

Guest Column

'Sustainability' in Construction and Equipment

by Steve Mehmert
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Sustainable: "of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged."

—Merriam-Webster online dictionary

Every day we read more and more about supermarkets that are embracing sustainability in their daily operations. We hear the terms reduce, reuse and recycle. We hear of plastic bags being eliminated and replaced with recyclable or reusable bags. We learn about reductions in food waste and improvements in earth-friendly packaging and supplies.



Steve Mehmert

Retailers that are answering the call to improve upon sustainability are not stopping at improvements in daily operations. They are asking for sustainability in store design, construction methods, and in the fixturing and interior finishes of their supermarket projects. And even in an industry that is continually burdened with downward pressure on project costs, a strong case exists for embracing sustainability as a tool for success.

It would be fair to say that in the early days of the sustainability era, those of us tasked with building a store with sustainable practices were skeptical. It seemed that we were spending too much time and money achieving the "sustainable" goals of the project for there to ever be a payback. Our roots in the industry, like many of yours, taught us to focus on low first in project costs. We did not spend much time evaluating the benefits of building a store that cost less to operate. Our primary focus was keeping the initial cost of the store as low as possible.

But efforts continued. Energy consumption became a clear target for improving sustainability. And as advances were made, it became clear that properly managed sustainable construction methods and equipment selection processes were creating stores that cost a lot less to operate. The ability to measure these savings is now more readily available. We can now define that investing wisely in sustainable construction methods and equipment selection is not just the right thing to do, it is also the right financial thing to do.

New projects and remodels

In new construction projects and major remodels, the first area of focus turns to the shell of the building and the construction of the interior buildout. Project experts have worked with retailers to evaluate adding insulation beyond industry standards to reduce heating and cooling cost. Energy-efficient HVAC units with better controls provide lower utility costs and allow setbacks based on occupancy of the building rather than just the time of day. Energy-efficient lighting has become common. Lighting controls that include daylighting sensors, motion sensors, dimming and controls to operate the lights based on departmental schedules are readily available. Kitchen hoods now come with variable speed motors and photocell controls so less conditioned air is removed from the space when cooking levels are lower. All plumbing fixtures are now available with low flow rates to save on water consumption, and most of our bathrooms are now equipped standard with fixtures that include the famous "up for #1 - down for #2" labels.

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On the equipment side, professional equipment managers are evaluating the efficiency of

any piece of equipment that has a motor, a fan, a light, a heater, a burner or that consumes water. Refrigeration manufacturers are achieving new efficiencies through technology and design of refrigeration systems.

All refrigerated cases now generally come standard with LED lighting and energy-efficient fan motors. Frozen food anti-sweat heaters only run when needed rather than running all the time. Store planners are laying out dairy and lunch meat departments with glass door merchandisers rather than open multi-decks to reduce energy and improve product quality. In every step of the process, new stores and remodels are now taking advantage of the benefits of sustainable practices.

What you can do in your existing store

If you are feeling a bit left out because you are not ready for a new store or your current store is not quite ready for a major remodel, revise your thinking. The sustainable effort reaches past new construction and remodels. Consider updating your existing lighting to LED with controls to operate them efficiently based on customer traffic and store hours. Evaluate updating case lighting and install energy-efficient fan motors. If you have newer open (5) deck merchandisers that are not ready for replacement, consider retrofitting them with doors. For remaining open-front refrigerated merchandisers, consider night curtains to save energy if your store is not open 24 hours. If you have a need to add frozen food islands, consider new ones with sliding top doors. Don't shy away from your refrigeration machine room or your HVAC equipment. Even older mechanical equipment can be updated to improve efficiency and save energy dollars. And as your prep equipment is being evaluated for replacement, choose a replacement that will not only improve departmental operations but that will save you money through improved energy efficiency.

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Reach out to your trusted store planning consultants and contractors as well as your utility provider for input. All these professionals can help you evaluate your existing store, provide suggestions on improvements, provide project costs and, perhaps most importantly, identify the savings that you will experience with your improvements.

Congratulations to all of you who have read this article and consider it old news. You are already participating in making our industry better through your efforts. But for those of you who may think sustainability in your next project or in your existing store may be too expensive or not worth the effort, think again. In our ever-changing industry it has become apparent that "doing the right thing" is also the "right thing to do."

