

Exceptional Solutions to Unique Challenges

Editorial



Unique Challenges. Exceptional Solutions.

The current state of today's infrastructure continues to be the topic of discussion not only in our construction marketplace, but also political and end-user circles as well. According to one of the most respected reports on the topic, the American Society of Civil Engineers' Report Card for America's Infrastructure, U.S. infrastructure overall received a D+, with our nation's bridges earning only a C+. With almost 40% of bridges in U.S. having already reached their design lifespan, another 15% are within a decade of that milestone. Add to that a summer season of floods and fires, which have made news with photos of crumbling roads and bridges, and there is much to discuss about finding safe and cost-effective solutions to repair our aging infrastructure.

Although we continue to innovate in the commercial construction markets as well, it is key to showcase our efforts to meet the needs of the public with regard to infrastructure projects. One example is the unique application of steel cover plates used on the top and bottom of the sides of the girder panels on the pier caps to reinforce their strength as they spanned from one column to the next on the Kosciuszko Bridge. Another time-saving innovation is the use of our ParaTop Ganged Overhang bracket formwork system on the Wekiva Parkway Bridge. With the ParaTop Ganged Overhang system, the contractor can set 20-ft. sections of fully set ParaTop with three men (one operating the crane and two guiding and setting) in just 15 minutes. These innovations and many more ensure safe construction in a timely manner for our contractor community.

This issue of Doka Express also highlights some of our proud contractor partners using Frami panels. We honor these companies as our Doka VIPs and hope to see your team featured in a future issue. Welcome to the Frami family!

Stay tuned for future changes, including a new North American president and plans for a new North American headquarters.

Robert G. Kent, PE

CEO, Doka USA, Ltd.

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News from DOKA



◀ Eyiste Viaduct (Turkey)

With piers up to 508.5-ft. tall, the Eyiste Viaduct will be Turkey's highest viaduct and the connecting link between Central Anatolia and Turkey's Mediterranean region. Cantilever forming travelers and automatic climbing formwork Xclimb 60 from Doka are in use on this major bridge project.

Sky Park (Slovakia) ▶

A 13.6-acre site in a former industrial area of Bratislava is being transformed into a 215,278 sq. ft. park and residential area. The project is being built in two phases: Phase 1 is comprised of three high-rise residential towers and a 45,208 sq. ft. office space. Phase 2 will consist of a high-rise office tower and underground garage.



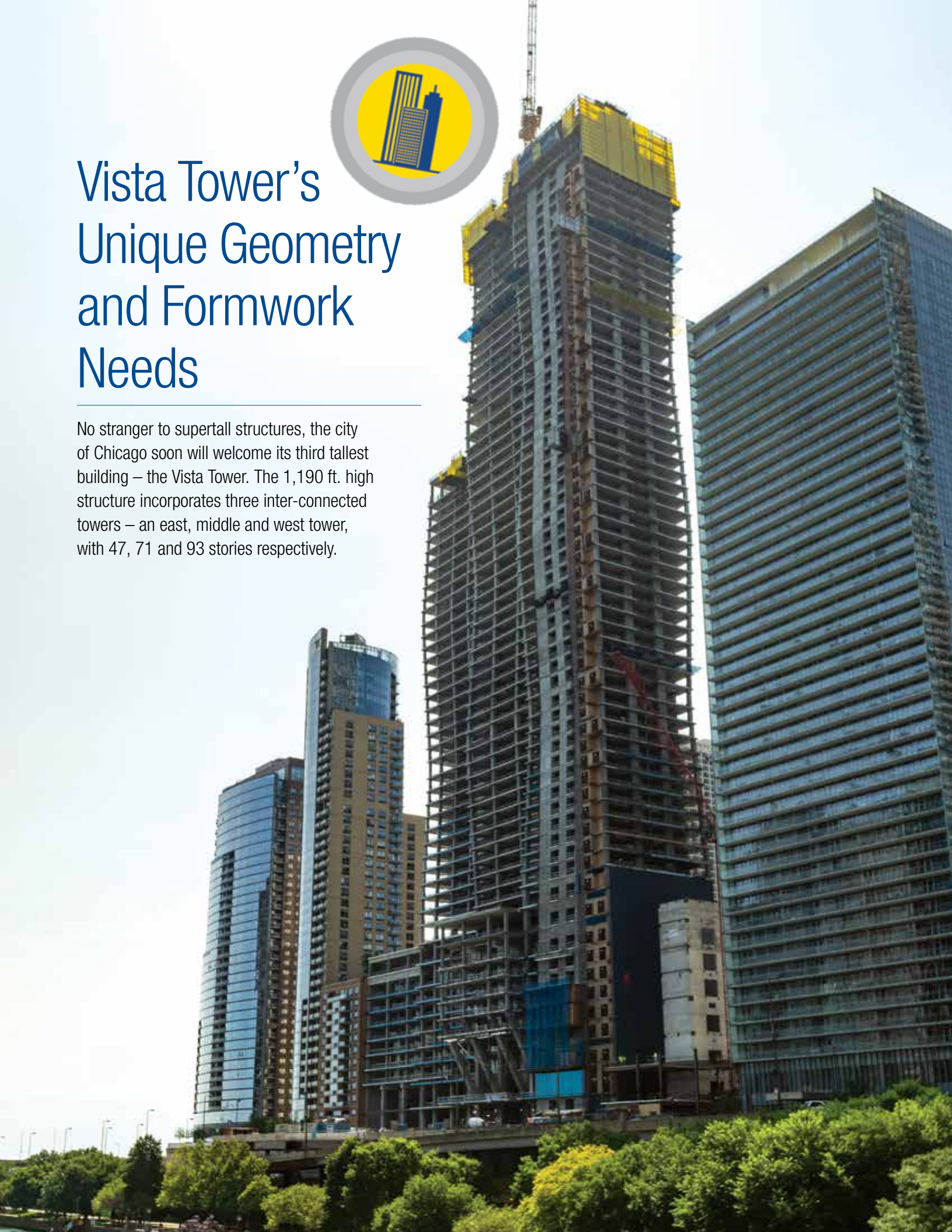
◀ SM Megamall Tower (Philippines)

