

## New Celgene Building L Summit, New Jersey

Global biopharmaceutical company Celgene Corporation is a rapidly growing medical research and development business that needed additional office space on its North American headquarter's campus in Summit, New Jersey. Contracted to deliver the fast-track project, the Turner-Highland-Langan design-build team sprang into action and in an amazingly short period of two years, went from conceptual design to building occupancy.

Building L is a six-story hybrid structure comprised of two stories (180,000 sf) of Class A office space on top of a four-story (360,000 sf) underground parking garage. It serves 950 employees and has a pedestrian bridge connecting it to another Celgene building. Lean construction methods were widely used and it was designed to attain LEED Silver certification.

Twenty Keystone walls form the parking areas, with Wall 5 supporting the office entrance and pedestrian bridge. The wall system specified was Keystone Compac® III - Victorian, a concrete masonry product designed for structural retaining walls capable of supporting structures or highway loading. Several walls were constructed for at-grade parking areas, while Wall 5 was constructed to provide open ventilation space around the underground parking garage.

**Owner:** Celgene Corporation

**Engineer:** Keystone Retaining Wall Systems

**Contractor:** James Construction Co., Inc.

**Keystone Producer:** Anchor

**Technical Description:**

- Keystone Compac® III - Victorian
- Number of Walls: 20
- Total Wall Area: 40,915 sq.ft.
- Maximum Height: 48 ft.

**Installation:** November 2015





Keystone was selected from among several different systems, when Keystone licensee, Anchor Mid-Atlantic, recommended the Keystone Compac – Victorian system. Joe Fatz, commercial sales representative for Anchor, has been in the industry for 27 years and likes it for Celgene-type applications. “It’s a popular unit, in part because it doesn’t chip on the unit edges, and the face design softens the look of the wall face. Also, the chamfer provides a true 12-inch deep unit.”

Keystone Compac units are typically manufactured with a minimum compressive strength of 3,000 psi (21MPa), and near-vertically connected using high-strength pultruded fiberglass pins. Aesthetically, the Victorian unit has a beveled face with a natural stone texture, giving large walls a look of added dimension and classical styling.

One of the most challenging aspects of the project concerned Wall 5. Keystone engineer Pat Stiemke, PE, had to design it to support not only the building entrance and pedestrian bridge but, during construction, bear without loss of structural integrity the traveling and picking loads of a 500,000-pound Liebherr crane required for the construction of the six-story building. The wall design and products proved to be more than up to the task.

The high profile and fast-track nature of the project made it both demanding and rewarding. There were several design changes and an intense schedule of site visits by the local wall block producer, but close cooperation by all parties made it a model design-build endeavor.