Dokasperess The formwork magazine Vol. 21 Issue 1



Pathway to Growth

Aloft Hotel in Hudson Yards | 08

The Formwork Experts.

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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.



Beginning a Pathway to Growth

I'm both honored and excited to guide Doka to the next level of growth and development as the new CEO of Doka USA. I come to Doka USA after 24 years at Hilti and anticipate my background will transform into exceptional experiences at Doka both for myself and our employees. It is exciting to be part of Doka's journey to provide solutions that increase productivity and safety for our customers.

As we begin our *Pathway to Growth*, we are expanding our product and safety offerings, as well as optimizing our internal processes and facilities across the USA. This includes an expansion at our Texas branch location and our new location in Nashville. We are prepared for increased growth and service to our customers across the USA.

With growth also come career opportunities from sales and customer service to operations and engineering. We invite you to visit our website for current openings and explore a career with Doka.

Doka is always looking to provide new innovations to make formwork easier and safer for you. Take a

Welcome Michael Kennedy, CEO, Doka USA.

few moments to peruse the pages of Doka Xpress and learn about our newest products, such as our Falpro[™] mobile fall protection anchor point. With its unique anchoring design, it reduces the need for a safety monitor or a temporary cable lifeline system on leading edge deck construction. Then there's our new SuperDek slab formwork system. Its patented Drop Head allows you to drop the deck with a single hammer hit.

These and our many other Doka solutions can be found in use every day at signature projects across the nation. Whether it's a huge, 335,813-square-foot logistics facility in Brooklyn or a rising 51-story skyscraper Aloft Hotel in Hudson Yards, Doka is there, providing multiple formwork solutions. We offer creative solutions that can create cost-savings for contractors, such as at Water Street apartments in Tampa or the University of Texas at Austin student housing.

No matter the project, Doka has the answers to your formwork needs. Please join me and the rest of Doka on our *Pathway to Growth* and see the innovative answers we have for your next project.

Michael Kennedy, CEO, Doka USA

Meet the Doka USA Executive Team

from left: Michael Schaeffer, COO; Robert Kent, Executive Advisor; Michael Kennedy, CEO; Ralf Hermkens, CFO •

News flash



DokaCAD for Revit

We are pleased to announce that our latest version of DokaCAD for Revit, with extended features is now available as part of a free

update and forges a central part of our Doka Formwork Design Software (DFDS). New features include support for Revit 2020 & 2021, as well as Load Bearing Tower (Staxo 100 and 10k shoring). Visit **doka.com/dfds** to download the software today.





Unique use of Xclimb 60 meets design demands of Downtown Brooklyn Tower

A new 24-story mixed-use tower is rising in Downtown Brooklyn at 141 Willoughby Street. The building will be a dedicated commercial tower with office suites positioned above the second floor.

The core is now rising above street level as production proceeds on the tower. Setbacks are planned on the ninth and 19th floors, which will be topped with landscaped terraces and provide views looking up and down Flatbush Avenue Extension and toward the nearby Manhattan Bridge to the north.

Glenco Contracting chose Doka because they are indisputably the most capable formwork supplier in the area with the highest level of engineering and field experience. This was important because the project involved unique formwork applications. To meet the demands of this design, the climbing stair tower is attached to the Xclimb 60 climbing system. This allows the formwork to be suspended from the system so the walls of the core can continue to be formed. >>

- 1 This core ahead project needed to be designed to use Xclimb 60 with the interior slabs installed with the walls in NYC fashion.
- 2 The Guided climbing formwork Xclimb 60 is a system in which the entire unit is connected to the structure at all times, even while being repositioned.





Doka provided a system capable of meeting our needs and was able to offer solutions for all of the challenges this project presented. Doka is great to work with. Lauren Menchini, Senior Project Manager, Glenco Contracting



The Frami Xlife panels are lightweight and easy to handle, so they can be erected very quickly by hand, without the use of a crane. On sites with a crane, it is also possible to lift several panels at a time, in a gang-form. The ingenious modular design makes for optimum adaptability to all job site conditions.

