



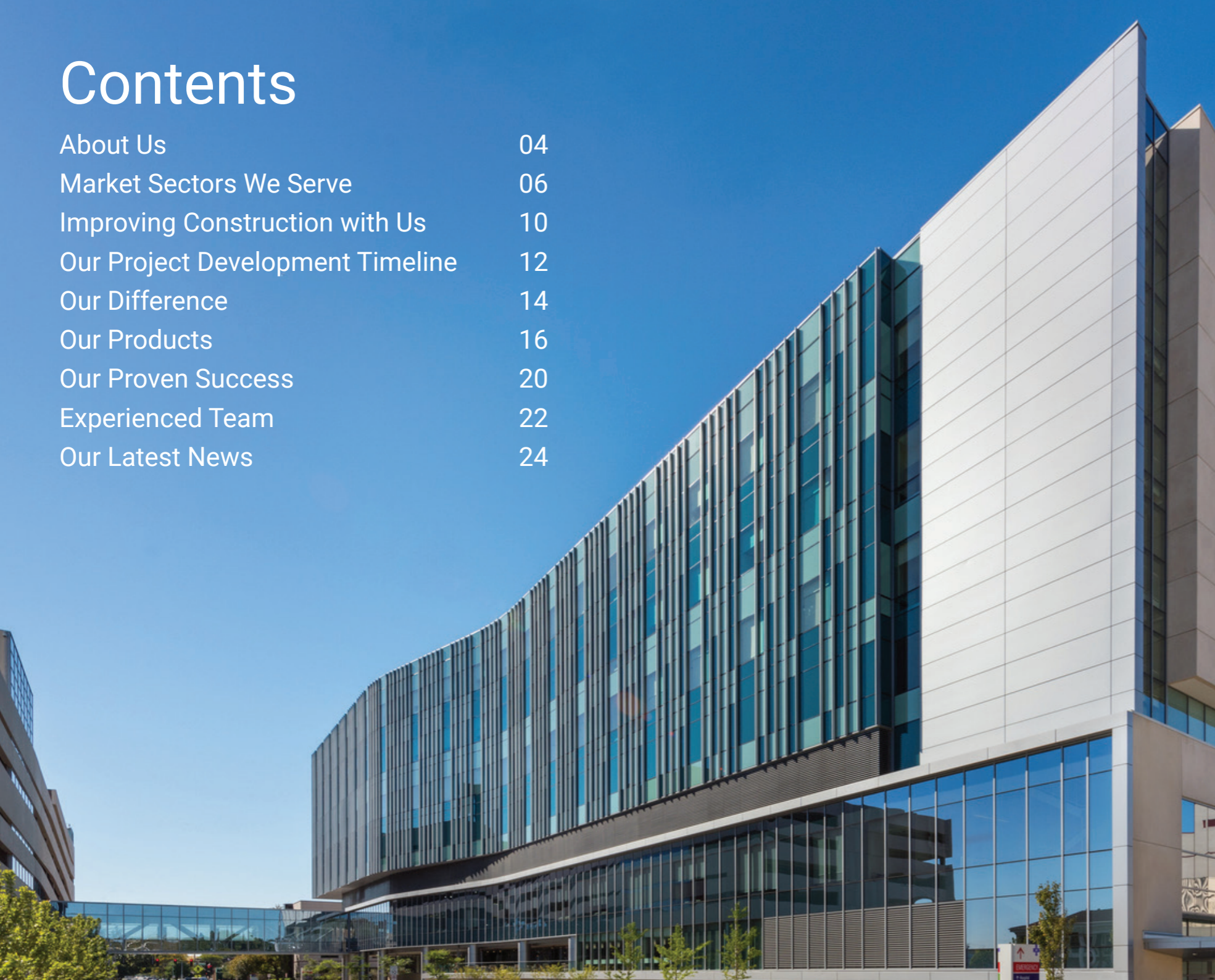
Not Modular Products but Modular Projects

ModularDesign+

ModularDesignPlus.com

Contents

About Us	04
Market Sectors We Serve	06
Improving Construction with Us	10
Our Project Development Timeline	12
Our Difference	14
Our Products	16
Our Proven Success	20
Experienced Team	22
Our Latest News	24



**We redefine modular
prefabrication for each
customer's unique vision**

About Us

Debates about modular construction over on-site traditional construction have been ongoing for centuries. But modular performance has changed and is more credible now than it ever was. Clients are often forced by other companies into designing around their modular proprietary products, but ModularDesign+ uses industry approved elements to incorporate different aspects of modular construction into any project. We're one of the only national modular companies that offers Design, Fabrication, Engineering & Installation in house to provide real DFMA techniques from the start.

