Space Coast Communities Association

Preserving Your Structures: Getting Roof Systems, Coatings and Corrosion Control That Will Protect and Last

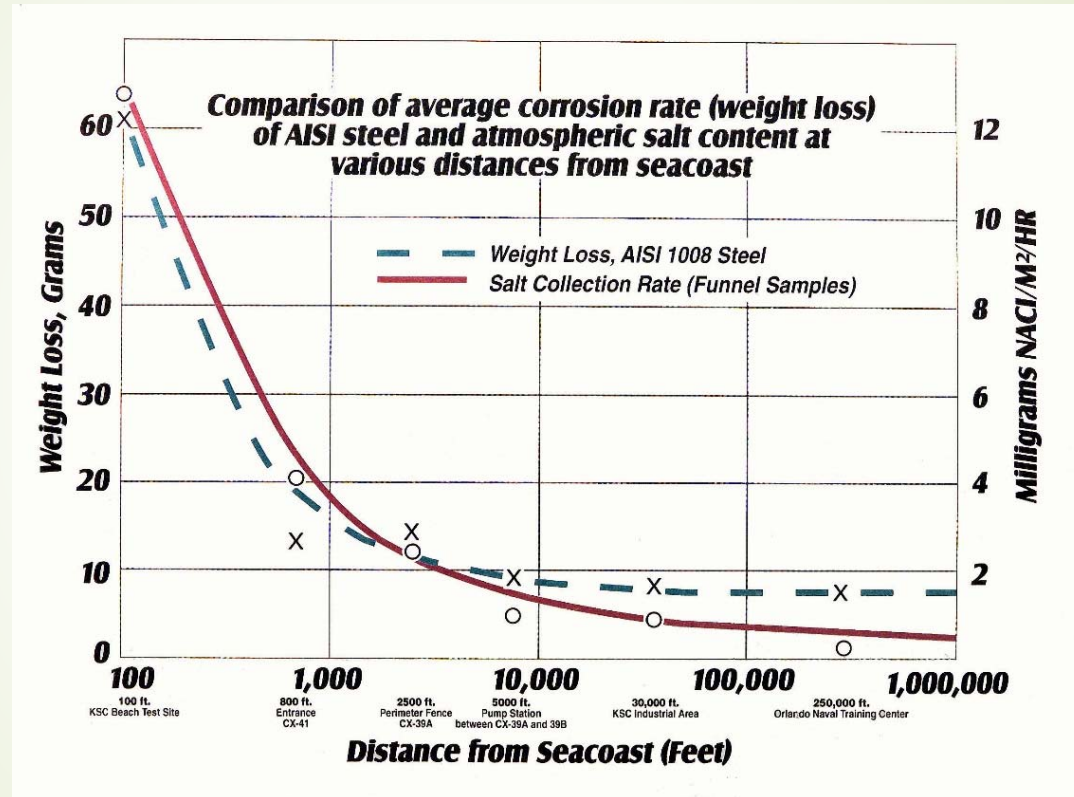Louis MacDowell

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Coatings And Corrosion Control

- The issue: The Brevard County environment is extremely harsh due to the combination of ocean salt, heat, humidity, and sunlight

- Importance of Services
  - Decorative Appearance
  - Waterproofing of Building Envelope
  - Mildew/Mold Resistance of Exterior
  - Fade Resistance of Finish Coatings
  - Preservation of Metallic and Non-metallic Surfaces
  - Structural Integrity of Substrate
  - Corrosion Prevention in Harsh Environment

Coatings and Corrosion Control

Source: J.D. Morrison, Report on the Relative Corrosivity of Atmospheres at Various Distances from the Seacoast, NASA-KSC Report MTB 099-74

Coating/Corrosion Consultation Services

- Importance
  - Advocate for Owner
    - Works to get best job in Owner's interest
    - Provides technical interface with industry in Owner's interest
  - Tailors Job to Actual Needs
    - Works with Owner to accurately define scope of work
    - Conducts technical assessment of individual structure condition
    - Provides detailed technical specifications based on defined scope
    - Selects products/services needed to produce project success
    - Assists in Contractor selection

Coating/Corrosion Consultation Services

- Services Provided
  - Protective coatings consulting
    - Coating engineering and failure analysis
    - Material selection
    - Technical specifications
  - Corrosion control and engineering
    - Metallic and non-metallic protection
    - Corrosion analysis and remedy
    - Repairs and refurbishment

Coating/Corrosion Consultation Services

- Services Provided
  - Attend preliminary meetings
    - Discuss objectives
    - Understand expectations
    - Gather historical information
  - Perform inspections of structures
    - Conduct walk down inspections
    - Identify specific problem areas
    - Sample failed areas for further analysis
    - Produce condition survey inspections with documentation
    - Provide comprehensive report of structure condition
    - Provide NACE Certified coating inspection during work

Coating/Corrosion Consultation Services

- Services Provided
  - Design services
    - Individualized technical specification for project
      - Defined scope and intent
      - Surface preparation required
      - Specific materials and methods to be used on project
      - Application methods allowed
      - Coating and work schedules
      - Safety and coating inspection requirements
  - Assist with Contractor selection and questions
  - Attend meetings
    - Pre-bid, pre-construction, etc.

Coating/Corrosion Consultation Services

- Importance of Using Proper Materials/Methods
  - Extended time between repainting
    - Superior weather/water proofing to prevent water migration
    - Mildew/mold resistance
    - Color stability in Florida sun
    - Warranty extension from manufacturer possible (up to 10 years)
  - Corrosion protection in aggressive environment
    - Material selection to provide extended corrosion protection
    - Surface preparation to extend coating life

Coating/Corrosion Consultation Services

- ➥ Specific Problem Areas
  - ➥ Fading/Discolorations
    - ➥ Paint unable to withstand Florida UV

  - ➥ Mildew/Mold
    - ➥ Paint mildewcide unable to withstand Florida humidity

Coating/Corrosion Consultation Services

- ➧ Specific Problem Areas
    - ➧ Peeling Paint
        - ➧ Improper surface preparation

    - ➧ Blistering Paint
        - ➧ Improper surface preparation

Coating/Corrosion Consultation Services

- Specific Problem Areas
  - Waterproofing
  - Water intrusion

  - Efflouresence

Coating/Corrosion Consultation Services

- Specific Problem Areas
  - Garage Door Corrosion
    - Coating unable to withstand Florida coastal environment

  - Aluminum Handrail Corrosion
    - Improper design led to aluminum rail post deterioration

Coating/Corrosion Consultation Services

- ➡ Specific Problem Areas
  - ➡ Balcony Rebar Corrosion

  - ➡ Corroded Corner Bead