



## Phillip and Patricia Frost Museum of Science

In collaboration with Grimshaw Architects, ArquitectonicaGEO was hired as the Landscape Architect for the Frost Science Museum site. The 2.5-acre site sits within a new world-class Museum and Sculpture Park complex, located in Miami, Florida, between Biscayne Boulevard and Biscayne Bay, on the Atlantic Ocean. Construction began in 2013, and was completed in the summer of 2017.

As part of a new generation of Science Museums, the driving force behind all aspects of building and site design was to provide the highest possible level of innovative green infrastructure and educational outreach opportunities. From the rain that falls on the roof, to utility-generated condensate water, gray water, and marine exhibit water; all site water is part of a cyclical system to effectively capture, reuse, and treat waste water on site before excess is released to the injection well infiltration component or to the public utility system. The highly programmed 10,000 SF Green Roof Activity Space plays an important role in the demonstration of sustainability and technologies, providing a stunningly beautiful, functional, and educational setting to explore emerging scientific concepts. The green roof provides a cultural gathering place for community activities, and a view to the surrounding urban and natural context. From the roof, it will be possible to understand the integration of the Science Museum's sustainable technologies into the adjacent components of the Museum Complex. Rain is funneled to the planting beds or stored for use in temporary irrigation systems for the completely indigenous plant material used throughout the roof and surface planting. Native plant communities are grouped by water needs and tolerance to extreme salt water and wind exposure. Educational components of the roof garden include edible gardens, green walls, hydroponic demonstrations and accessible gardening for visitors. Rain gardens and rain art beautify the stargazing, fitness, event seating areas, and frame skylights that allow natural light into the heart of the museum. Excess site rainwater and condensate water is stored for reuse in cisterns housed within planted berms and gabion walls adjacent to the Museum's underground parking structure. The project is expected to garner 71 points toward LEED Gold Certification.

Location: **Miami, Florida**

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Type: **Academic, Cultural, Institutional**

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Services: **Landscape Architecture**

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Size: **2.5 Acres**

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