

# QUALITY CONTROL

## PART 1 - GENERAL

### 1.1 SUMMARY

- A. Quality assurance and control of installation.
- B. References.
- C. Field samples.
- D. Manufacturers' field services and reports.

### 1.2 RELATED SECTIONS

- A. Section 01039 - Coordination and Meetings
- B. Section 01050 - Field Engineering / Surveying
- C. Section 01090 Reference Standards.
- D. Section 01300 Submittals
- E. Section 01310 - Schedules and Reports
- F. Section 01410 Testing Laboratory Services and Quality Assurance
- G. Section 01600 Material and Equipment
- H. Section 01630 - Product Substitutions
- I. Section 01720 - Project Record Documents

### 1.3 SCOPE

- A. Contractor's provision and implementation of a quality control plan to assure compliance of the work of this project with the Contract Documents.
- B. The work of this section is separate from and in addition to testing and inspections performed by professional laboratories hired by Owner or Contractor.
- C. Requirements for testing and inspections performed by professional laboratories are specified in Section 01410 and in individual specification sections as applicable.
- D. Provision of professional inspection and testing services required to verify compliance with requirements specified or indicated does not relieve the Contractor of responsibility for compliance with Contract Document requirements.

- E. Specific quality control requirements for individual construction activities are set forth in the sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
  - 1. Inspections, tests, and related actions specified are not intended to limit any Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
  - 2. Requirements for the Contractor to provide quality control services required by the Architect, Owner or authorities having jurisdiction are not limited by provisions of this section.

#### **1.4 QUALITY ASSURANCE/CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

#### **1.5 CONTRACTOR QUALITY CONTROL**

- A. Provide a quality control organization and system within the Contractor's organization to perform quality control inspections, reviews, and tests for all aspects of the work, including that of subcontractors, to assure compliance of the work with Contract Documents. The Contractor's quality control system shall cover all construction operations including on-site and off-site fabrication.
- B. Implement Contractor quality control through provision of a Quality Control Plan providing for effective planning and control of the following construction related activities:
  - 1. Organization: Describe in chart form the organization of personnel assigned to and responsible for implementing Contractor's quality control plan. Describe functional responsibility of personnel assigned to quality control program and show relationship of program to site subcontractors.
  - 2. Document Control: Describe how field design changes are identified and controlled on site to ensure only the latest approved documents are used.
  - 3. Materials and Equipment Purchases: Describe actions to be taken to ensure that purchased materials and equipment meet specified quality levels.
  - 4. Materials Handling, Storage, and Protection: Describe how construction materials, including architectural finish materials and other construction materials of a sensitive or non-durable nature, are to be stored, preserved, and controlled.

- Clearly identify construction materials that must be specifically stored and preserved in accordance with manufacturer's recommendations.
5. Contractor's Work: Indicate how Contractor's work is planned and controlled to ensure that all completed work complies with the Contract Documents.
  6. Non-Conformance and Corrective Actions: Describe how non-conformances found during inspections shall be remedied and indicate the schedule for such action.
  7. Records: Identify quality control records considered essential to the efficient operation of the quality control plan and describe their handling. Include inspection reports and test results. Include sample reporting forms in Quality Control Plan submitted.
  8. Inspection Schedule: Key to construction schedule and list according to specification section indicating what inspections and tests will be performed to assure Contract compliance of project construction. Include inspections and tests performed by agencies other than Contractor's forces in addition to Contractor furnished testing and inspection.
  9. Submittals Procedure: Identify and describe procedure for reviewing submittals for Contract compliance and adherence to specification requirements to be performed prior to submittal for Architect's review.
  10. Monitor all products proposed to be incorporated into the work of this contract to warranty to the Owner as defined in Section 01740 - Warranties, that the completed work does not include any asbestos or other hazardous materials.
- C. Submit Quality Control Plan as specified within 30 days of Notice to Proceed with the work of this Contract.

## **1.6 REFERENCES**

- A. Conform to reference standard by date of issue current on date receiving bids establishing IGMP.
- B. Obtain copies of standards when required by Contract Documents.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

## **1.7 FIELD SAMPLES**

- A. Install Field Samples at the site as required by individual specifications Sections for review and as directed by Owner and Architect to reflect exterior skin details, materials, etc.
- B. For vertical Field Sample panels, provide supports, back-up materials, and structural framing as necessary to support the Field Sample for the duration of its use.
- C. Accepted samples represent a quality level for the Work.
- D. Where Field Samples are to be reviewed and accepted by the Architect, obtain Architect's acceptance prior to proceeding with installation.
- E. Where Field Sample is specified in individual Sections to be removed, clear area when instructed by Architect.

## **1.8 MANUFACTURERS' FIELD SERVICES AND REPORTS**

- A. Submit qualifications of observer to Architect 30 days in advance of required observations. Observer subject to approval of Architect and Owner.
- B. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start up of equipment, test, adjust, and balance of equipment and training as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report within ten (10) working days of observation to Architect for review.

## **PART 2 - PRODUCTS (Not Used)**

## **PART 3 - EXECUTION**

### **3.1 CONTRACTOR'S QUALITY CONTROL PLAN**

- A. Maintain and execute approved Contractor Quality Control Plan throughout the duration of this Contract to assure compliance of the work with the Contract Documents.
- B. Provide certifications and perform inspections in accordance with requirements of related work sections and the requirements of individual technical specification sections.

**END OF SECTION**