

WILLOWBROOKE COURT CENTER (FORMER PLANTATION ESTATES)



KLINE ENGINEERING
& CONSULTING



Project Description

95,000-sf. state-of-the-art addition to the senior-focused health center, formerly known as Plantation Estates.

- 4-story CIP concrete frame residential building
- 13,000sf parking garage.
- Below-grade basement area.

Design Features:

- From 4 level steel building to 8" PT flat plate slabs



Matthews, NC

CAPABILITIES

- **Structural Design**
- **Post-tensioning Design**
- **Value Engineering (EOR)**

Developer:

Acts Retirement-Life

Architect:

RPA Design

General Contractor:

Edifice

Project completion:

2019

Industry

Senior-living

Project type:

NEW CONSTRUCTION
Residential



Full Project Description

Willowbrooke Court Skilled Care Center is one of the senior-focused health centers of Acts Retirement-Life Communities, Inc. at Matthews Glen (formerly Plantation Estates) in Matthews, NC. As part of their 2019 expansion project, this neighborhood-style nursing care community added 90 private, skilled-care beds to its 95,000 sq. ft., state-of-the-art healthcare center.

Kline Engineering & Consulting is the engineer of record for this 4-story, CIP concrete frame multi-family building. Our team designed all the structural elements, including foundations, retaining walls, columns, and Post-Tensioned elevated slabs and roof. Due to layout constraints preventing shear walls, Kline implemented a moment frame lateral support system. Kline's all-concrete, cast-in-place alternative to the original steel design provided an economical and time-efficient alternative for this project. The utilization of post-tensioned concrete slabs and cast-in-place concrete frames minimized both the project cost and complexity, saving the owner and construction team a significant amount of money and time.

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