



# SPECIAL INSPECTION POLICY MANUAL

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GOVERNMENT OF THE  
DISTRICT OF COLUMBIA  
DC MURIEL BOWSER, MAYOR

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## **I. PURPOSE**

The provisions for Special Inspections are intended to provide a higher degree of scrutiny for aspects of construction that, upon failure, would cause significant harm. These aspects of construction include certain soil suitability, fabrication and installation of structural steel members, cold-formed steel members and decking, certain concrete and masonry construction, fabrication and installation of certain wood structural elements, pile and pier foundations, sprayed fire-resistant materials, wall panels and veneer systems, EIFS, smoke control systems and special cases as detailed in the Construction Code. These are spelled out in Section 1705 of the Construction Code and this manual.

The International Building Code (IBC), as adopted by reference through the Construction Code, intends that a qualified professional be in responsible charge of the inspection of these specialty types of construction. The Special Inspection program is intended to safeguard public safety and general welfare through specialized verification of structural, fire and critical component integrity of building materials.

### **Background**

Numerous avoidable structural failures occurred during the late 1970s and early 1980s throughout the United States. These failures resulted in personal tragedies and tremendous property damage costs. However, most if not all of these failures were predictable in nature and centered on one common theme: lack of an adequate construction inspection process. In August 1982, the U.S. House of Representatives Subcommittee on Investigations and Oversight, chaired by Albert Gore, Jr., held investigative hearings to examine the causes of structural failures. This subcommittee was part of the Committee on Science and Technology. In March 1984, the Committee on Science and Technology's report titled Structural Failures in Public Facilities, House Report 98-621, was presented to the 98th Congress. The following are highlights from this report. The central issue addressed by the Subcommittee was "Are there common problems associated with structural failures, the elimination of which would decrease the number of failures?"

While the Subcommittee identified over 20 contributing factors, two common problems were felt to be the most critical:

- The need for improved organization on construction projects and better communication between participants.
- The need for construction inspection by the Structural Engineer of Record (SER) during the construction of principal structural components.

The Subcommittee found that: "For a variety of reasons, the Structural Engineer of Record or his designee is often not present on the job site during the construction

of principal structural components. The absence of the Structural Engineer has permitted flaws and changes on site to go unnoticed and uncorrected."

The Subcommittee recommended that: "Professional organizations, such as the Building Officials and Code Administrators International, the International Conference and Building Officials, and the Southern Building Code Conference International, should make every effort to ensure that provisions are written into the building codes and adopted in public forum which make the on-site presence of the structural engineer mandatory during the construction of structural components on public facilities."

That precipitated the drafting of Chapter 17 in the International Building Code. Application and enforcement were essential to the success of the program. To accomplish this goal, the Washington, D.C. building safety community has joined together to formulate a uniform set of procedures for the manner in which DOB enforces Special Inspection provisions of the Construction Code. This includes the standard for experience and qualifications necessary to adequately control the work being performed, duties of the Special Inspections Engineer of Record and other parties, reporting requirements, as well as oversight by the jurisdiction. It specifies the type and manner of work, how it is to be performed, and any supervision required. It also clarifies the requirements for reporting the results and recordkeeping. The provisions for Special Inspections are intended to provide a higher degree of expertise in the implementation of the structural design for critical aspects of building construction not normally found in the local building department.

### **Overview**

Special Inspections is the monitoring of certain materials critical to the integrity of the building structure. It is a specialized inspection of certain, complex construction work of the contractors and their employees to help ensure that the approved plans and specifications are being followed and that the relevant codes and referenced standards are being followed. The special inspection process is in addition to the inspections conducted by the Chief Building Official and continuous or periodic observation by the Special Inspections Engineer of Record.

The DOB Special Inspection Policy (SIP) Manual provides and coordinates the procedures for Special Inspections that are required by the DOB-amended IBC. These procedures and guidelines are expected to be used during the design and permitting process and during construction.



The DOB Special Inspection Policy Manual includes the following:

- The responsibilities of the Registered Design Professional responsible for the structural design.
- The role of each member of the building construction team to include the Registered Design Professionals, Building Owner, Contractors, the Special Inspections Engineer of Record (SIERs) and Agents, Architect of Record, Geotechnical Engineer of record, and Chief Building Official, DOB and Third-Party Inspections personnel whose role is defined in the DOB Third-Party Program Procedural Manual.
- The experience and qualifications necessary to supervise and perform Special Inspections.
- Procedures and standards to regulate who may perform Special Inspections.
- Identification of the required areas of Special Inspections.
- Administrative procedures that include a standardized Statement of Special Inspection form and a Final report of Special Inspection form that is accepted by DOB, important definitions, reporting requirements, and conflict resolution procedures.

The purpose of the DOB Special Inspections Policy Manual is to increase awareness of the Special Inspection requirements and to have a uniform procedure applicable throughout the District. In addition, the Manual should help reduce the problems associated with authorizing and performing Special Inspections. The following steps describe the process of conducting and reporting Special Inspections:

- During the design phase, the Registered Design Professional in Responsible Charge (RDPRC) and Structural Engineer of Record (SER) identify construction elements or materials that must be specially inspected. A Schedule of Special Inspections must be noted on the construction documents in or near the front of the plan set near the building code analysis. The Chief Building Official will review the Schedule of Special Inspections for accuracy and inclusion of all elements subject to special inspection. Additionally, the RDPRC must notify the owner of the required Special Inspections.
- The Owner selects a Special Inspections Engineer of Record from the DOB-approved list for the category of construction.
- The SIER must complete a Statement of Special Inspections (using the form), have all the required parties sign the document indicating an understanding of what is expected of them, and submit this form to DOB for review at the same time construction documents are uploaded in ProjectDox.
- Prior to permit issuance and after the construction documents are approved by DOB, a pre-construction meeting will be held with the Special Inspections Engineer of Record presiding with certain required attendees and some invited members with an option to attend.

- The permit may be issued after DOB is assured that the pre-construction meeting was conducted. This is confirmed by the Special Inspections Engineer of Record submitting meeting documents to DOB and approved by DOB to include the meeting minutes, contact sheet, statement of special inspections, schedule of special inspections, acknowledgement form, notification of intent form, special inspections subcontractor's list form.
- Construction may begin. The contractor must abide by the schedule of required special inspections and allow the Special Inspections Engineer of Record to conduct all required special inspections prior to concealment or the subsequent construction. The contractor must maintain all special inspection documents including interim field reports for DOB or the Third-Party Inspector's review. The Contractor will maintain a DOB template for an on-site activity/incident log for all special inspection work. This shall be maintained for the DOB Inspector and Third-Party Inspector's review.
- The SIER must notify the RDPRC and SER of any changes to the design affecting the schedule of special inspections.
- The SIER has specific duties. When each special inspection report is either approved with no exceptions taken or with the deficiencies noted, this must be noted on the interim reports and on the activity/incident log for DOB and the Third-Party Inspector's review at an appropriate phase of construction. Where work is concealed by the contractor without meeting the special inspection requirement or the Special Inspections Engineer of Record deems it necessary to stop construction to ensure the quality of work, they must notify DOB, the Third-Party Inspection Agency, and the Registered Design Professional in Charge. If necessary, DOB will post a Stop Work Order to ensure the efficacy of the Special Inspections program.
- When specified Special Inspection items are complete and non-compliance issues resolved, the Special Inspections Engineer of Record must complete the final report of special inspections (form) with acceptance by the RDPRC and/or SER and submitted to DOB for acceptance prior to any request for any building final inspection.
- Record retention for special inspection activity is maintained by both the special inspection agency and DOB for the period set out by law. See the [District of Columbia Records Retention Schedule](#).

### **General Requirements**

The Special Inspections Program requirements outlined in this manual shall apply to the following structures and/or structural elements submitted in the Statement of the Special Inspection or when so required by the Chief Building Official. (List is not all-inclusive.)

- Special Cases such as construction with alternative materials and systems  
Section 1705.1.1
  - Unusual design applications and materials.
  - Alternative materials accepted by Section 104.11 in the Construction Code.
  - Materials and systems required to be installed in accordance with the



- manufacturer's instructions that prescribe requirements not contained within the Code.
- Tower Cranes, Material Hoists and Man-lifts. The contractor is responsible for safe construction, installation and use of cranes, hoists, lifts, and it is their responsibility to ensure necessary inspections are conducted.
- Steel Construction §1705.2
  - Structural Steel according to AISC 360
  - Welding
  - Cold-formed steel
  - Reinforcing steel – welding inspection and inspector qualifications in accordance with AWS D1.4 and ACI 318.
  - Cold-formed steel trusses spanning 60 feet or more.
- Concrete Construction §1705.3
  - See Table §1705.3 for required inspections and continuous and periodic observation.
  - Materials must meet quality standards of ACI 318 as stipulated in Table 1705.3
  - Underpinning of party walls shared with attached or semi-detached one- and two-family dwellings per Admin Bulletin 12.11.2015 – CC2015-01.
- Masonry Construction 1705.4
  - Must be inspected and verified in accordance with TMS 402/ACI 530/ SCSE 5 and TMS 602/ACI 530.1/ASCE 6. Except for empirically design masonry, foundation walls constructed in accordance with IBC, and masonry fireplaces designed in accordance with IBC.
  - Empirically-designed masonry in Risk Category IV (Table 1604.5).
- Wood Construction 1705.5
  - Fabrication process for pre-manufactured wood structural elements (trusses, wall, floor, roof and space frames, etc.)
  - High-load diaphragms
  - Metal-plate-connected wood trusses spanning 60 feet or more.
- Soils as specified in Table 1705.6 for continuous or periodic structural observation.
- Driven deep foundations as specified in Table 1705.7 for continuous or periodic structural observation.
- Cast-in-place deep foundations 1705.8.
- Helical pile foundations per 1705.9
- Fabricated items 1705.10
- Wind-resistance 1705.11 (Only where required)
  - Structural wood – continuous special inspection during field-gluing per Section 1705.11.1
  - Structural wood – periodic special inspection for nailing, bolting and anchoring.
  - Cold-formed steel light frame construction – Periodic special inspection for screw attachment, bolting or anchoring per Section 1705.11.2.
  - Wind-resisting components – periodic inspection for roof and wall cladding per Section 1705.11.3.

