

Regency House Condominium Plaza Parking Garage Repairs

Phoenix, AZ

Submitted by Gervasio & Associates, Inc.



Regency on Central (a.k.a. Royal Towers and Regency House) is a 21-story condominium located in midtown Phoenix, AZ. Constructed in 1964, it was the highest residential structure in the Phoenix area. Two levels of underground parking extend beyond the tower's footprint, creating Plaza space at street level with community gathering areas and numerous planters.

After 50 years of deferred maintenance and moisture infiltration, severe deterioration had resulted. Further deterioration would have eventually caused the facility to become unserviceable, and eventually unusable. The repairs and protection implemented at the structure will maintain the high-rise residential tower for many years to come.

The project consisted of complete renovation of the Plaza and planter areas; major structural repairs throughout the garage; complete replacement of the mechanical room floor slab; and mechanical system renovations and upgrades, including newer, more efficient chillers, cooling towers, boilers, and air handlers. Lighting in the garage was replaced with new high-efficiency fluorescent lights, and exterior lighting was replaced with LEDs. The construction was completed in two phases, over 4 years, and funded completely by individual condominium homeowners—a challenging aspect during a time of national economic depression.

This project is unique because of the wide range of repair and protection materials and methods used, including corrosion inhibitors, silica fume, and shrinkage-reducing admixtures in ready mixed concrete; dry-process shotcrete; form and pump with preplaced aggregate; epoxy/chemical grout

injection; helical pier tieback anchors; carbon fiber; soil stabilization; galvanic anodes; reinforcing bar coatings; liquid waterproofing; epoxy flood coat; and anti-carbonation/urethane/epoxy coatings. The numerous and innovative repair methods and materials successfully mitigated structural deterioration, and effectively managed unforeseen conditions and complex construction logistics, while increasing the life cycle of the Plaza. The brick paver system over the Plaza waterproofing membrane provides a long-term sustainable benefit. The iconic Phoenix landmark once again offers the residents a modern, beautiful, and enjoyable outdoor space.

Regency House Condominium

OWNER

Regency on Central
Phoenix, AZ

PROJECT ENGINEER/DESIGNER

Gervasio & Associates, Inc.
Phoenix, AZ

REPAIR CONTRACTOR

Caliente Construction, Inc.
Tempe, AZ

MATERIAL SUPPLIERS/MANUFACTURERS

BASF

Phoenix, AZ

Sika Corporation

Lyndhurst, NJ