

Quality Control of Structural Concrete

It is the intent of Caltrans to place responsibility for quality of constructed work on the prime contractor. Historically however, there has been a reliance on quality assurance and acceptance testing by the Department as a primary means for determining the acceptability of structural concrete. The financing and delivery of transportation projects in California has changed over the last few decades. Caltrans is now continually challenged with reducing and competitively estimating capital project support costs. Sampling and testing of structural concrete are part of these capital support costs and how Caltrans manages this testing is under consideration.

Section 6-3.02 TESTING BY THE CONTRACTOR of the Standard Specifications places general responsibility on the contractor for performing necessary testing to ensure control of the quality of materials and work performed. Current specifications do not specify the amount or type of quality control performed by the contractor. Furthermore, current specifications envision acceptance testing by Caltrans.

The lack of specific specifications requirements related to sampling and testing of structural concrete has resulted in:

- Little or no quality control sampling and testing by contractors
- Inconsistencies in the amount of testing performed by on Caltrans administered jobs versus contracts administered by others.
- Lost opportunities to better coordinate sampling and testing with construction activities.
- Lost opportunities to realize sampling and testing cost-savings through a competitive bid environment.

Caltrans is exploring initiating a few pilot projects to implement revised specifications that require the Contractor to provide quality control testing of structural concrete. These specifications will be outlined and discussed with industry. Some the issues associated with revised specification that may be of interest include:

- Testing frequencies
- Quality control plans
- Personnel certification
- Laboratory accreditation
- Dispute procedures

The Department is interesting in gathering industry feedback and opinion on these concepts.