The Facts

Project Name: 141 Willoughby Street

Description: 24-story mixed-use building

Location: Downtown Brooklyn

General Contractor: Gilbane

Concrete Contractor: Glenco Contracting

Structural steel company: JC Steel

Design Architect: Fogarty Finger

Executive Architect: SLCE Architects

Developer: Savanna Real Estate

Type of structure: Mixed use (office and retail) / Concrete core ahead and structural steel frame

Height: Main roof - 409 ft-2 in.

Stories: 24

Cycle time: 3-5 days

Square Feet: 400,000 sq. ft. structure

Products used: Core: Frami/ Xclimb 60 climbing formwork with loading platforms & Staxo 100 Stair tower | Reshoring: Doka's Eurex floor props / Shoring: Doka's 10K and Dokaflex S | Other: Stair Tower 250



>> Then they do not need to be handset or rebuilt on each floor.

Another formwork application allowed that Doka's Frami S handset formwork could be handset or repositioned as a gang, enabling the initial setup without the tower crane. Once installed, the formwork was moved as gangs or large units substantially reducing the time and labor needed to form the wall.

To reduce the labor needed to pass up the shoring equipment, Doka included two loading platforms at different elevations allowing for stripping and cycling of material, as well as cleaning out the slabs with miscellaneous material. 141 Willoughby Street will be completed in 2022.

Meet Rich and Mike, formwork instructors at Doka USA offering onsite field service from the start at the 141 Willoughby Street project.





The Challenge

This core ahead project needed to be designed to use Xclimb 60 with the interior slabs installed with the walls in NYC fashion. It is a small site which has the crane braced to the core. Doka needed to design a Xclimb 60 climbing system which would allow connection walls and crane ties to be installed from the climbing platform.

The Solution

Doka's ability to incorporate the climbing stair tower in the Xclimb 60 climbing formwork system meant secondary systems were not required, reducing onsite labor as well as additional equipment. Access to the upper floors was easy and safe using a climbing stair tower in the interior of the core. Loading platforms were designed to attach to the exterior climbing platforms for safe and efficient cycling of shoring material. Innovative design allowed for the tower crane to be safely braced to the core during construction, reducing downtime while the different project elements cycled as needed. Doka offered the most advanced hydraulic climbing unit available capable of safely climbing up to 12 brackets or 6 platforms at one time allowing for faster repositioning and less rework. Doka provided fulltime field service as well as hands-on account management to ensure the highest possible efficiency during the installation and use of the climbing systems and formwork.





The Facts

Project Name: Aloft Hotel in Hudson Yards

Location: 450 11th Avenue, across from the Jacob K. Javits Center

General Contractor: Atria Builders, LLC

Concrete Contractor: Moncon Inc.

Architect: DSM Design Group

Developer: 37-11 Owner, LLC

Type of structure: Hotel

Height: 487 ft.

Stories: 51

Cycle time: alternating 2- and 3-day cycles

Sq. ft: 212,866 ft2

Construction time: project completion slated for 2022

Products used:

Core: Exterior Xclimb 60 with Frami S formwork Facade: Protection screen with 2 loading platforms Reshoring: Eurex 30 floor props, Staxo 100 & Superprop Shoring: Superdek, Eurex 30 floor props, Staxo 100, & Superprop Other: Eurex 30 SD



The Challenge

The slab edge design provided a challenge with alternating projections in both directions, like a saw tooth, which created a tricky gap closure between the slab and the protection screen. A project specific gap closure was needed to maintain a constant distance from the face of screen, eliminating the need for repositioning or increased imposed loads on the structure.

The Solution

Doka fabricated and supplied special aluminum shoe components to manage the additional distance of the screen from the slab edge. The use of aluminum minimized the weight of the shoes reducing the labor required for cycling. Doka's superior field service and superb preassembly accommodated the tight installation window.

Moncon's one-stop formwork shop

The 487 ft. tall Aloft Hotel in Hudson Yards is a rising 51-story skyscraper located at the corner of West 37th Street, directly across from the Jacob K. Javits Center.

The structure's distinctive design contains staggered angles of the floor plate edges that will eventually take the form of a stack of reflective glass boxes stacked on top of one another. The design will stand out among the surrounding skyscrapers due to the dynamic windows.

