

# Excelsior Parc

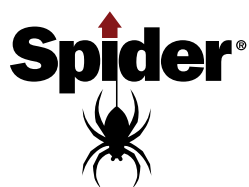
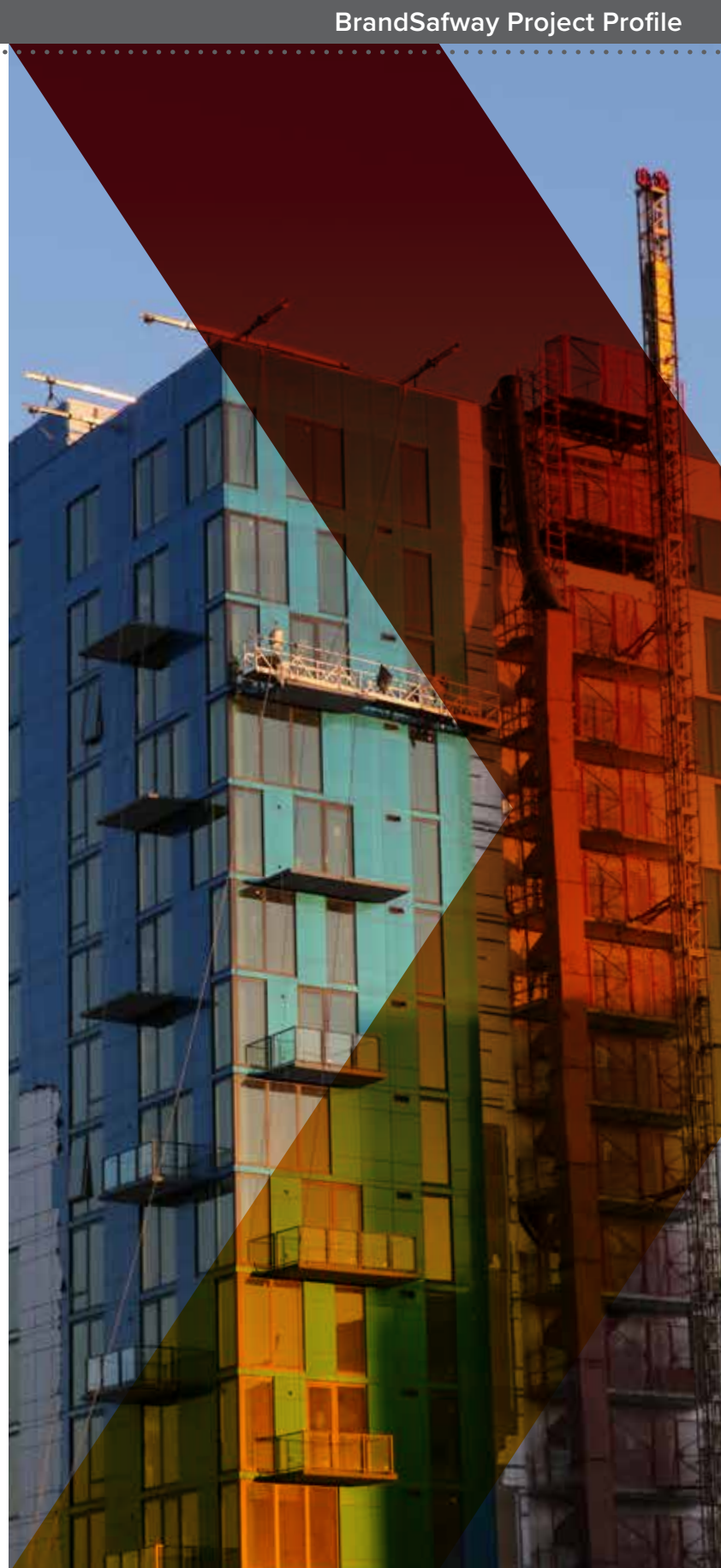
## Spider® Custom Engineers Solution that Turns Rigging Nightmare into Dream Project

› You can't swing a tower crane without hitting new development corridors surrounding Washington, D.C. The Excelsior Parc is a 457-unit, luxury apartment development in Reston, Virginia, just 10 minutes from Dulles International Airport. It consists of two 16-story, high-rise Class A towers. On track for LEED Gold status, Excelsior Parc features dynamic windows that switch between transparent and diffusely reflective states, ENERGY STAR certified Nest Learning Thermostats and 160,000 square feet of Alucobond® color-shifting aluminum composite metal (ACM) panels.

"Everything about this building is high technology from a user standpoint, but the façade work was also a source of risk for us," said Chris Woitowicz, project manager for John Moriarty & Associates (JMA), the general contractor for Excelsior Parc. "Fortunately, the project went extremely well and exceeded all our expectations, in large part thanks to Custom Walls & Windows, Spider and the swing stage system we came up with for the project."

Custom Walls & Windows (CWW), an ACM panel manufacturer and installer, was selected for the project because of its working relationship with JMA, and because it could complete the project in a record installation time. Construction on the first building started in the first week of September 2017 and was completed by the end of March, eight weeks ahead of schedule. The second building was completed in April, also ›

A transport platform installed on one side of the building allows workers to move people and materials. ›



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**“The traditional solution would have been a rigging nightmare; I would have needed a full-time crew of eight to 10 guys doing nothing but setting up and dismantling platforms...”**

› eight weeks ahead of schedule, largely due to an innovative suspended access solution provided by Spider.

