

2024 IBC Task Force - Item 30

**TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND
TESTS OF CONCRETE CONSTRUCTION**

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCE STANDARD ^a	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	—	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706; b. Inspect single-pass fillet welds, maximum $\frac{5}{16}$ " and c. Inspect all other welds.	—	X	AWS D1.4 ACI 318: 26.6.4	—
	—	X		
	X			
3. Inspect anchors cast in concrete.	—	X	ACI 318: 17.8.2	—
4. Inspect anchors post-installed in hardened concrete <u>members</u> . ^b a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in <u>4.a.</u>	X		ACI 318: 17.8.2.4	—
		X	ACI 318: 17.8.2	
5. Verify use of required design mix.	—	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6a. Prior to concrete placement, fabricate specimens for strength tests, perform slump or slump flow, air content tests, density and determine the temperature of the concrete with all results included in the test reports.	X	—	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
6b. Verify that concrete specimens for strength tests are maintained in the required initial curing and laboratory curing environment, and that the maximum and minimum temperatures during the initial curing period are reported.	X	-	ACI 318 26.12 ASTM C31	-
7. Inspect concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	—	X	ACI 318: 26.5.3-26.5.5	1908.9

9. Inspect prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	X X	— —	ACI 318: 26.10	—
10. Inspect erection of precast concrete members.	—	X	ACI 318: 26.9	—
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: 26.11.2	—
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	—	X	ACI 318: 26.11.1.2(b)	—

For SI: 1 inch = 25.4mm.

- a. Where applicable, see Section 1705.12, Special inspections for seismic resistance.
 - b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of work.
- (Effective January 1, 2022)