



CASE STUDY

Westfalia elevates luxury living with advanced and ultra-reliable automated automobile parking enabled by Siemens technology

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Westfalia Technologies is transforming the urban parking experience with fully automated parking systems that optimize space, reliability, and convenience. Using Siemens technology, the solution combines engineering excellence and user-friendly design, delivering industry leading uptime and a premium amenity for luxury living, with the potential applications for commercial parking as well.

In the heart of Philadelphia's historic district, Westfalia Technologies, Inc. is redefining the urban parking experience. Founded in 1992 and headquartered in York, Pennsylvania, Westfalia Technologies is a leading provider of automated solutions for storage and parking applications across the Americas and beyond.

The company's fully automated parking systems (APS) are engineered to tackle one of the most pressing challenges in modern cities: how to maximize valuable real estate while providing a seamless and secure experience for residents.

At the center of Westfalia's success is its commitment to partnership, reliability, and innovation. "Our approach is all about collaboration," says Ian Todd, Executive Vice President of Automated Parking at Westfalia. "We work side by side with developers and architects to design systems that not only fit a building's unique constraints but also elevate the experience for residents."

Uniquely positioned

What sets Westfalia apart from competitors is its vertically integrated approach. Unlike other APS suppliers who piece together third-party subsystems, Westfalia designs, manufactures, installs, and supports nearly every aspect of its solutions.

This control over the entire process ensures the highest quality, reliability, and serviceability. "We don't just build systems—we build partnerships," says Shane Colella, Westfalia's Marketing Director. "Our goal is to create APS solutions that are easy to operate and maintain, with world-class support behind them."

Westfalia's deployment at 500 Walnut, an ultra-luxury condominium tower overlooking the city's Independence Hall, illustrates Colella's point. This flagship project showcases Westfalia's ability to integrate advanced engineering with user-friendly design.



Customer: Westfalia Technologies, Inc. –
York, Pennsylvania – www.westfaliausa.com

Challenge: Balancing space, reliability, and luxury in an urban residential high-rise

Solution: Integrating Siemens controls to deliver reliability, scalability, and ease of use

Results: Driving differentiated value for developers while enhancing the resident experience

"For both developers and residents, every detail matters," he says. "From the moment a driver pulls up, to the system's ease-of-use and reliability day after day, the performance must be rock-solid. In the rare case that any issues arise, we want to be able to resolve them quickly without bringing in different vendors."

- **Challenge: Balancing space, reliability, and luxury in an urban residential high-rise**

When Westfalia Technologies took on the 500 Walnut project, they knew they were stepping into one of the most demanding real estate markets in the country. With its prime location overlooking Philadelphia's Independence Hall, this ultra-luxury condominium development set the highest expectations for both residents and developers alike. "Our goal extended beyond parking cars; we wanted to create an amenity that matched the prestige of the building," says Todd.

One of the core challenges was space. As Todd explains, “Developers want to maximize every square foot of real estate, and that means fitting as many parking spaces as possible into a limited footprint. That’s where our palletless technology makes a huge difference.”

More differentiation

Unlike traditional pallet-based systems, Westfalia’s design eliminates bulky, maintenance-prone components, allowing for higher throughput and more efficient use of space. This approach ensures that developers can offer more parking without sacrificing valuable real estate that could be used for additional residential units or amenities.

Reliability was another non-negotiable factor. “When people call for their cars, they expect it to be there, every time,” says Todd. Shane Colella adds, “We talk about industry leading uptime for a reason. Residents in these buildings won’t tolerate downtime or excuses.” The complexity of an automated parking system—complete with lifts, turntables, and transfer shuttles—requires precision engineering and reliable controls to meet that standard.

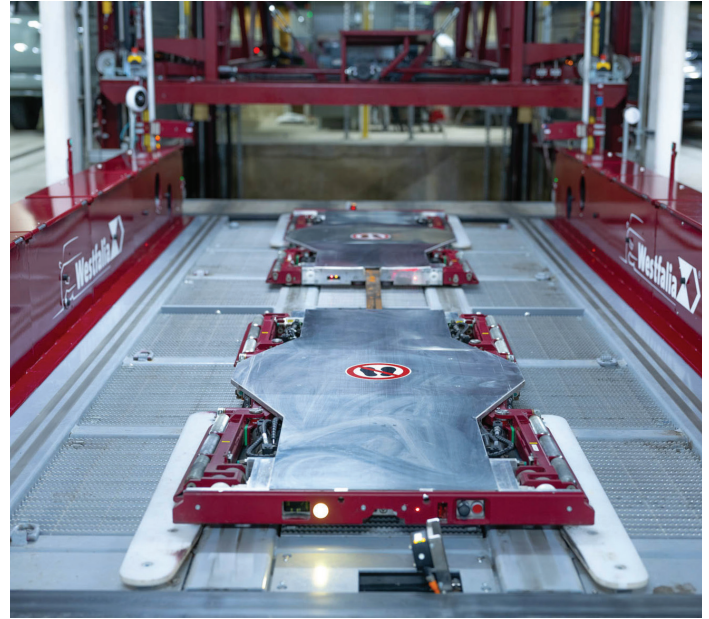
Ambient flexibility

Environmental factors also came into play, especially with Philadelphia’s variable climate. “Cold temperatures can affect hydraulic systems, and summer heat can challenge electronics,” Todd notes. “We had to design for those conditions, including heating elements in hydraulic tanks and programmed warm-up cycles, to keep everything running smoothly.”