The 50-story SM Megamall Tower lies in the heart of a large business district in metro Manila and boasts an elegant "S-shaped" design with three levels in the underground garage and an above-ground car park. With the support of Doka's Competence Center for High Rises, they installed the self-climbing system Xclimb 60 with trapezoidal sheeting and hydraulic cylinders.



Vista Tower's Unique Geometry and Formwork Needs

No stranger to supertall structures, the city of Chicago soon will welcome its third tallest building – the Vista Tower. The 1,190 ft. high structure incorporates three inter-connected towers – an east, middle and west tower, with 47, 71 and 93 stories respectively.



The Facts



Project name: Vista Tower

Location: Chicago, IL

Size: 1.8 million sq. ft.

Architect: Studio Gang Architects, Chicago

Engineer: Magnusson Klemencic Associates, Seattle

General contractor: James McHugh Construction Company, Chicago

Concrete subcontractor: McHugh Concrete, Chicago

Type of structure: New high-rise construction

Scheduled completion: 2019



Doka equipment used: Super Climber

SCP, SKE 50 and 100 self-climbing form systems, Xclimb 60 with protection screen system

Vista Tower's unique design features a series of 19 alternating frustums, in which the towers angle outward nearly 5 ft.3 in. for 13 floors and then angle inward for the next 13 floors, creating a flowing design of rhythmic movement.

Vista Tower's distinctive geometry presents one of the most challenging aspects for the concrete subcontractor on the project, McHugh Concrete of Chicago. McHugh consulted with Doka early in the process to plan formwork solutions to meet the project's demands.

To form the building's core structure, McHugh relies on Doka's Super Climber SCP system. Four hydraulic cylinders lift the inside and outside forms from one level to the next. A platform anchored to the top of the forms holds a concrete placing boom which

automatically lifts when the forms are raised. Workers can store rebar on the formwork, too, close to where ironworkers need it for placement.

McHugh is using Doka's SKE 50 and 100 self-climbing form systems for the shear-wall forms. However, the contractor is lifting the forms to the next level with building cranes instead of hydraulically for this project. The shear walls follow the building's angle.

Doka's climbing system Xclimb 60 with protection screen system provides perimeter protection and a safe working climate for installing curtain walls and detailing. It also prevents tools and materials from accidentally falling to the ground and provides shelter from the wind at the highest level where concrete is being placed. It can be used to enclose floors for temporary heating.





The Challenge

- Vista Tower's distinctive geometry presents one of the most challenging aspects, with a series of 19 alternating frustums, in which the towers angle outward nearly 5 ft. 3 in. for 13 floors and then angle inward for the next 13 floors.

The Solution

- To form the building's core structure, McHugh relies on Doka's Super Climber SCP system. Doka's SKE 50 and 100 self-climbing form systems are used for the shear-wall forms. Both systems allow the option of lifting hydraulically or with building cranes. Xclimb with protection screen system provides perimeter protection.



Central Park Tower: World's Tallest Residential Building



Tall, taller, tallest – in New York's district of Manhattan, work on a super high-rise is well underway. At 1,549 ft., the Central Park Tower will rank as the world's tallest residential building. This structure will also be the second tallest skyscraper in the United States, with One World Trade Center standing taller at 1,776 ft.

