

Corrosion Condition Assessment

Specialized Engineering Support Services

structural
TECHNOLOGIES

A Structural Group Company

The Corrosion Solutions Team of STRUCTURAL TECHNOLOGIES provides engineering partners as well as Structural Group's construction arms with specialty corrosion condition assessment capabilities to better serve their customers. Our investigative team, lead by NACE certified professionals goes beyond identifying the extent of damage to actually determining the root cause of deterioration within a structure affected by corrosion.

Using a variety of forensic tests performed by our trained and experienced staff, our corrosion team provides engineering partners or owners a detailed understanding of the state of corrosion activity within the structure. This knowledge is critical for optimal asset management and development of life extension strategies.

Information collected during the condition assessment, is analyzed by our team to develop corrosion forecast and life cycle models that can be used to prognosticate future damage and repairs under repair vs. repair and project alternatives.

When corrosion control solutions are appropriate, our condition assessments include recommendations for optimal corrosion control solutions, along with life cycle cost estimates of the fully installed corrosion protection solution and the impact of that investment on the durability of the structure under investigation. STRUCTURAL TECHNOLOGIES offers the most comprehensive line of corrosion control products, systems and design solutions for reinforced concrete structures.

If installed by any of Structural Group's construction companies (STRUCTURAL or PULLMAN), owners benefit from the economies of scale and single responsible provider afforded by a turnkey approach that includes solution development, product supply, system installation and extended warranties.

Assess • Inspect • Detect

- Corrosion risk surveys
- Corrosion damage surveys
- Corrosion rate analysis
- Concrete contamination, including chloride and carbonation
- Concrete resistivity
- Concrete Petrography
- Reinforcing Steel detection and location, depth of cover
- Reinforcing Steel electrical continuity surveys

Diagnose • Define • Design

- Diagnostic Services
- Time to Failure
- Chloride, Carbonation Modeling
- Corrosion Control System Selection
- Material Selection
- Custom System design of in-house and industry supplied products

Manage • Maintain • Preserve

- Routine inspections and maintenance
- Remote monitoring of selected systems



Corrosion Assessment Techniques

Some of the techniques our staff carries out when performing Corrosion Condition Assessments include:

Ground Penetrating Radar (GPR) for location of embedded metals in concrete

Electrical Continuity Testing for steel reinforcement in concrete

Corrosion Potential Mapping, per ASTM C 876 to identify corrosion risk, corrosion activity and corrosion "hot spots".

Linear Polarization Resistance (LPR), used to determine the rate of corrosion in concrete structures.

Chloride Analysis, both in situ and in laboratory.

Carbonation analysis, both in situ and in laboratory.

STRUCTURAL TECHNOLOGIES' testing and condition assessment capabilities are conducted by a team of engineers and field technicians under the direction of NACE Certified Corrosion and Cathodic Protection Specialists and Licensed Engineers. We promote a clear understanding of conditions affecting durability and we are a catalyst for practical solutions that extend the life of our client's assets.

Installation Support

- Installation supervision/quality control
- Inspection
- Commissioning

www.structuraltechnologies.com

+1-410-859-6539