Focused on advancing new project delivery models that reduce waste, add value and optimize project results, ModularDesign+ will enhance the efficiency of your building components through modularization. This standardization helps ensure consistency in quality, a reduction in consulting and design fees, and accelerated project delivery—all extremely important for any type of project that lends itself to repetitious unit types.

We are a strategic partner with CannonDesign, one of the world's leading architecture and engineering firms. Together, we leverage leading-edge design, structural and product engineering, quality fabrication, and a network of national trade partners to push forward breakthrough ideas that advance the design and construction process.



Construction Value

“Savings in construction costs come from several different areas. Firstly, the integrated processes involved in modular construction remove the need for subcontractors and the margins that they include in their quotes.”

“Next, the primary trade-offs are between the savings in on site labor against potentially higher costs for materials and the increase in logistics costs.”

“Additionally, in many markets, the construction industry is facing a demographic cliff with an aging workforce. The sector's share of employees aged 45 years or older increased to 50% from 32% between 1985 and 2010.”

“Modular construction:
From projects to products”
(June 2019)

- McKinsey & Company





Market Sectors We Serve

01.
Healthcare/Assisted Living

Healthcare is currently the leading market sector utilizing modular construction. As healthcare organizations move toward more standardized environments and systematic approaches to care delivery, we are proving to be a great fit.

02.
Mid-Rise Multifamily/Mixed Use

The U.S. is facing a skilled labor shortage, high housing costs, a high demand for all types of construction projects and a massive need for affordable housing nationally. We help others embrace modular and off-site construction processes and become more efficient overall by providing volumetric solutions for 2 to 12 stories.

03.
Hospitality

The time it takes to build a traditional stick framed four-story hotel used to be 12 months. Now they take 20 months, and hospitality owners and investors realize our solutions can help them build faster and generate revenue quicker. National hotel flagships like Marriott are corporately embracing modular companies to help expand their chains with speed to market.

04.
Student Housing

The need for efficient building solutions in the student housing market is more necessary than ever as enrollment rates continue to increase and campuses become more cost and environmentally conscious. We have extensive experience in this market, helping institutions create innovative, affordable and sustainable living options for students.



05.
Assisted/Senior Living

This market is one of the fastest growing areas of commercial construction. We provide a high-quality, long-lasting, type 2 non-combustible steel modular solution. Whether using our Prefab Load Bearing LG Panelized Walls or our Structural Modular Units, we can build faster and in budget to help you open sooner.

06.
Education

We provide various forms of solutions for the education market, such as more energy efficient structures, which bring a higher degree of sustainability to the entire life cycle of a building. Our solutions also help educational institutions build faster in a safer and more predictable way.

07.
Mixed Use/Office High-rise

There is no such thing as a standard bathroom pod or a standard wall size when it comes to this market; what you specify is what you get. Our bathroom pods or light gauge knockdown kits will cost about the same for the materials as site-built bathrooms or walls. Even if the speed didn't matter, this alone is a significant value because bathroom pods are built to a much higher level of quality than can be achieved in site-built construction.