To work on this challenging design, concrete contractor, Moncon, Inc., brought Doka on board to provide a one-stop-shop for formwork needs and construction support. Moncon is a highly regarded New York City based drilling, excavation, foundation and superstructure company with previous experience working with Doka. They felt Doka's systems and field service were unmatched, which was an important consideration for this landmark project. An unusual saw tooth slab edge design created safety challenges that required Doka's innovative thinking to ensure that protection screens were effective. Doka's field and engineering teams suggested various solutions for the complex project and offered field support for any concerns.

Construction at the Aloft Hotel at 450 Eleventh Avenue began in 2019 and is scheduled for completion in 2022. ${\scriptstyle \bullet}$



- 1 The full-area enclosure around the perimeter of the building enables all work to be carried out in complete safety, protected from all weather conditions.
- 2 A loading platform can be integrated into the protection screen for straightforward, safe repositioning of slab formwork, tools and other materials.
- **3** Framax Xlife is the wall form system that uses only a very few different panel formats to achieve a consistent 6" (15 cm) increment-grid, no matter whether the panels are stood upright or on their sides.
- 4 SuperDek is a simple handset drop head slab formwork system. It provides a large grid / prop spacing up to 8' x 8' (64sf), interlocking joists and stringers and a unique slab edge forming solution.

Screen protection was requested by the ownership. This was a challenging design as every slab edge in the 50 floors was atypical. Doka engineered a protection system to allow us to use engineered shoe anchors with typical layouts which made the system more efficient and field friendly. Doka's engineering team were on top of all our engineering needs and redesigns were quickly resubmitted as needed.

Rory Brayden, Operations Manager, Moncon, Inc.

2 proven products for the digital age of construction

If there was a general takeaway from the last bauma, it was that the industry is finally embracing the digital revolution and understanding the extensive cost benefits of leveraging technology to improve accuracy and efficiency. At Doka, its R&D teams have spent the previous few years listening to the valuable feedback provided by site teams and clients in order to understand the prevailing industry challenges and how they could be overcome through new devices, products or systems. Doka has transformed innovative ideas into digital solutions helping optimize construction workflow. Discover two of Doka's digital services that have been well-received on projects all around the world and learn why they offer such great value.

Concremote

Valuable data. Concremote uses sensors to measure the temperature and calculates compressive strength of the concrete structure. Due to this method, users can plan construction projects and have access to real-time data at any time, no matter where they are. As a result, they gauge concrete performance and initiate the necessary measures at exactly the right time.

One of Concremote's lesser known benefits is its ability to provide valuable data during the planning stages. Thanks to its calibration system, site teams are able to simulate the strength gain and temperature development for each concrete mix and ready-mix plant in advance, meaning there are more options for selecting a concrete mix based on fast strength development vs. high-cost mixtures, or slow strength development vs low-cost mixtures.

The effects of temperature early in the life of concrete can strongly influence long-term stability. In general, concrete temperature peaks at 48 hours and remains constant for seven days. The larger the concrete structure, the more heat it will likely generate. Differential temperature, air temperature and concrete mix temperature are all important factors. Monitoring the temperature of concrete during the curing process is a critical factor in making sure the product sets to its full strength and knowing when it is safe to build on.



Concremote is the only real-time wireless concrete monitoring and forecasting device for monitoring concrete temperatures for thermal stresses as well as real-time compressive strengths.

Mark Robertson, Business Development Manager, Digital Service Overseas, Doka



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doka

and discover how you can reach similar conrete color tones by the use of Concremote?



Innovation Award

Did you know? DokaXact received the Innovation Award of Excellence by the CTBUH 2021 Awards.

DokaXact

Formwork positioning

at a new level. DokaXact is the first interactive sensor-based system used for the accurate positioning of wall formwork elements for vertical structures, such as high-rise concrete cores. In assisting site crews and surveying engineers to find a quick and accurate method of aligning wall formwork for automatic climbing systems, its sensors are wirelessly connected with a central processing unit, which provides real-time data within a margin of just two millimetres, ensuring maximum precision from start to finish.



Think of DokaXact as an interactive plumb bob. DokaXact works in conjunction with a surveyor to make their job simpler & easier. It is another tool in their tool belt. Some of the most positive feedback we have received is how DokaXact works as a quality assurance tool. Through the 'Measure All' function customers as able to check the inclination of their forms at any time, pre, during, or post pour with the click of the button. Our team has an interactive hand sample and we would love to come present this new and exciting product to you and your team!