When completed, the tower will offer more than 1.2 million sq. ft. of prime real-estate floorspace, most of which will be residential. Apart from its amazing height, the Central Park Tower is special in another way - it only has 95 floors. This is due to the extraordinary ceiling heights of the ground floor space. The store's façade height will be 279 ft., which is enough space for twenty-eight floors, however, the architects have specified only seven.

The steel and concrete structure is complex, the room heights are unusual and the concrete core advances ahead of the floor slabs, a feature uncommon in construction of skyscrapers in New York City. These are some of the biggest challenges involved in building the Central Park Tower. Furthermore, lead contractor, Lend Lease, insists on the highest levels of site safety on all its construction projects.

Doka's self-climbing formwork and working platforms are the perfect solution for this project. The Super Climber SCP is being used for the interior core and Xclimb 60 climbs the building's façade. The speed and simplicity of the Super Climber SCP enables the crew to focus on other aspects of the project, such as the steel supports for connecting the steel girders of the skeleton to the core. At the touch of a button, the hydraulic system climbs the platform with all the formwork, the material containers and the concrete placing boom to the next concreting section. For this project, the Super Climber has a suspended stair tower for two levels, permitting unobstructed exit from the work area.

Doka's preassembly, engineering services and site support, allowed this project to progress smoothly from day one.

"The Super Climber SCP is a great system", says Justin Meyer, foreman for Pinnacle Industries on this build. "But it's not just the formwork engineering from Doka that's so good, it's also the support and the engineering services. Everyone is really helpful. Doka is always right there when you need something."



The Facts



Project name: Central Park Tower (former name: Nordstrom Tower)

Location: Manhattan, NY

Type of structure: High-rise

Architecture: Adrian Smith + Gordon Gill Architecture

Developer: Extell Development

General contractor: Lend Lease

Construction work by: Pinnacle Industries

Height: 1,549 ft.

Stories: 95

Scheduled completion: 2020



Doka equipment used: Core: Super Climber SCP (self-climbing platform);

Facade: 62 brackets of the automatic climbing formwork Xclimb 60, Platform K, Large-area formwork Top 50, Framed formwork Frami Xlife. Also: Protection screen Xbright, Xclimb 60 extending platform, table lifting system TLS, stair towers



The Challenge

- In addition to pedestrian and worker safety, the steel and concrete structure is complex, the room heights are unusual and the concrete core advances ahead of the floor slabs.

