



Globally Proven
Construction Solutions

ST. CLOUD WASTE TRANSFER STATION

Project Spotlight



BUILDING OWNER:
St. Cloud Transfer Station
St. Cloud, Florida

CONTRACTOR:
Cornerstone Construction Services
Orlando, Florida

Minimal Downtime for St. Cloud



St. Cloud Waste Transfer Station is a busy trash transition area that operates nearly around the clock. Moving 400 to 600 tons (363-544 MT) of waste across its floors per day, the facility cannot afford downtime. Floor downtime results in lost sales revenue, something any business finds undesirable.



Orlando-based Cornerstone Construction Services (CCS) is a concrete contractor that has been subcontracted to provide concrete services at many of Central Florida's leading institutions, including the City of Orlando, Orange County Public Schools, Walt Disney World®, Sea World®, and The Kennedy Space Center. The construction group also has years of experience working in waste transfer stations and heavy-duty industrial applications.

The Situation

St. Cloud Waste Transfer Station management sought replacement for their tipping floor concrete. Ernest McDaniel, the Solid Waste Superintendent at the time, performed research online and found Cornerstone Construction Services. He saw that they were proven in the marketplace and were experts in floor hardener toppings. He reached out to Jason Gonder, Vice President of Cornerstone and concrete expert, to discuss the situation.

Waste transfer stations contain some of the harshest chemical and abrasion conditions for a concrete floor one can find. After performing preliminary analysis work on the existing transfer station floor, the Cornerstone crew saw that the chemicals from the waste and the impact from the heavy machinery ground the surface down as much as 3 to 4 inches (7.6-10.2 cm), nearing the rebar in some areas. Like in most transfer stations, the excess abrasion and impact and chemicals eat away at the existing concrete which made the floor inoperable for their big front loaders to transfer trash.



After performing the floor analysis, Gonder wrote them a bid for the concrete work. A few months later and after severe floor deterioration, St. Cloud put Cornerstone under contract to provide them with their new L&M™ EMERYTOP 400™ floor.

The Challenge

To prepare the existing surface, the CCS crew milled and abraded the concrete. It was then brushed clean.

After milling down the prepared concrete surface, the CCS crew applied L&M EVERBOND™ slurry to bind the soon-to-be-placed L&M EMERYTOP 400 floor topping to the existing milled substrate. L&M EVERBOND ensures a good, tight bond between the existing concrete surface and the soon-to-be-applied topping.

A LATICRETE Solution

Immediately after applying the L&M EVERBOND, the CCS crew was ready to apply the L&M EMERYTOP 400. The team ordered concrete ready mix trucks to St. Cloud's site. They began by loading several Supersacks [3,000 lbs (1361 kg)] of L&M EMERYTOP 400 into the back of the ready mix trucks for on-site mixing. As soon as the mix sequence transpired, the pouring and placing began.

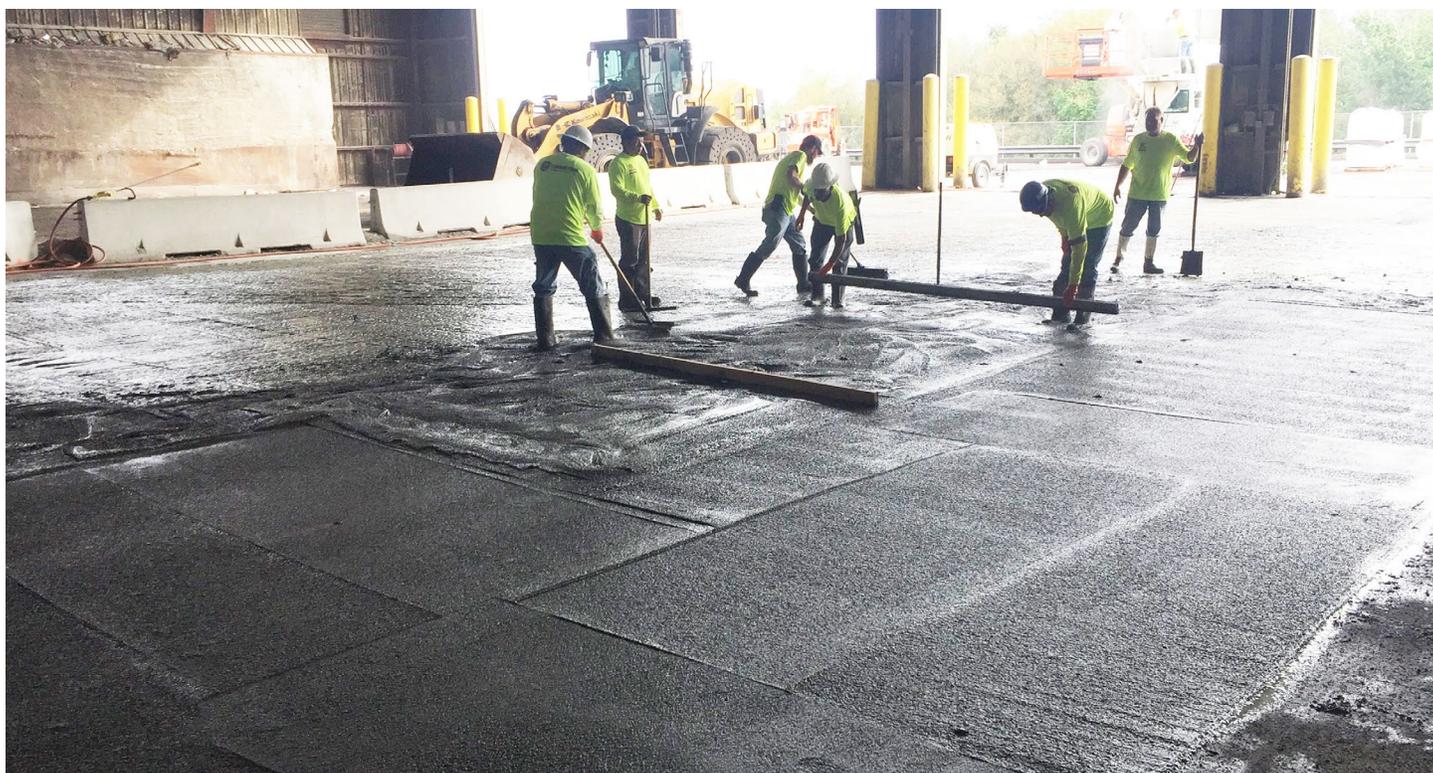
While placing the topping, the concrete crew applied L&M E-CON™, a concrete finishing treatment, onto the new surface in order to prevent crusting and to aide its placement. Finally, the crew applied curing blankets over the newly placed topping to ensure it cured appropriately.

To watch the L&M EMERYTOP 400 product be mixed, placed, and cured at Brevard County's Sarno waste transfer station also in Florida, [click here!](#)

One of the awesome benefits of L&M EMERYTOP 400 is its fast turnaround time. It is designed for weekend shutdowns when the transfer stations are at their lowest peak of business and to be returned to service on Monday morning. The St. Cloud job was no exception. With the fast application and return to service, Cornerstone lived up to its promise to have the floor back by Monday.

Outcome

So far, the new St. Cloud Waste Transfer Station floor has held up well against abrasion, impact and chemicals from the waste. The St. Cloud Waste Transfer Station team is happy that downtime was minimized and that their new floor will last for years.



“I want to put something down that I can retire knowing that the city will not have to service their floor for a long time”

– Ernest McDaniel
Solid Waste Superintendent



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