Tyler Gannon, Major Account & Project Specialists Team, Doka USA



New multi-story logistics facility relies on Staxo and Super Props

The very first multi-story logistics facility on the east coast is being constructed in Brooklyn. The huge, three-story, 335,813-square-foot facility is for commercial use and also contains a parking mezzanine.



Approx. 52,500 sq. ft. of Doka shoring installed

Featuring top-class architecture and ramp access to loading docks on both the first and second floors, the facility is to be leased by Amazon as a delivery station. The new three-story distribution center is within an hour drive of 13.5 million consumers.

Minutes from Downtown Manhattan, Brooklyn and Queens, its location will allow for the fastest last-mile fulfillment possible. The project has been in the works since 2018 and includes five freight elevators, 162 parking spots and 28 docks – which includes 14 loading docks on both the first and second floors.

Phase one of the project involved the contractor, Trident Construction, raising and forming the seven cores using Doka's Xclimb 60 automatic >>

The Facts

Location: 640 Columbia Street, Brooklyn, N.Y.

 $\label{eq:constructive} \textbf{Type of structure:} \ \textbf{Multi-story logistics facility}$

General Contractor: Trident Construction

Developer: DH Property Holdings

Stories: 3 stories and a mezzanine

Square feet: 52,500 sq ft of Doka shoring installed

Products used: Dokaflex tables, Xclimb 60, Staxo 100 shoring towers, Super Prop



One of the systems we used is the Doka Staxo shoring towers. It is fairly easy to use. I like how easy it is for my guys to pick up on the system. It's a fairly basic scaffolding system. You use cross braces and planks and you erect your deck. I get a lot of production out of the guys.

Joe Bennett (right), Project Manager, Trident Construction; Kyle Essig (left), Account Manager, Doka USA







The Challenge

Trident was looking to expand the distance between shoring towers. Doing so would allow for MEP, post-tensioning and rebar to be installed while keeping the system intact. The area below can remain accessible so material could be moved through for cycling.

The Solution

The hybrid combo of Staxo and Super Prop was used on the 16-to-19-foot first floor and the 10-to-14-foot second floor. Load-bearing tower Staxo 100 is a high-capacity, fast shoring system designed for large shoring-heights and high loads. Super Prop is a strong, yet lightweight aluminum prop which maximizes leg spacing for standard shoring and greatly minimizes overall re-shore requirements. By using Super Prop, Trident could expand the shoring towers. Super Prop functions as an infill support and keeps the system intact while MEP, post-tensioning and rebar are being installed.



>> hydraulic climbing formwork. The guided climbing formwork is a system in which the entire unit is connected to the structure at all times, even while being repositioned.

When the shaft platform and framing was completed, a shoring system was deployed for the parking mezzanine and elevated truck area.

The hybrid combo of Staxo and Super Prop was used on the 16-to-19-foot first floor and the 10-to-14-foot second floor. •

- The hydraulic climbing formwork Xclimb 60 system is self-climbed up to the next casting section using portable hydraulic components. Finishing-work platforms can be attached anywhere on the scaffold.
- 2 With its rugged steel frames, Staxo 100 is designed for large shoring-heights and high loads.
- **3** Xclimb 60 in use as a guided climbing solution to support interior core formwork with shaft platforms.







Doka systems meet fast cycle schedule despite tricky corbel placements Boasting the best views in Houston, The Allen Hotel and Condominium Tower is part of a six-acre, mixed-use development that also includes cutting-edge office buildings, a retail pavilion and lush greenspace. The high-rise houses 99 luxury residential units stacked on top of a Thompson Hotel. The 36-story tower's architectural design includes decorative corbels built deep in the walls and jutting out at various elevations on all sides of the tower. The customer wanted a solution that would allow the crew to monolithically pour the corbel walls while also completing the entire concrete core at each level, so as to never leave work behind. All of this needed to be done in a five-day cycle per floor.