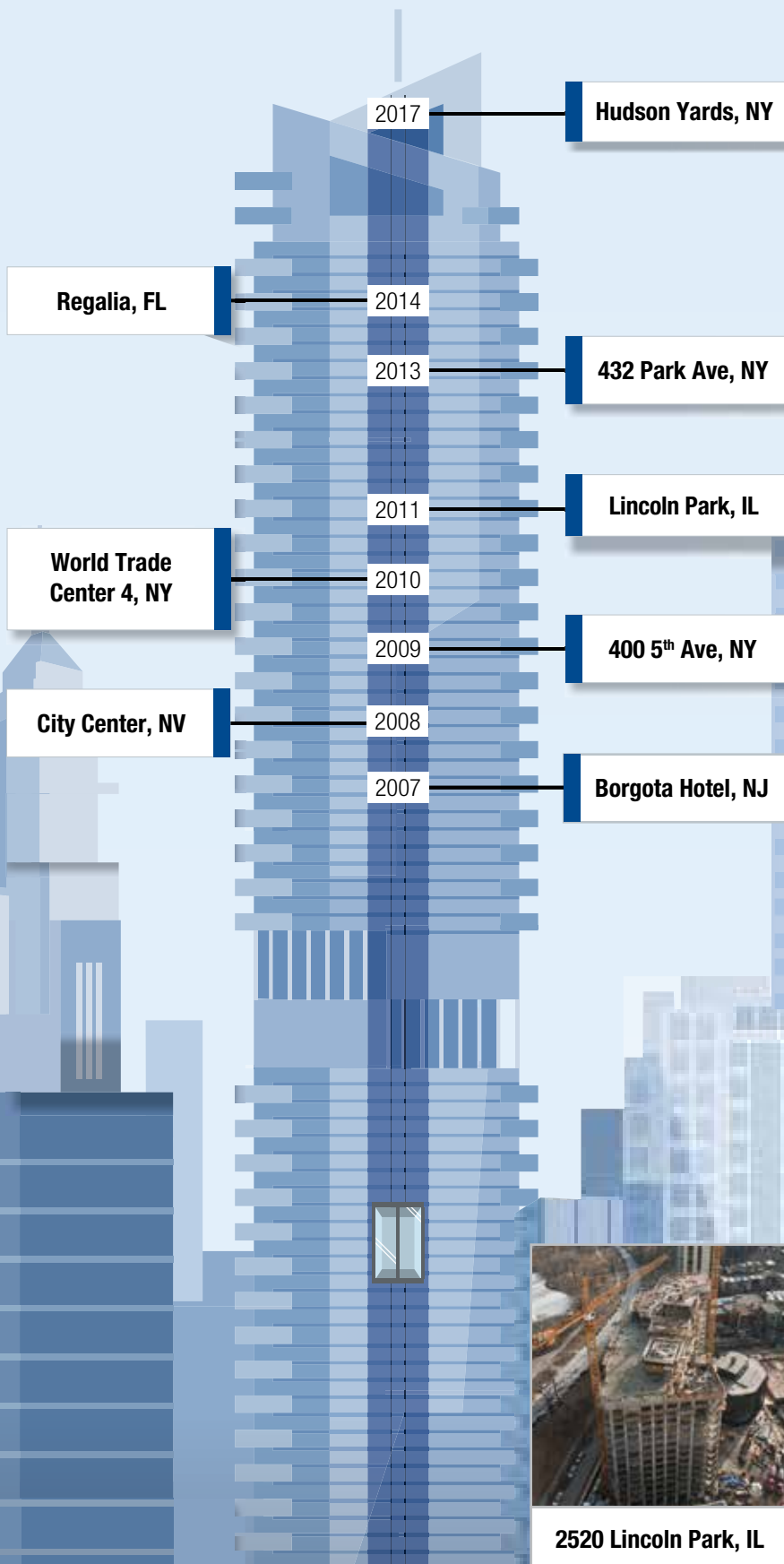
The Solution

- The Super Climber SCP is being used for the interior core and Xclimb 60 climbs the building's façade. Protection Screen Xbright provides natural light, increased safety, and boosts productivity, as well as prevents debris from falling off the building.

Doka's self-climbing projects

Milestones in high-rise construction

doka



Hudson Yards, NY



Vista Tower, IL



Hard Rock Hotel, FL



Central Park Tower, NY



432 Park Ave, NY



City Center, NV



2520 Lincoln Park, IL



Regalia, FL



Borgata Atlantic City, NJ

The Formwork Experts.



The Frami Family Just Got Bigger: Say Hello to the New 8x9-ft. Panel

Designed to span an entire city block, 50 Hudson Yards will be New York City's fourth largest commercial office tower when completed in 2022. With a stunning view of the Hudson River, the LEED Gold-designed, 2.9-million-gross-sq.-ft. building will stand at a prominent 985 ft. tall.



Why was Doka selected as a supplier?



- New Leaf Development was searching for a large formwork panel that also provided a handset option. Doka's new 8x9-ft. Frami panel along with the full range of hand-setting size panels proved to be the optimal choice in both labor and time savings.

The Facts



Project name: 50 Hudson Yards

Location: New York, NY

Construction work performed by: New Leaf Development

Architect: Foster + Partners

Developer: Related Companies, Oxford Properties

Type of structure: Commercial office tower

Height: 985 ft. tall, 58 stories

Sq. ft.: 2.9 million gross sq. ft.

Scheduled completion: 2022



Doka equipment used: Frami 8x9-ft.

panels, smaller Frami panels, Staxo

Stair Tower



▲ The stair tower can be put together quickly from frames and pre-assembled stairway elements.

The Challenge

- Constant reconfiguration of the formwork was necessary due to the wall geometry.

The Solution

- The new Frami 8x9-ft. panel large gang-form panel being used has the ability to also reconfigure adjacent smaller Frami panels by hand.





The contractor, New Leaf Development, is working on the foundation walls at 50 Hudson Yards. One of their challenges is the constant reconfiguration of the formwork due to the wall geometry. Doka's new Frami 8x9-ft. panel provides a large gang-form panel with the ability to reconfigure adjacent smaller Frami panels by hand.

The new Frami 8x9-ft. panel gives clients a larger size panel with less hardware and ties that is easily compatible with the full Frami family range.

At 50 Hudson Yards, the large panel is set by crane and all the filler panels around it are set by hand. In addition, supporting A-frames are used in this one-faced wall application.

Facts on the new Frami 8x9-ft. large, light weight panel:

- Increased versatility – Allows for building and cycling large gangs with small crane capacity. Formwork is crane-set where possible and handset with traditional Frami panels for add-on areas

- Concrete finish – Using fewer form joints produces a better concrete finish.
- Reduced labor – Less labor is needed with larger tie spacing. Only three lightweight clamps are needed for a 9 ft.-form joint.
- Durability – Hot dipped galvanized frames and X-life plywood provide an extremely long lifespan.

