

STATEWIDE CRITICAL REQUIREMENTS - FISCAL YEAR 2009/2010

Quality Assessment Category Number 10D Bridge Structures – Post-tensioning (PT)

1. Does the CEI staff confirm that the following requirements are adhered to: Internal ducts must be secured at not more than 30” intervals for steel pipes, 24” intervals for plastic ducts, and 12” intervals for flat plastic ducts? Ducts, joints, tendons, rebar and anchorages must be within specified position tolerances. Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-7]
2. Does the CEI staff confirm that the following requirements are adhered to: contractor records of the tendon stressing operation are required and must contain 17 items required by the specification as well as any other relevant information and a grouting report is required within 72 hrs of grouting completion? Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462- 10 &11, CPAM Section 10.7]
3. Does the CEI staff confirm that after grout is cured, all inlets and outlets are drilled and inspected with an endoscope or probe per spec. and any significant voids found are filled using the vacuum grouting method. Is there documentation to substantiate that these requirements were met and does a field visit verify this? [Spec. 462-11]
4. Does the CEI staff inspect all post-tensioned concrete box girder top slab, bottom slab, and web wall interior and exterior surfaces for cracks immediately after all post-tensioning for a span is complete? If the segmental cantilever erection method is used, is CEI staff inspecting all surfaces of web walls of all previously placed segments after each new segment is placed? Since these cracks can be very narrow and hard to see, are the surfaces sprayed with water to increase the visibility of the cracks and is a magnifying device and high intensity white light used during inspection? If cracks are found, are they reported to the Office of Construction immediately and is erection suspended until a satisfactory reason for the cracks is determined and a course of action established? Does a field visit verify the aforementioned? [Good Practice]
5. Is the PT foreman a CTQP Level II PT Technician and are at least two crew members, which may include the foreman, CTQP qualified PT Technicians? Is the grouting foreman a CTQP Level II Grouting Technician and are at least two crew members, which may include the foreman, CTQP qualified Grouting Technicians? Are there official CTQP records available to substantiate that the PT and grouting technicians fully comply with qualification requirements? [Spec. 462-1 & 105-5]