

# Service Life Engineering

www.tourneyconsulting.com

**TCG are worldwide service life experts.**

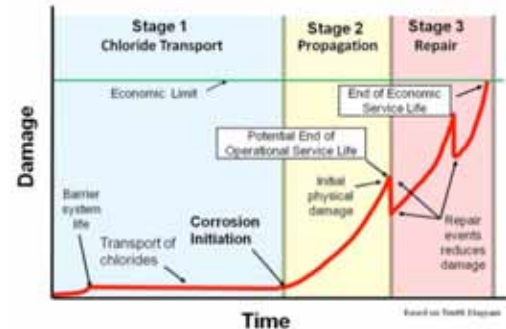
**TCG** models or calculates the service life performance of new construction, existing facilities, maintenance option analysis, asset management programs, and restoration analysis. The TCG objective is to design a system that meets the service life expectations at the lowest cost!

TCG service life expert services are utilized primarily for reinforced concrete structures and steel foundation piling systems. We use the full capabilities within TCG to accomplish these objectives:

- *Certified laboratory facilities*
- *Corrosion prevention / mitigation expertise*
- *Field engineering and evaluation teams*
- *Service life performance modeling techniques*
- *Life-Cycle Cost Analysis (LCCA)*

TCG systematically conducts service life engineering by understanding the service life objectives, the local climate, local exposure conditions, local materials, and production processes. We first spend time with clients to understand their perception of service life expectations. This is the most important step to a successful and cost effective project.

**Reinforced Concrete Service Life Cycle**



Parking



Marine



Transportation



Buildings

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TCG is a certified laboratory and certified expert user of the leading service life modeling program, called STADIUM® (by Simco Technologies). This prediction model is sophisticated and will deal with most all soil, groundwater, marine, deicing, atmospheric, and industrial conditions facing concrete. The STADIUM® modeling process requires an expert understanding of materials and the transport properties of new or existing concrete. TCG laboratories are certified by SIMCO Technologies to accurately determine the transport properties and various STADIUM® input parameters.



TCG is also expert on the use of other industry service life modeling tools such as: Life 365™, DuraModel®, and ConcreteWorks.

**Design low cost concrete systems to meet service life expectations!**

*Specialized Durability Analysis and Design*