Additionally, the long list of benefits in the standard handset Frami panel system are part of the Frami 8x9-ft. panel. This includes safety tie-off handles that meet OSHA requirements with fewer panel connections required. No additional hardware is needed to change from handset to gang forming and the Frami 8x9-ft. panel can be used in combination with all Frami accessories.

Safe and easy access up and down is provided with the combination of Frami 8x9-ft. panels and Doka's Staxo Stair Tower. The combination provides the ability to gang and fly the stair tower in place. The stair tower is 48 ft. high on this project and was able to be re-positioned as one unit.



Doka's Frami Brings Successful Partnerships

► **Sundt Construction, Inc.** has been using Frami wall formwork for the last five years. They have used Frami for numerous projects and many different applications from 36-ft. high walls to foundation forms.

► **Lithko Contracting, LLC** and Doka started their first project together in Jan. 2011 and the relationship has shown continued growth. Successfully completing 33 projects and with 10 more projects ongoing, Frami has been a large part of their success. From foundations, retaining walls and columns to stair / elevator cores, they have become very proficient. Based on its versatility, Frami has been used on projects varying from small dock walls to large stair / elevator cores with climbing platforms for 20 to 30 story buildings. We thank Lithko for their continued commitment to Doka and wish them success in everything they do.

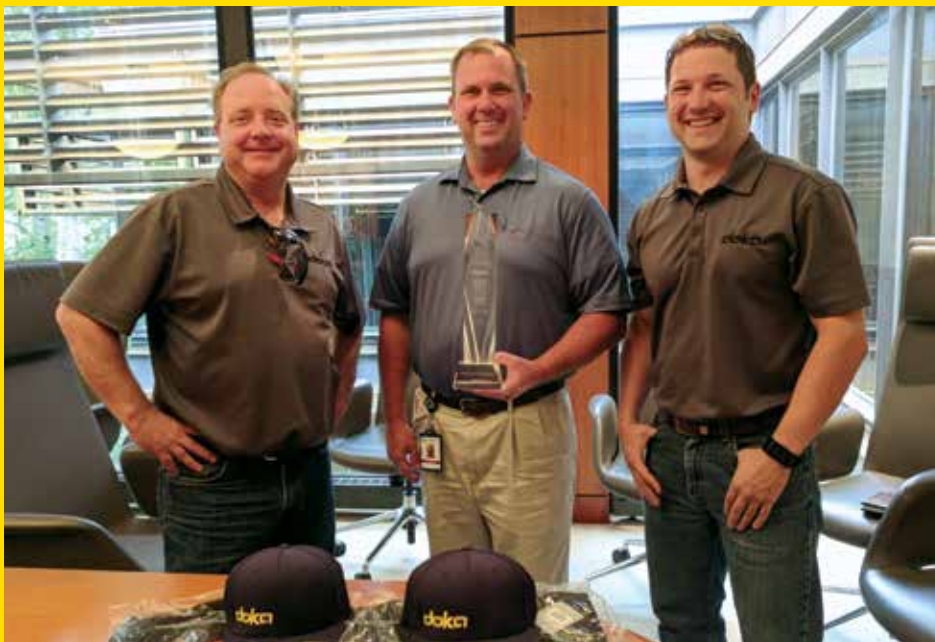
► **Urban Foundations** has previously used Frami wall formwork in a gang application on the City Point project in Brooklyn on 20 ft.-high, one-sided wall applications. Currently, they are hand setting it on the Queens Plaza Park project in Long Island City.

Doka is proud to partner with several contractors who are making a difference on their projects by using Frami panels. We honor these companies as our Doka VIPs.





◀ **Kent Companies, Inc.**, has been using Frami for over 10 years on their concrete projects. Kent owns a few thousand sq. ft. of Frami and use it on various structures, especially in their core formwork applications. The most recent success they have had with Frami includes projects in Michigan: 140 Ottawa, 601 Bond, and the Exchange.



◀ **B.L. Harbert** specializes in Federal government construction, State Department and DOD work worldwide. They have used Frami wall formwork on various projects including the University of Mississippi North Parking deck for Tieless pile caps and 18-ft. foundation walls; HDS expansion at Redstone Arsenal for test bunker buildings; GE Aviation in Huntsville for test bunkers.



◀ **Brasfield & Gorrie** have used Frami for pile caps at Kemper County power plant, mass foundations and one-sided walls at Miller Steam Plant, in addition to Tunnels and Pits at Continental Tire.

National Frami Day 2019 is June 4th!

Save the Date and celebrate the #1 handset system on the market with us throughout June.





World's Most Acoustically Sophisticated Performance Hall

Steinmetz Hall at the Dr. Phillips Performing Arts Center, located in downtown Orlando, FL, will be the venue for performance art ranging from symphonies to rock concerts.