08.
Affordable/Workforce Housing

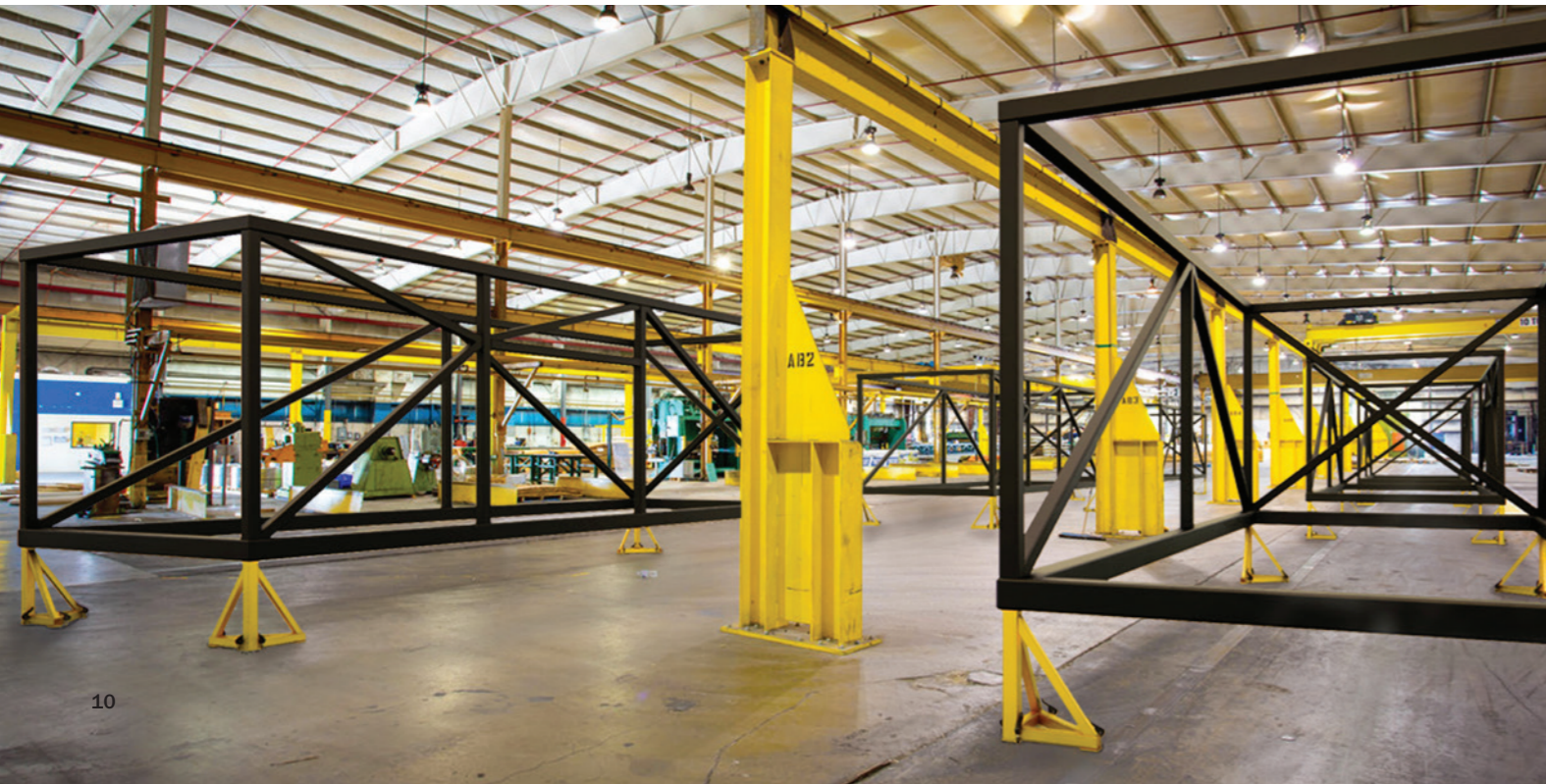
With demands all across America for mid-rise affordable and workforce housing, developers have turned to us to help them provide a structural stackable modular solution, which saves design costs and results in a more predictable outcome on construction costs and project completion. Too many of these projects have experienced unforeseen cost overruns and extensive project delays causing extreme funding issues.

We are Always Improving

Since we provide increased productivity, it leads to a reduction in the cost of each project and a quicker completion date. This means developers and construction firms could potentially increase the number of projects they deliver each year, and with more profit on each.

We invested in some of the greatest talent within the construction industry. This includes architects, engineers, construction managers, digital modelers and more. We're constantly increasing our capabilities in design, manufacturing operations and digital technologies. We have a mindset to continuously improve on all areas of the construction process.

