

The three-acre park with basketball court, baseball field, playground and workout area that Wolverine Packing Company gifted back to the city can be seen behind the facility. (Photo courtesy of Tippmann Innovation.)

TIPPMANN INNOVATION HONORED WITH CEBA BUILT BY THE BEST AWARD

Meat processing and distribution facility built for wow-factor and innovation but with green space and community in mind.

By Keith Loria

With 82 years of experience behind it, Wolverine Packing Co., based in Detroit, Michigan, is one of the nation's leading producers of meat, processing more than 8 million burgers a week.

Rob Adams, a partner with Fort Wayne, Indiana-based Tippmann Innovation, remembers the initial meeting he had with leadership at Wolverine. They had come together to discuss Wolverine's desire for a new meat processing and distribution facility to be located in Detroit, where the company already operated four other processing plants.

"We worked with Jay and Jim Bonahoom of Wolverine for several years about where they wanted to build this project and we laid out multiple buildings on different sites before we landed on where we did," Adams says. "It was a long process of finding the right location and coming up with something that would fit all their needs."

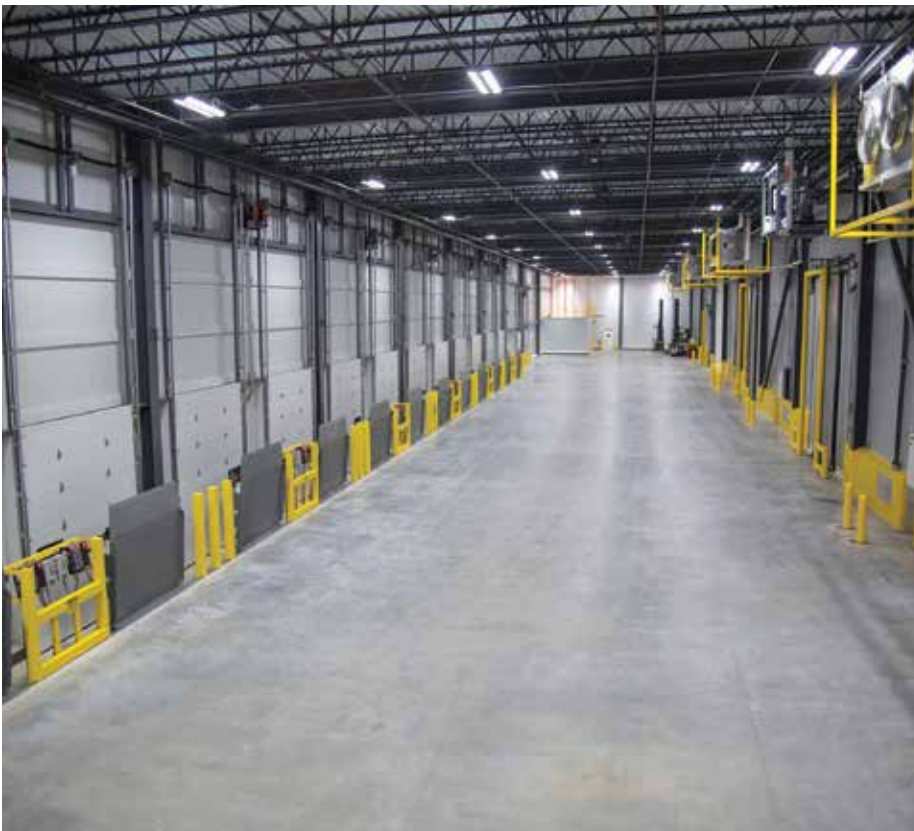
The result of the 180,000-square-foot project, which was completed in February 2019, is a state-of-the-art cold storage warehouse that not only allows Wolverine to expand its operation, but provides a variety of benefits to the surrounding community as well.

The facility is home to approximately 20,000 pallet positions of storage space, a 50,000-square-foot processing area and the QuickFreeze In-Rack Freezing System (QF+), considered the most innovative and energy efficient racking system on the market.

The outstanding work earned Tippmann Innovation the CEBA Built by the Best Award for 2019. The award was presented on



Tipmann Innovation was named the winner of the 2019 CEBA Built by the Best Award competition. The award was given at the 39th CEBA Conference & Expo. L to R: CEBA Chairman Vince Free with Tipmann Innovation's Sam Tipmann, Rob Adams and Josh Koester. (Photo courtesy of Tipmann Innovation.)



Trailer dock doors allow trucks to pull directly into the freezer keeping cool air in and warm air out. (Photo courtesy of Tipmann Innovation.)

November 15, 2019, during a general session at the 39th CEBA Conference & Expo.

“We are a national contractor that specializes in the construction of cold storage facilities, and what was nice about this award is that it was given to us by peers in the industry; people who are industry specialists and recognize us as a company that can execute the quality and standards needed in a modern cold storage warehouse,” Adams says. “It was really gratifying.”

Innovation Abounds

It was important to all involved to build a facility with a wow-factor, something that would be technically superior and pave the way for the future.

“A lot of innovative equipment was used in the development of the processing facility,” Adams says.

For instance, the warehouse boasts a conveyor system that easily transfers meat from the 50,000-square-foot food processing room to the adjacent 125,000-square-foot freezer.

Then there’s the QF+, which Adams notes is nothing like traditional blast freezers as the system pulls warm air away from the middle of the pallets instead of blasting cold air at them. This provides a rapid, even freeze of products while at the same time producing



(L to R) The new Wolverine Packing Company processing and distribution center has 20,000 pallet positions of storage space. (Photo courtesy of Tippmann Innovation.) The QF+ blast freezer provides a rapid, even freeze of products while producing less waste and requiring less energy. (Photo courtesy of Tippmann Innovation.)

less waste and requiring less energy.

Additionally, the mezzanine above holds air compressors and other equipment that allow for maximum storage and processing space, while stainless steel slope and slot floor drains cover the processing room floor, eliminating an additional step in the clean-up process.

Although combining processing, freezing and distribution efforts under one roof created some hurdles, Tippmann Innovation worked with a number of reliable local companies to help install industry-leading systems to create a warehouse that could produce, pack, freeze, store and ship, all within the same facility.

Investing in the Community

Wolverine wanted to continue its relationship with the Detroit community and opted to build the site in Detroit's Eastern Market. The company acquired Forest Park, a city-owned park that had seen better days, but was directly adjacent to the market.

"There was never a question that it would be built in Detroit, because that's where the existing facilities were located and it made sense to be there," Adams says.

With its long history in cold storage construction, Tippmann Innovation had experience dealing with brownfield sites before. So building a site on what was once 60 parcels that covered 32 homes (the basements still

remained underneath) posed little challenge to the company, other than dealing with complex permit processes and administrative challenges.

"Because the site had those 32 houses and all kinds of stuff you would not want to see underground, we had to dispose of it in the correct way environmentally," Adams says. "We had great local contribution from contractors and a great team overall."

Tippmann Innovation was also able to help Wolverine secure a fire variance for the new facility, saving the company millions of dollars in the process.

But it wasn't just about building a new facility. Wolverine also used the space to

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create a new, modern three-acre park complete with a walking path, basketball court, baseball field, playground and workout area that the company gifted back to the city.

This investment, in conjunction with the new freezer warehouse, provided jobs for the community and brought attention to the new plant.

Sustainability Considerations

Another project component of chief importance to Wolverine was developing a building that worked sustainably. Tippmann Innovation is well versed on designing energy-efficient warehouses, and was able to deliver on the entire project with sustainability in mind.

Adams cites the high-quality refrigeration room, QF+, the installation of energy saving lighting systems, tankless water heaters to provide instant and efficient hot water, and the various other efforts around the property.

He explains the state-of-the-art refrigeration room is fully equipped with Frick Refrigeration's highest quality equipment, which utilizes a BFD compressor on the primary load in the engine room that helps better trim the loads in comparison to traditional compressors. It also utilizes a micro-processor that has a specialized combination for energy management load shedding.

"The engineers designed a specialized piping system that allows the QF+ room to run on shared capacity from the main freezer when the building is running at a lower capacity," Adams says. "The dedicated low load temperature system is only used when the building is running at a high capacity, giving Wolverine the option to run the QF+ freezer on the same system as the rest of the facility during slower times."

Therefore, Frick's system helps Wolverine save a significant amount of energy and money.

Other energy and cost saving elements in the freezer and processing center include energy efficient touchless fixtures, motion sensor lighting, and a clean-up mode that uses less water than traditional wash down systems.

Additionally, trailer dock doors are "drive in" style, allowing trucks to pull directly into the freezer, keeping cool air in and warm air out. The doors from the dock to the freezer also reduce energy waste thanks to a bi-parting design that keeps cold air in the freezer better than traditional door designs.

"Not only were the refrigeration room and freezing and processing equipment built for energy efficiency and cost savings, but other design details inside and outside of the facility were crafted to ensure economic, environmental and social sustainability," Adams says.

For example, a ductless mini-split system was installed adjacent to the freezer in areas far from major air conditioning units, allowing those areas to stay cool while in use, but not use energy from the rooftop systems when not in use.

A Job Well Done

Of course, a project of this magnitude isn't executed without some challenges, and a tight schedule for completion was one. But despite some site-related issues with removing soil and satisfying safety requirements, and obstacles related to working in an existing neighborhood, which meant not much staging could be done on-site, Adams notes it was a relatively stress-free project.

"Along with the local companies, we had a really great contribution from national contractors who are specialists in cold storage to help us build this, and the entire team did an outstanding job," Adams says. ☺

KEITH LORIA is an award-winning journalist who has been writing for major newspapers and magazines for close to 20 years, on topics as diverse as sports, business and technology.

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