Ultimately, it was Westfalia’s dedication to partnership that helped navigate these challenges. “From weekly meetings to custom software tweaks, we are committed to getting this right,” says Colella. “And that’s what sets us apart—we stand by our systems and our customers long after installation.”

- **Solution: Integrating Siemens controls to deliver reliability, scalability, and ease of use**

Westfalia approached the design and engineering of the 500 Walnut APS with a focus on ease of use and maintenance, plus reliable performance. From the outset, Westfalia’s engineering team knew a traditional APS approach wouldn’t meet the demands of this luxury residential environment.



So, instead, they leveraged their vertically integrated capabilities to develop a palletless system that optimizes space while providing a premium user experience every time.

At the heart of the system is Westfalia’s Savanna.NET® Parking Control System, which manages vehicle movements with precision and reliability. But to truly bring the system to life, Westfalia needed an automation backbone that could handle complex operations across lifts, turntables, and transfer shuttles—all while providing intuitive operator interfaces and rock-solid reliability. That’s where Siemens came in.

Advanced controls, a key choice

“We chose Siemens because its S7-1500 PLCs could provide the precision controls we needed,” explains Ian Furlonger, Westfalia’s APS Controls Manager. “With TIA Portal, we can manage all our programming, from control logic to HMI development, in a single, unified environment. That kind of integration reduces complexity and speeds up commissioning.”

The SIMATIC HMIs, designed as all-in-one industrial PC touchscreens, offered operators a user-friendly interface that made monitoring and controlling the system straightforward. Meanwhile, the Siemens technology stack also included microdrives on Westfalia’s latest automated EV charging technology, WEPLUG®, showing its forward-thinking approach to integrating emerging technologies.

Worldwide support if needed

Another key advantage was Siemens' global support network. "When we designed this system, we had to think about reliability not just during installation but throughout its lifecycle," Todd says. "Siemens gave us the confidence that wherever our systems go—whether in the U.S., Europe, or beyond—we'd have the parts, support, and expertise to keep them running."

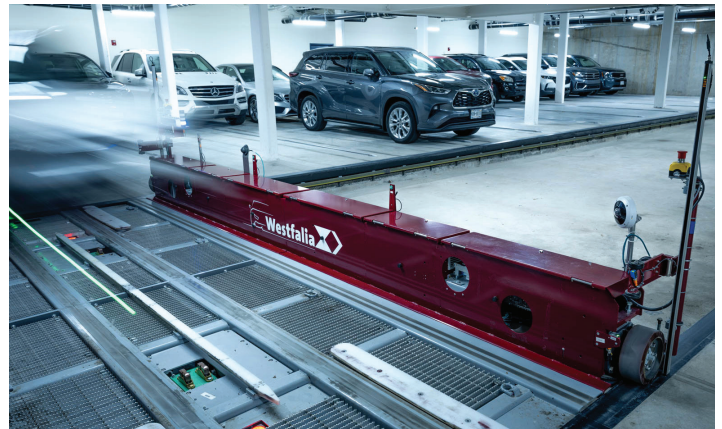
The combination of Westfalia's engineering expertise and Siemens automation technology created a solution that not only met but exceeded the expectations of residents and developers at 500 Walnut. "It's the perfect marriage of technology and service," says Colella. "That's what makes our system truly stand out."

- **Results: Driving value for developers while enhancing the resident experience**

Since its launch, Westfalia's automated parking system at 500 Walnut in Philadelphia has proven to be a tremendous success for the developer and for Westfalia, delivering on every promise of performance, reliability, and, importantly, resident satisfaction.

According to Tom Scannapieco, the developer behind 500 Walnut, residents have embraced the system as a seamless part of their daily routine, enjoying the convenience and security of an amenity that consistently meets their expectations. "Everyone loves it," he says. "They appreciate that no one else touches their vehicle, and they know it will be waiting for them, safe and sound, every time they need it."

Operationally, the system's performance has been nothing short of exceptional. "We're seeing fantastic uptime," says Colella. "We've had weekly meetings with the client for years, and that commitment to service and reliability has kept the system operating at its best."



For Westfalia, the partnership with Siemens has been instrumental in achieving this standard. "Siemens' technology stack—S7-1500 PLCs, SIMATIC HMIs, and the TIA Portal—gives us the stability and flexibility we need," says Furlonger. "We can support customers quickly, whether it's on-site or remotely."

The benefits extend beyond just uptime. The system's design—rooted in Westfalia's palletless technology—has maximized space efficiency, allowing the developer to offer more residential units without sacrificing parking. This has been a key factor in the project's financial success. "It's about adding value," says Todd. "Our systems help developers get the most out of every square foot of their real estate investments."

Equally important, Westfalia's solution is future-ready. The system's architecture and Siemens' global support enable Westfalia to adapt to new technologies, such as EV charging integration and to expand its APS offering to new markets, including public parking and mixed-use developments. "Every time we build a luxury high-rise now, automated parking is at the top of the amenity list," says Scannapieco. "And with Westfalia, I know it will be done right."

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