

Case Study: Safe & Secure Automated Self Storage Coconut Creek, FL



Westfalia Technologies, Inc. recently partnered with real estate developer The Pugliese Company, for a new venture named Automated Self Storage Systems, LLC. This partnership ushers in a new era of self storage by bringing Automated Storage and Retrieval Systems (AS/RS) technology typically seen in the warehouse and manufacturing plant to the self storage customer. Based in Delray Beach, Florida, Pugliese is known for developing large-scale mixed-use projects, high-end office

buildings, housing and warehouse facilities throughout New Jersey, South and Central Florida, and for applying innovative design and technology to its projects.

“We were looking for an innovative, open-minded company with a proven track record,” Paul Talley, Vice President of Automated Self Storage Systems explains. “Westfalia knows the ins and outs of both AS/RS and automated parking, so it seemed like a perfect fit. The technology is so

flexible that it allows you to adapt the system to any site or building configuration, be it traditional or odd-shaped.”

The first application of this new concept is a certified Silver LEED facility located in Coconut Creek, Florida, called “Safe & Secure Automated Self Storage.” It is 178,000 sq. ft. and stores 539 containers. This facility is totally automated, eliminating the need for hallways, freight elevators and traditional interior lighting. The Automat-

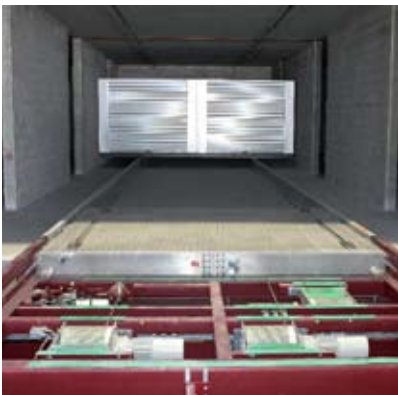
- AS/RS
- *Savanna*.NET® WMS

The Challenge: Increasing Profits and Customer Service



ed Storage & Retrieval System (AS/RS) quickly and quietly delivers the storage container to the customer at drive-up loading areas. To obtain the Silver LEED rating from the US Green Building Council, a number of green features were incorporated into the building design, including: 30% reduction in water use; optimal energy performance and reduced power consumption; improved indoor air quality, and construction activity pollution prevention and waste management practices.

“Everyone benefits when a building is designed with efficiency and security in mind,” said Talley, “We’re bringing state-of-the-art technology to the neighborhood storage facility.”



Customer containers have a standard dimension of 10 ft. (W) x 20 ft. (L) x 8 ft. (H), and a total weight capacity of 8 tons. Each container can be subdivided to fit an individual’s rental storage needs in 5 ft. increments (5 ft. x 5 ft., 5 ft. x 10 ft., etc.). A 10 ft. x 20 ft. module base will also be available for handling items such as vehicles or boat trailers. The AS/RS handles modules up to six deep in a lane. Backup generators prevent shut-down in the event of a power failure. The facility has five designated

areas for customers to access their containers, and each has an internal door to maintain climate controlled air quality.

Customers drive up to the facility and access their module by entering a Personal Identification Number (PIN) on a keypad which signals the Storage and Retrieval Machine (S/RM) to claim the appropriate module and present it to the patron at a ground level loading area. This concept saves customers time, effort and ultimately money

The Solution: High Density AS/RS and *Savanna.NET*® WMS

as they avoid the traveling in and throughout the facilities to load and unload their personal items. PINs for customer identification also serve as one level of fraud protection. Customers can call ahead too, to have their module ready and waiting for them.

“System operation is quite simple,” explains Gary Frank, Vice President of Automated Systems for Westfalia. “Once the customer has been registered, he drives up to the keypad at the gate and he enters his number on the keypad at the display screen. This triggers the Storage and Retrieval Machine to automatically retrieve the appropriate module. It also tells the customer which access point to drive to. Once at the designated