Proper acoustics within the space are critical... so critical that each of the 1,700 seats will have individualized acoustics that do not rely on amplification systems but can be accomplished through the structural design itself. Known as the "floating building," the hall is designed with minimal positive concrete connections, allowing the structure to "float" and generating natural amplification.

The design involved several features that were challenging to construct. There are multiple 80-ft. tall free-standing walls, with bases 70 ft. off the ground. Architectural walls with pilasters and scallops, not to mention sloped radius seating on the balconies and an existing structure that stands 4 inches from the performance hall, made for complicated geometries.

Fortunately, Doka's Top 50 wall formwork can be adapted to suit a variety of shapes, sizes, tie hole

patterns and pour pressure requirements. A total of 28,000 sq. ft. of preassembled Top 50 formwork was used to construct Steinmetz Hall. This includes 1,900 sq. ft. of custom radius steel formwork used to help construct the balcony seating and façade and 135 preassembled MF240 rollback climbing platforms for tall areas of the structure. For loadbearing applications, Staxo towers and 10k shoring systems were used in conjunction with Dokaflex floor slab formwork. Worker access to all work-deck levels was facilitated by Staxo stair towers.

Formwork-related work was supervised by a full-time, onsite Doka engineer, as well as field service and project management.

The project is receiving praise in Orlando's local press for being "on track [and] on time."

The Facts



Project name: Steinmetz Hall
at Dr. Phillips Performing Arts Center
Location: Orlando, FL
Construction work performed by:
General Contractor - Whiting Turner,
Concrete Contractor - CCK Construction
Architect: HKS Architects, Inc.
Type of structure: Performing Arts Center
Scheduled completion: Spring 2020

Doka equipment used: Core:
Top50 with Shaft Platforms, Facade:
Top50 & Custom Radius Steel, Formwork
with MF240, Reshoring: Dokaflex, Shoring:
Staxo / Dokaflex / 10k, Access: Staxo Stair
Towers



The Challenge

- There are multiple 80-ft. tall free-standing walls, with bases 70 ft. off the ground that create difficulties. Architectural walls with pilasters and scallops, not to mention sloped radius seating on the balconies and an existing structure that stands 4 inches from the performance hall, made for complicated geometries.

The Solution

- Top 50 wall formwork could be adapted to meet the requirements. For loadbearing applications, Staxo towers and 10k shoring systems were used in conjunction with Dokaflex floor slab formwork. Worker access to all work-deck levels was facilitated by Staxo stair towers.

The Facts



Project name: Kosciuszko Bridge Phase II

Location: New York City, NY

Contractor: Granite Construction

Scheduled completion: End of 2018

Doka equipment used: Frami for footings and abutments, steel column forms, girder panels and Framax for pier caps, Staxo and 100k/200k shoring towers



The Challenge

- Phase II of this project faced several schedule increases and had a set completion date of the end of 2018. Additionally, it required the cycling of large material from one side of the river to the other as well as requiring formwork to span the typical pier cap distance of 50 ft. between columns.

The Solution

- The use of 300k brackets/spreader beams in the columns allowed the formwork to span over the required distance, while the girder panel assembly could be cycled from one cap to another in two segments. Using consumable anchor material in the caps made stripping the formwork much easier and safer. The adaptability and use of so many different systems allowed the customer to meet any increases in schedule, such as utilizing Staxo shoring with Framax panels to form a pier cap as a quick alternative.





Constructing Kosciuszko Bridge Phase II

When the original Kosciuszko Bridge was constructed between Brooklyn and Queens in 1939, it was built to serve only 10,000 vehicles per day.

When the bridge became part of the Interstate Highway System, its daily traffic skyrocketed to unsustainable numbers, sometimes reaching up to 18 times its original planned capacity. The old truss bridge was eventually demolished in 2017, after Phase I of its replacement – one of two cable-stayed bridges, the first of their kind in New York City – was completed ahead of schedule in April of that year.

Phase II of this project involves the construction of a second cable-stayed bridge for westbound traffic. The first bridge, which currently serves both east- and westbound traffic, will become eastbound-only upon completion of the second bridge.

Doka was brought onto both phases of the Kosciuszko Bridge project due to past successes with the general contractor and our ability to provide material for all aspects and areas of the

project. In Phase II, Doka has provided multiple solutions, including Frami, steel column forms, girder panels, Framax, Staxo and 100k/200k shoring towers.

Crews used Doka's 300k brackets/spreader beams, Staxo shoring, 100k shoring and 200k shoring to form various pier caps. Steel cover plates were then used on the top and bottom of the sides of the girder panels on the pier caps to reinforce their strength as they spanned from one column to the next.