After reviewing several systems, including multiple options provided by Doka, the customer chose Doka's Super Climber core formwork system with Top 50 gang wall panels as well as Frami Xlife and D22. When combined, this solution consistently and satisfactorily addressed every engineering challenge the customer presented.

The customer is happy with the performance of Doka's combined systems, which allow the crew to move from corbel walls to wing walls to the core's shear walls with ease. Work is being completed within the customer's desired turnaround so the team can meet project goals – all while staying in budget.



The Facts

Project Name: Allen Hotel and Condominium Tower Location: Houston, Texas Type of structure: High-rise, mixed-use General Contractor: G.T. Leach Concrete Contractor: TAS Commercial Concrete Architect: HOK Developer: DC Partners Height: 508 ft. Stories: 36 Cycle time: 5 days Square feet: 9,800 sq. ft. of core walls Construction time: 14 months, from core construction to frame out Products used: Core: Super Climber SCP with Top 50 Wall Formwork, Stair Tower (Shear Wall: Framax S Vife







The Challenge

The building design includes corbel locations that vary as the building rises. From level five on up, the construction crew must transition from corbel wall to wing wall and back again while also completing the concrete core. Performing the work within a tight, five-day cycle at each level required extensive upfront planning for the core system. It necessitated the ability to maximize reuse of the formwork while accommodating changes in corbel locations as the crew works upward. Additionally, to provide workers with safe access to work levels, the customer needed a multi-level stair tower placed in a very narrow area.

The Solution

Doka designed the Top 50 gang wall panels so crew members can easily shift and reassemble them to work around the changing corbel placements on all four corners of the core. The panels were used with the Super Climber self-climbing core formwork system. With a push of a button, all platforms for an entire floor – including interior and exterior formwork – can be raised in one single cylinder stroke, allowing for fast cycling times. To achieve single-sided walls without reaction footings, Doka also provided Frami Xlife six-foot panels for the starter wall and added D22 one-sided dam formwork stands for subsequent pours. Finally, a stair tower designed for tight areas was used to provide workers with safe access. The stair tower secures to the structure and easily integrates with Doka's self-climbing systems.





Sam Vick, Doka Southwest Account Manager at your service

Not only did Doka's design team work relentlessly to provide solutions for every obstacle we sent their way, but they also managed to do it within our budget needs. The design is one of the best I have ever been around, from make up, to install, to climb.

Pete Black, Structural Area General Superintendent, TAS Commercial



- 1 The Super Climber self-climbing core system increases jobsite production and reduces labor costs. The entire core formwork is hydraulically raised independent of the crane.
- 2 Large-area formwork Top 50 is a modular gang form system constructed from standard parts that can be assembled in any configuration for a wide range of applications.
- **3** With a push of a button, all platforms for an entire floor including interior and exterior formwork can be raised in one single cylinder stroke, allowing for fast cycling times.

Formwork to infinity and beyond! shop.doka.com

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Most virund

Framax XII'e plus panel 2,70x3 30m

of Personne Inc.

ONLINE SHOP

An online universe full of formwork

Fast, easy and 24/7 access to the formwork you need! In the ever changing digital and construction sector landscape, Doka's online store provides customers with access to a wide range of products. View the store at any time through any commonly used device (e.g. PC, tablet, smartphone). Additionally, customers receive an up-to-date overview of products, their availability and prices. All of these things, as well as recommendations for necessary accessories and add-ons. As a result, product searches are much more efficient. Material upload lists, simplify regular online shopping or placing large orders. Customer specific pricing, discounts and master agreements are applied in the online shop as well.



Step 1: Register Visit shop.doka.com and click "Login". Select "New Customer"

and fill out applicable company information.



Step 2: Receive confirmation

Security is important to us here at Doka. That's why after you register, you will receive a confirmation email to then activate your account.



Step 3: Shop

View most all of Doka's products by category at the top, or utilize the search bar and search by product number



Step 4: Upload a material list

If you have a major material list, we make purchasing easy. Just upload the entire product selection with our "Upload Material List" button.



Step 5: Checkout

Select, project, delivery or pickup dates, transport boxes, and enter any discount codes at checkout.



Step 6: Material Delivery

Formwork is sent to the selected project. There is now a purchase history record for your company.



Step 7: Celebrate

Every project is special and deserves to be celebrated.

