Project Title: C-02-03: Concrete Bridge Deck Materials Properties
PIN: R020-45-881
Responsible Unit: Region 7 Structures in Association with the Bridge Deck Task Force
Project Manager: Curtis, Robert H.

Project Goal:
The purpose of this project is to determine the concrete material properties (strength, elastic, thermal, shrinkage, and creep) associated with both cracked and uncracked bridge decks in Region 7 and to determine the variation of these properties for concrete produced using different types of aggregate.

Actions Proposed:
Uniaxial concrete strength (tension and compression) testing with strain measurements to determine modulus of elasticity, compression strength and tensile strength of concrete in existing bridge decks.

Testing to determine temperature strain relationship of existing concrete from -30E to +30Ec.

Sustained loading to measure creep.

Testing mixes using various aggregates to determine shrinkage properties for periods of up to one year.

Anticipated Work Products and Accomplishments:
Test results with elastic, thermal, shrinkage and creep parameters that could be used in future analysis.

Summary Report of findings.

Proposed Budget: $125,000