Special Inspections Guidelines

Georgia State Financing and Investment Commission
Construction Division

Last Revised: August 15, 2012

Preface:

This edition of the Special Inspections Guidelines is intended to assist the Design Professional during the development of their Special Inspection Plan in order to successfully comply with the special inspections requirements of the **Georgia State Minimum Standard Building Code**, (2012 **International Building Code** in conjunction with **Georgia State Amendments**), hereafter referred to as the **Building Code**. This document is the product of several months of discussion and consideration by the parties listed below. It is also in collaboration with the Georgia Department of Community Affairs. Any comments or suggestions on how to improve this document to make it easier to understand and use are greatly appreciated.

Acknowledgments:

The Georgia State Financing and Investment Commission and, particularly, the editors, wish to take this opportunity to express our sincere appreciation to our industry partners and those state employees who donated their time and effort to the development and production of this document. Without their assistance, not only would the quality of the document have suffered, the document would not have existed at all.

American Council of Engineering Companies of Georgia/Geotechnical Forum (ACEC/G) Georgia Department of Community Affairs, Structural Engineers Association of Georgia (SEAOG) and the SEAOG Special Inspections

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On September 12, 2001, the State of Georgia Board of Community Affairs, under the provisions of the Uniform Codes Act, updated the Georgia Standard Codes by approval of the 2000 edition of the ***Standard Building Code*** (2000 **International Building Code**) with *Georgia Amendments.* The effective date for the code was January 1, 2002. This introduced *Special Inspection and Testing*, under Chapter 17, as a ***Building Code*** requirement for the first time in Georgia.

The State of Georgia Board of Community Affairs updated the Georgia Standard Codes by approval of the 2006 edition of the ***International Building Code*** with ***State of Georgia Amendments,*** hereafter referred to as the ***Building Code***, with an effective date of January 1, 2007.

The State of Georgia Board of Community Affairs has now updated the Georgia Standard Codes by approval of the 2012 edition of the **International Building Code** with **State of Georgia Amendments**, hereafter referred to as the **Building Code**, with an effective date of January 1, 2014. This 2012 revision to the Guidelines has been developed to coordinate with the 2012 **Building Code**.

This document is a guideline to assist all parties involved with GSFIC building projects to successfully comply with the special inspection requirements of the ***Building Code.*** These parties include the using agencies, GSFIC personnel, design professionals, contractors and special inspectors.

Special Inspection is the monitoring of the materials and workmanship critical to the integrity of the building structure. It is a review of the work of the contractors and their employees to ensure that the approved plans and specifications are being followed and that the relevant codes and referenced standards are being observed. The Special Inspection process is *in addition* to the inspections conducted as a requirement of the Contract Documents and Structural Observations by the Design Professional and tests or inspections required by the Construction Documents.

Special inspections and tests are required to be performed by qualified, independent agents with special expertise as approved by GSFIC.

As part of the general requirements Section 1704 of the Code, Special Inspections, a *Statement of Special Inspections* shall be prepared by the Registered Design Professional in Responsible Charge shall be submitted and reviewed by GSFIC. The Registered Design Professional for Special Inspections is typically the Architect or the Structural Engineer. Often the Architect will take input from the Structural, Mechanical and Electrical Engineers and act as the overall Registered Design Professional in Responsible Charge of preparing and submitting the *Statement of Special Inspections*. The above noted documents should be included with the design documents issued for final approval by GSFIC, prior to issuing Contract Documents.

Special Inspections per Code Section 1704 are required on all GSFIC projects unless specifically exempted, in writing, by GSFIC. If the Design Professional contends that Special Inspections are not warranted they shall petition GSFIC to waive the requirements of Code Section 1704.

In accordance with Section 1704 of the ***Building Code*** The *Statement of Special Inspections* utilizing a *Schedule of Special Inspection Services,* shall include the following items:

1. The materials, systems, components and work required to have special inspection or testing by the building official or by the registered design professional responsible for each portion of the work.
2. The type and extent of each special inspection.
3. The type and extent of each test.

