



# Bartlett Tree Research Lab

Charlotte, NC

## The Challenge

Bartlett Tree Laboratories has been operating their headquarters and arboretum on 350 acres in Charlotte NC since 1965. Staffed with scientists in fields such as plant pathology, entomology, and horticulture, the laboratories advise their arborists on the latest advances in arboriculture for the benefit of their clients. The site welcomes visitors from all over the world so it was necessary for the exterior of the new meeting space and certified laboratory to balance with the lush grounds and with 45-year-old existing buildings. Since it was critical to have the space available in 2021, Modular Genius was able to offer the speed of modular construction without sacrificing architectural enhancements. These enhancements include site applied stucco to complement the existing buildings, and cut stone sourced from a local quarry to transition with the landscape.

## The Solution

The property has a laboratory, a library, an education center, an arboretum, working test plots, and a bird sanctuary. It was critical that the construction did not impact ongoing services or the environment. Off-site construction accommodated this requirement by limiting site work to 90 days. The complete building HVAC system consisted of horizontally mounted split system HVAC units with separate fresh air supply units for code compliance. This allowed all the HVAC equipment to either be inside the ceiling cavity or pad mounted, leaving the roof line free of all equipment. MGI designed and installed a 5" dry fire hydrant to comply with local fire codes. For the underground portion, MGI installed an 8" PVC underground pipe that was fed from a site water storage pond. Inside the pond an 8" Horizontal PVC strainer with back flush cover was installed.