



## LILY'S PAD Tempe, Arizona

### APPLICATION:

Lily's Pad AZ was created to provide a safe indoor play environment for immunocompromised children. Working with Architekton and Applied Engineering, Varitec Solutions helped enhance the facility's indoor air quality strategy through the integration of Building4Health (B4H) air quality monitors, providing continuous monitoring to support a healthier environment for children and their families.

### PROJECT TEAM:

**Architect:** Architekton  
**Engineer:** Applied Engineering  
**Manufacturer:** Building4Health

### DESIGN & PRODUCT SOLUTIONS

Creating a healthy indoor environment was the driving force behind every aspect of the Lily's Pad AZ design. Inspired by ASHRAE guidance for reducing the spread of airborne contaminants, the project team developed an HVAC solution that combines advanced filtration, humidity control, and continuous indoor air quality monitoring to support the unique needs of immunocompromised children.

Varitec Solutions supplied and integrated Building4Health (B4H) monitors throughout the facility, allowing staff to continuously monitor key IAQ parameters including CO<sub>2</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, ozone, and total volatile organic compounds (TVOCs). Real-time monitoring provides immediate visibility into indoor air quality, helping verify that the building continues to operate as designed.

Applied Engineering complemented the monitoring strategy with a high-performance HVAC system featuring ceiling-mounted, fan-powered HEPA filtration to provide uniform distribution of clean air throughout the facility. A humidification system maintains indoor humidity between 40% and 60% RH, helping support occupant comfort while aligning with industry best practices for healthier indoor environments.

Despite fundraising challenges during the COVID-19 pandemic and the need to relocate the project during development, the team remained committed to delivering a space where children and their families could play with greater confidence. The result is a facility that demonstrates how thoughtful HVAC design, continuous IAQ verification, and collaborative engineering can come together to create a healthier, safer environment for one of the community's most vulnerable populations.



- PHOENIX
- TUCSON
- ALBUQUERQUE
- EL PASO

