



steelwise BEST OF BOTH WORLDS

BY ALANA HOCHSTEIN

AS EVIDENT THROUGH

As evident through the synergistic effect of galvanized steel, the combination of steel and zinc provides a superior corrosion-resistant material. This is particularly true in environments where moisture and oxygen are present, as the zinc coating sacrificially corrodes to protect the underlying steel. The result is a longer-lasting, more durable material that can withstand harsh conditions without significant degradation. This is a key benefit of galvanized steel, making it a preferred choice for many construction applications.

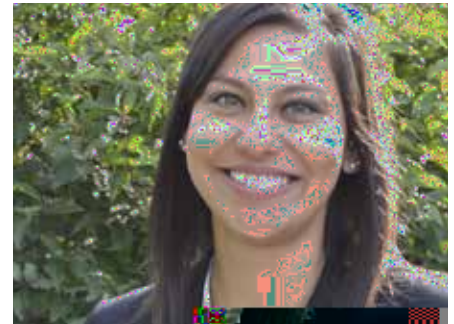
Synergistic Effect

The synergistic effect of galvanized steel is a result of the combination of steel and zinc. Steel is a strong material, but it is susceptible to corrosion. Zinc, on the other hand, is a more reactive metal that corrodes more readily than steel. When steel and zinc are combined, the zinc coating sacrificially corrodes to protect the steel. This is a synergistic effect because the combination of the two materials results in a material that is stronger and more durable than either material alone. This is a key benefit of galvanized steel, making it a preferred choice for many construction applications.

A 1.5 2.3 50 10 90 138 (1.5 2.3) A 1.5 2.3 A A (A A)

Cost Efficiency

Cost efficiency is a key benefit of galvanized steel. Galvanized steel is a more durable material than untreated steel, which means it lasts longer and requires less maintenance. This results in lower long-term costs for construction projects. Additionally, galvanized steel is a more efficient material because it is stronger and more resistant to corrosion. This means that less material is needed to build a structure, resulting in lower material costs. For more information, visit lccc.galvanizeit.org.



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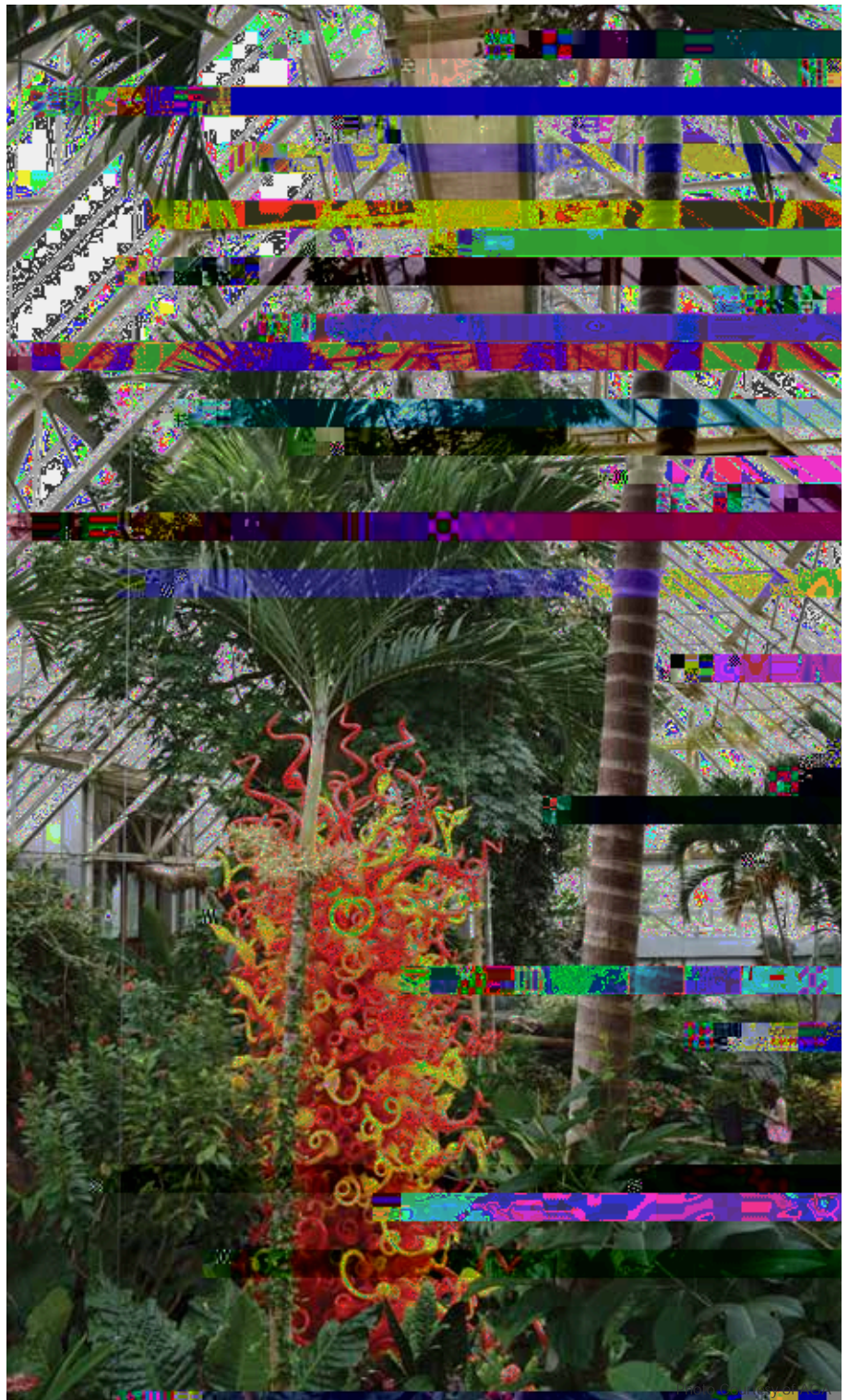
A, A1068, *Standard Practice for Life-Cycle Cost Analysis of Corrosion Protection Systems on Iron and Steel Products*,

Example Project

50,000
<50
60
3% ; 4%
A
1, 2,
71%
2 45%
45%

Specifying a Duplex System

A123: *Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.*
 A153: *Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware,*
 6386: *Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting*
 7803: *Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating*
 7803
 6386
 7803
 16: *Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel.*



Franklin Park Conservatory and Botanical Gardens in Columbus, Ohio, houses a seasonal butterfly exhibit, a Chihuly exhibit and an extensive plant collection. The varieties of temperatures, humidity levels, and herbicides involved make this conservatory a candidate for extreme corrosion, but the duplexed structural steel has held up beyond the expectations of the owner over its 20-year existence.



16

19: Selection of Protective Coatings For Use Over Galvanized Substrates.

Clarifying Roles and Responsibilities

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