4. Additional requirements for special inspection or testing for seismic or wind resistance as specified in Section 1705.10, 1705.11 and 1705.12.
5. For each type of special inspection, identification as to whether it will be continuous special inspection or periodic special inspection.

Under certain high seismic and wind conditions the *Statement of Special Inspections* shall also include additional special inspection and testing requirements for seismic and/or wind resistance where required by ***Building Code*** Section 1705.10 and 1705.11 or 1705.12. Once engaged for a project, each contractor responsible for the construction of a seismic or wind resistant system or component listed in the *Statement of Special Inspections* shall submit a written statement of responsibility to the Design Professional in Responsible Charge and GSFIC prior to the commencement of work on the system or component.

The *Schedule of Special Inspection Services* must be maintained during the course of a construction project and should reflect any changes. For example the Schedule should be revised if the Special Inspector or an agent of the Special Inspector changes during the course of the construction or if a change in a building material or technique requires a change in the Special Inspection requirements.

Structural Observations by a registered structural design professional for certain high seismic or wind conditions shall also be provided where required by ***Building Code*** Section 1705.

At the completion of work and prior to the issuing the Architect's Final Certificate, a *Final Report of Special Inspections* in accordance with Code Section 1704.2.4 shall be submitted to Design Professional in Responsible Charge and GSFIC. This report shall document the completion of all required special inspections and testing.

Additional Special Inspection Program Instructions and the forms for preparing the *Statement of Special Inspections, Schedule of Special Inspection Services* and the *Final Report of Special Inspections* are included in this Guideline. The Design Professional may also obtain these forms from GSFIC.

Procurement:

Special Inspections will be procured through the Design Professional's contract with GSFIC. These services may be included from the initiation of the Design Contract or may be added to an existing Design Contract via a contract amendment.

Special Inspections will be performed by an independent firm selected through the "Qualifications Based Selection Process" in accordance with Chapter 22 of Title 50 of the Official Code of Georgia Annotated, in particular O.C.G.A. Section 50-22-6. Refer to GSFIC's *GUIDELINES FOR DESIGN PROFESSIONALS FOR SELECTING SPECIAL INSPECTIONS, MATERIAL TESTING, GEOTECHNICAL, AND/OR RELATED SERVICES* (located on the GSFIC internet website at www.gsfic.georgia.gov under "Construction Division/Forms and Publications".

GSFIC Special Inspections Guidelines

SPECIAL INSPECTION RESPONSIBILITIES

Responsibilities of the Special Inspector:

The Special Inspector shall:

1. Notify the contractor of their presence and responsibilities at the job site.
2. Observe assigned work. The Special Inspector(s) shall inspect all work for which they are responsible for conformance with the plans and specifications and shall perform Special Inspections in a timely manner to avoid delay of work.
3. Report nonconforming items. The Special Inspector(s) shall bring all nonconforming items to the immediate attention of the contractor for correction. If any such item is not resolved in a timely manner or is about to be incorporated into the work, the Design Professional and GSFIC shall be notified immediately and the item noted in the Special Inspector's written report. The Special Inspector(s) shall also write a discrepancy report that should contain, at a minimum the following information about each nonconforming item:
    a. Description and exact location.
    b. Reference to applicable drawings and specifications.
    c. Resolution or corrective action taken and the date.
4. Provide timely reports. The Special Inspector(s) shall complete written reports for each visit to the Site. The Special Inspector(s) shall furnish these reports directly to the Design Professional and the contractor. These reports shall be in a daily format and will be submitted to the Design Professional at the approved frequency. The reports should:
    a. Describe the special inspection and tests made, with locations.
    b. Indicate nonconforming items and their resolution.
    c. List unresolved items and parties notified.
    d. Itemize any changes authorized by the Design Professional.
5. Initial and date the "Date Completed" box in the *Schedule of Special Inspection Services* as the inspection and testing activities are completed.
6. Submit final report. The Special Inspector(s) shall submit a signed *Final Report of Special Inspections* stating that all required special inspection items and testing were fulfilled and reported. Items not in conformance, unresolved items, or any discrepancies should be specifically itemized.

