COMMUNITY DEVELOPMENT
Building and Safety

STATEMENT OF SPECIAL INSPECTION

Special Inspections shall be performed in accordance with Chapter 17 of the California Building Code (CBC) and the City of Irvine Special Inspection Manual.

INSTRUCTIONS: Place an **X** preceding each applicable section or indicate **N/A** if not applicable. Provide a complete and detailed description, detail, or plan sheet reference where required to complete an applicable section. Incorporate this completed form in its entirety into the project construction plans for plan check review.

SECTION 1705: SPECIAL INSPECTIONS

1. _____ **Special Cases, Section 1705.1.1** The following describes additional systems or elements subject to special inspection as required by the Chief Building Official, Engineer of Record, manufacturer's instructions, or Evaluation Report:

2. _____ **Structural Steel, Section 1705.2** Special inspections and nondestructive testing of structural steel elements shall be in accordance with AISC 360. Offsite fabrication may only be performed by an approved fabricator. See City of Irvine Informational Bulletin 311.

   Cold-Formed Steel Deck, Section 1705.2.3 Special inspections for cold formed steel floor and roof deck shall be in accordance with the quality assurance inspection requirements of SDI QA/QC.

   Open-Web Steel Joists and Joist Girders, Section 1705.2.4 Special inspections of open-web steel joists and joist girders shall be in accordance with Table 1705.2.4.

3. _____ **Concrete Construction, Section 1705.3** All structural concrete is subject to special inspection per CBC Table 1705.3 and City of Irvine Information Bulletin 181.

4. _____ **Masonry Construction, Section 1705.4** Special inspections and tests of masonry construction shall be performed in accordance with the quality assurance program requirements of TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6 except masonry fireplaces, masonry heaters, or masonry chimneys installed or constructed in accordance with Section 2111, 2112, or 2113, respectively.

5. _____ **Wood Construction, Section 1705.5** Special inspections of prefabricated wood structural elements and assemblies shall be in accordance with Section 1704.2.5. Offsite fabrication may only be performed by an approved fabricator. See City of Irvine Informational Bulletin 311.

6. _____ **Mass Timber Construction, Section 1705.5.3** Special inspections of Mass Timber elements shall be in accordance with Table 1705.5.3. Periodic special inspection will also be required for Mass Timber sealants and adhesives in accordance with Section 1705.20, when required by 703.7.

7. _____ **High Load Diaphragms, Section 1705.5.1** The following describes high load diaphragms (diaphragms designed in accordance to CBC Table 2306.2) subject to special inspection requirements as described in Section 1704.2 (plan sheet or detail reference is acceptable):

8. **Metal-Plate-Connected Wood Trusses, Section 1705.5.2** Special inspection of wood trusses with a clear span greater than or equal to 60 feet is required in accordance with CBC 1705.5.2.

9. **Soils, Section 1705.6** Footing excavations are subject to verification that proper depth and bearing material have been reached prior to placement of concrete per CBC Table 1705.6 (**NOTE:** Work performed under a grading permit is subject to separate special inspection requirements.)

10. **Driven Deep Foundations, Section 1705.7** Driven deep foundations are subject to special inspection per CBC Table 1705.7.

11. **Cast-in-Place Deep Foundations, Section 1705.8** Cast-in-place deep foundations are subject to special inspection per CBC Table 1705.8.

12. **Helical Pile Foundation, Section 1705.9** Helical pile foundations are subject to special inspection per CBC Section 1705.9.

13. **Sprayed Fire-Resistant Materials (SFRM), Section 1705.15** Special inspections and tests of sprayed fire-resistant materials (SFRM) applied to floor, roof, and wall assemblies and structural members shall be performed in accordance with Sections 1705.15.1 through 1705.15.6.

14. **Intumescent Fire-Resistant Coatings, Section 1705.16** Intumescent fire-resistant coatings applied to structural elements and decks shall be performed in accordance with Association of the Wall and Ceiling Industry (AWCI) Technical Manual 12-B.

15. **Exterior Insulation and Finish Systems (EIFS), Section 1705.17** Exterior insulation and finish systems (EIFS) are subject to special inspection per CBC Section 1705.17.

16. **Fire-Resistant Penetrations and Joints, Section 1705.18** In high-rise buildings or in buildings assigned to Risk Category III or IV, or in fire areas containing Group R occupancies with an occupant load greater than 250, special inspections for through-penetrations, membrane penetration firestops, fire-resistant joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Sections 714.4.1.2, 714.5.1.2, 715.3.1, and 715.4 shall be in accordance with Section 1705.18.1 or 1705.18.2.

17. **Smoke Control, Section 1705.19** Via Orange County Fire Authority (OCFA) procedures.

SECTION 1705.13: SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

The following are applicable to specified seismic force-resisting systems, designated seismic systems, and architectural, mechanical, and electrical components. See CBC Sections 1705.13.1 through 1705.13.9 to determine applicability.

Seismic-Force Resisting Systems. The following describes the seismic-force resisting systems(s) subject to special inspection per applicable CBC Sections 1705.13.1 through 1705.13.9 as indicated below:

18. **Structural Steel, Section 1705.13.1** Special inspections of structural steel in the seismic force resisting systems of buildings shall be performed in accordance with the quality assurance requirements of American Institute of Steel Construction (AISC) 341.

19. **Structural Wood, Section 1705.13.2** For the seismic force-resisting systems:

1. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system.
2. Periodic special inspection shall be required for nailing, bolting, anchoring, and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels, and hold-downs.

Exception: Special inspections are not required for wood shear walls, shear panels, and diaphragms, including nailing, bolting, anchoring, and other fastening to other elements of the seismic force-resisting system, where the fastener spacing of the sheathing is more than 4 inches on center.

