



Connecticut DOT

Number: ECD-2019-6

Bureau of Engineering and Construction

Date: May 28, 2019

## ENGINEERING & CONSTRUCTION DIRECTIVE

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Chief Engineer

### Contractor Quality Control Implementation

A three-tiered approach has been developed to clearly define requirements for contractor quality control procedures and documentation on projects of varying value and complexity. At a minimum, all construction projects will include the Standard Specifications, Article 1.05.03 (Supplemented July 2017). Projects over \$5 Million (in estimated construction costs) require the inclusion of Contractor QC Program Level 1 or Level 2 in addition to the Article 1.05.03 provisions.

#### **Description of Tiers:**

**Standard Specifications Article 1.05.03 (Supplemented July 2017), “Conformity with Plans and Specifications (including Quality Control)”** - This Article clearly identifies that the Contractor, and not the Department, is responsible for quality control on the project. It requires the submission of a Quality Management Plan (QMP) to the Engineer which is an overall internal quality control document which each contractor must develop for their core competencies, and update to align with the scope of the bid project. As part of the Standard Specifications, this requirement applies to **all projects**. An “example” template has been developed for this tier and may be shared with the Contractor after Contract award to aid them in complying with this requirement. The Notice to Contractor – 1.05.03 Quality Management Plan (found on the [Department’s Owned Special Provisions \(OSP\) webpage](#)) which should be included in all contracts.

The special provisions listed below add additional requirements to, **but do not replace**, the basic QMP.

**Item #0969054A Contractor QC Program Level 1** - This item is an OSP that is recommended for projects in the **\$5 Million to \$30 Million range**. This item requires a project-specific plan that must be written and administered by the Contractor based on the scope of the project and within the guidelines of the special provision. This plan must include a Quality Control Manager (QCM). The following nine elements are required in this plan: Organization; Design Control; Procurement Control; Control of Subcontractors, Fabricators and Suppliers; Inspection; Special Process Control; Non-Conformance Resolution; Records; and Reporting. The Notice to Contractor – Contractor QC Program Level 1 should be included in the contract when this item is used.

**Item #0969053A Contractor QC Program Level 2** - This item is an OSP that is recommended for projects **greater than \$30 Million**. Again, this is a project-specific plan that should be written and administered by the Contractor based on the scope of the project and within the guidelines of the special provision. This item also requires heightened qualifications for the QCM. The required experience for the QCM increases from 7 to 10 years and also **requires** a Bachelor's degree in civil or construction engineering and documented certification or training (NETTCP or approved equal) in construction quality control principles. There is also **one additional element** (for a total of 10): Document Control. Finally, the recommended minimum bid price is greater for this tier, to account for the multiple quality control technicians that will be necessary on a project of this size in addition to the QCM. The Notice to Contractor – Contractor QC Program Level 2 should be included in the contract when this item is used.

### **Design Phase Responsibilities:**

For projects that exceed \$5 Million in estimated contract value, a Quality Control Program meeting between the Design team and District Construction is required to take place before the Final Design Plans (FDP) submission. The following will be decided at this meeting:

1. Tier selection. Selection guidance is not rigid. A higher or lower level may be selected based on the complexity of the project. For example, it may be suitable to select QC Program Level 1 for a project below \$5 Million if complex mechanical work is included, such as on a moveable bridge.
2. Minimum lump sum bid amount (guidance included within OSPs and Contractor Quality Control Guidance Document).
3. Critical Work Category selections based on the scope of the project.

### **Construction Phase Responsibilities:**

District Construction personnel are responsible for review of submittals (QMP and QC Program) and specification enforcement.

**Resources:**

<b>Document</b>	<b>Relevant Parties</b>	<b>ProjectWise Location</b>	<b>URL (Web Address)</b>
QMP Template	Construction & Contractor	ProjectWise → Construction Libraries → Approved Forms	<a href="#"><u>Quality Management Plan (OMP) Template</u></a>
QC Program Volume 3 Payment Worksheet	Construction	ProjectWise → Construction Libraries → Approved Forms	<a href="#"><u>QC Program Volume 3 Payment Worksheet 1-9-19</u></a>
Contractor Quality Control Guidance Document	Design and Construction		<a href="#"><u>Owned Special Provision Guidance Document Contractor Quality Control Program</u></a>
Item #0969054A - Contractor Quality Control Program Level 1	Design and Construction		<a href="#"><u>Owned Special Provisions</u></a>
Item #0969053A - Contractor Quality Control Program Level 2	Design and Construction		<a href="#"><u>Owned Special Provisions</u></a>