This contrasts with the struggles the construction industry has faced in training talent, which is a result of the low-margin nature of the business. As construction modularization continues to disrupt the industry, like Netflix to Blockbuster, we provide a valuable partnership for developers, construction firms and investors to help them shift from traditional construction methods.



Design

We provide full design services to account for production efficiencies early in the stages of design. We can develop this standardization to offer mass customization, and ease of transport and assembly for modular units. We are able to provide virtual and augmented reality models of your project so you can tailor your design within our units.



Off-site Manufacturing

The lean off-site manufacturing process is far faster than the equivalent building process on site. This is due to the enclosed and controlled factory environment, the ability to coordinate and repeat activities, and the increased levels of automation. Manufacturing can take place in parallel with foundation work, unlike the linear timeline of a traditional project.



On-site Construction

The on-site construction work involved in our projects is radically simplified from traditional builds. It essentially boils down to assembling our units together on site and connecting services to the main site connections. Typically, one team of 5 to 7 workers can assemble up to 8 to 10 modular units, or 3,800 SqFt of finished floor area, per day. This is significantly faster and more affordable than traditional construction.



Rework


Quality control is much easier and better in our factory environment than on a construction site, which has a big impact on rework. Reducing or eliminating rework significantly improves construction schedules—potentially by up to several months—not to mention the cost savings set aside for contingencies.

We Remove the Hesitancy for Change

Moving to modular requires a change of approach, which comes with hesitancy. However, more main contractors are embracing us after realizing our services help ensure the overall project success. Developers also enjoy capturing reduced finance charges and earlier revenue streams.

As of today, there is no Modular International Building Code or prescriptive assemblies geared toward the unique assemblies within modular construction. Our processes are reviewed and documented to provide the greatest approval of intent and compliance. We manage and educate local jurisdictions from the earliest stage.

Rather than designing for a specific milestone, our team will design with the fabrication process in mind. Understanding how the components are assembled, sequenced and fabricated is critical to designing a building for the modular construction process. This is why you want to choose us over choosing a separate modular team and a separate fabricator.



75% of projects delayed more than 25% of their original deadline

- KPMG (Construction Survey 2019)

Our Process



Design

- Establish GMP
- Enter Into Design Assist
- Design Fees (Billed on Deliverables Agreed Upon)
- Begin Local Code Official Education & Approvals
- Structural VE Analysis
- MD+ Scope of Work Plan Matrix



Preconstruction

- BIM Coordination & Clash Detection
- Create Structural Connection Field Guide
- Create MEP Connection Field Guide
- Create Living Model Modular Unit
- Change/Verify/Approve Modular Unit
- Provide Site Logistics & Delivery Schedule



Fabrication

- Provide Project Specific QC Manuals
- Factory Allocation and Setup (5% Billed)
- Finalize Documents
- Material Procurement (Up To 25% Billed)
- Fabricate Modular Units & Store for Just in Time Delivery



Installation

- Just in Time Delivery
- MD+ PM at Job Site for Product Inspection
- MD+ PM Guidance for Installation Process



MD+ Difference

By coordinating from concept or schematic design, we ensure the parameters of the modular dimensions, scope, shipping constraints and other considerations that maximize efficiencies are incorporated.

Progressive companies are moving towards utilizing “Lean Construction” methods and even “Integrated Project Delivery.” These methods are more than just systematic approaches to maximizing quality and minimizing risk. By removing the silos found with traditional methods and employing MD+ advancements with technology, we can achieve real collaboration. With our proven experience we can drive down costs and help clients make quicker decisions knowing they will reach new heights and stronger ROI capabilities for their companies.

Productivity can be boosted by 50 to 60 percent by rethinking design, improving procurement, improving on-site execution, and infusing technology and supply chain. Further, productivity can be increased 5 to 10 times by moving to modular, factory controlled systems over traditional field construction methods.*

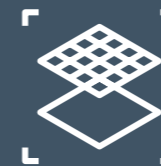
**Reinventing Construction 2017, McKinsey Global*

Here are some of the ways we achieve an optimized process:



Maximizing Dimensions

Our units can be up to 72ft long, accommodating a 6-foot hallway with units with a depth of 30ft on both sides of the hallway for a total modular unit length of 66ft. An additional 2ft is added for a total of 68ft., to accommodate vertical chases for MEP lines in the hallways.



