



STATEMENT OF SPECIAL INSPECTIONS

Name of Owner

Project Address

Permit Number

Job Description

This Statement of Special Inspections is submitted to outline the requirements of 2019 CBC Sections 1704 and 1705. Included are:

- Schedule of special inspections and tests applicable to this project:
 - Special inspections, per Section 1704 and 1705
 - Special inspection for seismic and wind resistance, per Sections 1704.3.2, 1704.3.3, 1705.11, 1705.12, and 1705.13
 - Structural observations, per Section 1704.6
 - Material testing and/or load testing, per Sections 1706 through 1709
- List of the special inspectors, testing agencies, and registered design professionals that will be retained to conduct the applicable tests, observations, and testing required
- Contractor's statement of responsibility, per Section 1704.4

Special inspections and testing, and structural observations, shall be performed in accordance with the approved plans and specifications, this statement, approved testing procedures, applicable listing information for fabricated items, and CBC Chapter 17.

The Schedule of Special Inspections summarizes the special inspections and tests required. Special inspectors shall refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests or observations required by the approved plans, specifications, or required by the Building Official shall also be performed.

Interim reports will be submitted to the Building Official and the registered design professional in responsible charge, in accordance with CBC Section 1704.2.4.

At the conclusion of work included in the permit, a report of special inspections and structural observations shall be submitted to the Building Inspector. This final report shall document:

- Required special inspections
- Final results of structural testing
- Correction of discrepancies noted in inspections
- Written statement of structural observations, and identify any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved

The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections. In partial fulfillment of these obligations, the Owner will retain and directly pay for the Special Inspections as required in CBC Section 1704.2.

This plan has been developed with the understanding that the Building Official will:

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- Review and approve the qualifications of the Special Inspectors who will perform the inspections
- Monitor special inspection activities on the job site to assure that the Special Inspectors are qualified and are performing their duties as called for in this Statement of Special Inspection
- Review submitted inspection reports
- Perform inspections as required by CBC and MPMC

Prepared by:

Registered Design Professional in Responsible Charge

Signature

Date

Owner's Authorization:

Owner, Registered Design Professional or Agency who is hiring the Special Inspector or Special Inspection Agency

Owner

Phone Number

Name

Phone Number

Signature

Date

Date

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Schedule of Inspection, Testing Agencies, and Inspectors

The following are the testing agencies and special inspectors that will be retained to conduct tests and inspection on this project.

Responsibility	Firm	Address/Telephone/Email
1. Special Inspection (except for geotechnical)		
2. Material Testing		
3. Geotechnical Inspections		

Seismic Requirements (Section 1704.3.2)

Description of seismic-force-resisting system and designated seismic systems subject to special inspections as per Section 1705.12 or 1705.13:

The extent of the seismic-force-resisting system is defined in more detail in the construction documents

Wind Requirements (Section 1704.3.3)

Description of wind-force-resisting system and designated wind resisting components subject to special inspections as per Section 1705.11:

The extent of the main wind-force-resisting system is defined in more detail in the construction documents

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Schedule of Special Inspections

Column headers:

C = Full-time observation of work by an approved special inspector while the work is being performed.

P = Intermittent observation of work by an approved special inspector where the work has been performed and at the completion of work.

Box entries:

X = Is placed in the appropriate column denoting either "C" continuous or "P" periodic inspections.

— = Denotes an activity that is either a one-time activity or whose frequency is defined in some other manner.

Notes/Referenced Standards: Indicates the applicable reference standard applicable to the criteria, method and frequency of the special inspection or testing required. Additional notes may be included in this box denoting frequency of inspections or the special inspection agency responsible for the particular inspection item.

Additional details regarding inspections and tests are provided in the project specifications or notes on the drawings.

