



Charlotte, NC

Project Description

A two-block, 10.2-acre mixed-use development in uptown Charlotte, NC.

- Phase 1: 33-story Tower
- Phase 2: 18-story glass-and-steel mixed-use structure (Office/Retail)
- Parking deck with over 2,600 spaces
- 362,000 sf. street-level retail space

Design Features:

- Elevated slabs for all floor plates, including transfer girders at level 17.
- 5" rc slab with PT joists and girders to 8" PT slab w/cont. continuous drop,
- Post-tensioned slab with unbonded tendons for levels 2 through 18 and roof.

CAPABILITIES

- Specialized Post-tensioning Design
- Value Engineering

Developer:

Lincoln Harris

Architect:

LS3P Associates

General Contractor:

Gilbane Building Company

Project completion:

Fall 2022

Industry

Commercial

Project type:

NEW CONSTRUCTION
Office/Retail

Full Project Description

Located on The Charlotte Observer's former site, the 650 South Tryon tower at Legacy Union is part of a 10-acre mixed-use development covering two city blocks in uptown Charlotte, NC. The 358,000-square-foot, 18-story structure employs a concrete cantilevered design with a sleek glass and steel look. The tower offers street-level retail on Tryon Street, residential space, hospitality space, a large pedestrian plaza with green space, and nearly 200,000 sq. ft. of class-A office space. This tower is the first of two building projects at Legacy Union, the unique design of which will complement the look of the second building - the 33-story Bank of America Tower.

Kline Engineering & Consulting designed the elevated slabs for all floor plates, including transfer girders at level 17. Our team provided a cost-effective alternative for this project, which was originally designed with a joist slab system with bonded tendons. Kline's post-tensioning design and construction expertise contributed to our team's decision to opt for a continuous drop, post-tensioned slab with unbonded tendons for levels 2 through 18 and roof, which proved to be more economical and easier to construct.

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