
**CHANDLER CENTER FOR ENVIRONMENTAL STUDIES IS A HUB FOR LEARNING AT WOFFORD COLLEGE IN SPARTANBURG, SOUTH CAROLINA.**

*Source: Wofford College; Credit: @2020, Kris Decker and Firewater Photography*

**CASE STUDY: CHANDLER CENTER FOR ENVIRONMENTAL STUDIES**

# CHANDLER CENTER FOR ENVIRONMENTAL STUDIES AT WOFFORD COLLEGE: WHY CLT MADE SENSE

**PROJECT OWNER:** WOFFORD COLLEGE

**PROJECT LOCATION:** 429 N CHURCH ST, SPARTANBURG, SC 29303

**COMPLETION DATE:** AUGUST 1, 2020

**ARCHITECT/DESIGNER:** MIKE GOLL, MCMILLAN PAZDAN SMITH

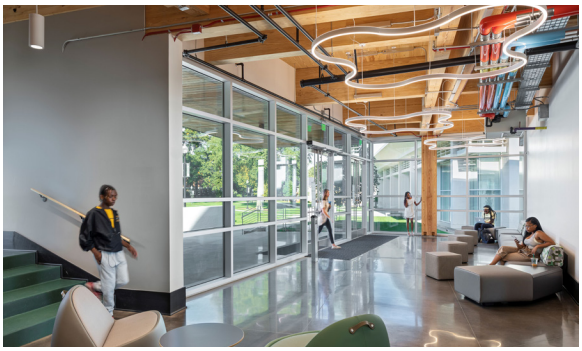
**MASS TIMBER ENGINEER/MANUFACTURER:** SMARTLAM NORTH AMERICA

**GENERAL CONTRACTOR:** ROBINS & MORTON

**STRUCTURAL ENGINEER:** BRITT, PETERS AND ASSOCIATES

**MECHANICAL, ELECTRICAL, AND PLUMBING:** CROW & BULMAN ENGINEERING (MECHANICAL AND PLUMBING); MATRIX ENGINEERING (ELECTRICAL)

**THE CHANDLER CENTER** for Environmental Studies at Wofford College in Spartanburg, South Carolina, implements visible sustainability features within 3 stories and 18,000 square feet of academic space. Students and faculty are welcomed into an advanced laboratory space, a seminar room,



**THIS INTERIOR VIEW OF THE CHANDLER CENTER SHOWS THE ENTRANCE, LOUNGE AREA, AND THE CLT CEILING.**

*Source: Wofford College*
*Credit: @2020, Kris Decker and Firewater Photography*

classrooms, and office spaces. Constructed using primarily Cross-Laminated Timber (CLT), this building serves not only as a hub for academic learning but also as an educational tool in and of itself.

McMillan Pazdan Smith, the architectural firm behind the project, proposed CLT to Wofford College mostly because of the material's compatibility with the project's ethos. In a building centered on environmental studies, using CLT, installing a green roof, and implementing rainwater capture techniques and other sustainable strategies simply made sense. "For years we dreamed of working in a sustainable space, where our surroundings themselves could be part of our teaching and research," said Dr. Kaye Savage, former head of the Wofford College Environmental Studies Department. "The Chandler Center is that space."

McMillan Pazdan Smith had previous success with CLT in South Carolina's Lowcountry, an area challenged by groundwater, humidity, and rainfall, and knew that the material's propensity to flex increased its resiliency.

Care was taken with detailing and other surface finishes to mitigate potential damage or warping from the CLT's flex. The expertise of the design team and the contractor ensured successful implementation. Although most CLT at the time was sourced from the US West Coast and Europe, the decision to source CLT from SmartLam North America's facility in Alabama aligned with the goal of using regional materials whenever possible. Since the completion of the Chandler Center, new mass timber suppliers have emerged in South Carolina.

The use of CLT significantly contributed to the building's sustainability and health and wellness features. Research highlights CLT's environmental advantages over carbon-intensive construction materials such as concrete and steel. Further, CLT provides a natural aesthetic amid the glass, steel, and concrete prevalent in modern construction. Studies even suggest that wooden interiors can reduce occupants' stress, a meaningful benefit for students, in particular.

Cost considerations, while presenting a slight initial premium compared with conventional construction materials, were outweighed by the long-term benefits. The educational and sustainability values of CLT justified these costs, as evidenced by a tripling in enrollment in the environmental studies program since the Chandler Center's opening.

The Chandler Center earned a prestigious Three Green Globes certification from the Green Building Initiative (GBI), solidifying its status as a sustainable, healthy, and resilient building. This recognition demonstrates its success in resource efficiency, including reducing environmental impacts and improving occupant wellness. The use of CLT, alongside other sustainability strategies, was a big factor in this certification rating. Beyond its sustainable features, the center's calming and natural ambiance enhances the overall well-being of students and faculty.