Together, the two bridges will improve traffic safety, reduce congestion and improve travel speeds thanks to the design of wider driving lanes and shoulder widths, auxiliary lanes in both directions, and a reduced incline that allows trucks to more easily maintain a consistent speed when crossing. These improvements are projected to reduce delays by more than 65 percent during peak hours.





Doka is proud to partner with
FormTech on this project

FORMTECH
concrete forms, inc.



Keeping Waterways Safe and Clean



Rainwater can enter the sewer system during rain events and cause a mixture of sewage and rainwater to flow untreated into our waterways.

To prevent this from happening, the Portland CSO project is part of a grand plan set in motion by the Louisville and Jefferson County Metropolitan Sewer District to reduce flooding. A covered underground Portland Storage Basin will offer the Ohio River protection from sewer overflows. The combined sewer overflow system would be capable of alleviating pressure of the cities' sewer systems to ensure that residential areas don't experience flooding when rivers run high. The Portland CSO, located in the Portland neighborhood of Louisville, will collect overflow storm water from the Ohio River and gradually reintroduce the overflow water back into the sewer systems. It was necessary that the system could hold 6.7 million gallons

of sewer overflow and had a 230-ft. inside diameter.

To achieve these results, multiple lifts of one-sided wall pours were done. Due to the complexity, one lift a day was completed. Radial forms were used with the ability to roll back.

The contractor, Dugan & Meyers, chose FormTech to supply Doka equipment because they believed it was the best product for the application. Doka's tieless cantilevering system was desired, and Doka provided project insight and value engineering that made the choice not just about equipment selection, but rather about adding another partner to the job.



The Facts



Project name: Portland CSO

Location: Louisville, KY

Contractor: Dugan & Meyers

Developer: Louisville and Jefferson County Metropolitan Sewer District

Type of structure: Combined Sewer Overflow

Height: 45 ft.

Sq. ft: 4,608

Construction time: 6 Months

Doka equipment used: Top-50, D-22 platforms

Doka formwork supplier: FORMTECH



The Professional

"Guys were new to the system, but once we got the hang of it and started using it moves fast. We were able to move pretty good with it and got our cycles up to pouring every day. It's a good system."

Shane Scott, Project Superintendent
Customer: Dugan and Meyers

The Challenge

- On this project, one-sided walls, radial walls and multiple lifts were integral parts of the job.

The Solution

- FormTech in conjunction with Doka provided Dugan & Meyers with Top-50 gangs which could be preassembled to the radius needed. D-22 Platforms could strip and cycle easily, as well as withstand the pour pressure of a one-sided pour.

The Facts



Project name: Dwight D. Eisenhower Memorial

Location: Washington, DC

Architect: Frank Gehry

Contractor: Clark Construction

Scheduled completion: 2019



Doka equipment used: Framax wall formwork, Xclimb 60 crane-climbing formwork platforms, custom steel column formwork and DokaScaff stair towers



The Challenge

- One of the challenges is that eight of the 9-ft. diameter columns are hollow with an inside diameter of 6 ft. Clark specified that the columns be poured in 15-ft. lifts with the formwork designed to be tieless and with the inside formwork capable of being stripped without the need for workers to access the inside of the form.

The Solution

- Doka's solution features custom steel exterior formwork mounted on Xclimb 60 formwork platforms and custom steel interior formwork supported on a custom shaft platform. Additionally, the solution for the interior formwork features a center mast with horizontal arms that brace the formwork to resist the pour pressure.

Dwight D. Eisenhower Memorial's Changing Appearance

Located within a four-acre urban park at the base of Capitol Hill in Washington, DC, the Eisenhower Memorial honors Dwight D. Eisenhower, the 34th President of the United States. Designed by the world's most celebrated architect Frank Gehry, the memorial will target educational messaging to K-12 students through the e-memorial.

Doka was chosen by Clark Construction due to their full scope of formwork.

The most prominent feature of the memorial is a transparent stainless-steel woven tapestry that frames the entire memorial. Mounted on six 90-ft. tall round columns, the tapestry is designed to change dramatically throughout the day and night, as natural and artificial lighting bounce on the metal image.

Six of the eight 9-ft. diameter columns are hollow with an inside diameter of 6 ft. Doka's solution features custom steel exterior formwork mounted on Xclimb60 formwork platforms and custom



steel interior formwork supported on a custom shaft platform. Clark specified that the columns be poured in 15-ft. lifts with the formwork designed to be tieless and with the inside formwork capable of



being stripped without the need for workers to access the inside of the form. Doka's solution for the interior formwork features a center mast with horizontal arms that brace the formwork to resist the pour pressure. The design of the horizontal arms includes a lever mechanism to strip the interior formwork by raising the center mast with the crane.

