Contractor and Testing Lab
A Relationship Stronger Than Concrete
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The relationship between a contractor and testing lab can be strained. This need not be the case, as both entities are working toward the same goal: A quality product for the owner that both the contractor and testing lab can be proud to be associated with. In light of this common goal, it is much easier to see how the two entities can work together. The major keys to meeting the shared goal are a conscientious and professional contractor, a properly qualified and professional testing laboratory, and strong communication between the two.

The first step in establishing a successful project is thorough communication at a preconstruction meeting. The major items to discuss are obvious: are the approved plans, shop drawings and mix designs available to the contractor and testing lab at the project site. Other equally important but much less talked about items can cause the greatest conflict. It is important for the contractor and the testing lab to understand each others roles with respect to the placing sequence, and procedures (i.e. pump vs. tailgate); testing procedures (i.e. frequency of testing, testing from the end of the chute or end of the truck); responsibility for care of the test specimens (i.e. heated curing box and who maintains the temperature in the box); scheduling of placements and testing personnel, and who has the authorization to make changes to the mix on site and when testing is performed relative to any on site changes in the mix.

Coordination between the on site superintendent and the testing personnel is essential in success. To this end, the testing lab should assign one technician who can be with the project from the start to the finish. Assigning technicians to the project who "are available" on a given day leads to a high degree of discontinuity to the project and prevents the formation of a good relationship between the testing lab and the superintendent. It is a good practice for contractor personnel to conduct a review of the work prior to the arrival of the testing lab technician ensuring that the work is ready for observation by the testing lab personnel. Additionally, the contractor should review the work with the testing lab personnel so that deficiencies, or differing interpretation of the structural plans, can be resolved.

Similarly, the technician assigned to the project must be properly trained/certified in test methods and structural plan review. The technician should report to the project with properly calibrated and maintained equipment that permits the technician to accurately evaluate the materials being tested. For example, using an improperly calibrated air meter may cause the contractor to accept concrete that he may otherwise reject. Improper casting and on site storage of test cylinders may indicate that the concrete strength is lower than that specified, only to find upon coring that the strength does meet the specifications. In instances such as these, the cost to the contractor in delays and additional testing far outweigh the cost of hiring a slightly more expensive, yet greatly more qualified testing lab.

The test report distribution must be defined at the beginning of the project. This way, all parties are aware of deficiencies, and acceptable work so that proper decisions about further testing or further construction can be made. It is important that the testing lab provide reports that have been reviewed by a professional engineer in a timely manner. Although deficiencies on site should be reported immediately to all parties, properly reviewed reports are essential to document corrective action and to meet the requirements of Special Inspections. Accurate and properly reviewed reports available within a few days create a more proper construction record than electronic reports emailed to parties immediately and without proper review.

Considering today's fast pace of construction, it is easy to see why a strong relationship between the contractor and the testing lab is much more beneficial than one that is not. Working together, this relationship can be stronger than concrete.