“Box Massing”

Once an initial floor layout is created, we perform a “box massing” study. By assigning modular units in Revit to the layout, we create cost reductions and a digital living model. This model further allows us to create a reduced construction schedule from as early as concept.



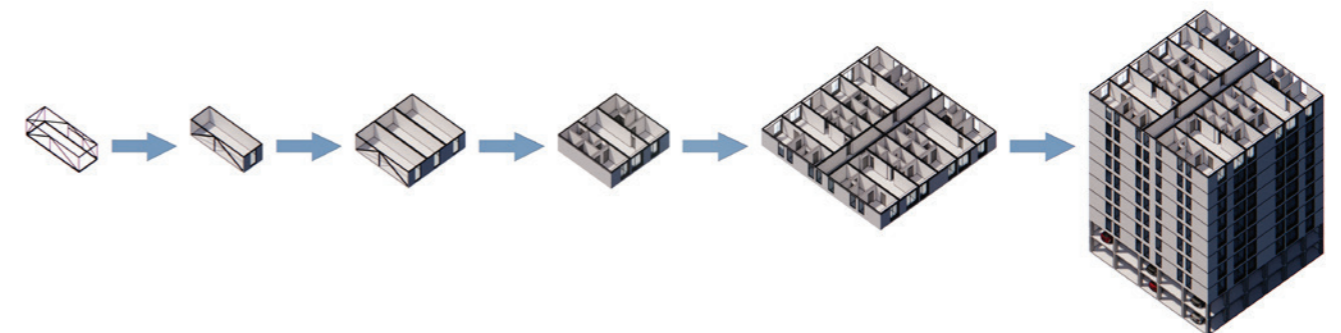
Devil's Advocate

When comparing costs of traditional to modular construction, let's assume the following:

- Materials Cost the Same Extra \$
- Shipping Modular = Time Savings \$ Reduction

What's the Labor Base Rate Comparison?

Traditional = \$80/HR vs Modular = \$55/HR
 35,000 Man Hours = **\$875K SAVINGS**