This project not only features a wide range of Doka products, but also highlights Doka's market-leading

engineering capability to supply unique technical solutions to satisfy our customers' challenging requirements. To develop and design the unique custom solutions for this project, Doka's mid-Atlantic office was also supported by the national engineering offices in both Little Ferry and Chicago.



The Facts



Project name: Wekiva Parkway 6A

Location: Sorrento, FL

Construction work performed by: Superior Construction Southeast

Type of structure: New bridge construction

Scheduled completion: 2021



Doka equipment used: ParaTop Ganged Overhang

The Challenge

- Some portions of Wekiva River Bridge - which is located in an environmentally sensitive area - have limited working area. Using a traditional bracket system would have entailed excessive labor costs associated with setting the jack and building the decking with each use.

The Solution

- With the ParaTop Ganged Overhang system, Superior Construction Southeast can set 20-ft. sections of fully set ParaTop with three men in 15 minutes.

Efficient Completion of the Wekiva River Bridge



Like many areas of the United States, Central Florida has seen increased traffic congestion.

Current construction north of Orlando on the Wekiva Parkway will complete the beltway around the multi-town area, relieving traffic on several surrounding highways.

A new multi-span bridge over the Wekiva River near Sorrento, FL represents a major portion of

Wekiva Parkway Section 6, a 6-mile design-build project. Timely completion of the bridge structure will facilitate the overall project schedule and best serve the needs of local travelers.

Construction of the concrete superstructure includes overhangs, for which 1,200 LFT of



Doka's ParaTop Ganged Overhang bracket formwork system is being used. Some portions of the bridge - which is located in an environmentally sensitive area - have limited working area. Using a traditional bracket system would have entailed excessive labor costs associated with setting the jack and building the decking with each use. With the ParaTop Ganged Overhang system, the contractor, Florida-based Superior Construction Southeast, can set 20-ft. sections of fully set ParaTop with three men (one operating the crane and two guiding and setting) in 15 minutes. The ground-support-free cantilever arm formwork can be completely set and adjusted from the top of the bridge; there are no platforms or scaffolds beneath the superstructure, so formwork set-up,

alignment, reinforcing, pouring and stripping are all done from above. For work on the Wekiva 6 bridge, formwork sections are preassembled in units that can be trucked to the site, leaving only lower legs and bracing to be assembled on-site with simple pin connections. This reduces on-site labor costs.

Further benefits of the ParaTop Ganged Overhang system are that Doka offers a rental option and it uses standard parts that can be employed in a range of applications. With its modular system concept, ParaTop can be adapted to different cross-sections of cantilever slab.

Wekiva Parkway Section 6 is expected to open in 2021.

NEW LOCATIONS

Denver & Seattle

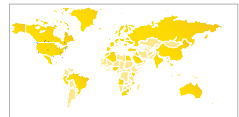
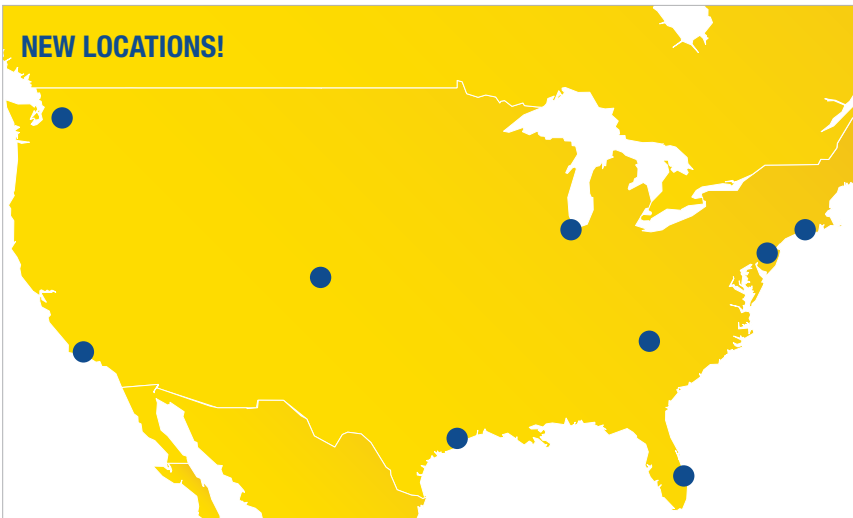
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NEW LOCATIONS!



▲ Doka offices worldwide.

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Imprint: "Doka Xpress" is a publication of Doka USA, Ltd.

Publisher: Doka USA, 214 Gates Road, Little Ferry, NJ 07643. **Editorial:** Diana Sanicki, Marketing, Doka USA, Ltd. **Layout Design:** AOE

In some cases the site photos show the situation during formwork assembly and are therefore not always complete from the point of view of safety.



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NEW LOCATION

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