Verification and Inspection	C	P	✓if Req'd	Notes/Referenced Standards
1704.2.5 – Inspection of Fabricators:				
1. Fabrication and implementation procedures	—	—		
2. Fabrication approval	—	—		
1704.6 – Structural Observations				
1. Prior to the commencement of observations, the structural observer shall submit to the Building Official a written statement identifying the frequency and extent of structural observations	—	—		
2. At the conclusion of work included in the permit, the structural observer shall submit to the Building Official a written statement that the site visits have been made and identify any reported deficiencies which have not been resolved	—	—		
1705.1.1 – Special Cases:				
1. Construction materials and systems that are alternatives to materials and systems prescribed by the applicable code	—	—		
2. Unusual design applications of materials described in the applicable code	—	—		
3. Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in the applicable code or referenced standards	—	—		List code reports (attached to construction documents) for each applicable material/system
1705.2 – Steel Construction, Quality Assurance per AISC 360				
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, Chapter N, Paragraph 3.2 for compliance with construction documents. Includes structural steel, castings, forgings, fasteners, rods, welding, anchors,	—	—		AISC 360: N3.2, N5.7

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braces, stiffeners, member locations, joint details, etc.)			
2. Identification markings for structural steel materials conform to ASTM standards specified in the approved construction documents (e.g. structural shapes, castings, forgings, bolts, washers, nuts, rods, consumables for welding, anchors, etc.)		X	AISC: A3
3. Embedments (Verify diameter, grade, type, length, and depth of embedded item)		X	AISC 360: N5.7
4. Verify compliance with details on the construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection		X	AISC 360: N5.7
5. Structural Steel Welding:			
a. Inspection tasks prior to welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Random Basis (O) or each joint or member (P) per table		AISC 360: N5.5
b. Inspection tasks during welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)			
c. Inspection tasks after welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)			
d. Nondestructive Testing (NDT) of welded joints:			
i. Complete penetration groove welds 5/16" or greater in risk category III or IV		X	N5.5b
ii. Complete penetration groove welds 5/16" or greater in risk category II		X	N5.5b
iii. Thermally cut surfaces of access holes when material t>2"		X	N5.5c
iv. Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1		X	N5.5d
v. Fabricator's NDT reports when fabricator performs NDT		X	N5.5g
6. Inspection of High-Strength Bolting			
a. Inspection tasks prior to bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table 5.6-1)	Random Basis (O) or each joint or member (P) per table		See N5.6 for exceptions based on installation method.
b. Inspection tasks during bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)			
i. Pre-tensioned and slip-critical joints			
ii. Snug-tight joints			
c. Inspection tasks after bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360: Table N5.6-3)			
7. Inspection of steel elements of composite construction prior to concrete placement in		—	AISC 360: N6, Table N6.1. Perform these

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accordance with QA tasks listed in AISC 360: Table N6.1			tasks for each steel element
Table 1705.3 – Concrete Construction			
1. Inspection of reinforcing steel, including prestressing tendons, and placement		X	ACI 318: 3.5, 7.1-7.7 CBC 1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.3.1	—	—	AWS D1.4 ACI 318: 3.5.2
3. Inspection of anchors cast in concrete where allowable loads have been increased or where strength design is used.		X	ACI 318: 3.8.6, 8.1.3, 21.2.8 CBC 1908.5, 1909.1
4. Inspection of anchors post-installed in hardened concrete members ¹		X	ACI 318: 3.8.6, 8.1.3, 21.2.8 CBC 1912.1
5. Verify use of required design mix		X	ACI 318: Ch.4, 5.2-5.4 CBC 1904.2, 1910.2, 1910.3
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	X		ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8 CBC 1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques	X		ACI 318: 5.9, 5.10 CBC 1910.6, 1910.7, 1910.8
8. Inspection for maintenance of specified curing temperature and techniques		X	ACI 318: 5.11-5.13 CBC 1910.9
9. Inspection of prestressed concrete:			
a. Application of prestressing forces	X		ACI 318: 18.20 ACI 318: 18.18.4
b. Grouting of bonded prestressing tendons in the seismic-force –resisting system	X		
10. Erection of precast concrete members		X	ACI 318: Ch. 16
11. Verification of 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: 6.2
12. Inspect formwork for shape, location and dimensions of the concrete member being formed		X	ACI 318: 6.1.1
1705.4 – Masonry Construction			TMS 402/ACI 530/ASCE 5, and TMS 602/ACI 530.1/ASCE 6
1. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified		X	Art. 1.5
2. Verification of f'_m and f'_{acc} prior to construction except where specifically exempted by this code		X	Art. 1.4B
3. Verification of slump flow and VSI as delivered to the site for self-consolidating grout	X		Art. 1.5B.1.b.3
4. As masonry construction begins, the following shall be verified to ensure compliance:			
a. Proportions of site-prepared mortar		X	Art. 2.6A
b. Construction of mortar joints		X	Art. 3.3B

