

Tech Talk Q&A

**Want more coating thickness
on low-silicon steel?
Professor Zinc Says “Blast it!”**

Q. “Is there any way to increase zinc coating thickness when galvanizing low-silicon steel?”

A. One step that can help increase coating thickness is to blast clean the steel prior to hot-dip galvanizing.

During galvanizing, the zinc coating formed on low-silicon steel (less than 0.04% silicon content) is limited by the interdiffusion of iron and zinc. Blast cleaning creates an easier diffusion path for the iron and zinc to mix on the surface of the steel. This allows for a thicker than normal zinc coating. We guarantee that your finished steel will meet ASTM A123 requirements.

Blast cleaning is one of several value-added services provided by Galvan.

Our computer-controlled blast cleaning process uses steel shot that produces a smooth, clean surface ready for galvanizing or painting. Our blast cleaning cabinet accommodates materials up to 36” in diameter in any length.

For work pieces too large for the shot blast cabinet, we also offer hand sand blasting with abrasive grit.

Hot Dip News Summer 2022



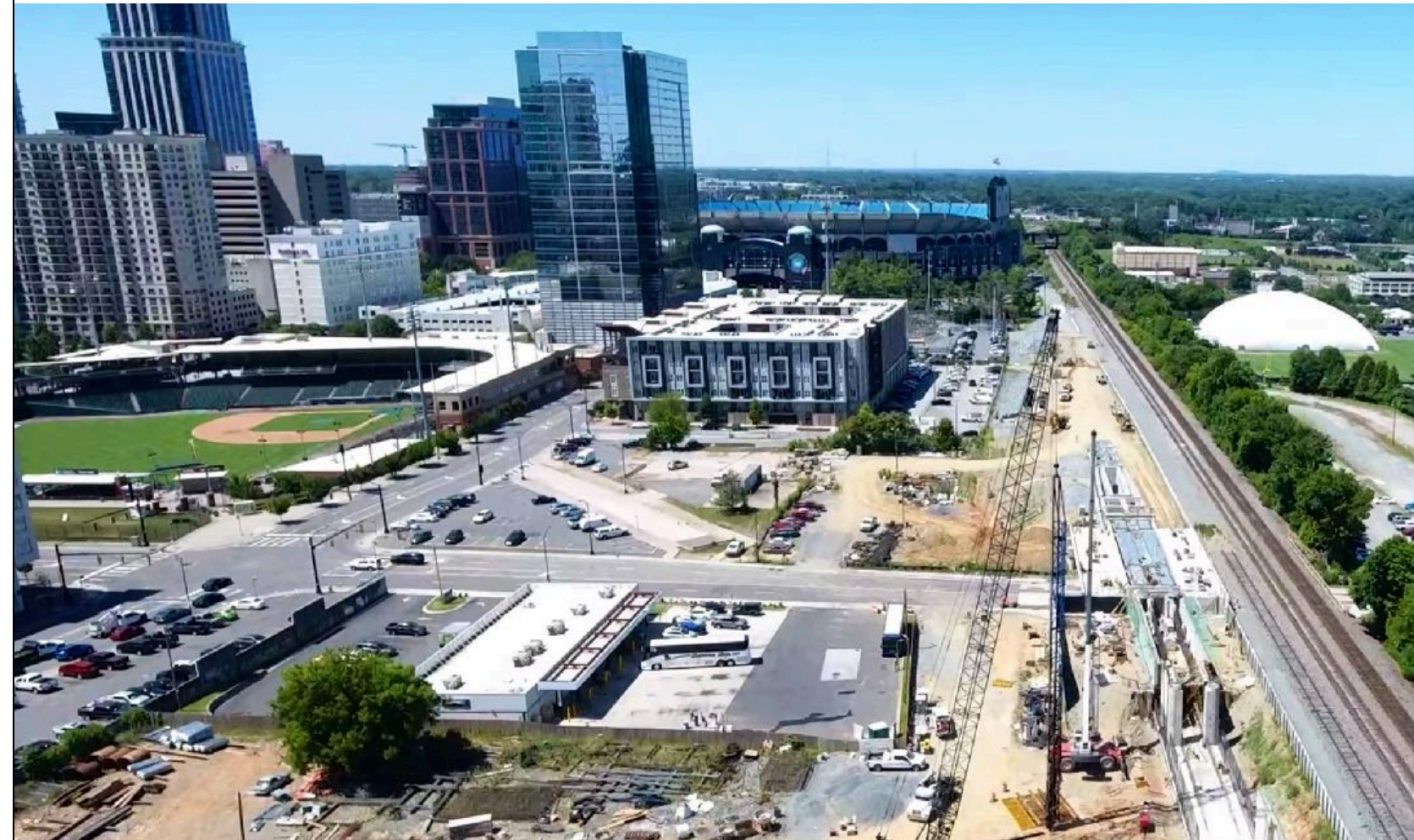
Remember, for thicker zinc coating when galvanizing low-silicon steel, ask Galvan to blast it!