FalproTM The mobile fall protection anchor point

Falpro[™] with its unique engineered anchoring design reduces the need for a safety monitor or a temporary cable lifeline system on leading edge deck construction. It is the ideal combination of safety and freedom of movement for the user.

Technical Specifications Diameter: 7'-5" (2.25 m) Height: 7'-9" (2.35 m)

Weight: 1045 lbs (475 kg) Standard: Compliant with ANSI Z359.18/2017 & DIN EN 795:2012 type E



controlled movement

towards scured positi

How it works

A fall arrester with cable for the safety harness is mounted on the mobile fall protection mast with base mast and extension arm.

As soon as the permissible payload is exceeded, the safety unit trips: the extension arm retracts and draws the anchor point for the safety harness closer.

100% max. secured load in accordance with ANSI standards

Approx. 50% vertical traction force



in the secured position forces are divided

the centre

of gravity

reposition

continues to

Approx. 50% due to torque

At the same time a lock engages so that the mast can no longer swivel; the user's fall is safely arrested.



- 1 Working in safety near the slab edge without trip hazards because the anchor point is always above head height.
- 2 Immediately ready, no anchoring to the structure, no planning, no addition of counterweights, no installation work or costs for anchoring, no effects on the structure.
- **3** Unrestricted freedom of movement with 360° fall protection and a working radius of 30 ft.
- 4 Horizontal repositioning is an easy job for one person and a pallet jack.

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PROJECT

Top-down design relies on Staxo to take the load

In Maspeth, Queens, N.Y., a 1.1 million-square-foot premier logistics and last-mile distribution center is being developed. The building will be a two-story modern, Class A distribution facility with fleet storage capabilities. With planned use by Amazon, the operations will entail trucks bringing packages to the station from fulfillment centers and then the packages will be loaded on vans for delivery to the residents in the surrounding area.

In constructing the new distribution station, the subcontractor began by breaking the slab into 18 sub pieces. Concrete was poured every day. For one floor of each sub piece, it was around a four-day cycle. Separate teams worked in a waterfall effect – one day a team would be erecting formwork, while another was setting rebar in the previous area where formwork had been set the day before.

The Challenge

On this job it was difficult to meet the overall amount of Staxo needed. Doka found it was necessary to substitute different sizes of frames and braces when it was hard to keep up with the original size needed in the design. This challenge was due to the cantilevered portion of slab at the pour break which could not be stripped until after the building was completed. This meant that all floors of shoring in this area stayed in place until the roof was poured. The design was "top-down," signifying the shoring on the floor below had to take the load coming down from the top. The spacing of frames was also much tighter in this area.

The Solution

Staxo was ideal for this project because of the thick slabs and high floor heights in this design. The spacing of the frames is greater than using 10K due to the engineered design of the material. A safety ladder and OSHA compliant tie-off points were built into the frames for added benefit. An increased efficiency of the laborers is also realized. Frami was used on the columns and shear walls as they had to be handset and stripped under the poured slabs. The universal panels made the columns tieless, which were quick to setup and strip. The Stair Towers used the same frames as the Staxo material. Three Stair Towers were provided for the egress from each floor, and they were quickly assembled with no loose, small pieces.



Staxo shoring material was cycled from floor to floor. The heights varied on each floor, so the stack up of frames was maximized for least amount of swapping per floor. The Staxo screw jacks also provided the fluctuation needed for any small height changes in certain areas.

A unique twist is that the project's structural designer used Cobiax plastic voids to take up space in the concrete slab. This reduced the overall amount of load produced by the slab, saving some of the time and money required for rebar and shoring materials.

Doka was chosen by Cross Country based on the the ability to supply such a large quantity of material and effort to design an economical solutions that would allow them to achieve overall budgetary constraints. Additionally, Doka's Staxo tower frames are much more efficient than the 10K tower frames offered by the competition. One of the most important features is that Doka's service is unmatched from customer management to engineering.

The Facts

Location: 55-15 Grand Ave, Queens, NY

General Contractor: Suffolk

Subcontractor: Cross Country Construction, LLC

Architect: BL Architects

Developer: LBA Logistics and RXR Realty

Type of structure: Warehouse

Height: 70 ft. tall

Stories: 6, including roof

Cycle time: For one floor of each sub piece, it was around a four-day cycle.

