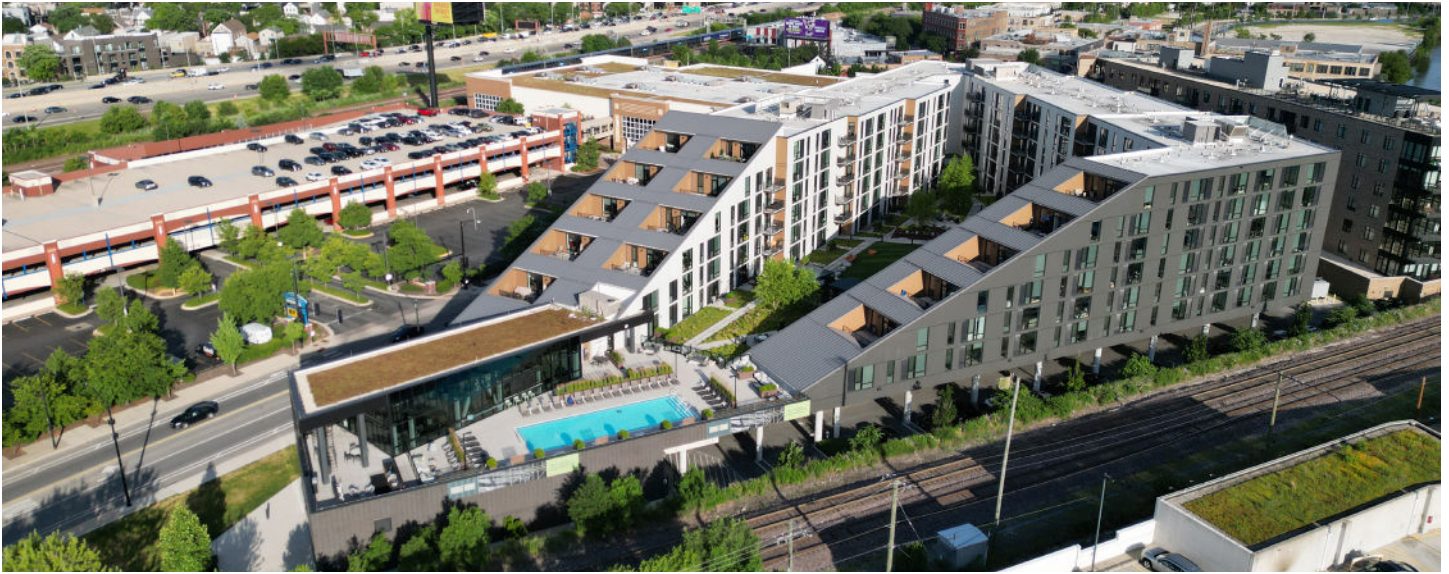


# TRIANGLE SQUARE

CHICAGO, IL



## COMPLETION DATE

2021

## REFERENCE

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## PROJECT DESCRIPTION

Triangle Square is a 298-unit residential apartment building located in the Bucktown neighborhood just west of downtown Chicago. The east-facing luxury apartment units have a spectacular view of the skyline from their uncovered terraces. The structure consists of six stories of cold-formed steel (CFS) framing above a single-story concrete podium. The upper levels are framed with C-stud joists spanning between demising walls with a gypcrete over metal deck floor system. The building is accented by its sloped roof structure that highlights the ingenuity required to create this complex architectural masterpiece.

## PROJECT HIGHLIGHTS:

- The building featured nonorthogonal angles in both horizontal and vertical planes, requiring the structure to be divided into five unique sections for analysis.
- Employed a combination of masonry stair and elevator towers with cold-formed steel strap-braced walls and used gypcrete over metal deck floor systems for flexible diaphragms.
- McClure provided early design coordination, load calculations, and developed structural steel details, as well as embed layouts and drag strut connections.
- Used 3D structural design and BIM modeling to align the continuous staircase and manage non-stacking headers and posts through complex geometry.
- Addressed unforeseen construction challenges, including reinforcing wall studs and aligning strap-braced wall end posts with embeds, ensuring project success and compliance.