Responsibilities of the Design Professional:

On GSFIC projects the Design Professional is focal point of all communication and documentation during the design and construction of the project. In addition, the Design Professional is contractually obligated to fulfill the role of the Building Official. The Design Professional shall:

1. Prepare the Special Inspection program. With the assistance of the structural engineer of record the Design Professional shall prepare and submit to GSFIC the *Statement of Special Inspections*, which shall include the *Schedule of Special Inspection Services*. These documents shall list items for which special inspection are required. They should also list the Special Inspector and his agents and their duties.
2. Engage the Special Inspector(s). Except for projects utilizing a Design/Build delivery system where the Design Professional is hired in a joint-venture with the contractor, the Design Professional is responsible for engaging the Special Inspector(s), its agents and any testing agencies required for the special inspection program. The Special Inspector(s) will be selected through the "Qualifications Based Selection Process" in accordance with Chapter 22 of Title 50 of the Official Code of Georgia Annotated, in particular O.C.G.A. Section 50-22-6. Refer to GSFIC's *GUIDELINES FOR DESIGN PROFESSIONALS FOR SELECTING SPECIAL INSPECTIONS, MATERIAL TESTING, GEOTECHNICAL, AND/OR RELATED SERVICES* (located on the GSFIC internet website at www.gsfic.georgia.gov under "Construction

Division/Forms and Publications". When engaging the Special Inspector(s) the following factors should be considered:

   a. Experience with projects of a similar nature.
   b. Sufficient staffing.
   c. Proximity of inspection and testing facilities.
   d. The capabilities for inspection at remote locations.

3. Respond to field discrepancies. The Design Professional shall respond to the special inspection reports of uncorrected, non-complying items and shall approve remedial measures.
4. Distribute special inspection reports. The Design Professional shall distribute all special inspection reports to GSFIC and others as designated.

Responsibilities of the Contractor/Construction Manager/Design Builder:

1. Notify the Special Inspector(s). The contractor, CM or Design Builder should coordinate the scheduling and timely notification, but no less than 24-hours to the need for special inspections.
2. Provide access to the approved construction documents. The Contractor or CM is responsible for providing the Special Inspector(s) with direct access to the approved plans and specifications.
3. Submit a *Statement of Responsibility* where required by the *Statement of Special Inspections*.
4. Submit *Fabricator's Certificates of Compliance* for approved fabricators.
5. Provide safe access to the work to be inspected and deliver samples for testing when needed.

GSFIC Special Inspections Guidelines

SPECIAL INSPECTION STEP-BY-STEP TIMELINE

The following is a suggested timeline for a project with special inspections. Some elements may not be applicable to all projects.

1. The Design Professional shall prepare the Special Inspection program with the assistance of the structural engineer of record.

2. Design Professional in Responsible Charge shall engage the Special Inspector(s) using Qualifications Based Selection Process.

3. The Design Professional shall submit to the GSFIC the *Statement of Special Inspections*, which shall include the *Schedule of Special Inspection Services*. Where required the *Statement of Special Inspections* shall include additional special inspection and testing requirements for seismic and/or wind resistance.

4. GSFIC shall approve the qualifications of the Special Inspectors and agencies in accordance with the ***Building Code*** and the GSFIC *Special Inspections Guidelines*.

5. Where required by the *Statement of Special Inspections*, each contractor responsible for the construction or fabrication of a system or component described in the *Requirements for Wind* or *Seismic Resistance* shall submit a *Statement of Responsibility*.

6. The Contractor shall notify the Special Inspector(s) when work is ready for inspection.

7. The Special Inspector(s) shall inspect the work per the *Schedule of Special Inspection Services* and provide a daily report detailing the inspection and any deficiencies. The Special Inspector(s) shall issue interim reports to the Design Professional and the GSFIC as noted in the *Statement of Special Inspections.*

8. The Design Professional shall, as needed, respond to any discrepancies identified by the Special Inspector(s).

9. Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2.5.2 of the ***Building Code*** must submit *Fabricator's Certificate of Compliance* at the completion of fabrication.