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c. Grade and size of prestressing tendons and anchorages		X		Art. 3.4, 3.6A
d. Location of reinforcement, connectors, prestressing tendons and anchorages		X		Art. 3.6B
e. Prestressing technique		X		Art. 2.4B, 2.4H
f. Properties of thin-bed mortar for AAC masonry	X	X		Art. 2.1C Continuous inspection for first 5000 SF of ACC masonry. Periodic inspection required after first 5000 SF
5. Prior to grouting, verify that the following are in compliance:				
a. Grout space		X		Art. 3.2D, 3.2F
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		X		Art. 2.4, 3.4 & TMS 402/ACI 530/ASCE 5 Sec. 1.16
c. Placement of reinforcement and connectors and prestressing tendons and anchorages		X		Art. 2.4, 3.4, 3.6A & TMS 402/ACI 530/ASCE 5 Sec. 1.16
d. Proportions of site-prepared grout and prestressing grout for bonded tendons		X		Art. 2.6B, 2.4G.1.b
e. Construction of mortar joints		X		Art. 3.3B
6. Verify during construction:				
a. Size and location of structural elements		X		Art. 3.3F
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction		X		ACI 530 Sec. 1.16.4.3, 1.17.1
c. Welding of reinforcement	X			TMS 402/ACI 530/ASCE 5 Sec. 2.1.7.7.2, 3.3.3.4(c), 8.3.3.4(b)
d. Preparation, construction, and protection of masonry during cold weather (temp. below 40°F) or hot weather (temp. above 90°F)		X		Art. 1.8C, 18.D
e. Application and measurement of prestressing force	X			Art. 3.6B
f. Placement of grout and prestressing grout for bonded tendons is in compliance	X			Art. 3.5, 3.6C
g. Placement of AAC masonry units and construction of thin-bed mortar joints	X	X		Art. 3.3B.8 Continuous inspection required for first 5000 SF of AAC masonry. Periodic inspection required after first 5000 SF
7. Observe preparation of grout specimens, mortar specimens, and/or prisms		X		Art. 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.3, 1.4B.4
8. Risk Category IV Engineered Masonry Structures shall have special inspections per TMS 402/ACI	—	—		TMS 402/ACI 530/ASCE 5 Sec. 1.19, CBC

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530/ASCE 5 Table 1.19.3 – Level C Quality Assurance (QA). Empirically designed masonry structures shall comply with Level B QA				1705.4.1
9. Vertical masonry foundation elements: Inspections shall be performed in accordance with Section 1705.4 for vertical masonry foundation elements	—	—		
1705.5 – Wood Construction				
1. Inspect prefabricated wood structural elements and assemblies in accordance with Section 1704.2.5	—	—		
2. Inspect site built assemblies:				
a. High Load Diaphragms: Verify grade and thickness of structural panel and sheathing, framing members at adjoining edges, nails/staple diameter and length, number of fastener lines, and spacing between fasteners in each line and at edge margins		X		
b. Metal-plate-connected wood trusses spanning more than 60 feet: Verify that temporary installation restraint bracing and the permanent individual truss member restraint bracing are installed in accordance with the approved truss submittal package		X		
1705.6 – Verification and Inspection of Soils				
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity		X		
2. Verify excavations are extended to proper depth and have reached proper material		X		
3. Perform classification and testing of compacted fill materials		X		
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	X			
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly		X		
1705.7 – Verification and Inspection of Driven Deep Foundation Elements				
1. Verify element materials, sizes, and lengths comply with the requirements	X			
2. Determine capacities of test elements and conduct additional load tests, as required	X			
3. Observe driving operations and maintain complete and accurate records for each element	X			
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	X			