- Seismic Resistance per section 1705.11 1705.12
  - Structural steel 1705.12.1
  - Structural wood 1705.12.2
  - Cold-formed steel 1705.12.3
  - Designed seismic systems 1705.11.4 1705.12.4.
  - Architectural components 1705.11.5 1705.12.5
  - Mechanical and electrical components 1705.11.6 1705.12.6
  - Storage racks 1705.11.7 1705.12.7
  - Seismic isolation systems 1705.11.8 1705.12.8
  - Cold-formed steel special bolted moment frames 1705.12.9
- Testing and qualification for seismic resistance 1705.12 1705.13
  - Structural steel 1705.12.2 1705.13.1
  - non-structural components 1705.12.3 1705.13.2
  - Designated seismic systems. 1705.13.3
  - Seismic isolation systems 1705.13.4
- Sprayed fire-resistant materials 1705.14.
  - Physical and visual tests 1705.14.1
  - Structural member surface conditions 1705.14.2
  - Application 1705.14.3
  - Thickness 1705.14.4.4
    - Structural members 1705.14.4.5
    - Beams and girders 1705.14.4.6
    - Joists and trusses 1705.14.4.7
    - Wide-flanged columns 1705.14.4.8
    - Hollow structural section and pipe columns 1705.14.4.9
  - Density 1705.14.5
  - Bond strength 1705.14.6
- Mastic and intumescent fire-resistant coatings 1705.15
- Earth Retention systems including temporary or permanent Sheeting and Shoring.1705.1.1
- Exterior Insulation Finish Systems (EIFS) 1705.16
- Fire-resistant penetration and joints 1705.17
- Special inspection for smoke control 1705.18
- Underpinning 1705.19

## II. DEFINITIONS

Words used in this procedure shall have a meaning as defined in the Construction Code. Unless otherwise expressly stated, other words and terms shall have the meaning as defined in this Manual. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

**Architect of Record (AR):** The registered design professional registered in the District of Columbia, retained by the Owner to design or specify architectural construction in accordance with the District of Columbia Construction Code and whose signature and seal appear on the DOB-approved architectural construction documents.

**Certificate of Occupancy:** A document issued by DOB after completion of construction and prior to occupancy stating that the use complies with the applicable Zoning Regulations and the Construction Codes, including related building, electrical, plumbing, mechanical, and fire prevention requirements. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of the applicable Construction Codes, Zoning Regulations or other laws or regulations of the District.

**Certify or Certification:** A term, used in a statement by the Registered Design Professional and others that indicates the item(s) under consideration, in the Registered Design Professional's opinion and to the best of the Registered Design Professional's knowledge, complies with DOB-approved documents and pertinent laws and ordinances. A certification shall carry the original signature and seal of the Registered Design Professional making the statement.

**Chief Building Official (CBO):** The Chief Building Official is the individual that is hired or has been appointed to the DCHR job description of that title and has the designated authorities of the District of Columbia Chief Building Official. This position reports to the Code Official defined below.

**Code Official:** The Code Official is the Director of the Department (12 DCMR § 103.1) or his or her designee.

**Construction Documents:** Written, graphic and pictorial documents prepared or assembled for describing the design, location, and physical characteristics of the elements of a project necessary for obtaining a building permit.

**Department or (DOB):** The District of Columbia Department of Buildings.

**DOB Inspector:** The employee of DOB who conducts inspections or the qualified Third-Party Inspection Agency who acts on behalf of DOB to conduct ordinary inspections per 12 DCMR Section 109.

**District of Columbia-Approved Documents:** Construction documents as approved by the District of Columbia including approved revisions;

- Fabrication and erection documents as approved by the District of Columbia including approved revisions;
- Soils-related documents as approved by the geotechnical engineer of record including approved revisions.

**District of Columbia Construction Codes:** The D.C. Construction Codes, consist of the Building Code, Residential Code, Electrical Code, Fuel Gas Code, Mechanical Code, Plumbing Code, Property Maintenance Code, Fire Safety Code, Energy Conservation Code and Existing Building Code, as defined in Sections 101.2 through 101.4.8 of 12A DCMR, which are adopted pursuant to the provisions of the Construction Codes Approval and Amendments Act of 1986, effective March 21, 1987 (D.C. Law 6-216; D.C. Official Code § 6-1401 et seq.). In this document, these documents are referred to as the *Construction Code*.

**District of Columbia Special Inspections Program:** The inspection program for construction projects subject to special inspections during construction, in accordance with IBC Chapter 17 as amended by the current 12A DCMR (the "Construction Code Supplement"). The requirements of District of Columbia Special Inspections Program are contained in this document, the Special Inspections Policy Manual, (SIP 2018) and the Third-Party Program Procedure Manual.

**EIFS:** Exterior Insulation and Finish Systems.

**Fabricated Item:** Structural, load-bearing or lateral load-resisting assemblies consisting of materials assembled prior to installation in a building or structure or subjected to operations such as heat treatment, thermal cutting, cold working or reforming after manufacture and prior to installation in a building or structure. Materials produced in accordance with standard specifications referenced by this code, such as rolled structural steel shapes, steel-reinforcing bars, masonry units, and wood structural panels shall not be considered "fabricated items."

**Fabrication and Erection Documents:** Written, graphic and pictorial documents prepared or assembled after issuance of a building permit and in addition to the District-approved construction documents, describing the design, location and physical characteristics of the building components or materials necessary for fabrication, assembly or erection of the elements of the project.

**Final Report of Special Inspections:** A report issued by the Special Inspections Engineer of Record that indicates elements subject to specified special inspections have been inspected prior to concealment and in the Special Inspections Engineer of Record's professional opinion complies with District-approved documents and project specifications. The final report of special inspections shall carry the seal and signatures of

the Special Inspections Engineer of Record and must also be reviewed and approved by the Registered Design Professional in Responsible Charge (RDPRC), the Primary Registered Design Professional of Record, the Architect of Record (AR) or the Structural Engineer of record (SER) prior to its submission to DOB.

**Geotechnical Engineer of Record (GER):** The registered design professional retained by the Owner to design or specify earthwork and foundations in accordance with the District of Columbia's Construction Code and whose seal and signature appear on the District-approved geotechnical report.

**General Contractor (GC):** A person who contracts on predetermined terms to provide labor and materials and be responsible for the performance of a construction job in accordance with District- approved plans and specifications and is responsible for job site safety. General Contractors are required to be licensed with the Department of Buildings as a General Contractor.

**Inspection:** The continuous or periodic observation of work and the performance of tests for certain building or structure components to establish substantial conformance with the District- approved documents as required by the Construction codes and this document.

**Inspection Field Reports/Test Results (Interim):** An interim report prepared by the Special Inspections Engineer of Record and submitted to the DOB or Third-Party Inspector that indicates the status of construction elements observed subject to special inspections as identified in the Statement of Special Inspections. The interim reports must be associated and correlate with an activity/incident log of approvals or rejections of inspections by the Special Inspections Engineer of Record. The filed reports date and time should correlate with the inspection logs in Tertius.

**Inspection and Testing Agency:** An established and recognized agency or agencies, meeting the requirements of ASTM E 329 and accredited by a District-recognized accreditation body, retained by the Owner, independent of the contractors performing the work subject to special inspections, and approved by DOB to perform special inspections and materials testing required by the Construction Code.

**IBC** International Building Code.

**Non-Structural Elements:** Elements of a building that are not primary or secondary structural elements. Examples include exterior curtain walls and cladding, non-load-bearing partitions, stair railings, etc.

**Owner:** The word "owner" shall be construed as though followed by the words "or the owner's duly authorized representative."

**Pre-Construction meeting documents:** Includes: Meeting minute, Statement of SI, Schedule of SI, Acknowledgment form, Attendance form, Subcontractors form, and Notification of Intent form.

**Pre-Engineered Structural Elements:** Structural elements specified by the structural engineer of record, but which may be designed by a specialty registered design professional. Examples are items such as open web steel joists and joist girders, wood trusses, combination wood, metal and plywood joists, precast concrete elements, prefabricated wood or metal buildings, tilt-up concrete panel reinforcement, and lifting hardware, or modular buildings.

**Primary Structural System:** The combination of structural (load bearing) elements which serve to support the weight of the building's structural shell, the applicable live loads based upon use and occupancy, and wind, snow, thermal and seismic environmental loads.

**Registered Design Professional in Responsible Charge (RDPRC):** The primary registered design professional engaged by the owner who prepares plans, specifications that comply with the requirements necessary to obtain a building permit, reviews submittals and construction documents prepared by others including revisions to the approved plan. RDPRC shall also prepare, review, and approve the Statement of Special Inspections and sign and seal the Final Report of Special Inspections prepared by the Special Inspections Engineer of Record prior to its submission to DOB.

**Special Inspections Engineer of Record (SIER):** The Engineer registered in the District of Columbia, who is directly responsible for special inspections, materials testing and related services as described in the District-approved statement of special inspections and this document. The Special Inspections Engineer of Record shall be retained by the owner and be financially independent of any contractors executing the work, that is subject to special inspections. The Special Inspections Engineer of Record shall not be the Registered Design Professional in Responsible Charge or affiliated with the Registered Design Professional. The Special Inspections Engineer of Record is directly responsible for Special Inspections, materials testing, and related services as described in the approved Statement of Special Inspection. The Special Inspections Engineer of Record must be approved by the Chief Building Official. The Special Inspections Engineer of Record shall be listed as Special Inspections Engineer of Record Agent (SIERA) on the Statement of Special Inspection.

**Agents of Special Inspections Engineer of Record:** These agents are qualified individuals or agencies working under the direction of the Special Inspections Engineer of Record who are providing the inspections and tests (including laboratory analysis) specified in the Statement of Special Inspections. These are noted on the Statement of Special Inspections as Agents 1 through x).

**Special Inspections:** The continuous or periodic observations (as defined by Chapters 2 and 17 of 12A DCMR as specified in the Schedule of Special Inspection) of executed work and performance tests, and the conduction of materials tests, during construction of building components, elements and connections requiring special expertise to substantiate adequacy in compliance with Sections: 109.3.13 of 12A DCMR, and Chapter



17 of the Construction Code. Special inspections are conducted by the Special Inspections Engineer of Record, and not by the Chief Building Official, and are in addition to other ordinary inspections required elsewhere by the construction code.

**Statement of Special Inspections (SSI):** The Statement of Special Inspections is a statement prepared by the owner and the appropriate registered design professionals (Special Inspections Engineer of Record Engineer, the architect of record, the geotechnical engineer of record, and the structural engineer of record) and submitted by the permit applicant as a condition for permit issuance in accordance with the Construction Code. The statement of special inspections identifies the scope of the special inspections services applicable to a construction project, and the registered design professionals and the inspection and testing agency selected to provide those services.

**Structural Engineer of Record (SER):** The registered design professional registered in the District of Columbia, retained by the Owner to design or specify structural documents in accordance with the District of Columbia's Construction Code and whose signature and seal appear on the District approved structural construction documents.

**Tertius:** An application for SIERs, inspectors, or their agents to check-in and check-out when on project site to perform SIER duties.

