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# Truck terminals can drive big savings using green design

## Renewable materials, efficient mechanicals key

By Bill Plesich

In the world of truck terminals, creative building design can be done. It means incorporating strong renewable materials and efficient placement of mechanicals, which can support more cost-effective operations for the facilities' owners, who now have the opportunity to benefit from advances in hub design and construction.

Facility designers and contractors can help terminal owners engineer operating cost benefits into the project during the planning phases of a new site development or expansion, putting in place lessons learned through the evolution of hub design that have become trade-respected best practices.

### Environmental factors

An important design lesson learned for 21st century construction standards is the need to ensure a terminal or hub is as energy-efficient as possible, saving money and establishing your company as a forward-thinking, community-minded business. When considering implementing an energy-friendly practice at your location, discuss all options to find the right fit for your company.



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Many terminals in the Midwest find that designing their warehouses with insulated concrete panels is a way to help maintain temperatures year round. Employees benefit from the insulation value of the concrete panels during cold winters as well as providing cooler temperatures inside during the summer.

Constructing your facility with insulated concrete also will produce a noticeable difference in your heating and cooling bills.

Adding energy-efficient lights in the warehouse and surrounding parking lot provides a brighter, more efficient light, lowering electricity costs and freeing up space for additional equipment or travel space. The bulbs used in many energy-effi-

cient lights actually produce a brighter light due to improvements in fluorescent technology, eliminating the need for additional light fixtures by approximately one-third in many locations.

Steel is a resource commonly used in trucking facilities and is just as effective in its recycled state. Your hub will be constructed out of one of the most durable materials, and the fact that steel is a renewable resource will add to your hubs' overall quality.

In addition, incorporating recycled materials into a hub or location will contribute to possible certification as a LEED building, a certification providing an independent, third-party verification that a building project is environmentally responsible, profitable and a healthy place to live and work. The LEED Green Building Rating System is the nationally accepted benchmark for the design, construction and operation of high-performance green buildings and something to consider with all future constructions.

### Sustainability

Materials selection and minor design modification can substantially increase the life of the structure. Concrete panels can take several different forms, often as steel-reinforced concrete ribs that run vertically and horizontally in the panels or solid pre-cast concrete panels.

Renier has built 16 terminals and hubs for Dayton Freight Lines and each is con-