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5. For steel elements, perform additional inspections in accordance with Section 1705.2	—	—		
6. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3	—	—		
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	—	—		
1705.8 – Verification and Inspection of Cast-in-place Deep Foundation Elements				
1. Observe drilling operations and maintain complete and accurate records for each element	X			
2. Verify placement locations and plumbness, confirm element diameters, bell diameter, lengths, embedment into bedrock and adequate end-bearing strata capacity. Record concrete or grout volumes	X			
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	—	—		
1705.9 – Helical Pile Foundations				
1. Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque, and other pertinent data as required	X			
1705.11 – Verification and Inspection for Wind Resistance				
1. Structural Wood Special Inspections for Wind Resistance:				
a. Inspection of field gluing operations of elements of the main windforce-resisting system	X			
b. Inspection of nailing, bolting, anchoring, and other fastening of components within the main windforce-resisting system		X		
2. Cold-formed Steel Special Inspections for Wind Resistance:				
a. Inspection during welding operations of elements of the main windforce-resisting system		X		
b. Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system		X		
3. Wind-resisting Components:				
a. Roof cladding		X		
b. Wall cladding		X		
1705.12 – Verification and Inspection for Seismic Resistance				
1. Structural Steel: Inspection in accordance with AISC 341 – Welding, Nondestructive Testing, High-strength bolting, Composite Structures, Piling, Etc.	See Table Jxxx			CBC 1705.12.1, AISC 341: Chapter J Quality Control and Quality Assurance
2. Structural Wood:				CBC 1705.12.2
a. Inspection of field gluing operations of	X			

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elements of the seismic-force resisting system				
b. Inspection of nailing, bolting, fastening, and other fastening of components within the seismic-force-resisting system, where the fastener spacing of the sheathing is 4 inches or less on-center		X		
3. Cold-formed Steel Light-Frame Construction:	CBC 1705.12.3			
a. Inspection during welding operations of elements of the seismic-force-resisting system		X		
b. Inspection of screw attachment, bolting, anchoring, and other fastening of components within the seismic-force-resisting system where the sheathing is wood structural panels or steel sheets with fastener spacing 4 inches or less on-center		X		
4. Designated Seismic Systems Verification for Nonstructural Components: Inspect and verify that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.4		X		ASCE 7, Chapter 13
5. Architectural Components: Erection and fastening of exterior cladding (more than 5 psf), interior (more than 15 psf) and exterior nonbearing walls, and interior and exterior veneer (more than 30 feet in height and more than 5 psf). Anchorage of access floors		X		CBC 1705.12.5
6. Mechanical and Electrical components:	CBC 1705.12.6			
a. Anchorage of electrical equipment for emergency or standby power systems		X		
b. Installation of anchorage of other electrical equipment		X		
c. Installation of piping systems intended to carry flammable, combustible, or highly toxic contents and their associated mechanical units		X		
d. Installation of HVAC ductwork that will contain hazardous materials		X		
e. Installation of vibration isolation systems where the construction documents require a nominal clearance of ¼ inch or less between the equipment support frame and restraint		X		
7. Storage Racks: Inspection is required during the anchorage of storage racks 8 feet or greater in height		X		CBC 1705.12.7
8. Seismic Isolation Systems: Fabrication and installation of isolator units and energy dissipation devices that are part of the seismic isolation system		X		CBC 1705.12.8
1705.13 – Testing and Qualification for Seismic Resistance				
1. Concrete Reinforcement: Applies where reinforcement is used to resist earthquake-	CBC 1705.13.1			