### **III. WHERE SPECIAL INSPECTIONS ARE REQUIRED**

#### **A. Structural Steel**

The requirements of this chapter, and §IBC 1705.2 Steel construction and the quality assurance inspection requirements of AISC 360 shall apply when construction includes (but is not limited to) structural hot-rolled steel building elements or structural cold-formed steel building elements for sprayed fire-resistant materials and for mastic and intumescent fire-resistant coatings. When required, steel building elements shall also comply with IBC 1705.10 Special inspections for wind resistance and IBC 1705.11 Special inspections for seismic resistance.

#### **Inspection of Steel Fabricators and Fabrication Procedures**

The Special Inspections Engineer of Record shall conduct a special inspection of the steel fabricator and fabrication procedures, as required by IBC 1704.2.5 Inspection of fabricators, for steel fabricated assemblies that are themselves subject to special inspections. Interim field reports of special inspection of the fabricator and fabrication procedures shall be submitted to the DOB Inspector or Third-Party Inspector, and the final report of special inspections shall be submitted to the Chief Building Official.

#### **Certification**

The fabricator must demonstrate to the Special Inspections Engineer of Record that the requirements of IBC 1704.2.5 Inspection of fabricators may be met by furnishing AISC-approved certification or furnishing evidence of compliance with the AISC certification program in the appropriate category.

#### **Procedures Implementation**

The Special Inspections Engineer of Record shall state in writing that the fabricator complies with the fabrication and quality control procedures and quality assurance procedures outlined above. Verification may be on a job-by-job basis or by inspection within the previous 12 months.

#### **Steel Elements**

Structural steel elements as listed below shall be subject to special inspections. The followings teel elements of buildings, regardless of height:

- Structural steel – quality assurance inspection requirements of AISC 360.
- Steel construction other than structural steel
- Welding
- Cold-formed steel: Welding and welding inspector qualifications in accordance with AWS D1.3.
- Reinforcing steel: Welding inspection and welding inspector qualifications for reinforcing steel per AWS D1.4 and ACI 318.
- Cold-formed steel truss spanning 60 feet or more.

## **B. Concrete**

The requirements of IBC-Table 1705.3 shall apply when construction includes cast-in-place concrete and concrete elements. Specified concrete elements shall be subject to special inspections. When required, cast-in-place concrete building elements shall also comply with IBC 1705.11 Special Inspections for seismic resistance and 1705.12 Testing and qualification for seismic resistance.

### **Elements**

Structural elements of cast-in-place concrete, including reinforced, pre-stressed, or post-tensioned concrete, mat foundations, and concrete topping on stay-in-place steel decking, both composite and non-composite designs, except as listed below.

The construction shall be on undisturbed and stable earth, rock, or non-problem soil. Then, as exempted in IBC 1705.3 Concrete construction, special inspections are not required for:

- Isolated spread concrete footings of buildings of three stories or less in height unless required for underpinning on existing footings per Admin Bulletin CC2015-01.
- Continuous concrete footings supporting walls of buildings three stories or less in height that are fully supported on earth or rock where:
  - The footings supporting walls of light-frame construction; The footings are designed in accordance with IBC Table 1809.7; or
  - The structural design of the footing is based on a specific compressed strength ( $f'_c$ ), no greater than 2,500 pounds per square inch (psi) (17.2 MPa), regardless of the compressive strength specified in the construction documents or used in the footing construction.
- Nonstructural concrete slabs on grade (including pre-stressed slabs) supported directly on the ground, and patios, driveways, and sidewalks, unless part of an accessible route where the effective pre-stress in the concrete is less than 150 psi (1.03MPa).
- Concrete foundation walls built in accordance with IBC Table 1807.1.6.2.
- Concrete patios and driveways on grade.

## **C. Masonry**

Masonry construction shall comply with Chapter 21 of the International Building Code, the requirements of this chapter and Section 1705.4 Masonry construction. When required, masonry construction shall also comply with 1705.10 Special inspections for wind resistance and 1705.11 Special inspections for seismic resistance.

### **Masonry Elements Requiring Special Inspection**

Masonry construction shall be inspected and verified in accordance with TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6 quality assurance program requirements.

The following masonry construction shall be subject to special inspections: Masonry components as listed below:

- Empirically designed masonry, glass unit masonry and masonry veneer in Risk Category IV. The minimum special inspection program for empirically designed masonry, glass unit masonry or masonry veneer designed by Sections 2109 and 2110 or Chapter 14, respectively, in structures classified as Risk Category IV, in accordance with Section 1604.5 Risk category, shall comply with TMS 402/ACI 530/ASCE 5 Level B Quality Assurance.
- Vertical masonry foundation elements. The special inspection shall be performed in accordance with § 1705.4 for vertical masonry foundation elements.

Special inspections shall not be required for:

- Empirically designed masonry, glass unit masonry or masonry veneer designed by Sections 2109 and 2110 or Chapter 14, respectively, where they are part of structures classified as Risk Category I, II or III in accordance with § 1604.5.
- Masonry foundation walls constructed in accordance with Table 1807.1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3) or 1807.1.6.3(4).
- Masonry fireplaces, masonry heaters or masonry chimneys installed or constructed in accordance with Sections 2111, 2112 or 2113, respectively.

#### **D. Soils and Foundations**

Structural foundation elements, including spread and continuous footings, mats, piles, caissons, and structural fills (earthwork), including wall backfill, shall be constructed to the requirements, specifications, and requirements shown on the approved construction documents and/or as determined by the District-approved geotechnical report requirements for the project. Specified inspections and testing for earthwork, foundations, and related work shall be performed by the GER and/ or the Special Inspections Engineer of Record. Inspection and testing shall be performed by the Registered Professional Engineer or certified technicians working under the direction of a registered professional engineer. Where required, soil and foundations shall also comply with IBC 1705.12 Special inspections for seismic resistance.

#### **Soils and Foundation Components**

Section 1705.6, Table 1705.6 and Table 1705.7 set out thorough requirements for Special Inspection of soils. The following elements and components of soil-related conditions or foundation systems are subject to special inspections:

- Shallow Foundations\*
- Excavations extended to proper depth or materials\*
- Perform classification of soil and testing of compacted fill materials. \*

- Use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill. \*
- Proper placement of compacted fill, observe subgrade and verify the site is prepared properly.
- Driven deep foundations per § 1705.7.
- Cast-in-place deep foundations per Section 1705.8.
- Helical pile foundations per Section 1705.9.
- Underpinning of foundation systems including, but not limited to those specified in Administrative Bulletin dated 12.11.2015.

*\*According to Table 1705.6 IBC – See exception.*

## **E. Wood**

The requirements of this chapter, and IBC 1705.5 Wood Construction, shall apply when construction includes wood building elements. When required, wood building elements shall also comply with IBC 1704.3.2, Seismic requirements in the Statement of Special Inspections, 1705.12 Special inspections for seismic resistance.

**1705.5 Wood construction.** Special inspections of the fabrication process of prefabricated wood structural elements and assemblies shall be in accordance with Section 1704.2.5 Inspection Fabricators. Special inspections of site-built assemblies shall be in accordance with this section.

**1705.5.1 High-load diaphragms.** High-load diaphragms designed in accordance with Section 2306.2 shall be installed with special inspections as indicated in Section 1704.2. The Special Inspections Engineer of Record shall inspect the wood structural panel sheathing to ascertain whether it is of the grade and thickness shown on the approved building plans. Additionally, the Special Inspections Engineer of Record must verify the nominal size of framing members at adjoining panel edges, the nail or staple diameter and length, the number of fastener lines and that the spacing between fasteners in each line and at edge margins agrees with the approved building plans.

**1705.5.2 Metal-plate-connected wood trusses spanning 60 feet or greater.** Where a truss clear span is 60 feet (18 288 mm) or greater, the Special Inspections Engineer of Record shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.

**1705.11.1 Structural wood.** Continuous special inspection is required during field gluing operations of elements of the main wind force-resisting system. Periodic special inspection is required for nailing, bolting, anchoring and other fastening of components within the main wind force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, and hold-downs.

Exception: Special inspections is not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other components of the main wind- force-resisting system, where the fastener spacing of the sheathing is more than 4 inches (102 mm) on center.

#### **F. Wind Resistance**

1705.10 1705.11 Special inspections for wind resistance. Special inspections itemized in Sections 1705.11.1 through 1705.11.3, unless exempted by the exceptions to Section 1704.2, are required for buildings and structures constructed in the following areas:

- In wind Exposure Category B, where  $V_{sd}$  as determined in accordance with Section 1609.3.1 is 120 mph (52.8 m/sec) or greater.
- In wind Exposure Category C or D, where  $V_{sd}$  as determined in accordance with Section 1609.3.1 is 110 mph (49 m/sec) or greater.

#### **G. Seismic Resistance**

1705.12 Special inspections for seismic resistance. Special inspections itemized in Sections 1705.12.1 through ,1705.12.9 unless exempted by the exceptions of Section 1704.2, are required for the following:

- The seismic-force-resisting systems in structures assigned to Seismic Design Category C, D, E or F in accordance with Sections 1705.12.1 through , 1705.12.3 as applicable.
- Designated seismic systems in structures assigned to Seismic Design Category C, D, E or F in accordance with Section .1705.12.4
- Architectural, mechanical, and electrical components in accordance with Sections 1705.12.5
- Storage racks in structures assigned to Seismic Design Category D, E or F in accordance with Section 1705.12.7.
- Seismic isolation systems in accordance with Section 1705.11.8.

Exception: Special inspections itemized in Sections 1705.12.1 through 1705.12.9 are not required for structures designed and constructed in accordance with one of the following:

- The structure consists of light-frame construction; the design spectral response acceleration at short periods, SDS, as determined in Section 1613.3.4, does not exceed 0.5; and the building height of the structure does not exceed 35 feet (10 668 mm).
- The seismic force-resisting system of the structure consists of reinforced masonry or reinforced concrete; the design spectral response acceleration at short periods, SDS, as determined in Section 1613.3.4, does not exceed 0.5; and the building height of the structure does not exceed 25 feet (7620mm).



- The structure is a detached one- or two-family dwelling not exceeding two stories above grade plane and does not have any of the following horizontal or vertical irregularities in accordance with Section 12.3 of ASCE 7:
  - 3.1. Torsional or extreme torsional irregularity.
  - 3.2. Nonparallel systems irregularity.
  - 3.3. Stiffness-soft story or stiffness-extreme soft story irregularity.
  - 3.4. Discontinuity in lateral strength-weak story irregularity.

Special Inspection is required for seismic resistance for the following:

- Structural steel
- Structural wood
- Cold-formed light gauge steel
- Designated seismic systems
- Architectural components
- Access floors
- Mechanical and electrical components
- Storage racks
- Seismic isolation systems

Testing and qualification for seismic resistance per Section 1705.12.