Alex Bennefield, vice president and principal owner of CWW, explains that Excelsior Parc features irregular, staggered balconies that



Excelsior Parc consists of two 16-story, high-rise Class A towers housing 457 luxury apartments. ⤴

precluded raising a suspended work platform from the ground to the 16th floor in a straight shot.

“The traditional solution would have been a rigging nightmare,” said Bennefield. “I would have needed a full-time crew of eight to 10 guys doing nothing but setting up and dismantling platforms and moving suspension points.” More activity also inherently increases risk potential.

Fortunately, CWW worked with Spider to engineer custom max outreach kits for its standard 25-foot, 5-by-5-inch outrigger beams. These beams were located on the top of the roof and were supported on 5-foot-11-inch stanchions to clear a safety wall. The back end of each outrigger featured 1,800 pounds of counterweight and was further secured with wire ropes.

“We engineered a geared, chain-driven trolley and channel that provides an additional 7 feet and 6 inches of travel for the swing stage suspension points,” said James Koker, district sales manager

at the Washington D.C./Baltimore branch for Spider. “The hand-operated chain drive allowed workers on the roof to move the swing stage out so that it cleared the 60-inch-deep balconies. The workers on the platform raised or lowered the platform to the desired level, and then the workers on the roof pulled the trolley back in.”



A close-up view of the chain-driven trolley system and the interior end stop. ⤴

Ultimately, the Spider, CWW and JMA teams erected 20 swing stages on each tower, 18 with the max outreach kit and trolley, and two with fixed-length outriggers where the building design provided clear top-to-bottom vertical access.

“The unique thing about this jobsite is that every linear foot of the building’s façade could be accessed with a swing stage, so we could work on any portion of the building at any time,” said Bennefield. “Instead of eight to 10 full-time people, we could move the swing stages with just two half-time workers, along with one Spider rigging foreman who provided a daily safety inspection.”

“With the outreach kit, we set up the swing stages on the roof of the building one time and left it there,” added Woitowicz. The swing stage could trolley out past the balcony, come down in a safe manner, and then come back in and allow trades to work on the façade. This solution really mitigated something that we thought would be a



**“With the outreach kit, we set up the swing stages on the roof of the building one time and leave it there.”**



major risk for the project. (The façade would be completed without a lost time incident.)

### Testing the Solution

The Spider modular platform selected by CWW used two 10-foot sections and one 5-foot section for a total length of 25 feet. The sections assembled and dismantled quickly without tools, helping keep the project on a schedule. Two Spider SC1000 traction hoists, one at each end of the platform, provided a combined gross load capacity of 2,000 pounds.

As part of the dialogue between Spider, CWW



Skilled trades that used the swing stage platform also included those installing window caulking. ⤴

and JMA that surrounded the custom-engineered solution, the Spider team coordinated a demonstration prior to implementation. Spider set up two outrigger beams with the custom max reach kit on the loading dock, tied back the anchorage points as they would on the roof of the building, and then demonstrated how workers were able to move in and out from the loading dock wall, raise and lower the suspended platform and complete their work.

“We set up pallets so it looked like a mock balcony; the workers could see the clearance required,” says Koker. “Proving the capabilities of the system prior to getting on the jobsite gave everyone an added measure of comfort.”

Jeff Windsor, district sales representative at the Washington D.C./Baltimore branch for Spider, added that “Spider excels at custom solutions, because we have our own engineers and fabricators in-house. We can design and manufacture products as they’re needed, providing solutions in real time, where other companies have to subcontract the work.” The ability to find solutions that save time and



Swing stages dismantle in minutes and without tools. ⤴

money is one reason CWW has a long-standing relationship with Spider.

“I’ve used Spider exclusively for as long as I’ve been with the company, which is about 10 years now,” said Bennefield. “Our offices are in close proximity, and Spider has always designed whatever we needed. Further, I personally like the Spider swing stage system better. There are fewer parts, and it’s an easier system to use than competitive systems.”

Ease of use makes a difference, as other trades on the Excelsior Parc project also used the swing stages for access. This included those that put up drywall and apply a Tyvek® barrier, caulk windows, and smooth out surface imperfections in the concrete balconies — all of which must be done before CWW can install the ACM panels. After CWW completes its work, another set of trades follows to paint balconies and install handrails.

“The Spider system allows all the other trades to complete needed work,” said Bennefield. ⤵

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## Project Summary

|                   |  |
|-------------------|--|
| Start date:       | September 2017   |
| Completion:       | April 2018   |
| Location:         | Reston, Virginia   |
| Branch:           | BrandSafway Baltimore/Washington D.C.  |
| Scope of work:    | Façade access on twin 16-story, class A luxury apartment buildings   |
| Product/Services: | 40 swing stages consisting of Spider SC1000 traction hoists, 25-ft., 5 x 5-in. outrigger beams and custom max reach kits for an extension of 7 ft. 6 in. |
| Safety record:    | Incident free  |
| Value             | \$800,000  |

“JMA appreciated the fact that everyone could use the same access equipment, because there were so many activities necessary to finish the exterior of this building.”

Bennefield takes pride in the work of CWW, and he recognizes that successful collaborations create win-win solutions.

“Our expertise is composite metal panel fabrication and erection,” he said. “When working for a contractor like JMA, we find ways to make the job quicker and more cost-effective for everyone. Thankfully, we have this great relationship with Spider. They’re willing to take a concept and design it so that everyone wins.”

Spider swing stages provide access for multiple trades. This includes those that put up drywall, apply a Tyvek® barrier, caulk windows, install the ACM panels and complete the balcony railings, paint and glasswork.



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