

### IMPACT PADS PROTECTING LASHING BRIDGES



#### **The Isla Bella Jacksonville, FL**

**Customer:**

TOTE Services.

**Project:**

Protect lashing bridge decks from lashing rod impact while providing a safe non-skid walking surface.

**Project Location:**

Jacksonville, FL.

**Applicator/Installer:**

East Coast Repair & Fabrication  
4100 Haines St.  
Jacksonville, FL 32206  
757-455-9600  
<https://www.ecrfab.com>



**Cast Elastomer Formulation:**

Polyurethane.

**Coating Formulation:**

Nano-Clear Industrial Coating with SharkGrip non-skid additive.

**Application System:**

Roller.

**Date of Application:**

02 January 2021.

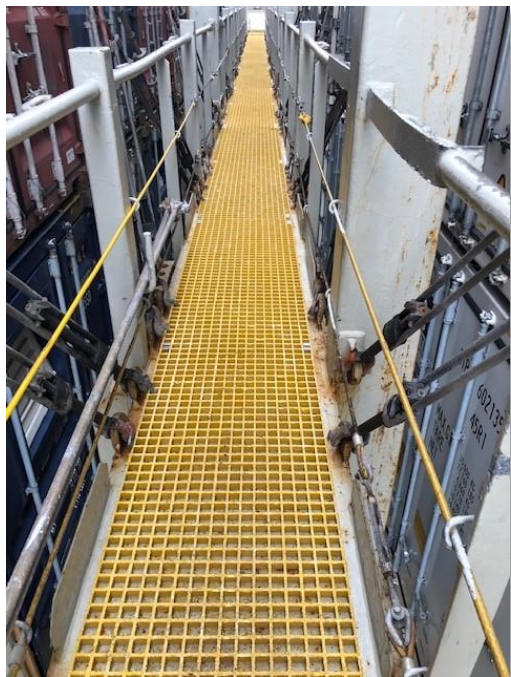




### IMPACT PADS PROTECTING LASHING BRIDGES

#### CURRENT SITUATION:

The lashing bridge decks are being impacted by the lashing rods breaching the paint protection and exposing the steel substrate to the environment and allowing corrosion to commence.



After trying several paint formulations, alternative protective solutions were installed such as fiberglass grating.

Estimates are this solution will last 1-2 years before the repeated impact damage and UV degradation will require replacement.



### IMPACT PADS TO PROTECT LASHING BRIDGES

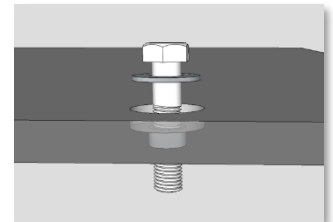
#### ISUSA SOLUTION:

Install modular, cast elastomer impact pads.

The impact pads are made from cast polyurethane with stainless steel washers imbedded in each corner for bolting the impact pad down to the steel lashing bridge deck.



- When obstacles on the underside of the deck interfered with using the embedded holes/washers:
  - A recessed hole was drilled deep enough into the impact pads to accommodate the height of the bolt head using a Forstner type bit.
  - Then a hole the diameter of the bolt shank was drilled in the middle of the recessed hole, through the impact pad.
  - A stainless steel collar the height of the impact pad minus the height of the hole recess was placed in the hole.
  - The stainless steel bolt with a stainless steel washer the diameter of the recessed hole was inserted and tightened down to hold the impact pad in place.
  - 304 stainless steel bolts are recommended.



Each pad was coated with Nano-Clear Industrial Coating loaded with SharkGrip non-skid particles providing each pad with UV protection and a safe non-slip surface during wet weather.

The pads for this project were cast as 2' x 2' x 1/2" thickness and weighed approximately 12 pounds. This made handling the pads easy and safe for the average worker.

#### APPLICATION:

##### Step 1: Deck preparation.

The lashing bridge deck was cleaned, and any loose paint and corrosion removed.

##### Step 2: Deck priming and painting.

Primer and base coat paint were applied to the deck. It is important to have a paint system under the impact pads for corrosion resistance under the impact pads.



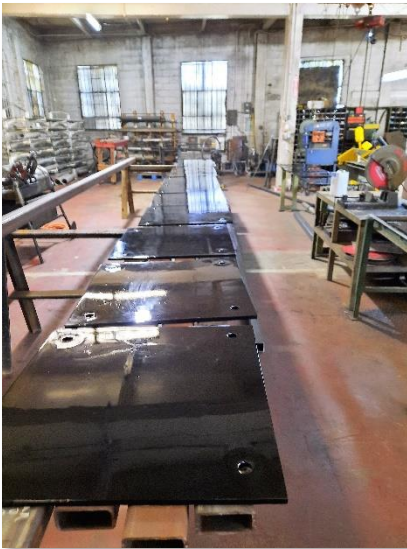
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#### Step 3: Impact pad layout.

A template of the impact pad with the bolt holes was made and used to layout where the bolt holes were to be drilled on the deck. The crew drilled the fastening holes in the deck in preparation for the arrival of the impact pads.

#### Step 4: Coating the impact pads.

- The impact pads were set up on tables inside the workshop.
- They were cleaned with acetone to remove any mold release.
- The top and sides of each pad was abraded with 220 grit sand paper to create a profile on the polyurethane surface.
- Each pad was cleaned one more time with acetone to remove any debris.
- Then the Nano-Clear with the SharkGrip non-skid material was rolled onto the top surface of the impact pad.



- Each pad receive 2-3 wet-on-wet coats to produce an even distribution of the non-skid material.
- Then the pads were allowed to cure overnight.

#### Nano-Clear Industrial Coating:

- An aliphatic formulation – excellent UV stability, no oxidation.
- Loaded with two different UV absorbers – protects the impact pad colors from fading.
- 3X the cross-link density of alternative topcoats – very “TOUGH” physical properties.

## IMPACT PADS TO PROTECT LASHING BRIDGES

### Step 5: Installation.

The impact pads were bolted to the deck.

**A small investment made a remarkable difference in long-term deck protection and worker safety!**



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COATINGS & ELASTOMERS  
to help industrial customers  
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