Sq. Ft: 1,000,000 sq. ft.

Construction time: After the foundation: March – September 2021 (expected)

Products used: Core: Frami Facade: MF240 and Frami / Shoring: Staxo Other: Stair Towers for egress



Doka's excellent service played a huge role in the overall success of this job.

Darren McCallion (on the left), Superintendent, Cross Country





SuperDek. Grid Size Matters.

- The SuperDek grid system can increase productivity, increase speed and save time.
- All the joists, stringers, and heads are all on one level and interlock with each other. This means when setting the system you are already also bracing. Less bracing equals less pieces, less work and higher productivity.
- Up to 64 sq ft per prop means significantly less props to set, level, strip and cycle on the active decks and also significantly less props on each and every re-shored floor below.

The grid system can increase productivity and speed and save time. 8 x 8' 64 sq. ft.

SuperDek Drop Head

Patented Wedge Design

- Attaching the head to the prop is made simple with an easy wedge clamp.
- Drop the deck with a single hammer hit to the red wedge.

PROJECT

Partnering provides savings and efficiency

At the University of Texas at Austin, contractor BCS Concrete Structures was part of the team to build the 31-story West Campus student housing project.

The luxury, loft-style student apartments are located just minutes from the University of Texas at Austin. BCS Concrete Structures partnered with Doka so they would not have to purchase their own formwork – they wanted to limit their permanent equipment purchases. Having worked with Doka for many years, they knew to turn to Doka for a partner.





The Challenge

In order to limit the equipment purchases for this project, BCS Concrete Structures preferred to team up with a company that had equipment in which they had confidence in and knew would provide them support. Other considerations included limiting the amount of extra equipment needed onsite, as well as providing speedy stripping and quick cycle times.

The Solution

Doka provided the perfect partnership for BCS Concrete Structures. Doka not only provided the equipment for the formwork, but the systems also allowed work to be accomplished quicker and using less formwork.

To begin with, Doka's 10K System was used on the parking garage. The high leg load capacity and the use of H20 beams made the work easier for the crew.

For the residential area, BCS Concrete Structures used the SuperDek system on the 8-inch flat deck. The simple handset drop head slab system has up to an 8'x8' grid spacing, which made it easier to work around. The system is safe and allowed workers to set and strip the system from the ground without using scissor lifts or ladders, for up to 11 feet. It also allowed the same amount of square footage to be framed using less equipment. The crew found the drop head in SuperDek system saved time, was safe, intuitive and easy to disengage upon stripping. Top 50 was employed for the shear walls. The system is versatile, cost-efficient using plywood H20 beams and whalers. The result was walls that required very little remedial patch work as they had a great finish, with minimal bug holes and were very smooth to the touch.

For the elevator shaft the Super Climber SCP with four climbers was used. With the Super Climber SCP self-climbing core system, the entire core formwork is hydraulically raised independent of the crane, just by the push of a button. This project had two cores per level. Without the use of the SCP, an extra day would have been needed to the cycle each time.

8





- A single stroke cylinder on the Super-Climber raises all interior and exterior core formwork, all working level platforms and the markets largest concrete placing boom at the push of a button.
- 2 Superdek has an 8'x8' grid spacing, which means one prop catches 64 sq. ft. of the deck.
- 3 Superdek edge beam cantilevers from an interior stringer, allows the perimeter slab edge to be safely set from the ground below and maintains the drop head function of the Superdek system.





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Doka's material is great, their shop drawings have been incredible, and their engineering department has been very, very responsive. The shipping department has been great. The line of communication has been fantastic as well. Doka has been a great trade partner for us for a long time and we hope to work with them on more upcoming projects.

