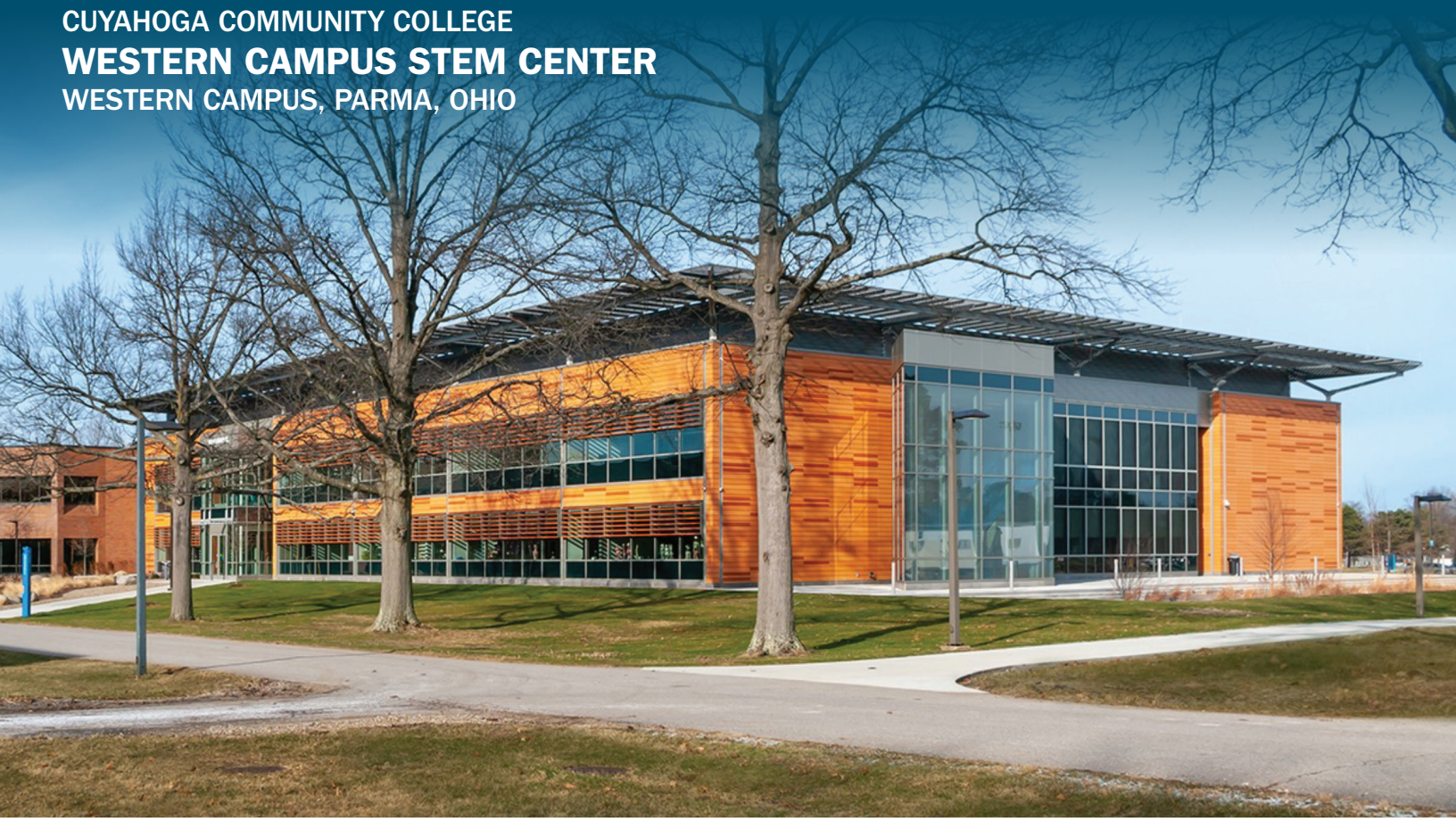
LEED® GOLD CERTIFIED GREEN BUILDING PROJECT PROFILE

CUYAHOGA COMMUNITY COLLEGE

WESTERN CAMPUS STEM CENTER

WESTERN CAMPUS, PARMA, OHIO



LEED® Credits Awarded

West STEM Project

WESTERN CAMPUS

LEED Rating System: New Construction 2009

Gold	71*
Sustainable Sites	23/26
Water Efficiency	5/10
Energy & Atmosphere	20/35
Materials & Resources	6/14
Indoor Environmental Quality	9/15
Innovation & Design	5/6
Regional Priority	3/4

*Out of possible 100 points + 10 bonus points

Achievements of project design & construction:

39% energy use reduction

5% building electricity use generated on-site

38% reduction in domestic water usage

98% reduction in landscape watering

81% construction waste diverted from landfill

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PROJECT BACKGROUND

Cuyahoga Community College (Tri-C®) collaborated with Weber Murphy Fox Architects and Ellenzweig Architects on the design of the new STEM Center on Tri-C's Western Campus. The 64,000 square foot facility features laboratories, classrooms, both quiet study and communal space for students, as well as offices.