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induced flexural and axial forces in special moment frames, special structural walls, and coupling beams connecting special structural walls				
a. Review certified mill test reports for each shipment of reinforcement	—	—		
b. Verify weldability where reinforcement complying with ASTM A 615 is welded	—	—		
2. Structural Steel: Testing shall be in accordance with quality assurance requirements of AISC 341	See Table Jxxx			CBC 1705.13.2 AISC 341: Chapter J Quality Control and Quality Assurance
3. Seismic Certification of Nonstructural Components: Review and acceptance of certificate of compliance by registered design professional with submittal of the review and certificate and to the Building Official	—	—		CBC 1705.13.3 ASCE 7 Sec. 13.2
4. Seismic Isolation Systems: Tested in accordance with Section 17.8 of ASCE7	—	—		CBC 1705.13.4
1705.14 – Sprayed Fire-resistant Materials				
Special inspections shall include the following tests and observations to demonstrate compliance with the listing and fire resistance rating:				
1. Condition of substrates	—	—		
2. Thickness of application	—	—		ASTM E605
3. Density in pounds per cubic foot	—	—		ASTM E605
4. Bond strength adhesion/cohesion	—	—		ASTM E736
5. Condition of finished application	—	—		
1705.15 – Mastic and Intumescent Fire-resistant Coatings				
Special inspection for mastic and intumescent fire resistive coatings applied to structural elements and decks	—	—		AWCI 12-B
1705.16 – Exterior Insulation and Finish Systems (EIFS)				
1. Inspection required for all EIFS installations Exceptions: EIFS installed over a water-resistive barrier with means of draining moisture to the exterior and EIFS installed over masonry or concrete	—	—		
2. Special inspection of the water-resistive barrier coating when installed over a sheathing substrate	—	—		ASTM E2570
1705.17 – Fire-resistant Penetrations and Joints				
Applicable to high-rise buildings or in buildings assigned to Risk Category II or IV				
1. Penetration firestops	—	—		ASTM E2174
2. Fire-resistance joint systems	—	—		ASTM E2393
1705.18 – Testing Scope for Smoke Control Systems				
1. During erection of ductwork and prior to concealment for the purpose of leakage testing and recording of device location	—	—		
2. Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements and detection and control	—	—		

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verification				
1706 – Design Strength of Materials				
1. Design strengths and permissible stresses of any structural material that are identified by a manufacturer’s designation as to manufacture and grade by mill tests, or otherwise confirmed to the satisfaction of the Building Official, shall conform to the applicable specifications	—	—		
2. Materials that are not specifically provided for in the applicable code shall justify design strengths and permissible stresses to the satisfaction of the Building Official	—	—		
1707 – Alternate Test Procedure				
1. Testing required as a condition of approval of alternate materials, design and methods of construction and equipment	—	—		CBC 104.11, CBC 1701.2
1708 – In-Situ Load Tests for Completed Construction				
1. Load Test Procedure Specified: An applicable load test procedure and acceptance criteria in CBC Chapter 35 Referenced Standards applies	—	—		CB Chapter 35, 1709.2
2. Load Test Procedures Not Specified: The existing structure/construction is subjected to a test procedure developed by a registered design professional	—	—		CBC Chapter 16, 1604.3, 1709.3
1709 – Test Safe Load and 1710 (Preconstruction Load Tests)				
1. Load Test Procedures Specified: An applicable load test procedure and acceptance criteria in CBC Chapter 35 Referenced Standards applies	—	—		CBC Chapter 35, 1710.2
2. Load Test Procedures Not Specified: Proposed structure is subjected to a test procedure developed by a registered design professional	—	—		CBC Chapter 16, 1604.3, 1710.3
3. Wall and partition assemblies	—	—		CBC 1710.4
4. Exterior window and door assemblies	—	—		CBC 1710.5
5. Skylights	—	—		CBC 1710.6

¹ Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 355.2 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 the work.