Joseph Sanderson, Project Manager at BCS Concrete Structures







See more on Youtube https://bit.ly/DokaBCSConcrete



Creative cost-savings along with safety solutions used at Water Street Tampa

1050 Water Street embraces Tampa's natural environment while offering studios to two-bedroom apartments for a total of 511 residences with 22 stories of residential living and 30,000 square feet of retail space on the first floor. Doka worked with contractor, CCK Construction Services, providing solutions that would eliminate the use of a crane, which would reduce overall costs. Safety was a prime concern when building in a congested area such as Water Street and Doka provided the high level of safety solutions needed. •





The Facts

Project Name: 1050 Water Street

Location: Tampa, Florida

Type of structure: Residential, retail, hotel, office, and parking garage

General Contractor: CCK Construction Services

Owner: Strategic Property Partners

Architect: Morris Adjmi Architects

Height: 22 stories of residential, 7 levels of parking garage

Square Feet: 30,000 square feet of retail space

Products Used: SuperClimber SCP, Table Lifting System TLS, Dokamatic Tables, Frami / Framax wall formwork, SuperDek slab formwork, Smart Edge, Safety Net Fans





- Doka Safety Net Fans are the ultimate debris net system for any building structure.
- 2 Doka Smart Edge is an engineered edge protection system for increased safety, reduced labor and simplified site logistics at perimeter edges, internal openings, elevator shafts and stairs.
- 3 Doka USA partners with CCK Construction Services Inc. on the 22-story, 1050 Water Street project in Tampa



- 4 Universal panels from the framed formwork systems are ideal for forming varied cross-sections of column in 2" increments – without needing a dedicated column formwork system on the site.
- 5 CCK Construction Services was able to reduce an entire crane for 12 months by using Dokamatic table slab formwork in combination with Doka's Table Lifting System (TLS). The TLS is an electric lifting system that cycles tabled slab formwork from floor to floor completely independent of the crane.

Site logistics were extra challenging on this project. A tight schedule, minimal laydown, congested airspace to fly materials, and the proximity to three active projects directly adjacent to our East, South East and South lot line required some additional planning. Doka was a true partner from pre-construction planning, all the way through execution.

Andy Kulikowski Jr, CCK Project Manager









The Challenge

Near 1050 Water Street, three other buildings were being constructed at the same time so there was limited space for laydown and no space for an extra crane. In an area with that much congestion, using the least amount of cranes is important. Additionally, much of the time and costs in construction are due to use of cranes, and reducing costs was a plus. The project required that increased safety standards were met, including for edge protection. The project was located over a busy street and it was necessary to have a system to protect those below from debris from falling off the building. The parking garage brought additional difficulties in achieving the slope/pitch needed within an 8 x 8-foot grid.

The Solution

CCK Construction Services was able to reduce an entire crane for 12 months by using Dokamatic table slab formwork in combination with Doka's Table Lifting System (TLS). The TLS freed up the tower crane so it could instead concentrate on making picks, as well as flying rebar and steel. Then, using automatic climbing formwork, Super Climber SCP eliminated over 200+ crane picks. Frami and Framax wall formwork was used for the columns. The universal Frami panels allowed any column to be formed, up to 32 x 32 inches square. On the ramp of the parking garage, Superdek was used to handset the ramp thanks to the speed in hand setting it from the ground. To meet safety standards, Smart Edge, a pre-engineered metal fence was used with a quick trigger device. This allowed the crew to rapidly set it up without having to build a safety fence with lumber. Productivity increased with the ability to install 1,000 lineal feet of 4-foot x 8-foot fence in two to three hours. This was the first time the contractor had used Smart Edge and they liked the set up and locking mechanism. To protect those below from debris falling off buildings, Safety Net Fans were employed. The project is located over one of the busier streets in the area and it was required to have safety nets every four floors. The Safety Net Fans were easily jumped as required.

CAREERS AT DOKA



It has been a great experience for me to work with a professional team at Doka. I am passionate about my job because it is an excellent opportunity for me to learn and grow.

Liam Afrooz, Project Technician, Doka USA



Over the years, your team of co-workers eventually become your family. A family that you can trust, work together, and rely on one another to succeed in all aspects.

Jose Mantilla, Engineering Group Leader, Doka USA

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What I like best about my job is just the environment that we have here in the office. This is like my second family. Everybody is very on hands, we are a team, we all look out for each other.

Esbiedy Castaneda, Customer Service Representative, Doka USA



Having worked in almost all aspects of the company during my 10+ year career here, I am confident that the culture and ambition of our team is unrivaled. Doka provides the freedom and support to be as successful as you want to be.

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