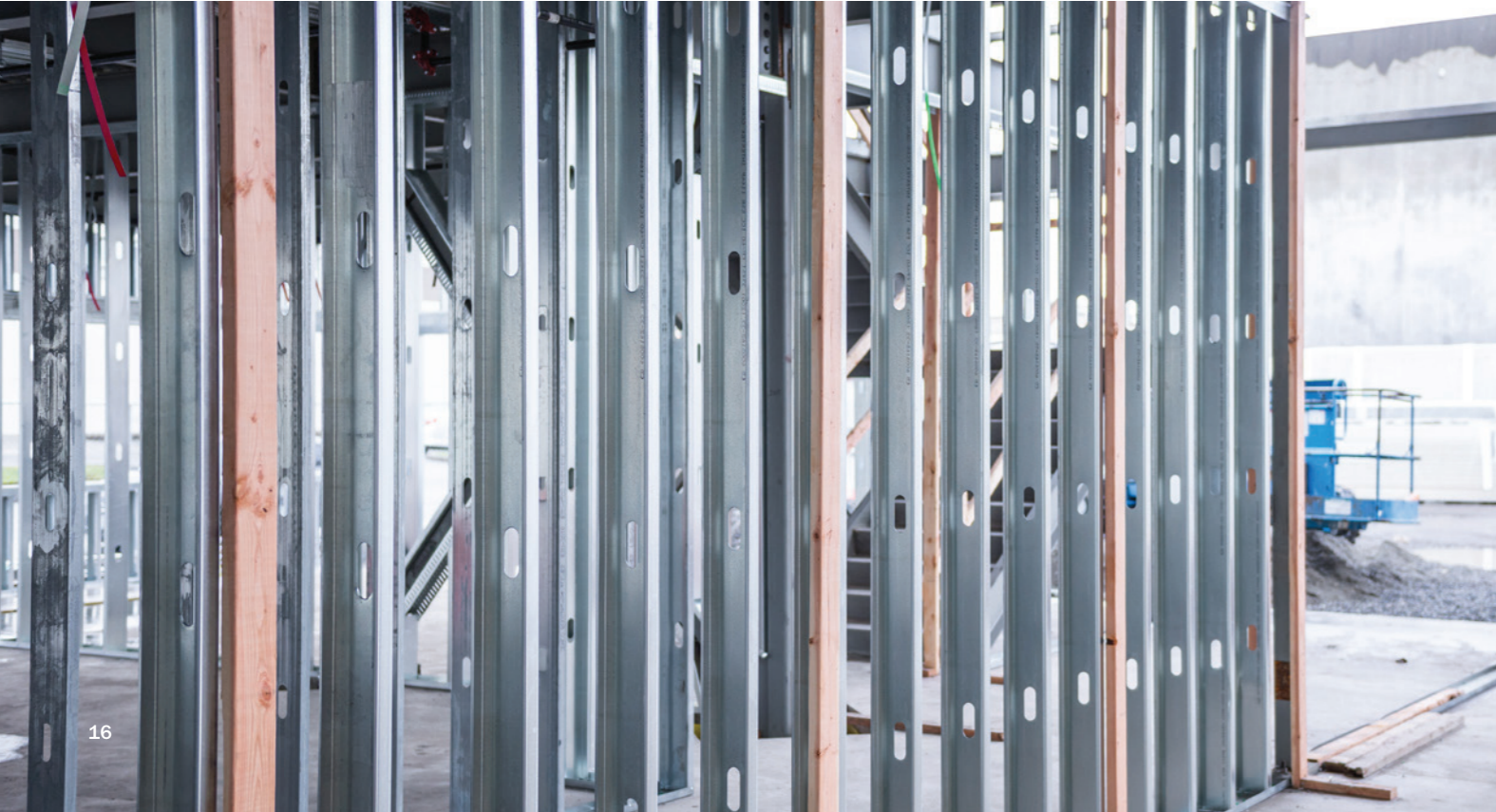


Our Products

Prefab Non-Load Bearing Knockdown Wall Kits

In typical construction, a carpenter reads a set of plans and then builds out a wall piece-by-piece on site. Our light gauge knockdown wall kits radically transform that process. Walls are rolled to length off site with light gauge metal studs and deflection track and bundled together with strapping to match a corresponding layout number on the floor plans.

When the wall kits are delivered to the job site, they're easily dropped in the specific wall layout location, allowing tradesmen to complete a wall in about ¼ the time conventional methods take. This type of product is non-load bearing and works in any facility type from single story to even 55-story concrete superstructures.



Prefab Load Bearing LG Panelized Walls, Floor & Roof Systems

The non-load bearing knockdown kits work in an environment where there is a superstructure like concrete or steel in place. When that's not the case, we harness the strength and durability of light gauge steel to create the superstructure. For the right project with the right floor layouts, we can go 12-stories vertical by using compressed load bearing

panelized walls. Taking this approach allows us to install approximately 15,000 SqFt of panelized walls and floor/roof systems (Ecospan, VersaDek, C-Joists & Concrete Subfloor, LGS Roof Trusses) in only two weeks with 15 installers. That's half the amount of time, with half the amount of carpenters when compared to traditional construction methods.