**Do you have a question for the Professor?
Submit it online at www.galvan-ize.com.**

Contact Galvan Industries, Inc.
www.galvan-ize.com
Phone: 704.455.5102
Fax: 704.455.5215
E-mail: sales@galvan-ize.com



Galvan Industries, Inc.
Hot Dip News



GALVAN'S WORK ON GATEWAY STATION ADDED TO AGA PROJECT GALLERY

Galvan Industries' work on Charlotte, N.C.'s Gateway Station project is now featured on the American Galvanizers Association (AGA) Project Gallery. Galvan provided hot dip galvanizing for 1,000 tons of steel used in the new bus and rail facility, keeping it rust-free for the next century.

Gateway Station is a new \$800.1 million transportation station and rail line with a total job site construction area of approximately 19 acres being built in uptown Charlotte. The project includes a new section of track with elevated platforms, a new bus station facility, rail station buildings, retaining walls, a parking deck, and a park greenway extension. It will consolidate passenger rail and intercity transportation modes at Trade and Graham Streets in Charlotte. Construction is underway on Phase 1 of the project, which is expected to be completed in 2023. *(Continued on next page.)*



NCDOT relies on Galvan rust-proofing, storage and shipping for major interstate project

The N.C. Department of Transportation chose Galvan Industries to galvanize pipe piles and bearing plates for bridges that will complete the I-540 Outer Loop near Raleigh, N.C., a project that's been in planning and development since the 1970s.

The supports for the bridges over rivers and wetlands are 30 inches in diameter with a ½-inch thick steel wall. The 55-foot-long bridge pipe piles were galvanized by Galvan Industries using a "double dip" or "progressive dip" technique to give the entire pipe a protective, metallurgically-bonded zinc coating, inside and out.

Galvanizing was specified for the pipe piles for longer maintenance-free service life and to protect the steel as it was driven into the ground. Most of the piles were driven to a depth of 45 feet, leaving 10 feet exposed above ground.

Galvan also hot dipped the steel bearing plates supporting the large concrete bridge girders. Galvanizing provides initial cost savings plus greater coating durability, compared to other corrosion-prevention systems, and extends the life and safety of the bridges.

Galvan stored all 64 truckloads of pipe piles at their plant in Harrisburg, N.C. after galvanizing and scheduled shipping to the job sites when equipment was in place for pile driving. This portion of the project lasted around two years requiring long-term storage at the galvanizing facility and transportation management, two of many value-added services offered by Galvan.

If you could benefit from galvanizing service that goes beyond the kettle on your next infrastructure project, contact Galvan Industries today.

GALVAN PROTECTS GATEWAY STATION

Charlotte's Gateway Station will replace an existing Amtrak station that was built in 1962 as well as a Greyhound bus station that was built in 1973. Previous train stations have also stood at this site, dating back to 1886.

Galvan's work on Phase 1 consisted of galvanizing large wide flange steel beams used for the retaining wall on one side of the new track construction, and galvanizing reinforcing verticals and spirals for large structural bridge supports. The combined orders totaled approximately 1,000 tons.

Specifiers chose hot-dip galvanizing on this major infrastructure project for long-term corrosion prevention, sustainability, and reduced life cycle cost. Galvanizing the retaining wall and bridge reinforcing steel will prevent damage from corrosion for more than 100 years. **You can count on Galvan for lasting corrosion protection.**

