

Wake Forest Biotech Place

575 N. Patterson Ave.
Winston-Salem, NC

FACT SHEET

Overview

Wake Forest Baptist Medical Center opens its sixth building in the Piedmont Triad Research Park with Wake Forest Biotech Place, a state-of-the-art, multipurpose biotechnology research and innovation center in the growing downtown section of Winston-Salem. It is the latest development by Wake Forest Baptist in its effort to reanimate a large section of downtown that has seen low utilization for decades. A true example of a public-private partnership between Wake Forest Baptist, developer and owner Wexford Science and Technology and strong economic and community support from Winston-Salem, Forsyth County, North Carolina and the federal government, the project was made possible through the state Mill Tax Credits program and federal New Market and Historic Tax Credits. The new research building is a world-class 242,000 square foot historic structure comprised of two former R.J. Reynolds Tobacco Co. facilities that have been connected and redeveloped into a modern biotech research laboratory where internationally renowned researchers will be pioneering new fields of medicine and discovering tomorrow's treatments today. Sixty to 75 percent of the building is devoted to Wake Forest School of Medicine departments, with the remaining space occupied by private companies.

Construction

Construction costs total more than \$100 million for the new facility, making Wake Forest Biotech Place the largest capital investment for a construction project in the history of downtown Winston-Salem. The retrofitting and restoration began in 2010. Both buildings were stripped to the basic building structure on the interior and refitted with new mechanical, HVAC and electrical systems, fire protection and vertical transportation systems to bring them up to current commercial code standards.

Construction employment:	More than 1,400 individuals
Local employment:	More than 75 % of the workforce came from the Triad
Minority employment:	28 minority/female-owned businesses (12 percent of contracts)

Building

Wake Forest Biotech Place features a spectacular 7,500 square foot, four-story glass atrium, is five stories tall on the south end and three stories high on the north end. The south side of the building was originally built in 1937 with a distinctive glass block exterior and cast in place concrete structure. The glass blocks are all original and historic. Careful steps were taken to repair and replace thousands of glass blocks on the south, east and west sides of the building. The north side was completed in 1962 with a brick façade and cast in place concrete structure. This building had minimal windows so the brick exterior was modified to add windows and provide natural light for tenants.

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A new main entrance was added on North Patterson Street where there was only a brick wall before the restoration. This area includes the glass atrium with a large skylight, created by 514 separate windows, to allow natural light to some areas of the building's lower interior floors for the first time since 1962. The atrium is an important component of the building because the first floor is actually located below the street level and natural light is not available from the perimeter of the building. The building includes a conference center with state-of-the-art communication and audio visual equipment.

Rentable Square Feet: 242,000

- ▶ First Floor—consists of pedestrian entrance, space for a café, Allegacy Federal Credit Union, office space to house the Childress Institute for Pediatric Trauma, a conference center, 120-seat auditorium, business accelerator space, and the Department of Biomedical Engineering and its associated research labs
- ▶ Second Floor—serves as the main entrance/lobby and houses the Departments of Biochemistry and Microbiology and Immunology
- ▶ Third Floor—houses the to-be-named Centers of Excellence laboratories and the Department of Physiology/Pharmacology
- ▶ Fourth Floor—home to Carolina Liquid Chemistries and additional pre-built lab space to support private company growth
- ▶ Fifth Floor—consists of Piedmont Triad Research Park marketing center and administrative offices, additional build-out space for private office based companies

Employment (at opening)	350 researchers from Wake Forest School of Medicine 100 individuals from other Biotech Place offices within a year
Total Employment	450

Offices/Tenants

- ▶ Allegacy Federal Credit Union
- ▶ Carolina Liquid Chemistries
- ▶ Piedmont Triad Research Park marketing center and administrative offices
- ▶ Private start-up companies
- ▶ Wake Forest School of Medicine (largest tenant):
Departments of Biochemistry, Biomedical Engineering, Microbiology and Immunology, and Physiology/Pharmacology and the Childress Institute for Pediatric Trauma.

School Partnerships

Virginia Tech School of Engineering students will be part of a distance learning program with Wake Forest's School of Biomedical Engineering at Biotech Place.