Non-Structural Modular

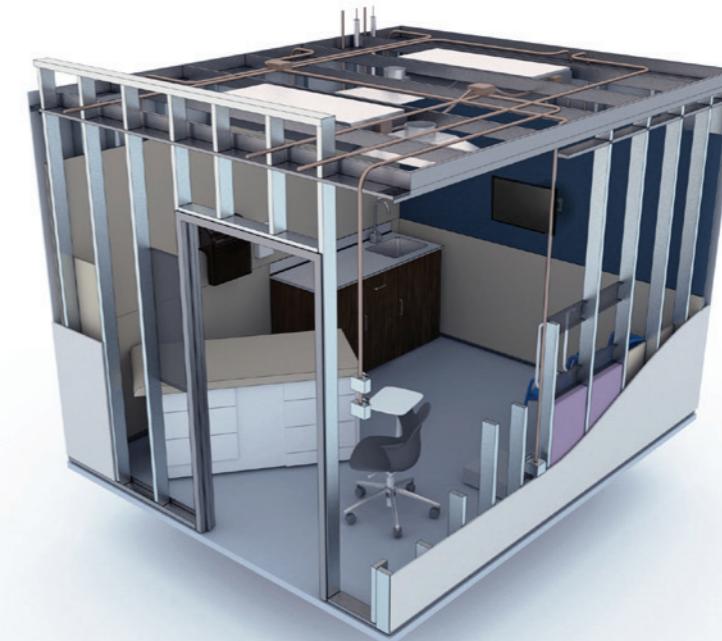
We create non-combustible, non-structural modular units across all market industry sectors. Whether your super structure is structural steel, concrete, or even CLT, we can provide a unique modular solution to kitchens, bathrooms, exam rooms, residence halls and more. This option still provides a compressed project timeline and will allow the project to go to market quicker. Our solution brings together all the required trades in our factory environment, lessening delays and the rework typically experienced on site.

All of our modular units allow for required building codes to be strictly followed. These units arrive on site with open walls to allow easy access for site electrical, mechanical and plumbing component inspections. Furthermore, our units have simple final connections through waste, mechanical, water and electrical to decrease field installation requirements. Reworking details defeats the purpose of prefabrication, so you will want to bring us under a Design Assist early. Our Revit models take your unique design and convert to modular models to be dropped directly into the overall building model.

Structural Volumetric Modular

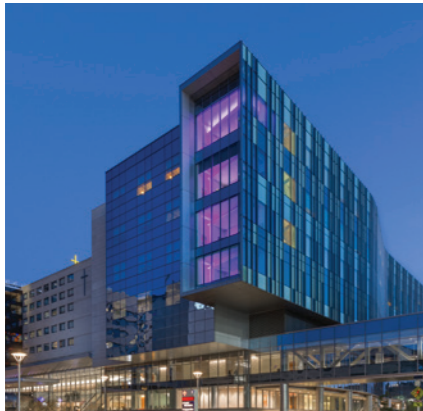
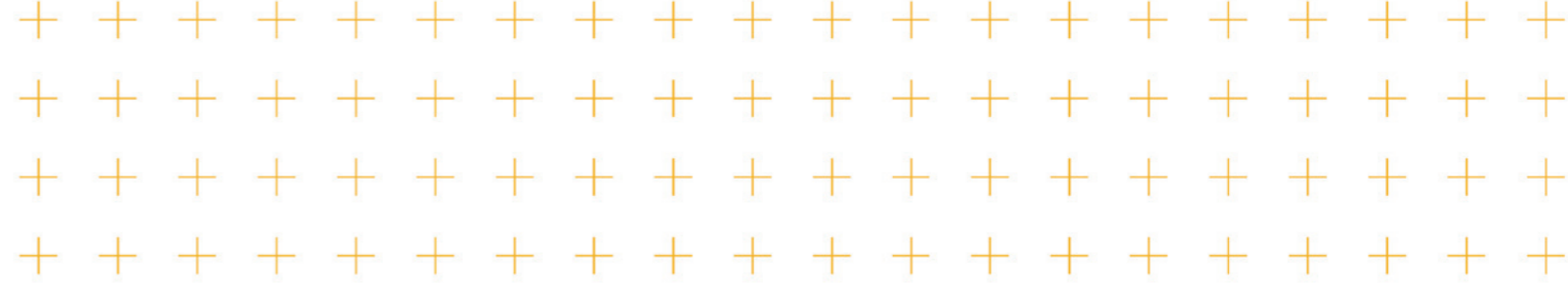
Our Structural Volumetric Modular units are fully fitted out in our facilities and shipped to site to be stacked vertical much like LEGO® bricks. Our hybrid HSS Tube Steel and Load Bearing Light Gauge units can currently go up to 12 stories, and even better, they can bypass the critical path of concrete pours between floors. Depending on how far the client wants to maximize efficiency, we can even provide

components like balconies and exterior cladding with window install. Once delivered on site, the units are hoisted into place where units are connected structurally, along with other MEP connections. A recent case study performed in 2019 by McKinsey Capital Projects on various structural volumetric projects proved 20 to 50 percent of the construction schedule was compressed over traditional construction.





