# SECTION 01450 - QUALITY CONTROL

## PART 1 - GENERAL

### 1.1 REQUIREMENTS INCLUDED

A. Provision of specified Testing Laboratory Services.

B. All testing is to be provided by the appropriate Contractor as required for their work unless otherwise noted.

### 1.2 RELATED REQUIREMENTS

A. GENERAL CONDITIONS of the CONTRACT: Inspections, testing, and approvals required by public authorities.

B. INDIVIDUAL SPECIFICATION SECTIONS: Inspections and tests required, and standards for testing.

### 1.3 DESCRIPTION

A. The Owner, through the Construction Manager, will coordinate and pay for concrete compressive strength testing, soils compaction testing, masonry strength testing and inspections, structural steel field inspections and spray applied fire proofing for the purpose of quality assurance. All other required testing shall be coordinated and paid for by the Prime Contractor requiring such testing to complete their work.

B. Employment of testing laboratory shall in NO WAY RELIEVE Contractor of obligation to perform Work in accordance with requirements of Contract Documents and to perform necessary testing and inspections for purposes of quality control.

### 1.4 REFERENCE STANDARDS

A. American National Standards Institute (ANSI)/American Society for Testing and Materials (ASTM).

1. ANSI / ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as used in Engineering Design and Construction.

2. ANSI / ASTM E329 - Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

B. 2006 International Building Code (IBC), Chapter 17 – Structural Tests and Special Inspections

C. American Concrete Institute Building Code – ACI 318

D. American Welding Society - AWS D1.1

1.5 QUALITY ASSURANCE

A. Comply with requirements of ANSI / ASTM D3740 and ANSI/ASTM E329.

B. Testing Laboratory Qualification: Shall have been inspected by a nationally recognized inspection agency, acceptable to Architect/Engineer. Evidence of such inspection and current status shall be provided to Architect/Engineer. In addition, the approved lab shall document participation in a nationally recognized soils and concrete reference testing program during the twelve (12) months preceding the start of work on this project. Results of reference testing shall indicate an average or above rating for the laboratory to be acceptable.

1. Laboratory authorized to operate in State in which Project is located.

C. Laboratory Representative: Laboratory shall maintain a full-time registered Engineer on staff to review services.

D. Field Technicians shall be fully certified to perform the field tests and inspections to which they are assigned. At a minimum they shall possess the following certifications:

1. Concrete – ACI Field Technician Level 1
2. Welding – AWS Certification
3. Nuclear Density Probe – Trained and Certified by an agency acceptable to the NRC or other governing body.

E. Testing Equipment: Shall be calibrated at reasonable intervals with devices of accuracy, traceable to either NBS standards or accepted values of natural physical constants.

1.6 CONTRACTOR SUBMITTALS

A. PRIOR TO START OF WORK, submit testing laboratory name, address, and telephone number, and names of full-time registered Engineer and responsible officer to Construction Manager. Include qualification data to demonstrate their capabilities and experience.

B. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.

C. Schedule all tests and inspections, except concrete compressive strength tests, soils compaction tests and structural steel weld and bolt tests; prepare a schedule of tests, inspections and similar quality control services required by the Contract Documents. Submit schedule within 30 days of Notice to Proceed.

1.7 LABORATORY RESPONSIBILITIES

A. Test samples of mixes submitted by Contractor.

B. Provide qualified personnel at site after due notice; cooperate with Architect/Engineer, Construction Manager and Contractor in performance of services.

C. Perform specified inspections, sampling, and testing of products in accordance with specified standards.

D. Ascertain compliance of materials and mixes with requirements of Contract Documents.

E. Promptly notify Construction Manager and Contractor of observed irregularities or non-conformance of Work or products.

F. Perform additional inspections and tests required by Architect/Engineer and Construction Manager.

G. Obtain samples at the Project Site or source of the materials to be tested.

1.8 LABORATORY REPORTS

A. After each inspection and test, promptly submit four (4) copies of laboratory reports to Construction Manager and to Contractor. Report shall include:

1. Date issued.
2. Project title and number.
3. Name of inspector.
4. Date and time of sampling or inspection.
5. Identification of product and Specification section.
6. Location of sample or test in the Project.
7. Type of inspection or test. Date of test. Time of test.
8. Results of tests and compliance with Contract Documents.

B. Daily Field Reports shall be prepared at the close of each day and distributed to all parties within 24 hours via fax or e-mail.

1.9 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory MAY NOT release, revoke, alter or enlarge on requirements of Contract Documents.

B. Laboratory MAY NOT approve or accept any portion of the Work.

C. Laboratory MAY NOT assume any duties of the Contractor.

D. Laboratory HAS NO authority to stop Work.

1.10 CONTRACTOR RESPONSIBILITIES

A. Notify testing agencies at least 24 hours in advance of time when work that requires testing or inspection will be performed.

B. Cooperate with laboratory personnel, and provide access to Work, and to manufacturer's facilities.

C. Provide incidental labor and facilities to:

1. Provide access to Work to be tested.
2. To facilitate inspections and tests.
3. Provide for proper storage and curing of test samples in accordance with direction from testing agency.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION