Statement of Structural Tests and Special Inspections

Hickory Solar Special Inspection Requirements

This Statement of Structural Tests and Special Inspections (STSI) is being submitted as required by Chapter 17 of the 2015 International Building Code (IBC). It includes the following:

- 1. Concrete
- 2. Soils
- 3. Qualification requirements for Inspectors and Testing Technicians
- 4. Listing of Required Structural Tests and Special Inspections

The Construction Contractor's Quality Control Supervisor will provide copies of all special inspection reports and associated documentation to the Building Official. These tests and inspections are in addition to the inspections required by Virginia Uniform Statewide Building Code (VUSBC) section 113. The special inspection does not waive the requirement for inspections by the building inspector. The Contractor is responsible for scheduling all inspections required by the VUSBC with the Bureau of Permits and Inspections. The Contractor will be required to correct all deficiencies discovered in the Special Inspection and Structural Testing program.

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PE or SE Stamp

Qualification Requirements for Inspectors and Testing Technicians

PE/SE Structural Engineer – licensed PE or SE specializing in the design of buildings

and structures

American Concrete Institute (ACI) Certification

ACI-CCSI	Concrete Construction Special Inspector
ACI-LTT	Concrete Laboratory Testing Technician Level 1 or 2
ACI-STT	Concrete Strength Testing Technician
ACI-FTT	Concrete Field Testing Technician – Grade I

Structural Testing and Special Inspection Requirements

Concrete Construction, IBC Section 1705.3

The special inspections for the concrete construction shall meet the following requirements:

Work Type	Inspection	IBC	Other	Required
	Frequency	Section	Applicable	Qualifications
			Standard	
Inspection of reinforcing steel,	Prior to	1908.4	ACI 318:	ACI-CCSI
including proper size and	concrete		Ch. 20,	
placement.	placement		25.2,25.3,	
	(periodic)		26.6.1-	
			26.6.3	
Inspection of anchors either	Prior to and	-	ACI 318:	ACI-CCSI
cast in concrete or post-	following		17.8.2	
installed in concrete	concrete			
	placement			
	(periodic)			
Verify use of required design	Prior to	1904.1,	ACI 318:	ACI-CCSI
mix	concrete	1904.2,	Ch. 19,	
	placement	1908.2,	26.4.3,	
	(periodic)	1908.3	26.4.4	
Prior to concrete placement,	Prior to	1908.10	ASTM	ACI-STT or
fabricate specimens for	concrete		C172	ACI-LTT
strength tests, perform slump	placement		ASTM C31	
and air content tests, and			ACI 318:	
determine the temperature of			26.4, 26.12	
the concrete.				
Inspect concrete placement for	During each	1908.6,	ACI 318:	ACI-CCSI
proper application techniques.	concrete	1908.7,	26.5	
	placement	1908.8		
Verify maintenance of	During each	1908.9	ACI 318:	ACI-CCSI
specified curing temperature	concrete		26.5.3-	
and techniques.	placement		26.5.5	

Verify in-situ concrete	During each	-	ASTM	ACI-FTT
strength, prior to stressing of	concrete		C172,	
tendons in post-tensioned	placement		ASTM C31,	
concrete and prior to removal			ACI 318:	
of shores and forms from			26.11.2	
beams and structural slabs.				
Inspect formwork for shape,	Prior to	-	ACI 318:	ACI-CCSI
location and dimensions of the	concrete		26.11.1.2(b)	
concrete member being	placement			
formed.				

Soils, IBC Section 1705.6

The special inspections for the inspection of soils shall meet the following requirements:

Work Type	Inspection	IBC	Other	Required
	Frequency	Section	Applicable Standard	Qualifications
Verify materials below	Prior to	-	-	PE/SE
shallow foundations are	concrete			
adequate to achieve the design	placement			
bearing capacity.	(periodic)			
Verify excavations are extended to proper depth and	Prior to concrete	-	-	PE/SE
have reached proper material.	placement (periodic)			
Perform classification and	Periodic	-	-	PE/SE
testing of compacted fill				
materials.				
Verify use of proper materials,	Continuous	-	-	PE/SE
densities, and lift thickness				
during placement and				
compaction of compacted fill.				
Prior to placement of	Prior to	-	-	PE/SE
compacted fill, observe	compacted fill			
subgrade and verify that site	placement			
has been prepared properly.	(periodic)			