Provide plan sheet or detail reference where the special inspection is required.

20. **Cold-Formed Steel Light-Frame Construction, Section 1705.13.3** For the seismic force-resisting systems of structures, periodic special inspection shall be required:

1. For welding operations of elements of the seismic force-resisting system; and
2. For screw attachment, bolting, anchoring, and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs.

Provide plan sheet or detail reference where the special inspection is required.

21. **Designated Seismic Systems, Section 1705.13.4** The special inspector shall examine designated seismic systems requiring seismic qualification in accordance with Section 13.2.3 of ASCE 7 and verify that the label, anchorage and mounting conform to the certificate of compliance.

22. **Architectural Components, Section 1705.13.5** Periodic special inspection is required during the erection and fastening of:

☐ Exterior cladding, and exterior or interior veneer, more than 30 feet in height above grade or walking surface, or weighing more than 5 psf as indicated on plan sheet(s): _____

☐ Non-bearing walls more than 30 feet in height or weighing more than 15 psf as indicated on plan sheet(s): _____

23. **Access Floors, Section 1705.13.5.1** Periodic special inspection is required for the anchorage of access floors.

24. **Plumbing, Mechanical and Electrical Components, Section 1705.13.6** Periodic special inspection is required during installation and anchorage of:

☐ Electrical equipment for emergency or standby power systems.

☐ The piping system(s) and associated mechanical units intended to carry hazardous materials as indicated on plan sheet(s): _____

☐ The HVAC ducts intended to carry hazardous materials as indicated on plan sheet(s): _____

☐ The vibration isolation system as indicated on plan sheet(s) : _____

25. _____ **Storage Racks and Access Floors, Section 1705.13.7** Periodic special inspection is required for materials used, fabricated storage rack elements, storage rack anchorage installation, and completed storage rack system of steel storage racks and steel cantilevered storage racks that are 8 feet in height or greater and assigned to Seismic Design Category D, E or F per Table 1705.13.7.

26. _____ **Seismic Isolation System, Section 1705.13.8** Periodic special inspection is required during the fabrication and installation of ☐ isolator units and ☐ energy dissipation devices.

27. _____ **Cold-Formed Steel Special Bolted Moment Frames, Section 1705.13.9** Periodic special inspection shall be provided for the installation of cold-formed steel special bolted moment frames.

SECTION 1705.14: TESTING FOR SEISMIC RESISTANCE

28. _____ **Structural Steel, Section 1705.14.1** The following describes required testing of welds, base metal, weld tab removal sites, and thermally cut surfaces of beam copes or access holes per AISC 341. MT= Magnetic Particle Testing per Section 7.9 AWS D1.8, UT= Ultrasonic Testing per Section 7.10. Testing procedures and acceptance criteria shall conform to AISC 341 and AWS D1.1.

☐ K-area welding; web area shall be MT'd for cracks in the k-area base metal within 3 inches minimum of the weld.

☐ Complete joint penetration groove welds. All shall be UT'd for materials 5/16 inches or thicker.

☐ Complete joint penetration groove welds. 25% of all beam to column connections shall be MT'd.

☐ Base metal for lamellar tearing; UT testing for discontinuities behind and adjacent to weld fusion line for all complete joint penetration groove welded connections for tension loading in the through thickness direction of base metal greater than 1 1/2 inch thickness to connected piece greater than 3/4 inch.

☐ Flange and web thickness exceeding 1 1/2 inches-___ welded splices and connections, ___ thermally cut surfaces of beam copes and access holes shall be MT or penetrant tested.

☐ End of welds from which a weld tab has been removed shall be MT'd. (**NOTE:** N/A for continuity plate weld tabs)

☐ UT percentage reduction protocol is as follows (**NOTE:** May not exceed that allowed by AISC 341):

_____

☐ MT percentage reduction protocol is as follows (**NOTE:** May not exceed that allowed by AISC 341):

_____

29. _____ **Nonstructural Components, Section 1705.14.2** The registered design professional shall specify on the approved construction documents the requirements for seismic qualification. Certificate of compliance for the seismic qualification shall be provided to the building official as specified in Section 1704.5.

30. ☐ **Designated Seismic Systems, Section 1705.14.3** The registered design professional shall specify on the approved construction documents the requirements for seismic qualification. Certificate of compliance for the seismic qualification shall be provided to the building official as specified in Section 1704.5.

SECTION 1705.12: SPECIAL INSPECTIONS FOR WIND RESISTANCE

Special inspections for wind resistance, Section 1705.12 Special inspections for wind resistance specified in Sections 1705.12.1 through 1705.12.3

31. ☐ **Structural Wood, Section 1705.12.1** Continuous special inspection is required during field gluing operations of elements of the main windforce-resisting system. Periodic special inspection is required for nailing, bolting, anchoring, and other fastening of elements of the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, and hold-downs.

Exception: Special inspections are not required for wood shear walls, shear panels, and diaphragms where the fastener spacing of the sheathing is more than 4 inches on center.

32. ☐ **Cold-Formed Steel Light-Frame Construction, Section 1705.12.2** Periodic special inspection is required for welding operations of elements of the main windforce-resisting system. Periodic special inspection is required for screw attachment, bolting, anchoring, and other fastening of elements of the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs. See Section 1705.12.2 for exceptions.

33. ☐ **Wind-Resisting Components, Section 1705.12.3** Periodic special inspection is required for fastening of the following systems and components:

1. Roof covering, roof deck, and roof framing connections.
2. Exterior wall covering and wall connections to roof and floor diaphragms and framing.