Proven Success at Advocate Christ Medical Center



500 Modular Units

We designed and fabricated 500 modular units for this client, including bathroom pods and non-structural exam room pods.

Lean Outcomes

This project saw a 67 percent reduction in truck deliveries. Additionally, construction waste on site went from the traditional 10 to 15 percent to just two percent. What does your job site look like with less trucks, less lay-down materials and less trash?

Speed to Market

“Modular Construction can speed construction by as much as 50%.” (McKinsey & Company, June 2019 Study). How much extra revenue could you generate this year on your project?

Neutralized Escalation Costs

500 modular units delivered and installed with zero defects. What does your completion process look like with a limited punch list?

Increased Safety

By utilizing modular construction, this project reaped 78,000 work hours without an incident. How will it feel knowing your project is safer and still on schedule?

Less Manpower Required at Site

With more unskilled labor shortages than ever, our process and products provided quality control under tightly controlled factory conditions.

Latest News

CannonDesign is named ENR California Design Firm of 2020. This award comes as our team leads the LAC+USC Restorative Care Village.

This project is taking a comprehensive approach to the interrelated and complex needs of homelessness, substance abuse, mental illness, job training/housing and medical co-morbidity. The campus will help vulnerable Los Angeles County residents recover from medical and mental health conditions.

Located on the Los Angeles County+University of Southern California Medical Center (LAC+USC) campus, the development will consist of two key components:

1. A four-story Recuperative Care Center with 96 beds to provide immediate placement options for persons being discharged from an inpatient hospital setting who lack a supportive place to live.
2. A 64-bed Residential Treatment Program consisting of four buildings that provide a short-term alternative to hospitalization to address mental health needs.

The Restorative Care Village, located on the Los Angeles County and USC Medical Center Campus, will be built utilizing our modular units. This unique project introduces a new kind of environment for a vulnerable population.

Together, these facilities, in cooperation with others planned for the Restorative Care Village, are essential components of a broader strategy to help vulnerable residents fully recover from health and/or mental health conditions.

The design for the village is based on a neighborhood model, with all buildings oriented on a main street that harnesses extensive landscaping and place-making strategies. The cladding on the buildings draws inspiration from the historic art deco LAC+USC hospital (white metal paneling) and the cultural influences found in the surrounding neighborhoods, like multi-colored metal paneling. Public art will be an essential element of the project, with interior and exterior artwork playing a central role in creating a restorative living environment.



As one of the premier hotel and hospitality brands in the world, Hyatt recognizes that we can help them accelerate the project timeline, reduce costs and create an incredible guest experience. We can't wait to see the new Hyatt Place Hotel standing in 2021.



All of the structural stackable volumetric units will be designed, engineered, fabricated and installed by ModularDesign+. They will be created in the company's fabrication facility and arrive at the project site completely finished out with furniture, fixtures and equipment.

There are numerous advantages modular design and construction offers Hyatt for this project including:

Accelerated Project Schedule:

The units will be created off site and installed over a 3 to 4 week period in 2021. Modular design is accelerating the project schedule by nearly 3X compared to traditional construction, allowing Hyatt to open the facility and generate revenue faster.

Greater Schedule Control: Since the units are created in a controlled factory environment, there will be no weather or COVID-19 distancing delays to the schedule.

Decreased Waste and Traffic: Modular design will reduce the environmental impact of waste and site trash in Waco. Moreover, there will be 80% fewer truck deliveries to the construction site.

Worker Shortages = No Problem: Modular design requires smaller construction teams. As a result, the project will experience fewer logistical challenges related to finding and organizing construction crews near Waco where workforces are already limited.

Increased Safety: It only takes 6 to 8 construction workers to install one modular unit compared to 35 to 40 for traditional construction. Fewer people on site inherently reduces risk.

We are a national company delivering breakthrough modular design, fabrication and installation solutions. The company is the first to offer open-source solutions that provide customers with enhanced adaptability and better outcomes for their projects. The team creates dynamic solutions across health, hospitality, education, commercial and civic markets.



Modular Design+

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