Environmental Sustainability

Wake Forest Biotech Place has been designed and built to meet LEED standards.

In addition to re-using the building's exterior and framework this building conserves energy through the use of its chilled beam system, which uses roughly one-third of the amount of power traditionally used to heat and cool a building. The facility features four new energy efficient elevators and energy efficient lighting along with numerous other green technologies.

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Historical Preservation

The project architects from Gaudreau, Inc., and the development team worked closely with the State Historic Preservation Office and the National Park Service on the historic review of the project and the criteria to be followed during construction.

The sheer size of Reynolds' downtown buildings with open interiors is one of the things that made them historically significant, as were the skywalks and pedestrian bridges common to the structures.

The renovation features all original glass bricks because of the discovery that Reynolds had stored hundreds of extra unused glass bricks in the building for decades, and because workers were able to remove and save hundreds of others from the north side of the building where they were not needed.

To comply with federal guidelines for historic renovations, windows within the translucent glass brick front were recreated with available materials as close to the original as possible. Three totally complete historical glass windows were saved.

Project Trivia

► Glass Blocks

65,869 glass blocks are installed in the building facade. Each block is 8" long, 5" high and 4" thick.

Laid end to end, the blocks total 49,401.75 feet or 9.356 miles long. New mortar was installed around each of the blocks on the inside and the outside of the façade for a total length of 153,694 feet or 29.11 miles of mortar. All blocks are original and were made in 1937.

► Levels

The entire third floor was removed and raised two feet for the height needed to build labs and offices on the second floor. All of the concrete floors were removed for installation of underground utility lines and new floors were poured.

► Wiring

301.6 miles of electrical wiring and conduit are installed in the building, slightly more than the distance from Winston-Salem to Nags Head, NC (298 miles).

14,603 wiring devices are installed including outlets, switches and automatic sensor devices to turn the lights on and off.

► Light Fixtures

9,141 lights are installed including the interior, exterior and street lights for the project.

► Sheet Metal

473,000 pounds of sheet metal are installed in the new facility. That's enough sheet metal to build more than three Boeing 747 airplanes.

► Drywall

22,938 sheets of drywall were used, which is equal to 16.85 acres or 734,016 square feet. If you think of the drywall as a four foot tall fence, it would stretch more than 34 miles—almost the distance from Winston-Salem to Salisbury, N.C.

► Paint

All of the drywall received one coat of base paint and two finish coats for a total painted surface of 50.55 acres or 2,202,048 square feet. If this were a one foot wide paint stripe, it would be 417 miles long—approximately the distance from Winston-Salem to Nashville, Tenn..

► Plumbing and Piping

73 miles of plumbing and mechanical piping is installed—the distance from Winston-Salem to Chapel Hill.

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► Ductwork

The roof ductwork contains two levels, each is 6'3" high—large enough to fit one SUV. The outside dimensions of the ductwork are 10' wide X 13' high.

► Chairs and Vent Hoods

There are 1,381 chairs and stools of all varieties and 69 vent hoods.

R.J. Reynolds & Mill and Historic Tax Credits

The redevelopment of two former tobacco warehouses into a modern biotech research center was made possible through the North Carolina Mill Rehabilitation Tax Credit program, which allows companies to invest in distressed properties that can be rehabilitated for other uses, and through the federal New Market and Historic Tax Credit program. Companies that invest in these types of properties receive a tax credit in exchange for their investment. Blue Cross Blue Shield of North Carolina invested in the project in 2010 using the Mill Tax Credit program.

Developer

Wexford Science & Technology, LLC of Baltimore, Md., is the developer of Wake Forest Biotech Place and owns the redeveloped facility. The entire building is leased to Wake Forest Baptist Medical Center. The project architects are from Gaudreau, Inc and the general contractor is Whiting-Turner.

The Team

Wexford Winston-Salem Building 91, LLC—Developer

Gaudreau, Inc.—Architects

Faisant Associates, Inc.—Structural Engineer

Kibart, Inc.—Mechanical, Electrical and Plumbing Engineers

Stimmel, Inc.—Civil Engineers & Landscape Architects

Lorax—LEED (Leadership in Energy and Environmental Design) Consultants

Whiting-Turner—Contractor

