

Bluewater Builders

Builds John Knox Village in Pompano

**Over (30) thirty
ABC members,
Contractors,
Associates and
Vendors are involved
in the construction of
the project including
those listed below.**

Bluewater Builders
General Crane, Inc.
Southern Waste Systems
Diligent Environmental
HJ Foundations
M. C. Velar
Rinker Materials
Firedoor, LLC
Pass International
ThyssenKrupp
Statewide Plumbing
Phillips Fire
Southeast Mechanical
Fineline Electric

The first major building to be built on the John Knox Village campus in Pompano since 1974 was awarded to Bluewater Builders after months of competitive negotiations. The ten-story, 120 unit, Independent Living Facility, containing 217,910 square feet, called Heritage Tower, is scheduled to be constructed in just 11 months.

John Knox Village is a CCRC (Continuing Care Retirement Community), providing independent, assisted and nursing care facilities and services for retirees. The new facility was designed by the architectural firm of Donahue & Company, Incorporated, now doing business as Harper Partners, located in Boca Raton, Florida.

Bluewater determined that two hooks would best serve the aggressive schedule and that fixed tower cranes would be utilized in lieu of crawlers

to allow site utilities and paving base course to be installed during the construction of the frame. The building basically runs east to west and the smaller tower crane (160' high with 160' reach) was placed at the east end and the larger crane (180' high with 160' reach) was placed just past mid-point of the structure. The center crane has complete building footprint coverage east to west. This allowed the east tower crane to be removed as soon as the east portion of the roof slab was completed thereby minimizing its time on the job while benefiting from the second hook thorough out construction.

The foundation of the structure utilized a Vibro-Replacement System. By vibrating the soils and adding stone as the soils compact, the soils are densified to a bearing capacity of 8000 pounds per square foot, in effect, providing stonewalls and stonecolumns, within the supporting soils under the structure. The 24,000

square foot foundation was completed in 20 days.

To assure proper placement of frame embeds, MEP chases and risers, slab edge locations, column locations, structural slab openings and accurately coordinate same among all trades Bluewater hired an independent Architectural firm to develop a complete set of floor by floor Control Line drawings including the roof slab.

To construct the post-tensioned frame, Bluewater developed an aggressive pour cycle of 6-days per floor. It required three pours per floor, which were staggered throughout the entire construction of the structure until top-out. The frame consisted of approximately 9200 cubic yards of concrete and 670 tons of post tension cables and reinforcing steel. The concrete shell work was completed with no fatalities or lost time accidents. The installation of the exterior masonry walls followed four floors behind the construction of the frame and was completed 6 weeks after topping out.

Exterior glazing is completed., including sliding glass doors. The project does not have any balconies, therefore the sliding glass doors in each of the units basically serve as floor to ceiling operable windows with the design calling for decorative protection rails mounted on the exterior after completion of the stucco skin. Because there are no balconies and the sliders are being installed right at the perimeter, a dangerous situation occurs during installation. (How do you protect the installation crew at these large slab to slab openings during installation?) To meet this safety issue the window subcontractor utilized technology developed in rock climbing, a rock cleat adapted for use as a wall/column anchor. The device acts similarly to a Redhead Insert. On one end is the wedging device and on the other end is an eyelet attached with a stainless steel cable for tie off. The device is inserted into a pre-drilled hole and the harder you try to pull it out the more it wedges itself and resists removal, a creative and functional resolution.

A pre-planning meeting was held with skin subcontractors prior to their starting work to review means, methods and schedule. Due to the extensive articulation of the skin it was determined the best way to install the stucco Power Wall system was to scaffold the entire building. This required approximately 118,500 square feet or forty (40) truckloads of scaffolding. ■