- 1705.12 Testing and qualification for seismic resistance. The testing and qualification specified in Sections 1705.12.1 through 1705.12.4, unless exempted from special inspections by the exceptions of Section 1704.2 are required as follows:
  - The seismic-force-resisting systems in structures assigned to Seismic Design Category C, D, E or F shall meet the requirements of Sections 1705.12.1 and 1705.12.2, as applicable.
  - Designated seismic systems in structures assigned to Seismic Design Category C, D, E or F and subject to the certification requirements of ASCE 7 Section 13.2.2 shall comply with Section 1705.12.3.
  - Architectural, mechanical, and electrical components in structures assigned to Seismic Design Category C, D, E or F and where the requirements of ASCE 7 Section 13.2.1 are met by submittal of manufacturer's certification, in accordance with Item 2 therein, shall comply with Section 1705.12.3.
  - The seismic isolation systems in seismically isolated structures shall meet the testing requirements of Section 1705.12.4.

#### **H. Sprayed Fire-Resistant Materials**

1705.14 Sprayed fire-resistant materials. Special inspections for sprayed fire-resistant materials applied to floor, roof and wall assemblies and structural members shall be in accordance with Sections 1705.14.1 through 1705.14.6. Special inspections shall be based on the fire-resistance design as designated in the approved construction documents. The tests set forth in this section shall be based on samplings from a specific floor, roof and wall assemblies and structural members.

Special inspections shall be performed after the rough installation of electrical, automatic sprinkler, mechanical and plumbing systems and suspension systems for ceilings, where applicable.

#### **I. Mastic and Intumescent Fire-Resistant Coatings**

1705.15 Mastic and intumescent fire-resistant coatings. Special inspections for mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be in accordance with AWCI 12-B. Special inspections shall be based on the fire-resistance design as designated in the approved construction documents.

#### **J. Exterior Insulation Finish Systems (EIFS)**

1705.16 Exterior Insulation and Finish Systems (EIFS). Special inspections shall be required for all EIFS applications except the following:

- Special inspections shall not be required for EIFS applications installed over a water-resistive barrier with a means of draining moisture to the exterior.
- Special inspections shall not be required for EIFS applications installed over masonry or concrete walls.

#### **K. Fire-Resistant Penetrations and Joints**

1705.17 Fire-resistant penetrations and joints. In high-rise buildings or in buildings assigned to Risk Category III or IV in accordance with Section 1604.5, 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 714.3.1.2, 714.4.1.2, 715.3 and 715.4 shall be in accordance with Sections 1705.17.1 or 1705.17.2

#### **L. Smoke Control**

1705.18 Special inspection for smoke control. Smoke control systems shall be tested by a Special Inspections Engineer of Record. 1705.18.1 Testing scope. The test scope shall be as follows:

- During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location.
- Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements, and detection and control verification.

#### **M. Underpinning**

1705.19 Underpinning. Underpinning of structures shall be subject to special inspections in accordance with Chapter 17. In addition to the special inspection for structural stability, any new foundation elements installed as part of underpinning operations shall be subject to special inspection as a permanent installation in accordance with the applicable sections of Chapter 17, including, but not limited to, special inspections for soil, concrete, welding, sequencing and pile driving.

#### **N. Tower Cranes, Personnel Hoists, Material Hoists, and Construction Elevators**

The requirements of this section shall apply whenever a tower crane, personnel hoist, material hoist, or construction elevator is to be erected on site, whether free-standing or attached to the building under construction. The general contractor and suppliers of tower cranes, personnel hoists, material hoists, and construction elevators are responsible for the safe construction, installation and use of the crane, hoist or elevator. The Structural engineer of record for a tower crane shall design foundations for the tower crane and is responsible for the structural design strength of the building to support the loads imposed on it by the crane. The SIER shall inspect the tower crane foundation. Crane booms shall not swing over public streets without special approval by DOB.

#### **Tower Crane Permit**

Submittal documents due at permit application to include:

- Copy of approved building permit – if in process B-number associated with the crane permit. [DCBC 2013 –106.1]
- Sealed and signed surveyors' plat showing the location of the Tower crane. [DCBC 2013 – 106.1.13]
- Site plan completely dimensioned and drawn to scale, showing the orientation of the site to the North, the location and position of the crane in relation to the existing and new construction on the site and surrounding affected areas. Swing space of the crane shall be identified on this site plan. [DCBC 2013 –106.1]
- Geotechnical Investigation Report sealed and signed by a Professional Engineer who is registered to practice in the District of Columbia. [DCBC 2013 - 106.1] & [DCBC 2013 – 1803.2]
- Structural Design Calculation for the Tower crane foundation and for any other attachment connections of the crane to the building sealed and signed by a Professional Engineer who is registered to practice in the District of Columbia. This Design calculation shall include a copy of the crane information and the crane manufacturer's specification. Foundations shall be designed for the crane under different operating conditions and satisfy the code required load combinations. The design shall also include crane opening and infill design. [DCBC 2013 – 106.1.1]
- The cost estimate of the Crane Foundation, including Material and Labor. [DCBC 2013 – 108.3]
- Complete Structural Drawings sealed and signed by a Professional Engineer who is registered to practice in the District of Columbia. [DCBC 2013 – 106.1]
  - The drawings shall be a minimum of 11x17 and with a scale of 1/4" to 1'.

- Drawings shall contain notes, material specifications, pad design criteria, list of Codes and industry Standards, building foundation plan showing the location of the proposed crane foundation, crane foundation plan, crane foundation section detail, notes particular to the crane foundation, connection detail of the crane with the building, reinforcement plan (for each typical floor) and detail for the crane opening and infill work.
- Statement of Special Inspections for the Tower Crane foundation [DCBC 2013 – Chapter 17]
- Any other requirement is specific to the applied permit. [DCBC 2013 – 106.1]
- For Tower Cranes in Public Space, the following are required in addition to the above:
  - A public space permit application shall be completed and submitted to the District Department of Transportation (DDOT) requesting an approval to occupy public space;
  - A building permit application shall be completed and submitted to DOB for the erection of the tower crane following the preceding instructions;
  - The applicant must obtain a sign off on the building permit application from DDOT stating "Ok to process" prior to the issuance of the building permit;
  - The applicant will provide DDOT with a copy of the issued building permit prior to the issuance of the public space permit.

Note: It shall be the responsibility of the applicant to seek the approval of the Federal Aviation Administration and secure a determination of No Hazard to Air Navigation.

### **Personnel Hoists, Material Hoist and Construction Elevators**

Special Inspections Engineer of Record for material hoists, construction elevators or a qualified Third-Party Elevator Inspection Agency must inspect aspects of hoists and elevators including installation, foundation, anchoring, connections, equipment, electrical and mechanical systems.

### **O. Earth Retention Systems**

The following earth retention systems are subject to special inspections:

- Earth retention systems retaining 10'-0" or more of unbalanced fill;
- Trenching operations deeper than 8'-0";
- When specified by the structural design, such as, but not limited to:
- Segmental block retaining walls of any height, with geo-synthetic restraints when designed as restrained walls rather than gravity walls.
- Soldier piles and lagging of any height, with post-tensioned tie-backs.
- Underpinning

### **Special Inspections**

Special inspections and test criteria for the earth retention system construction.

- In problem soil areas, the Geotechnical Engineer of Record shall conduct special inspections of the earth retention system.

- In non-problem soil areas, either the geotechnical engineer of record or the Special Inspections Engineer of Record shall conduct special inspections of the earth retention system. Earth retention systems shall have special inspections conducted for compliance with District approved documents.

#### **IV. PERSONNEL AND LABORATORY QUALIFICATIONS**

##### **Individuals**

Special Inspections shall be performed by individuals and Agents that are qualified in accordance with these procedures and are under the direct supervision of an RDP in Responsible Charge of Special Inspection activities (Special Inspections Engineer of Record). The RDP shall ensure that the individuals under their charge are performing only those Special Inspections that are consistent with their experience, knowledge, and training for the specified inspections in accordance with the current edition of ASTM E 329 and the DCMR 12A.

Special Inspections must be conducted under the supervision of a DC-licensed engineer. The individual responsible for the coordination of Special Inspections (Special Inspections Engineer of Record) must be a DC-licensed engineer with adequate experience. Firms that conduct testing and/or Special Inspections (and the procedures they follow) must be accredited in accordance with ASTM E 329. Firms providing Special Inspection services (or qualifications for individual inspectors) may submit documentation demonstrating equivalency by another recognized standard to the minimum qualifications, certification, and experience requirements of ASTM E 329. The Chief Building Official may approve the firm or individual after evaluating and determining that experience or equivalency has been met. Different levels or types of special inspections require different levels or types of expertise by the inspector, and competency certifications shall match the tasks.

All Special Inspections Engineers of Record must be accepted by DOB through a review of their experience, education and practice in performing similar work. The Special Inspections Engineer of Record must submit a resume or curriculum vitae to DOB for review by DOB. The Chief Building Official will validate that the experience matches that required by ASTM E 329 and list the Special Inspections Engineer of Record on a database for that specific area of expertise. Generally, five years of progressively responsible experience is required in a specialty area of construction.

##### **Laboratory Acceptance Standards**

All laboratory facilities conducting special inspection and materials testing services in the District of Columbia shall meet the requirements of ASTM E 329, ASTM D 3740, and ASTM C 1077, as applicable and shall be accredited by organizations such as WACEL, the American Association for Laboratory Accreditation, the National Institute of Standards and Technology, the National Voluntary Laboratory Accreditation

Program, the International Accreditation Service, or other organizations whose programs are recognized by the District. Where an inspection and testing agency has multiple offices and laboratory facilities conducting special inspection and materials testing services in the District, each laboratory to be utilized on construction projects shall be individually accredited and meet the requirements of ASTM E 329, ASTM D 3740, and ASTM C 1077, as applicable.

Written documentation shall be provided to the Chief Building Official demonstrating the applicable Agency's laboratory accreditation. Individual resumes indicating pertinent training, certifications, and/or other qualifications shall be provided for Special Inspection personnel associated with the project. DOB may prescribe the manner of qualification documentation and frequency of updating information regarding firm or individual inspector approval.

Laboratories shall be reviewed and approved by DOB on a case-by-case basis and shall conduct only those tests and analyses for which accreditation has been attained. The Special Inspections Engineer of Record shall only accept onsite laboratories provided the on-site laboratory demonstrates that it has (and follows) an effective quality control program; equipment calibration program; and a technician certification program from a DOB-recognized certification body. Special Inspections shall be performed by individuals and agents that are qualified in accordance with these procedures and are under the direct supervision of an RDP in Responsible Charge of Special Inspection activities. The RDP shall ensure that the individuals under their charge are performing only those Special Inspections that are consistent with their knowledge and training for the specified inspections in accordance with ASTM E 329, the Construction Code and this policy (SIP).

### **Direct Supervision**

The inspection and testing agency personnel assigned to conduct special inspections in the District of Columbia shall work under the supervision of an approved registered design professional with demonstrated proficiency in the construction discipline to be evaluated in accordance with ASTM E-329.

### **Certification**

Except for individuals who are registered design professionals, inspection and testing agency field inspection personnel shall be currently certified by examination through WACEL, the American Concrete Institute, the Post Tensioning Institute, the American Welding Society, the American Society for Nondestructive Testing, the National Institute for Certification in Engineering Technologies, the International Code Council, or other organizations whose programs are recognized by DOB. The inspection and testing agency personnel shall conduct only those special inspection and materials testing services in which they have demonstrated competency through an approved certification or registration program. Tests or inspections conducted by unqualified or



unapproved inspection and testing agency personnel shall be automatically rejected, and further construction work shall not proceed until re-inspections are conducted and approved.

### **Unusual Functions**

In the event, there is no certification program applicable to a specific special inspection function, the Special Inspections Engineer of Record shall submit a signed statement attesting to the competency of inspection and testing agency personnel and identifying the basis upon which such statement is made.

## **V. SPECIAL INSPECTION PRE-CONSTRUCTION MEETINGS**

A pre-construction meeting is required for every project that will include a special inspection, to review inspection requirements necessary to obtain a Certificate of Occupancy during the construction phase of the project. The pre-construction meeting shall take place after the Statement of Special Inspections and Schedule of Special Inspections are submitted and approved and the plan is approved by the Permitting Operations Division and prior to the issuance of a building permit and/or any construction activities. The SIER shall schedule the pre- construction meeting. For minor projects as determined by the Code Official, the pre- construction meeting may be waived, and all required documents submitted for DOB approval. The Special Inspections Engineer of Record shall preside over any meeting. Construction team members who shall be represented and participate in the Special Inspections Program pre-construction meeting include:

- Owner (Required)
- Special Inspections Engineer of Record (Presides over the meeting and is required for all projects)
- General Contractor (Required for all projects)
- Structural Engineer of Record (Required for building/foundation elements are under special inspection)
- Geotechnical Engineer of Record (Required for soils/foundation elements under special inspection)
- DOB representative (Optional)
- Third-Party Agency representative (Recommended for all projects where NOI for inspections is requested and approved)
- Architect of Record (Required)

### **Topics**

The owner shall bring a copy of the District-approved construction documents including the DOB- approved Schedule of special inspections and Statement of Special Inspections to the pre-construction meeting. For projects with multiple buildings, a listing of the buildings, or an annotated site plan, with street addresses attached to the Statement of Special Inspections, or separately provided, for use during construction. At the pre-

construction meeting, a contact sheet with names, addresses, and telephone numbers of those in attendance shall be completed for future communications. This SIP Manual shall be used in the pre- construction meeting to review, discuss, clarify and approve elements of the special inspections program that apply to the project. It is recommended that, prior to the pre- construction meeting that all parties review the requirements of the District of Columbia Construction Code and the SIP, as they pertain to the specific project. The following topics shall be discussed:

- Work to be reviewed as specified in the Schedule of Special Inspections. Discussion of the inspections and testing to be performed.
- A general reference to inspections performed by DOB or Third-Party Inspection Agency.
- Statement of Special Inspections: Scope of Special Inspections, including required and elective inspections. Any changes to the approved Schedule of Special Inspections during the pre-construction meeting are to be initialed by the SER/RDP and are Subject to DOB review.
- Responsibilities: The roles and responsibilities of each party.
- Communication: Between the District, Third-party inspectors, and the construction team members.
- Phased Construction: Requirements for phasing or separation of permits, Certificates of Completion and occupancy requirements.
- The timely notification required by the Contractor to the Special Inspections Engineer of Record when the work is ready for inspections during the course of the work.
- Procedures to document, correct, re-inspect, and complete items found to be non-compliant or deficient.
- Identification of the RDP designated to resolve field deviations and non-compliant items.
- The contact information of all parties involved with the project.
- Proper submission and distribution of reports and supplemental information.
- Shop Drawings submittal and review and approval process.
- Discussion of coordination of all work to be performed in accordance with the Contract Documents and that no changes shall be permitted unless authorized and approved in writing by the RDP of Record for the work in question.
- Onsite inspection log (special inspections)
- Permits displayed onsite.

### **Minutes or Record of Meeting**

Written minutes of the pre-construction meeting will be taken by the Special Inspection Engineer of Record or designee and submitted to pertinent parties and DOB prior to the issuance of the permit. A permit shall not be issued without a complete set of minutes having been submitted and accepted by DOB. Minutes shall include a list of attendees and the list of topics noted above. Minutes shall be submitted to DOB through Tertius.

## **VI. SPECIAL INSPECTIONS PROCEDURES**

### **Procedural Requirements**

The owner shall be responsible for retaining an independent Special Inspections Engineer of Record and an inspection and testing agency to provide and conduct special inspections, materials testing, and related services, as set out in the Construction Code and specified in the Statement of Special Inspections. Under no circumstances shall the general contractor or any of its subcontractors, executing the work subject to special inspections, be permitted to fund, provide, supervise, oversee, control or otherwise affect special inspections and testing services. There shall be NO monetary or otherwise influential relationship between the contractor and the Special Inspections Engineer of Record or subsequent agents. As part of the statement of special inspections submitted for District approval and permit issuance, the owner shall furnish the District with the names of the Special Inspections Engineer of Record and the inspection and testing agency retained to provide special inspections and testing services.

### **Statement of Special Inspections**

The statement of special inspections is completed by the Registered Design Professional in Responsible Charge (RDPRC) and reviewed and accepted by DOB.

### **Changes in Construction Team**

In the event that the Registered Design Professionals of Record, the general contractor, the Special Inspections Engineer of Record, the inspection and testing agency, or other organizations or individuals contracted for special inspections or testing services are changed during the course of the work, the owner shall submit an explanation for such change; identify and obtain District approval for the replacement party; and schedule a new pre-construction meeting and the replacement party. The owner shall ensure that there is a timely transfer of information and responsibility to the replacement party.

### **Change of the Architect of Record or Change of the Structural Engineer of Record**

Requires approval by DOB, and may invalidate District-approved construction documents, requiring their resubmission for review and approval for new permits. Change of the geotechnical engineer of record requires approval by DOB and may invalidate the District-approved geotechnical report. Change of the general contractor requires notification to DOB and requires a new building permit if the general contractor is the building permit holder.

### **Change of the Special Inspections Engineer of Record or the Inspection and Testing Agency**

Requires approval by DOB and if not approved, may invalidate further special inspections. In the event the inspection and testing agency has significant changes in management, ownership, personnel certifications or laboratory accreditation, re-approval by DOB is required and those special inspections conducted shall be evaluated to be considered valid.

### **Approved Documents**

Prior to conducting special inspections and materials testing, the Special Inspections Engineer of Record shall be responsible for verification of the following:

#### **Building Permit**

A building permit for the particular construction has been issued and a copy of the building permit is posted at the construction site.

#### **District-Approved Construction Documents**

A set of original District-approved construction documents is available at the construction site.

#### **Approved Fabrication and Erection Documents**

Fabrication and erection documents, which also bear the structural engineer of record review/approval stamp, are available at the construction site. Other approved fabrication and erection documents, which do not require District approval, but which bear the structural engineer of record's review/approval stamp, must be available at the construction site and a record copy of such documents has been received by the Special Inspections Section where required by this SIP Manual. Structural Engineer of Record and Architect of Record stamp submittals and shop drawings as "Approved" or "Approved as Noted" for special inspection related items (i.e., structural steel shop drawings, Concrete mix designs, fireproofing/firestopping submittals, etc.) including delegated designs. Word or phrases such as "no exception taken", or "Reviewed" are not acceptable.

#### **Revisions to District-Approved Documents**

Revisions to District-approved construction documents, or other documents, such as field change orders in response to requests for information, must be in writing and must have been approved, signed and sealed by the Architect of Record, the Structural Engineer of Record, the Geotechnical Engineer of Record, and the District, as appropriate. If such revisions do not bear the DOB stamp of approval, the Special Inspections Engineer of Record shall confirm with DOB whether the revisions are authorized or whether formal re-approval of revised documents by DOB is required. It shall be the responsibility of the Architect of Record, the Structural Engineer of Record, the Geotechnical Engineer of Record, as appropriate, to submit written revisions to DOB within seven working days of approval.

- **Deviations:** The Special Inspections Engineer of Record and field technicians shall not suggest, direct or authorize the fabricator, erector or any contractor to deviate from the contract documents, DOB approved construction documents, or approved fabrication and erection documents, without the express written approval of the Architect of Record, the Structural Engineer of Record, the Geotechnical Engineer of Record and DOB as appropriate.
- **Special Inspection Reports:** The Special Inspections Engineer of Record shall report

the results of testing and inspections, both approvals and rejections, via the Tertius platform. according to the following procedures:

- **Activity/Incident Log:** A log of special inspections conducted, and the result of the inspection must be maintained at the construction site. And correlate with the Tertius check in/out logs. This log shall be available to the DOB Inspector or Third-Party Inspector.
- **Seal and signature:** A cover sheet for reports shall bear a signature and seal of the Special Inspections Engineer of Record and shall include the correct building permit number and correct project address. Reports without project identification shall be rejected.
- **Submissions:** Reports shall always be submitted to the general contractor, the owner, and made available to the Inspector (DOB or Third-Party), and shall be submitted to the Architect of Record, the Structural Engineer of Record, and the Geotechnical Engineer of Record, as appropriate.
  - With the exception of situations where a code violation or safety hazard is discovered and must be reported immediately, all inspection and test reports shall be made available to the DOB Inspector or Third-Party Inspector within seven working days of the inspection or test conducted. Upon arrangement, these reports may be maintained for the Inspector (DOB or Third-Party) at a convenient location at the construction site (construction office) by the General Contractor.
  - All inspections are to be scheduled via the Tertius platform and all reports are to be uploaded via Tertius under the scheduled inspection.
- **Compliance:** Unless deficiencies are discovered, or code violations are revealed during the conduction of special inspection and testing services, special inspection and testing reports shall indicate that the specified work has been inspected and found to be in compliance with DOB-approved construction documents and applicable portions of Chapter 17 of the DCMR 12A and this SIP Manual.
- **Deficiencies:** Deficiencies shall be reported to the general contractor for corrections and made available to the DOB Inspector. Deficiency reports shall contain the details describing the nature and specific location of the deficiency. The report will lead to a description of the action recommended by Architect of Record, the Structural Engineer of Record, or the Geotechnical Engineer of Record, as appropriate, to the contractor for correction. After corrections, re-inspection shall be required. At the completion of a project, recorded deficiencies shall be documented as having been resolved and approved by the appropriate registered design professionals and the Special Inspections Engineer of Record. This deficiency report must be submitted with the Final Report of Special Inspections via Tertius for approval.
- **Final Report of Special Inspections:** Upon completion of special inspections and testing for specified construction elements subject to special inspections, the

Special Inspection Engineer of Record shall, after review and approval by the appropriate registered design professionals, submit a Final Report of Special Inspections to DOB for approval. No final building inspection shall be performed without the prior approval of the final report of special inspections.

- **Tertius:** All DOB-approved Special Inspection Agencies shall register an account in the Tertius platform, to include all staff names and valid mobile phone numbers. All SIER staff and Agents are to use the Tertius platform along with their mobile phones to check-in at the beginning of their inspection or site visit, and check-out at the completion of their inspection or site visit. The geolocation feature shall be active at the time of check-in and check-out.

Failure to use this or other DOB applications may result in disciplinary action as outlined in Chapter VIII of this Manual.

- **Unsafe or hazardous conditions:** If the Special Inspections Engineer of Record (SIER), staff or Agents observe what appears to be an unsafe or hazardous condition on site at the time of inspection, the Inspector, Technician, or testing Agent are required to report the condition to the Responsible Charge SIER for further investigation. If the Responsible Charge SIER determines the conditions to be unsafe, DOB is to be immediately notified via the Tertius check in/check out application by clicking the "Observed unsafe conditions on site" checkbox.

### **Code Violations**

In the event that the Special Inspections Engineer of Record (or other agents) observe a condition during the performance of special inspections and testing services that constitutes a violation of the District of Columbia Construction Code, the Special Inspections Engineer of Record shall document the suspected code violations in a field report and activity/incident log then submit both documents to the owner, Primary Registered Design Professionals of Record for resolution, followed with a written report submitted to the CBO within seven working days.

## **VII. RESPONSIBILITIES**

### **Chief Building Official**

The Building Official is responsible for the issuance of the Building Permit and the Certificate of Occupancy. Prior to issuing the Building Permit, the Chief Building Official will review and consider approval of the Construction Documents, the Statement of Special Inspections (SSI), and the qualifications of the Special Inspections Engineer of Record and any subsequent Agents. The Chief Building Official shall ensure that a DOB Inspector or Third-Party Inspector verifies the activity associated with Special Inspections. The Chief Building Official has the authority to issue a Stop Work Order if it is found that the approved Special Inspections Engineer of Records or Materials Testing Laboratories are not being utilized to perform specified special inspections. The Certificate of Occupancy or final inspection shall be issued only after the Chief Building Official has received and approved the Final Report of Special Inspections.



## **Contractor**

The Contractor is responsible for the construction of the project in accordance with the approved Construction Documents. In addition, the Contractor is responsible for controlling the quality of construction and for providing the Special Inspections Engineer of Record (and other agents) safe access to the elements that require inspection or testing. The Contractor shall coordinate construction related activities, including scheduling and timely notification of the need for Special Inspections and shall cooperate with the project's design professionals, including the Special Inspections Engineer of Record. The Contractor shall make the site available for inspections as necessary and shall deliver samples for testing when needed. The Contractor shall respond promptly when informed of non-conforming work. The Special Inspection process does not relieve the Contractor of responsibility for quality control. The contractor shall also ensure that:

- A Site Superintendent is present during the preconstruction meeting. The Contractor shall notify DOB regarding any change of site superintendent.
- The Subcontractors for specialized works such as bridges, pre-stressing, Shotcrete, or retaining walls are represented during the preconstruction meeting.
- The site address and Building Permit are visible.
- The District-approved and Structural Engineer of Record construction documents including, but not limited to, design drawings, shop drawings, specifications, concrete mix design, mortar/ grout mix design, masonry product data, and geotechnical reports are available at the construction site.
- The site is accessible and safe for inspection personnel.
- Ensure that a wall-test survey is completed, submitted and approved by DOB prior to requesting a foundation inspection.
- Revisions, including construction field revisions, to the construction documents, are approved by DOB before implementation of the revision and provided to the Special Inspections Engineer of Record.
- Ensure the full-time presence of a Special Inspections Engineer of Record/technician when work requires continuous observation, such as concrete construction, soil compaction, etc.
- Coordinate with the owner and report to DOB any incident or changes in site conditions that will directly or indirectly compromise the integrity of the structure.
- Confirm that the special inspections have been submitted and deficiencies have been resolved.
- Build in accordance with the District-approved plans, specifications, and other applicable documents.
- Maintain a safe environment in accordance with approved construction documents and OSHA requirements.
- Ensure that the final report is made available to the DOB Inspector or Third-Party Inspector.

### **Owner**

The Owner shall be responsible for the remuneration, fees and costs related to the performance of Special Inspection services. The Owner or their authorized agent shall sign the SSI. The owner shall also:

- Ensure that the Statement of Special Inspections is completely filled out and submitted to DOB at the time of plan submission.
- Ensure that the Special Inspections Engineer of Record is employed by the owner and does not have any business relationship with the contractor or subcontractors.
- Ensure that the Special Inspections Engineer of Record and subsequent agents have full authority to conduct the specified special inspections required by DOB in accordance with the approved plans.
- Ensure that the Final Report of Special Inspections is completed by the Special Inspections Engineer of Record and that there are no exceptions taken.
- Ensure that the final report is made available to the DOB Inspector or the Third-Party Inspector.

### **Registered Design Professional in Responsible Charge**

The Registered Design Professional in Responsible Charge (RDPRC) shall be responsible for informing the Owner of the need to provide for Special Inspections and for assisting the Owner to retain the services of a Special Inspections Engineer of Record (SIER) to provide Special Inspection services. The RDPRC shall complete a Statement of Special Inspection (SSI) that shall include the SIER and all Agent(s). The RDPRC shall also review and act upon conditions noted in interim special inspection reports. The RDPRC shall also be responsible for supplying the SIER with the necessary copies of current appropriate Construction Documents and approved submittals, fabrication, and erection documents, including those revisions and change orders that affect work to be inspected or tested. The RDPRC must also sign and seal the final report of special inspections.

### **The Special Inspections Engineer of Record**

The Special Inspections Engineer of Record shall be responsible for performing, documenting, managing, and coordinating the Special Inspections and the efforts of the various Agents. Individual Agents may be retained by the Owner or by the SIER, but they are required to report to the SIER. The Agents who are responsible for conducting inspections or tests shall be identified in the SSI that is submitted to the Chief Building Official. The SIER shall provide copies of inspection reports to the RDP of Record, Owner, Contractor and Chief Building Official. Discrepancies observed by the SIER shall be brought to the attention of the Contractor for correction. The SIER shall report unsafe or hazardous conditions to the Chief Building Official via the Tertius platform. The SIER shall report deviations from the approved Construction Documents to the appropriate RDP of Record for their resolution. Uncorrected work shall be reported to the Chief Building Official and the appropriate RDP of Record. The SIER shall conduct and certify special inspections of building components and testing of construction materials where such special inspections and material tests are in accordance with the statement of special inspections and this 2018 SIPM. All SIER personnel and agents are to log their presence on

the site and departure from on site via the Tertius platform with the geolocation feature active.

**Structural Engineer of Record**

The Structural Engineer of Record (SER) shall be responsible for identifying in the Construction Documents the specific structural Special Inspections that must be performed for the project in order to meet the requirements of the DCMR 12A and any other requirements specified by the SER. This will be done by inserting a schedule of special inspections at or near the front of the construction drawings.

**DOB or Third-Party Inspector**

DOB or Third-Party Inspector must review the activity log and note that open items have been resolved before progressing to the next sequence of inspections. Where special inspections reveal deficiencies and non-conformance with structural construction that have not been corrected, the DOB inspector (or Third-Party Inspector) must notify DOB. In extreme cases, a Stop Work Order may be issued by DOB.

## **VIII. SPECIAL INSPECTIONS PROGRAM PROGRESSIVE DISCIPLINARY PROCESS**

Special Inspection Program is to follow the Progressive Disciplinary Process as outlined in the Third-Party Program Procedure Manual and this Manual.

### Disciplinary Violations

Class 1 violations are the most serious violations. They are the most serious conduct warranting disciplinary action, including failure to comply with administrative procedures, protocols, and substantive rules that may immediately impact the health, safety, and/or welfare of the public. A Class 1 violation can result from, but is not limited to, the following conduct:

- 1.1 An ethical violation by any reviewer or agency on a Special Inspection Project such as acceptance or offering of a bribe or making a threat.
- 1.2 Altering or falsifying any reports, documents, or plans on a project, as documented by the owner or the contractor or another person with credible knowledge of such an event.
- 1.3 Misrepresentation of information required for qualification or certification.
- 1.4 Failure to properly document special inspections that do not meet the requirements of the approved construction documents.
- 1.5 Performing special inspections while suspended.
- 1.6 Failure to report dangerous conditions observed during the special inspection.
- 1.7 Failure to review the most recent construction documents associated with the discipline in which the Special Inspections Engineer of Record is performing (e.g., a soil report, special inspection, etc.).
- 1.8 Failure to abide by the contractual requirement provisions in this Manual.
- 1.9 Performing special inspections without DOB Special Inspection approval as an Agency, Reviewer, and/or Inspector.
- 1.10 Failure to submit any requested documents to DOB within a reasonably prescribed time frame.
- 1.11 Failure to retain documents for the required retention time period.
- 1.12 A Special Inspections Engineer of Record's failure to identify and ensure through its inspection services that construction activity is in compliance with the approved construction documents.
- 1.13 Conducting special inspections on sites with posted Stop Work Orders.
- 1.14 Providing special inspection services prior to issuance of a permit.

Class 2 violations are serious conduct warranting disciplinary action, including failure to comply with administrative procedures, protocols, and substantive rules that are egregious in nature but do not immediately impact the health, safety, and/or welfare of the public. A Class 2 violation can result from, but is not limited to, the following conduct:

- 2.1 Failure to fully document inspection results as required by the Special Inspection Manual.
- 2.2 Failure to adhere to stated inspection criteria for the specified special inspection.
- 2.3 Failure to declare a conflict of interest.
- 2.4 Failure of a Special Inspection Agency to update DOB with current information regarding its Professionals-In-Charge and Inspectors.
- 2.5 Failure to cooperate fully with the DOB Special Inspection oversight conducting a compliance review, audit, or investigation.
- 2.6 Failure to maintain required insurance that includes \$1,000,000 minimum errors and omissions coverage.
- 2.7 Failure to attend required training or meetings.
- 2.8 Failure to log-in and log-out, and have the geolocation feature active in Tertius while on a job site performing inspections.

Class 3 violations are minor offenses that impact the efficiency and overall performance of the Special Inspection Agency Program. They are the least severe, encompass failure to comply with basic administrative procedures and review protocols, and do not impact the health, safety, and/or welfare of the public. A Class 3 violation can result from, but is not limited to, the following conduct:

- 3.1 Failure to obtain an approved Statement of Special Inspections from the owner prior to beginning the Inspection.
- 3.2 Failure to provide an appropriate approval stamp to identify the specific personnel performing the special inspections.
- 3.3 Failure to responsibly provide or maintain an Activity/Incident Log at a job site.

## **IX. FINAL REPORT OF SPECIAL INSPECTIONS & CERTIFICATE OF OCCUPANCY PROCESS**

### **Responsibility**

It is the responsibility of the Owner to submit the Final Report of Special Inspections, obtain the necessary building and trades inspections, and file and obtain a Certificate of Occupancy from DOB, prior to occupancy or use of any constructed buildings/structures or tenant spaces.

### **Procedural Requirements**

The following are required prior to issuance of a Certificate of Occupancy:

A Final Report of Special Inspections bearing the original signatures and seals of the Special Inspections Engineer of Record and RDPRC shall be submitted to DOB via the Tertius platform after completion of inspections of all items specified in the District approved Statement of Special Inspections.

The Final Report of Special Inspections must reflect:

- The completed Special Inspections Schedule, indicating the start date and completion date of inspection(s).
- A Deficiency List with all deficiencies resolved, corrected or accepted by the appropriate Registered Design Professional. A project, in which no deficiencies were found, and no exceptions were taken, shall submit a blank Deficiency List.
- Any inspections and testing reports that have not previously been submitted to DOB.

## **X. SPECIAL INSPECTIONS FORMS**

The Special Inspections forms provided in this Manual.

- Schedule of Special Inspections
- Acknowledgments of Special Inspections Requirements
- Statement of Special Inspections
- Special Inspection Daily Report
- Special Inspections Final Report
- Sign-In Sheet for Special Inspection Meeting
- Subcontractors Form

**SCHEDULE OF SPECIAL INSPECTIONS**

**Address:**

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT				
		Y/ N	C/P	EXTENT/REFERENCE	AGENT	COMPLETED
<b>GENERAL</b>						
Pre-construction conference	Meeting with parties listed in Section 6 of DOB SIPM to discuss Special Inspection procedures		P	Scheduled by DOB with the Contractor prior to commencement of work		
<b>EARTHWORK</b>						
Site preparation (building)	Field testing and inspection		P	Field Review; IBC 1705.6		
Fill material (building)	Review submittals, field testing and inspection		P	Field Review; IBC 1705.6		
Fill compaction (building)	In-place density tests, lift thickness		C	Field Review; IBC 1705.6		
Excavation	Field inspection and verification of proper depth		P	Field Review; IBC 1705.6		
Foundation sub-grade	Field inspection of foundation subgrade prior to placement of concrete		P	Field Review; IBC 1705.6		
Sheeting and shoring	H piles and lagging, tie backs,		C	IBC 1705.2, 1705.7, 1705.8 T1705.7		
<b>DEEP FOUNDATION ELEMENTS</b>						
Materials	Review product, sizes, and lengths		C	Submittal and Field Review; IBC 1705.7, 1705.8, 1705.9		
Test piles	Monitor driving of test piles		C	Field Review; IBC 1705.8, .9 or .10		
Installation	Monitor drilling, placement, plumb, driving of piles, including recording blows per foot, cut off, and tip elevation		C	Field Review; IBC 1705.2, 1705.3, 1705.7		
Load test	Monitor pile load test		C	Field Review; IBC 1705.8, .9 or .10		
Helical Piles	Continuous special inspections shall be performed during installation of helical pile foundations		C	IBC 1705.9, 1810.3.1, 1810.4.11		
<b>CONCRETE</b>						
Materials	Review product supplied versus certificates of compliance and mix design		P	Submittal & Field Review; IBC 1705.3; ACI 318:Ch. 4 and 5; IBC 1904.2, 1910.2, 1903.3		
Installation of reinforcing steel, including Pre-stressed tendons and anchor bolts as well as welding	Field inspection of placement		P	Submittal and Field Review; ACI 318:3.5, 3.5.2, 3.8.6 & Ch. 7 8.1.3 and 21.2.8; AWS D1.4; IBC 1705.3, 1908.5, 1909.1, 1910.4		
Formwork installation	Field inspection		P	Field Review; ACI 318: 6.1.1; IBC 1705.3		
Concreting operations and placement	Field inspection of placement/sampling		C	Field Review; ACI 318: 5.6, 5.8, 5.9-10; ASTM C 172, C 31; IBC 1705.3, 1910.6, 1910.7, 1910.8, 1910.10		

Concrete curing	Field inspection of curing process		P	Field Review; ACI 318: 5.11-13; IBC 1705.3, 1910.9		
Concrete strength	Evaluation of concrete strength		P	Laboratory Testing; ACI 318: 6.2; IBC 1705.3		
Inspect anchors post-installed in hardened concrete members	IBC TABLE 1705.3		C	ACI 318: 17.8.2.4		

<b>PRECAST CONCRETE</b>						
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Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**		P	Submittal or Field Review; IBC 1705.3		
Erection and installation	Review submittals and as-built assemblies; Field inspection of in-place precast		P	Submittal and Field Review; ACI 318; Ch. 16; IBC Table 1705.3		

<b>MASONRY (Level___; Building Risk Category_) TYPICAL FOR LEVEL B AND RISK CATEGORY I,II,III</b>						
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Materials	Review of products supplied versus certificate of compliance and material submitted		P	Submittal & Field Review; ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, 1708		
Strength	Testing/review of strength		C	Submittal & Field Review; ACI 530/ASCE 5; ACI 530.1/ASCE 6; IBC 1705.4, 2105.2.2, 2105.3		
Mortar and Grout	Inspection of proportioning and mixing. Placement of mortar only.		P	Field Review; IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6		
Grout placement, including pre-stressing grout	Verification to ensure compliance		C	Field Review; IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6		
Grout space	Verification to ensure compliance		P	Field Review; IBC 1705.4; ACI 530/ASCE 5; ACI 530.1/ASCE 6; TMS 602		
Mortar, grout, and prism specimens	Observe Preparation		C	Field Review; IBC 1704.5, ACI 530.1; ASCE 6		
Reinforcement, pre-stressing tendons, and connections	Inspect condition, size, location, and spacing		P	Field Review; IBC 1704.5; ACI 530/ASCE 5; ACI 530.1/ASCE 6		
Welding of reinforcing bars	Inspection and testing of welds		C	Field Review; IBC 1705.4; ACI 530/ASCE 5; ACI530.1/ ASCE 6		
Pre-stressing force	Verify application and measurement		C	Field Review; IBC 1705.4; ACI 530/ASCE 5; ACI530.1/ASCE 6		
Protection	Inspect procedures for protection during cold and hot weather		P	Field Review; IBC 1705.4; ACI 530/ASCE 5;ACI 530.1/ASCE 6		
Anchorage	Inspection of anchorages		P	Field Review; ACI 530.1/ASCE 6, ASCE 6; IBC1705.4; ACI 530/ASCE 5		
Masonry installation	Inspection of placement of masonry and joints (Periodic after the first 5000 SF.)		C	Field Review; ACI 530/ASCE 5; ACI 530.1/ASCE6; IBC 1705.4		
Grouting of pre-stressed tendons	Field inspection		C	Field Review; ACI 318: 18.18.4; IBC 1705.3		
Application of forces for pre-stressed concrete	Field inspection		C	Field Review; ACI 318: 18.20; IBC 1705.3		

<b>STRUCTURAL STEEL</b>		<b>Y/N C/P</b>				
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Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures or submit Certificate of Compliance		P	IBC 1704.2.5, IBC 1704.2.5.1, 1704.2.5.2, 1705.2		
Bolts, nuts, and washers – materials	Material identification markings. Review of Certificate of Compliance		P	Submittal & Field Review; IBC 1705.2.1; IBC 1705.2.2; IBC 1706; ASTM; AISC 360, Section A3.3		



Special Inspection Policy Manual

Bolts, nuts, washers – installation	Inspection of in-place high-strength bolts, snug- tight joints, pre-tensioned and bearing type, and slip critical connections		C	Submittal & Field Review; IBC 1705.2.1, 1705.2.2, AISC 360 Section M2.5		
Structural steel – materials	Material identification markings and review of Certificate of Compliance		P	Submittal & Field Review; IBC 705.2.1,1705.2.2, 1706; ASTM A6, A568		
Structural steel details – installation	Inspection of member locations, structural details for bracing, connections, stiffening		P	Submittal & Field Review; IBC 1705.2.1,1705.2.2, AISC 360		
Weld filler materials and welder certification	Review of identification markings, Certificate of Compliance, and welder certifications		P	Submittal & Field Review; ASTM AISC 360 A3.5		
Welds	Inspection and testing of welds		C	Field Review; IBC 1705.2.2.1; AWS D1.1, D1.3		
Cold-formed metal deck – materials	Review of identification marking manufacturer's certified test results		P	Submittal and Field Review; IBC 1705.2.2; ASTM		
Cold-formed metal deck – installation	Review laps and welds		P	Submittal and Field Review; IBC 1705.2.2, AWS D1.3		
Cold-formed light frame construction – welds	Review welding operation		P	IBC 1705.11.2		
Cold form light frame construction wind resistance – screws	Review screw attachment bolting, anchoring hold downs, bracing, diaphragms, struts		P	Field Review; IBC 1705.11.2		
Cold-formed steel trusses spanning 60' or greater	Inspection of temporary and permanent restraints/bracing		C	Field review IBC 1705.2.4		
<b>WOOD</b>						
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures** or submit Certificate of Compliance		P	Submittal or Field Review; IBC 1704.2.5, 1705.5, 1705.5.2		
Metal plate connected wood/metal trusses spanning 60' or more	Review approved submittal and installation of restraint/bracing		P	Field Review; IBC 1704.2.5, 1705.5, 1705.2		
Joist Hangers – Materials/Installation	Review manufacturer's material and test standards		P	Field Review; IBC 1711, ASTM D 1761		
High-Load Diaphragms – Installation	Review submittal and as-built assemblies; inspection of sheathing, framing size, nail and staple diameter and length, number of fastener lines, and fastener spacing.		C	IBC 1705.5, 1705.5.1		
Wood Shear Walls–installation	Review nailing, bolting, anchoring, fastening, Diaphragms, struts, braces, and hold downs when fasteners are ≤ 4" on center.		P	Field Review; IBC 1705.11.1		
<b>MAIN WIND FORCE RESISTING SYSTEM</b>			<b>Y/N C/P</b>			
Wind requirements	Review of the system components and installation for wood construction, cold-formed steel light frame construction, components, and cladding		P	Submittal and Field Review; IBC 1609.1.2, 1704.5.2, 1705.11,1705, 1705.4, 1705.4.1, 1705.4.2, 1710		
<b>SEISMIC FORCE RESISTING SYSTEMS</b>						
Seismic requirements	Review of the designated seismic systems and seismic force resistance systems		C	Submittal and Field Review; IBC 1613, 1704.5.1, 1705.11, 1705.12; ASCE 7		

<b>SMOKE CONTROL</b>						
Special Inspection of smoke control systems	Leakage testing and recording of device location. Pressure difference testing, flow measurement and detection, and control verification		P	Field Review; IBC ,1705.18 ,1705.18.1 1705.17.2 1705.16.2		
<b>SPRAYED FIRE RESISTIVE MATERIAL, FIRE RESISTANT PENETRATIONS; JOINTS, MASTIC AND INTUMESCENT FIRE RESISTANT COATING</b>						
Structural member surface conditions	Field Review of surface conditions prior to application		P	AWCI 12-B; IBC 1705.14 1705.14.2		
Application/thickness/density/bond strength	Field review of application operations, thickness, and density		P	ASTM E605, AWCI 12-B; IBC 1705.14.3 1705.14.1, 1705.14.3, 1705.14.4 IBC 1705.14.5 1705.14.6		
Mastic & Intumescent Fire Resistant Coating	Field review of application operations and thickness		P	AWCI 12-B; IBC 1705.15		
Fire-resistant penetrations and joints. In high-rise buildings or in buildings assigned to Risk Category III or IV,	Field inspection per design		P	IBC 1705.17.1, 1705.17.2, ASTM E2174.		
<b>EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)</b>						
Application	Field Review of application/installation		P	ASTM E2570, IBC 1705.16		
<b>SPECIAL CASES</b>						
Alternative Materials and Systems	As requested by Chief Building Official, review system and installation		C/ P	IBC 1705.1.1		
<b>INSPECTION AGENTS</b>	<b>FIRM</b>	<b>ADDRESS</b>			<b>TELEPHONE</b>	
Special Inspections Engineer of Record						
Materials and Testing Laboratory						
Special Inspections Engineer of Record Smoke Control System						
Additional Agents						

Note: The Qualifications of the Special Inspections Engineer of Record and Testing Laboratories are subject to the Approval of the Chief Building Official  
 The Schedule of Special Inspections includes certain Architectural, Mechanical, Electric components, Storage Racks and Isolation Systems specified in Section 1705.11 of the Construction Code.

# Acknowledgments of Special Inspections Requirements

I have read and agree to comply with the terms, conditions, and my responsibilities as they are outlined in the Special Inspection and Testing Agreement:

**Owner:**

Print Name	Provide Signature	Date

**Registered Design Professional in Responsible Charge:**

Print Name/Company	Provide Signature	Date

**General Contractor:**

Print Name/Company	Provide Signature	Date

**Structural Engineer of Record:**

Print Name/Company	Provide Signature	Date

**Geotechnical Engineer of Record** (Required for soils/foundation elements under special inspection):

Print Name/Company	Provide Signature	Date

**Third-Party Agency Representative** (Required for all projects where NOI for inspections is requested and approved):

Print Name/Company	Provide Signature	Date

**Special Inspections Engineer of Record** (Presides over meeting):

	*	
Print Name/Company	Provide Signature	Date

\*This signature must be that of the responsible professional Engineer with the Special Inspection Agency accepted by the Department of Buildings (DOB).



# Statement of Special Inspections

**Purpose:** The purpose of this form is to capture the statement of special inspections and all professional stamps.

**Instructions:** All information that pertains to the applicant must be completed on all pages of this form.

**Permit Numbers:** \_\_\_\_\_

**Project Address:** \_\_\_\_\_

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Construction Code. It includes a Schedule of Special Inspections applicable to this project as well as the name of the Special Inspections Engineer(s) of Record, and the identity of other agents such as testing laboratories or agencies intended to be retained for conducting these inspections or tests.

The Special Inspections Engineer of Record (SIER) shall keep records of specified inspections and shall furnish inspection reports to the Chief Building Official, DOB Inspector or Third-Party Inspector, appropriate Registered Design Professionals (RDP), Owner and Contractor. All discrepancies shall be brought to the immediate attention of the Contractor and the Registered Design Professional in Responsible Charge for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Chief Building Official and appropriate RDP(s). Interim reports and an activity/incident log shall be made available to the DOB Inspector or Third-Party Inspector according to the DOB Special Inspections Manual.

All fees/costs related to the performance of Special Inspections shall be the responsibility of the Owner. Additionally, the undersigned (RDP or SIER) are only acknowledging that the items enumerated on the Schedule of Special Inspections are consistent with the required design elements, the applicable sections of the DCMR, and their area of expertise.

**General Contractor:** \_\_\_\_\_ **Company:** \_\_\_\_\_ **License #:** \_\_\_\_\_

**Owner or Owner's Agent:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Department of Buildings

**Registered Design Professional in Responsible Charge:**

\_\_\_\_\_  
Full Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company or Firm

\_\_\_\_\_  
Email Address

**Structural Engineer of Record:**

\_\_\_\_\_  
Full Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company or Firm

\_\_\_\_\_  
Email Address

**Place Stamp Here:**

**Place Stamp Here:**

**Special Inspections Engineer of Record<sup>1</sup>:**

\_\_\_\_\_  
Full Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company or Firm

\_\_\_\_\_  
Contact Number

\_\_\_\_\_  
Email Address

**Place Stamp Here:**

<sup>1</sup>Note subsequent Special Inspections Engineer(s) of Record will be listed on schedule of Special Inspections.

# Special Inspection Daily Report

Permit No: \_\_\_\_\_ Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Inspection Type:  Continuous  Periodic Frequency: \_\_\_\_\_

Inspection Kind: \_\_\_\_\_

Location: \_\_\_\_\_

Tests Performed: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inspection Approved

Inspection Disapproved

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

To the best of my knowledge, work inspected was in accordance with the approved plans, specifications, and applicable workmanship provisions of DCMR 12A except as noted above.

Signature: \_\_\_\_\_ Inspection Agency: \_\_\_\_\_

Full Name: \_\_\_\_\_ Time of Inspection: \_\_\_\_\_

# Final Report of Special Inspections

**Purpose:** The purpose of this form is to capture the final report of special inspections and all professional stamps.

**Instructions:** All information that pertains to the applicant must be completed on all pages of this form.

**Permit Numbers:** \_\_\_\_\_

**Project Address:** \_\_\_\_\_

Pursuant to the requirements of the District of Columbia Special Inspections Program, I submit this final report of the item listed above for approval. Inspection reports numbered \_\_\_\_\_ to \_\_\_\_\_, and test reports numbered \_\_\_\_\_ to \_\_\_\_\_, all submitted prior to this final report, form a basis for, and are considered an integral part of this final report of special inspections. The special inspections relative to the permit listed above have been completed. The building elements subject to special inspections have been found to be in compliance with the approved construction documents and in conformance with project specifications. All discrepancies discovered during the performance of special inspections for this permit were brought to the attention of the appropriate Registered Design Professional of Record and the General Contractor for resolution and have been corrected and approved.

**Submitted by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Special Inspections Engineer of Record:**

**Place Stamp Here:**

\_\_\_\_\_  
Full Name

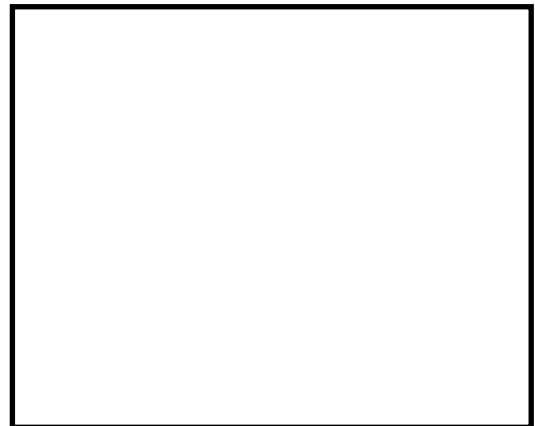
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company or Firm

\_\_\_\_\_  
Contact Number

\_\_\_\_\_  
Email Address



**Registered Design Professional in Responsible Charge:**

**Place Stamp Here:**

\_\_\_\_\_  
Full Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company or Firm

\_\_\_\_\_  
Contact Number

\_\_\_\_\_  
Email Address







## Sign-In Sheet | Special Inspections

Firm No.	Firm Name	Contact Person	Phone Number	Email
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				



## Sign-In Sheet | Special Inspections

Firm No.	Firm Name	Contact Person	Phone Number	Email
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				



## Special Inspections Subcontractor's List

This list is to be filled out by GC for all known subcontractors at pre-construction meeting and submitted by SIER as part of Pre-construction meeting documents. For all subcontractors TBD after pre-con meeting this form shall be completed and signed by GC showing all subcontractors involved in SI related items and resubmitted again with the Final Report of SI when project SI items are completed. Lines 1-14 shall be completed in its entirety by listing either a Firm Name, TBD, or N/A, whichever is most applicable. The GC shall list their own firm if self-performing any SI Scopes. If multiple contractors will execute the same SI scope, add more subcontractors you may use cells 15-30 or attach additional documents to clarify the scopes.

No.	Firm Name	SI elements worked on	Contact person	Phone	Email
1		Earthwork			
2		Deep Foundations			
3		Concrete			
4		Precast Concrete			
5		Masonry			
6		Structural Steel			
7		Wood			



## Special Inspections Subcontractor's List

8		Main Wind Force Resisting System			
9		Seismic Force Resisting System			
10		Smoke Control			
11		Fireproofing			
12		Firestopping			
13		EIFS			
14		Special Cases			
15					
16					
17					
18					
19					
20					



## Special Inspections Subcontractor's List

21					
22					
23					
24					
25					
26					

\*This signature must be that of General Contractor Accepted by the District of Columbia Department of Buildings (DOB).

\_\_\_\_\_  
GC/Print Name/ Company

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**The Department of Buildings expresses our appreciation for the valuable assistance of these individuals and organizations who contributed to the creation of and revisions to the Special Inspection Policy Manual.**

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