PERKINS+WILL C140135461 (MMC) /152168.00 (P+W) June 14, 2013 February 07, 2014

SECTION 01 46 00.1 - STRUCTURAL TESTS AND INSPECTIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The Owner shall employ a Special Inspector to oversee and administer, and an independent Testing Agency(s) to perform, a Program of Structural Tests and Inspections for compliance with Chapter 17 of the 2009 International Building Code.. The SER shall prepare a statement of structural tests and inspections, specifying the tests and inspections to be performed throughout the construction of this project. Submission and approval of this statement must be complete prior to beginning construction.
 - 1. The Special Inspector will organize and direct the test and inspection program. All inspection and test reports shall be submitted to the Contractor, Construction Manager (CM), the Owner's Representative and the SER. The Contractor shall be responsible for understanding the test and inspection program and notifying the Testing Agency and the Special Inspector when work is ready for tests and/or inspections. The Contractor will provide access to the Testing Agency, Special Inspector and the SER. Inspections and tests of the Structural Tests and Inspection Program will not relieve the Contractor of responsibility for supervision, testing, and inspection for quality control of the work.
 - 2. The Owner's Representative will provide testing and inspection reports to the local building official when requested by the local building official. Upon completion of the construction, the independent Special Inspector will make a final report on the satisfactory completion of the Program for Structural Tests and Inspection to the building official and to the Owner's Representative.

1.3 RESPONSIBILITIES

A. Special Inspector

1. The Statement of Structural Tests and Inspections is submitted as a condition of permit issuance in accordance with the Structural Tests and Inspections requirements of the applicable Building Code. It includes a Schedule of Structural Tests and Inspections applicable to this Project as well as the name of the Special Inspector who will oversee and administer the program and the

PERKINS+WILL C140135461 (MMC) /152168.00 (P+W) June 14, 2013 **February 07, 2014**

identity of other agencies intended to be retained for conducting these inspections.

- 2. Keep records of inspections, and shall see that inspection reports are furnished to the Owner, Structural Engineer of Record, Geotechnical Engineer of Record (for Earthwork only), Architect of Record, and General Contractor.
- 3. A Final Report of inspections documenting satisfactory completion of all required Structural Tests and Inspections and correction of any discrepancies noted in the inspections shall be furnished to the building official.

B. Testing Agency(s)

- 1. The scope of work of the testing agency(s) is defined in the attached "Statement of Structural Tests and Inspections".
- 2. The testing agency shall be NVLAP certified, licensed by the State in which the Project is located, and have at least one professional engineer registered by the State in which the Project is located on staff. The testing agency and its personnel shall maintain in good standing the certifications, licensing, and registrations required by the various agencies noted herein and the State in which the Project is located for the duration of the Project.
- 3. The testing agency shall have at their immediate disposal, all personnel and sampling, testing, field and laboratory equipment (maintained in good working order and properly calibrated) necessary to perform the work defined herein.
- 4. Earthwork, Driven Pile, and Drilled Pier inspectors shall be professional geotechnical engineers registered in the State in which the Project is located. Non-registered "assistant" inspectors may perform certain sampling, testing, and inspection functions, but only under the direct supervision of the testing agency's registered geotechnical engineer.
- 5. Concrete inspectors shall be certified in accordance with ACI's Certification Program and licensed by the State in which the Project is located. Non-certified "assistant" inspectors may perform certain sampling, testing, and inspection functions, but only under the direct supervision of the testing agency's certified inspector.
- 6. Inspectors for welded fabrications and connections shall be AWS Certified Welding Inspectors (CWI) in accordance with the provision of AWS QC1, "Standard and Guide for Qualification and Certification of Welding Inspectors." Assistant inspectors may perform certain sampling, testing, and inspection functions, but only under the direct supervision of the testing agency's certified inspector.
- 7. Inspectors for bolted connections shall be well versed in the "Specification for Structural Joints Using ASTM A325 or A490 Bolts" and "Commentary" as published by the American Institute of Steel Construction (AISC).

PERKINS+WILL C140135461 (MMC) /152168.00 (P+W) June 14, 2013

February 07, 2014

- 8. Sampling, testings, and inspections for compliance shall be checked against the Contract Documents (i.e., Drawings, Project Specifications, Addendums and Referenced Standards) and the approved Shop Drawings. Perform sampling, testing, and inspections in coordination with the General Contractor and in a timely manner so as to provide the General Contractor with sufficient time to repair or replace non-conforming materials or work. Notify the General Contractor's Site Superintendent immediately when non-conforming materials or work are discovered. Non-conforming materials or work that are not corrected before the inspector leaves the site for the day shall be recorded in the inspection report and issued as required herein.
- 9. Re-sample, re-test, and re-inspect all materials and work found not to conform to the requirements of the Contract Documents or Shop Drawings. Testing agency(s) to note in its reports when re-sampling, re-tests, and re-inspections were performed.
- The testing agency shall be responsible for sending copies of all sampling, testing and inspection reports, within 48 hours of performance, to the Owner, Special Inspector, Architect of Record, Structural Engineer of Record, Geotechnical Engineer of Record (for Earthwork only), and General Contractor.
- C. Construction Manager, General Contractor and Sub-Contractors
 - 1. Cooperate with the testing agency(s), Special Inspector, Building Official, Architect and the SER, and provide safe access to the work areas.
 - 2. Provide incidental labor, equipment, materials and facilities to obtain, handle, store and cure samples at the site or at the source of products to be sampled, tested, and inspected.
 - 3. Notify the appropriate Testing Agency at least 24 hours prior to expected times of operations that require sampling, testing, and inspections.
 - 4. Testing, inspection and sampling in the shop or field shall not relieve the General Contractor or Sub-Contractors of their responsibilities to furnish materials and workmanship that comply with the requirements of the Contract Documents and the Shop Drawings.
 - 5. The Contractor is responsibility for supervision, testing, and inspection as required for quality control of the work..

1.4 CONFLICTING REQUIREMENTS

A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

PERKINS+WILL C140135461 (MMC) /152168.00 (P+W) June 14, 2013 **February 07, 2014**

1.5 STATEMENT OF STRUCTURAL TESTS AND INSPECTIONS

A. The Statement of Structural Tests and Inspections is attached at the end of this Section.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION(Not Used)

END OF SECTION 01 46 00.1