Steve Mehmert has spent his entire professional career working with independent grocery retailers across the U.S. He began his career at Wetterau in St. Louis, Missouri, with a transition to Roundy's in Pewaukee, Wisconsin. Mehmert and his wife Shelley founded Mehmert Store Services in 1990, through which they and their team focused on site planning, building design, store planning, interior design, equipment procurement, project management and construction supervision. Mehmert also regularly assists retailers in solving issues beyond the construction and fixturing of new stores and remodels. Over the past two years, Mehmert has moved his focus to the area of e-commerce delivery methods through his new company, T4 Solutions. T4 will work on solving the dilemma of providing a great customer experience in the grocery delivery process while allowing the retailer to avoid losses that have become somewhat standard in the delivery side of the industry.

StopLift's New AI Can Detect Self-Checkout Theft, Prevent False Alerts

Retail chains can now receive real-time reporting on self-checkout theft and other scan avoidance—as well as prevent false alerts at the self-checkout—with StopLift Checkout Vision Systems' SmartAssist artificial intelligence (AI) technology.

SmartAssist AI prevents false alerts and interventions, immediately flags unscanned merchandise at the self-checkout and alerts the attendant before the customer leaves the checkout, according to StopLift. The system also can identify an item not meant for purchase but placed in the bagging area, such as a purse or reusable shopping bag, so that no alert will be sent and no beep will be heard. This protects the shopper from the annoyance of having their transaction interrupted, the embarrassment of having the self-checkout light flash and the frustration of waiting for an attendant to come and clear it.

The technology works in the entire spectrum of self-checkouts and POS systems. NCR Corp., a self-checkout technology company, has incorporated StopLift's AI capabilities into its self-checkout solutions to address retailers' concerns over shrink and to provide what it says is a frictionless checkout.

Working with retailers on four continents, StopLift says it already has detected and confirmed more than 3.2 million scan avoidance incidents at thousands of manned and self-checkouts in retail chains, and enabled retailers to improve cashier and self-checkout attendant training. StopLift's patented video analytics technology visually determines what occurs during each transaction to immediately distinguish between legitimate and fraudulent behavior at the checkout.

"SmartAssist enhances weight-based security to handle a broader spectrum of cases," said Malay Kundu, founder and CEO of StopLift. "Until now, security at the self-checkout has been performed solely by weight scales. Unfortunately, weight scales take time to settle, and legitimate purchases do not always match their expected weight in the database. As a result, conventional security measures often produce mistaken alerts which frustrate customers, leading some retailers to disable security and expose themselves to theft."

In addition, "Fewer false-positive alerts make their way to the attendant, who can now act properly on legitimate alerts and cover a greater number of self-checkout stations. This means greater productivity gains and associated labor savings for the retailer."



Manomet Certifies 45 NorCal Whole Foods Market Stores for Environmental Stewardship

Manomet's Grocery Stewardship Certification (GSC) program has certified 45 Whole Foods Market stores in Northern California. The GSC works with grocers to engage employees on operational sustainability strategies and to review store-level practices and equipment with an eye to increasing energy efficiency, boosting revenue and lowering costs.

"Environmental stewardship is a core value for Whole Foods Market, and working with Manomet's Grocery Stewardship Certification program ensures that each store is consistently improving sustainability practices in our operations," said Tristram Coffin, director of sustainability and facilities for Whole Foods Market's Northern California region. "The GSC helps us to further engage our team members and has given us another tool to reduce our energy use, conserve water and minimize food waste."

The GSC recognizes the company's commitment to operational best practices that reduce a store's environmental impact and save resources. Manomet's GSC provides participating independent grocers and grocery chains with data about costs saved through operational sustainability efforts; revenue-generating sustainability opportunities; employee engagement strategies; and metrics on waste, water, energy and other conservation initiatives.

As a result of their sustainable operating practices, the 45 Northern California Whole Foods Market stores enrolled in the GSC are annually saving an estimated:

- More than \$6 million, an average of \$133,400 per store;
- More than 3,100 tons of food waste from going to landfills;
- More than 18 million gallons of water from being used; and
- More than 78,000 metric tons of greenhouse gases from being released.

"Across the U.S., U.K. and Canada, Whole Foods Market is showing what it means to be a mission-driven business," said Peter Cooke, program manager of the GSC. "These Northern California Whole Foods stores excel in prioritizing sustainability through food waste diversion and other operational efficiencies. We look forward to continuing our collaboration with Whole Foods Market."

Since launching in 2012, the GSC has enrolled more than 800 grocery stores in the United States and Canada. While there are a number of programs that focus on high performance buildings, Manomet's GSC program is the only certification program to expand into employee practices and procedures to engage all stores within a chain.

Manomet is a nonprofit organization that believes that people can live and work in ways today that will enable our world to thrive and prosper tomorrow. Through research and collaboration, Manomet builds science-based, cooperative solutions to environmental problems.