

In our time, food and beverage distribution—already a complex and multifaceted system—is being completely reinvented by market forces, government regulation, and the relentless drive for efficiency in getting edible goods from Point A to Point B. And it so happens that at Point B, there are ever-demand retailers and consumers, who are used to ever-faster delivery times, thanks to Amazon and the like.

To sort out all the changes, we spoke with McShane Construction food and beverage business development director Charlie Stone, whose food and beverage expertise stems from more than 30 years in the business, with significant experience in sustainable, LEED-certified facility design and construction, food supply chain management, workflow optimization, and streamlined warehousing and distribution.

In fact, Charlie and his equally experienced colleague, Pat McConnell, allow McShane to bring an almost unmatched level of expertise to the table among construction companies in the specialized field of food and beverage facilities. The construction industry is eager to offer that kind of expertise, Charlie tells us, because it's seen as a growth industry (for reasons we'll get into shortly).

Major construction firms are actively recruiting talent from the food and beverage industry, a strategy that wasn't common until recently. With Charlie and Pat, McShane is well ahead of the curve.

The Rapid Rise Of Automation & Green Tech

The \$15/hour minimum wage has food and beverage distribution space users planning for greater automation than ever before, Charlie says. "Automation technology such as automatic storage and retrieval (ASRS), satellite pallet vehicle, automatic truck loaders, robotic palletizing

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company—whose expertise is food and beverage, after all—to determine the best automation for its facility. “When a client asks about more advanced automation for their facilities, we speak their language,” Charlie says. “We can talk about processes that can lead to efficiencies in their business that don’t have anything directly to do with construction. We can be a resource for their business, advising them about improvements that allow them to achieve a better return on their investment, because we understand food and beverage, not just construction.” The impact of automation on all of the distribution business is going to be far-ranging, Charlie predicts. For one thing, it impacts the configuration of buildings.

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Often a more highly automated facility can have higher ceilings with an overall smaller footprint, and the extra cost will be justified through better efficiencies. When automation allows distribution facilities to be smaller, that can offer the advantage of putting the distributor closer to end users. Amazon, with its cutting-edge tech, is a prime example of the trend. The giant online retailer is now occupying new, smaller facilities in urban areas because they’re closer to the last mile of distribution. They need to get the product out, because people don’t want to wait.

Sustainable practices can also cut client costs, and a water- and energy-intensive facility’s environmental footprint as well. As a national organization, McShane employs successful green tech from across the country to make facilities



more sustainable without breaking the bank. California, for example, is ramping up solar energy after companies there worked out best practices and lowered its overall cost, and McShane followed suit by introducing solar panels and natural lighting techniques to clients—ultimately saving them money. Energy management systems for refrigeration equipment are also worth the investment, Charlie adds, and a lot of refrigeration systems even offer apps and temperature probes that can send alerts of maintenance and operational issues straight to smartphones, tablets and other mobile devices. “One innovative idea from our Golden State Foods project was the creation of a dehumidification room for the employee freezer

gear,” says Charlie. “The design of the room assists in removing the perspiration from the gear between uses.” McShane’s Golden State facility also uses an underground cistern to collect the water from the roof for irrigation, and its truck wash system has a



water reclamation system that reduces fresh water consumption by 75%. Other green options include recycled materials and hydrogen fuel cells—the Golden State facility even uses a byproduct of its hydrogen fuel cells, deionized water, to scrub floors, all but eliminating the need for cleaners.

The Impact Of The Food Safety Modernization Act

A major driver in the development of new food and beverage distribution facilities is the FDA Food Safety Modernization Act (FSMA), signed in 2011 and slowly coming into force. It’s the most sweeping reform of the nation’s food safety laws in more than 70 years, with the FDA receiving a mandate to require comprehensive, science-based preventive controls across the food supply. The law is spurring the construction of new food

and beverage distribution facilities, much more than a wave of retrofitting older facilities, Charlie tells us. “You don’t know what’s been in an older building, what you’re exposing your brand to, and with a new facility it can be easier to meet the requirements of the law.” New facilities will also give companies the opportunity to avail themselves of the most advanced technology, to promote efficiency and keep a competitive edge. One such tech, notes Charlie, is the increasing utilization of raw data. He says the mining and managing of data—especially the level at which it’s being done now—is unprecedented in this industry. Computers can even track inbound loads and deliveries to keep customers posted on the status of their order in real time.

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Looking farther down the line (though not too much farther), Charlie mentions driverless trucks as a tantalizing possibility. And with the evolution of audio/video applications, facilities can evolve their camera capabilities from just high-level security to identifying selection errors, assisting with near-miss injuries and accident investigations.

But the potential applications of these new technologies should be considered before construction begins. “Technology like this should be given consideration when designing any new facility,” Charlie says. “So we guide our clients to consider new technology given the efficiencies and savings to be gained.”

The biggest key to a successful project, Charlie says, is upfront planning to create clear objectives. By defining the facility’s objectives, functions and potential expansion plans, you can not only meet client expectations, but ensure a long life span for the facility. On top of that, clarifying individual and team roles reduces inefficiencies, saves time and money for the client, and ensures a much smoother project overall.

“Direct access to decision-makers keeps a project on schedule,” Charlie tells us. “Ideally, you should

complete a review of the processes, equipment being used and ROI analysis for every appropriate aspect. Once the analysis is complete, someone needs to be in a position to make the decision to implement the idea. This is where McShane Construction’s years of experience in food and beverage construction comes into play, providing our clients with confidence and assurance that their project will be completed on time, within budget, and in accordance with their requirements and overall goals.”

Charlie says all parties—from client representatives to architects to industrial engineers—should be integrated into the process from the get-go, so that all perspectives are heard and no problem (or solution) is overlooked. In many projects, he says, this integrated product delivery has solved issues that clients didn’t know existed.



Charlie Stone

Director of Business Development - Food & Beverage

Charlie provides leadership in the pursuit and implementation of McShane’s growing food and beverage opportunities on a local, regional and national basis.

Throughout his career, Charlie has developed proven insights into the various expectations and requirements of profitable food and beverage operations and distribution efficiencies. His expertise includes sustainable and LEED-Certified facility

design and construction, food supply chain, workflow optimization and streamlined warehousing and distribution practices.

Charlie’s unique perspective contributes to the streamlined integration of new construction with improved operations for McShane’s prospects and clients yielding higher productivity, operational savings and greater return on investment. He also serves as a key contributor to the future growth and strategic planning within the food and beverage market sector.