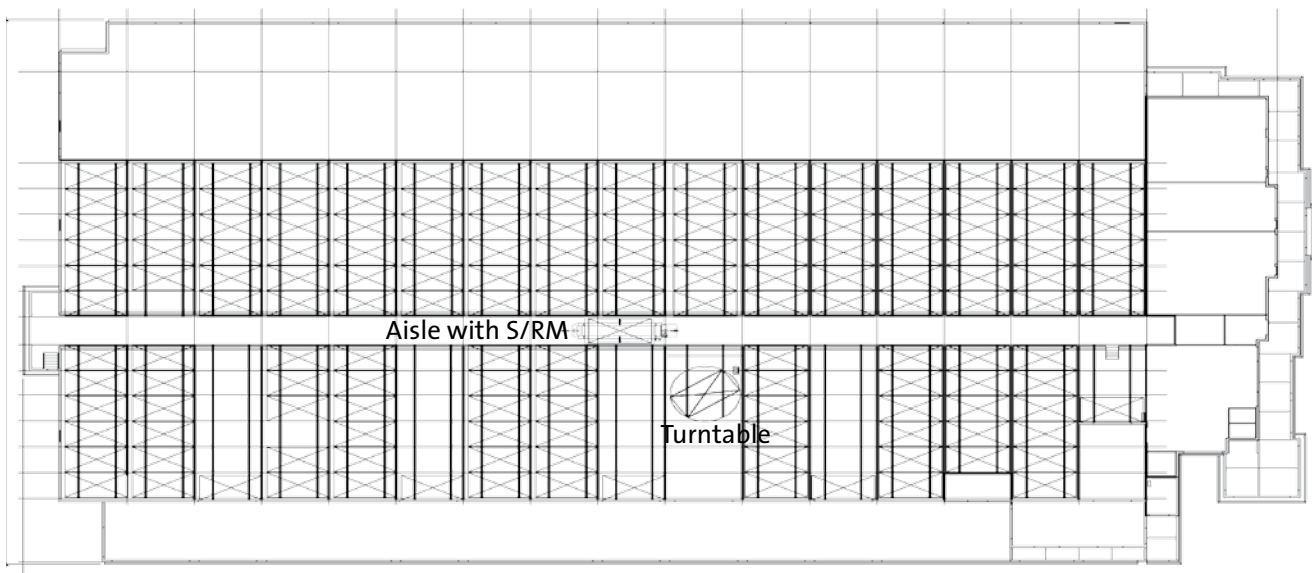
System Features	
Size	178,000 sf LEED facility: 400' long, 218' wide, 47' high
Capacity	<ul style="list-style-type: none">■ 539 storage modules■ Storage modules in 5' increments to 10' x 20' x 8'■ Maximum load 16,000 lbs.■ 3 levels high
Technology	<ul style="list-style-type: none">■ Storage/Retrieval Machine to handle 16,000 lbs.■ Turntable Conveyor to rotate storage modules 180 degrees, as needed
WMS	<i>Savanna.NET</i> ® software

access area, a display screen there prompts the customer through the steps necessary to gain access to their module. The doors will then open, and the customer can access his storage module. When finished loading or unloading items, a customer simply enters

his PIN on the keypad again, and the S/RM retrieves the module and stores it automatically as he drives away.”

Westfalia’s modular *Savanna.NET*® software controls, manages and tracks all the modules movements throughout the system. *Savanna.NET* interfaces with all the facility operations including customer information, credit card approval, front office operations and security systems. Nine screens showing the status of each access area and other parts of the automated system feed live video to the reception area of Safe & Secure Automated Self Storage.





This automated self-storage facility is more secure, convenient and faster than traditional multi-storage experiences, which most customers will recall as being anything but user-friendly. Due to its almost impenetrable security and robust design, the project has generated inquiries from FEMA to store products for disaster relief, as well as from local and federal law enforcement entities looking for evidence storage. Says Talley. "With any new construction, our philosophy is to examine what has and has not worked in the past, be it in terms of design, or with hurricanes and other disasters.

Even with multi-level storage, Pugliese strives to construct buildings that will blend in with the surrounding area, often resembling offices, retail stores,

Benefits

- Customized automated system fits multiple building shapes, sizes and layouts
- Flexible module configurations from 2-6 per aisle and 2-15 high
- Increases net leaseable area up to 25% (F.A.R. calculated as one floor)
- Slashes operating costs - Up to 50%
- Environmentally friendly due to reduced building footprint and LEED certified building features -- 30% less water usage; optimized & reduced energy consumption & improved air quality
- Every space is a prime location - no need to discount
- Convenient 24/7 access with PIN code at keypad
- Safe & secure – constant surveillance and monitoring; no interior access to the building
- Building pressurized to reduce dust and pollutants 40%
- Automated system never offline with a back-up generator

apartments and condominiums, complete with balconies and shutters. "The municipalities realize that we have a high-end product that is low profile, clean, quiet, and does not generate a lot of vehicle or pedestrian traffic," says Talley.

"Our research proved that there is really nothing in the marketplace that comes close to what we're doing. It's a really innovative product, With Westfalia's very efficient system we will take this industry in a totally new direction."



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