The West STEM was certified at the Gold level under the US Green Building Council's Leadership in Energy and Environmental Design (LEED®) program. The West STEM is energy efficient, takes advantage of daylight, reduces storm water run-off, is frugal with water resources, provides a healthy indoor environment, and enhances the campus experience.

STRATEGIES AND RESULTS

The U.S. Green Building Council implemented the LEED program to encourage owners and professionals to design, build, and operate more environmentally appropriate buildings. The list below details design elements of the MCC and indicates the number of points pursued out of the total credits possible within each of LEED's seven available categories.

Sustainable Site Features *23 points out of 26 possible*

- Close to public transit and other services.
- Stormwater managed on-site by a constructed wetland allowing infiltration of up to 11,000 cubic feet of water into the ground after a storm rather than into sewer system.
- White roof and light-colored paving reduces heat absorption during cooling season.

Water Efficiency *5 points out of 10 possible*

- High-efficiency plumbing fixtures reduce water consumption by 38%.
- Landscape irrigation reduced by over 90%.

Energy and Atmosphere *20 points out of 35 possible*

- 39% reduction in energy use, reducing annual costs by over $50,000.
- LED lights installed throughout the building for energy efficiency and long life.
- Photovoltaic cells in skylight expected to produce 33,000 kWh of electricity annually while still allowing daylight into the interior.
- Windows throughout the building take advantage of natural light while shading structures on the roof and exterior reduce unwanted heat gain from the sun in warmer months.

Materials and Resources *6 points out of 14 possible*

- Use of materials from regional sources or made using recycled content reduced transportation costs, emissions, and kept money in the local economy.
- 81% of construction waste diverted from landfills.

Indoor Environmental Quality *9 points out of 15 possible*

- Living walls with over 4,500 plants in the building's atrium naturally filter air provide a unique aesthetic.
- Extensive use of low-volatile organic compound (VOC) emitting building materials and finishes.

Innovation in Design, or Exemplary Performance *5 points out of 6 possible*

- Innovation points awarded for green building education, exemplary use of materials with recycled content, building envelope commissioning, and integrated pest management.

Regional Priority *3 points out of 4 possible*

- Regional priority credits account for locally important issues. West STEM achieved additional credits for on-site solar electricity generation, stormwater quality control, and for construction waste diversion.

Tri-C recognizes that its commitment to education and community includes a sense of responsibility to our environment. Tri-C will lead by example by investigating, developing, and promoting sustainable policies, practices, and curricula, with the goal of achieving sustainability throughout the College. The College also aspires to instill in our students, faculty, and staff a sense of stewardship toward the environment by giving them the information and support to continue sustainability efforts beyond the campus environment. We must strive to prepare our students, faculty, and staff to be leaders in creating and promoting a culture of diversity, sustainability, and environmental sensitivity through our community.

Sustainability at Tri-C means achieving the College's educational and community missions with a sense of responsibility for preserving the environment, promoting the economy, and improving society as a whole.

Cuyahoga Community College is committed to building and operating healthy environments for work and learning. Cuyahoga Community College adopted the USGBC LEED system to ensure that all future construction supports a healthy environment.

Building Owner
Cuyahoga Community College

ArchitectS
Weber Murphy Fox
Ellenzweig

Structural Engineer
Isaac Lewin & Associates

MEP Engineer
Karpinski Engineering

Landscape Designer
Knight & Stolar

Civil Engineering
CT Consultants

Construction Manager
Albert M. Higley Company

Commissioning Consultant
Emerald Built Environments

Building Area
64,000 Square Feet

Site Area
2.5 Acres

Parking Capacity
n/a (existing campus parking)

LEED Certification Received
Gold

Construction Schedule
Substantial Completion August 2019

ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction and operations of high-performance green buildings. Visit the U.S. Green Building Council's web site at www.usgbc.org to learn more about LEED and green building.

www.usgbc.org
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Cuyahoga Community College®