

## A Case for a New and Innovative SoMAS Building

**The Need:** The goal for the next five years is to make SoMAS a world leader in coastal ecosystems and associated processes in natural and built environments to tackle crucial problems, such as climate change and its impacts, and to develop and train the next generation of stewards in these areas. State-of-the-art facilities are an essential component of our resource needs to meet our goals. The conditions of our existing buildings hamper our abilities to capitalize on our strengths, to recruit and retain the best students, staff, and faculty, or to reach our full potential. Our strategic plan includes a roadmap for creation of a new building that will not only provide the facilities we need to meet our strategic goals, but will also support our leadership and vision, showcase sustainable design, and improve connectivity with the rest of campus. Within SoMAS, we are actively developing a detailed articulation of our infrastructure needs and vision for this new facility and bolstering consensus among all stakeholders. SoMAS' diffuse layout on south campus with restricted collaborative space limits interactions among SoMAS students, staff, and faculty, as well as with other SBU academic units. We herein present our case for the integral connection between state-of-the-art facilities and our aspirations for world renowned leadership status in marine, atmospheric, and sustainability sciences.

**Our Vision:** The new building will be a showcase for our values and commitment to sustainable and zero-carbon-emission building/energy management, and a dramatically reduced waste stream.



Examples of innovative structures in academia are the Kendeda Building (left) at Georgia Tech University (<https://livingbuilding.gatech.edu/>), the Ecodome (center) at the School of Environmental Sustainability at Loyola University Chicago Loyola, and the Papadakis Integrated Sciences Building at Drexel University with a living wall. See this list of the “50 Most Impressive Environmentally Friendly University Buildings”:

<https://www.bestmastersdegrees.com/50-most-impressive-sustainable-university-buildings>

### Building Characteristics:

- Innovative design that will take advantage of state-of-the-art “green” technologies to provide for maximum efficiency in heating/cooling, water use, waste handling etc. It should be LEED platinum, the highest LEED rating. Use of these technologies will, in themselves, serve as demonstration projects for sustainable solutions.
- Demonstrate sustainability through recycled gray water and independent waste management systems.
- Ample natural lighting, open-air ventilation, and solar panels connected to the rooftop for autonomous power production.
- Setting an inspirational example of sustainable design and net-zero construction for SBU and SUNY, consistent with the New York Climate Leadership and Community Protection Act.
- Research laboratories, immersive teaching laboratories, an auditorium, classrooms, offices, and common (indoor and outdoor) spaces for meetings, workshops, demonstrations, etc.
- Design will be conducive to spontaneous and productive interactions among the occupants and engagement with other academic units at SBU and with stakeholders.
- Space for collaborative external partners, such as the National Weather Service, Sea Grant, United States Geological Survey, National Marine Fisheries Service, and industry partners.
- Rooftop laboratory for atmospheric science and instrumentation (weather and chemistry instruments, cameras, safe viewing area).
- Fabrication shop for mechanical and electronic instrumentation.
- A loading dock connected to marine science wet labs, secure storage space for field equipment, a seawater storage and distribution system, and a freight elevator.

### Expected Impacts:

- Better research facilities with improved technical capabilities supporting new and innovative projects, funding, and rankings.
- State-of-the-art teaching facilities and teaching labs.
- More convening space for education, research, and social interactions within SoMAS and with others on campus that can inspire and kindle bold new ideas.
- An inspiring space that communicates forward-looking programs and activities to help recruit the best students, faculty, and staff and grow academic programs.
- Potential for external partners – enhancing research and education, and providing resources for the new building, including venues for community outreach and workshops.
- Will connect to and support the proposed College for a Sustainable Earth, and other leadership initiatives.
- More space and opportunities for visiting scholars/scientists.
- Improve morale, instill a deeper sense of Seawolf and SoMAS pride, and energize current and future environmental leaders.