Once completed, The Kendeda Building for Innovative Sustainable Design is expected to become the most environmentally advanced educational and research facility of its kind in the Southeast. It is anticipated that the project will achieve Living Building Challenge 3.1 certification in 2021. To be certified under the Living Building Challenge, projects must meet a series of ambitious performance requirements – Petals – over a minimum of 12 months of continuous occupancy and operations.

Total Programmed Space: 46,848 GSF
- Enclosed & Conditioned Space: 36,978 GSF
- Loading Dock & Bike Storage: 1,905 GSF
- Outdoor Porch Area: 2,618 GSF
- Roof Garden (Not Public): 4,347 GSF
- Roof Deck: 1,000 GSF

Total Construction Cost: $18.6 MM
Programmed Space Cost: $397.02/GSF
Conditioned Space Cost: $503/GSF
Cistern capacity: 50,000 gallons
Photovoltaic Capacity: 913 panels will generate 328 kW

For more information, visit livingbuilding.gatech.edu.
Performing to a Higher Standard

Among other performance standards required for Living Building Challenge 3.1 certification, The Kendeda Building for Innovative Sustainable Design must collect more energy and water than it consumes on an annual basis to function as a net positive facility.

• The building’s Energy Use Intensity (EUI) is expected to be 34 kBTU/SF/YR, which is 66 percent more efficient than your average building of the same size and occupancy.

• The photovoltaic array is designed to generate 40 EUI kBTU/SF/YR which will offset the building’s 34 EUI kBTU/SF/YR. By producing more energy than the building consumes, the systems generate a net-positive energy facility.

• The building is expected to harvest 460,000 gallons of water a year. To hold all this water, the building will house a 50,000-gallon cistern in the basement of the building, as well as the rainwater treatment equipment needed to appropriately treat the water to potable standards.

Transforming How We Think, Build, Live, and Learn

Designed to function as a true living, learning laboratory, The Kendeda Building for Innovative Sustainable Design will help educate and transform future generations of thinkers and doers to reimagine how we interact with our buildings and surroundings to create a more sustainable built environment.

The building’s flexible, open space – inside and outside – will enable students and faculty to engage in problem-based learning exercises that will explore and teach the principles of sustainability.

The Kendeda Building will feature:

• Two 75-person classrooms and two 24-person class labs to provide hands-on educational and learning opportunities.

• Makerspace for students to build and test the concepts they have designed in the classroom.

• An auditorium that will seat 170 persons.

The outdoor learning space consists of a rooftop garden that will have a honeybee apiary, pollinator garden, and blueberry orchard. Functionally, the rooftop garden will contain rainwater catchments to help manage stormwater runoff, while shade provided by the photovoltaic canopy will help mitigate the urban heat island effect.

Images courtesy of Lord Aeck Sargent in collaboration with The Miller Hull Partnership.

Interested in a construction site tour? Visit livingbuilding.gatech.edu/site-tour.

TEACHING FUTURE GENERATIONS

The College of Sciences will take the lead on utilizing the class labs for several core courses (including general ecology), which serve a broad cohort of students. Instructors are refining their teaching methodologies in the labs to accommodate water and energy use requirements.

Along with the College of Sciences, courses from a number of colleges will also be offered in the building including English 1101 and 1102, advanced energy modeling, and vertically integrated projects. In addition, capstone teams will also have space in The Kendeda Building.

The Kendeda Fund has committed to investing $30 million over the next several years – $25 million to privately fund 100 percent of the design and construction costs of the project as well as an additional $5 million to support programming activities.