10. The Contractor shall remedy deficient work as construction progresses and prior to final inspection.

11. The Contractor shall submit *Fabricator's Certificates of Compliance* for approved fabricators.

12. The Special Inspector(s) shall prepare and sign a *Final Report of Special Inspection*s at the completion of the project.

13. The GSFIC shall <u>not</u> issue a Certificate of Material Completion until the *Final Report of Special Inspections for that phase of work* has been issued.

GSFIC Special Inspections Guidelines

SPECIAL INSPECTIONS PROGRAM INSTRUCTIONS

The following are general requirements and instructions for processing the Special Inspection Program forms.

Overview:
The program consists of three primary forms which must be filled out and submitted to GSFIC. The *Statement of Special Inspections* and the *Schedule of Special Inspections Services* forms are submitted for review prior to the issuing of Bid Documents. These documents should be maintained in a central location at the project site. The *Schedule of Special Inspection Services* will need to be accessed on a regular basis by the special inspector(s) for the project. The *Final Report of Special Inspections* is submitted at the completion of construction. Several other forms that may be utilized are also included.

Statement of Special Inspections:
This form provides the general project information. It identifies the project location, the project architect, the project structural engineer, and the registered design professional in responsible charge, referred to in the forms and hereafter as the Design Professional. Firm or company names are sufficient (individuals need not be listed). Depending on the project organization, the Design Professional could be the project architect, a project engineer, or an independent third party representing the Owner. In accordance with section 1704.2 of the ***Building Code***, the Design Professional is responsible for preparation of the special inspection program and would complete the "Prepared by" section of this form.

This form establishes the frequency interim reports should be furnished. For complex projects, the Design Professional, GSFIC or Using Agency may attach a separate schedule listing the required report frequency. Additionally, GSFIC or the Using Agency can request reports at a different frequency than the Design Professional. A copy of this form should be kept at the project site with the *Schedule of Special Inspection Services.*

For large projects that are divided into multiple bid packages (foundation package, structural frame package, building package, etc.) the special inspection program submitted with each partial bid package would only contain the special inspection requirements for the scope of work associated with that bid package.

Schedule of Special Inspection Services:
This form provides an itemized list of which special inspection activities are required for the specific project and which individuals, firm, or agency will be performing the special inspection services associated with each required task. The project title should be inserted at the top of the form. The form lists the various tasks required by Chapter 17 of the ***Building Code*** and provides a column for the Design Professional to identify with a "yes" or "no" which items apply to the specific project.

The "Extent" column is where the Design Professional can provide additional information or detail regarding the scope of the special inspections. This column identifies which items require continuous inspection and which require periodic inspection as defined by the ***Building Code***. For periodic inspections, the frequency of inspection can be identified here. Exceptions to a special inspection task may be noted in this column. Special instructions regarding how to perform inspections may also be included here. For more complex projects, this may be addressed by referring to another project document, such as the project specifications.

Multiple special inspectors may exist on one project. For example, a testing agency may perform the special inspection duties associated with testing welds, a registered structural engineer may perform special inspection duties associated with inspecting steel connections for conformance with the Construction Documents, and an architect may perform the special inspection duties associated with construction of the EIFS system. The multiple special inspectors are identified and numbered at the end of the form. The number next to the individual, firm, or agency's name would be listed in the schedule under the column heading "Agent" for the task that individual, firm, or agency will perform. In some instances, it may be desirable to have more than one special inspector involved in the same task. In this instance, the numbers for both parties would be listed adjacent to that task.

The only column not filled in on the schedule at the time it is submitted should be the "Completed" column. When an individual special inspection task in the schedule is completed for the last time on the project and the special inspector performed their final review, inspection, or test of that item for the project, the special inspector should initial and date the cell in the "Completed" column adjacent to the task. At the conclusion of the project, a copy of the *Schedule of Special Inspection Services* form with the initials and date in the "Completed" column for each task relevant to the project shall be submitted to GSFIC with the *Final Report of Special Inspections.*

Minimum qualifications for each type of inspection and test are included in Appendix C of these Guidelines. In cases where the complexity of the inspection or testing activity warrants additional expertise, the Design Professional may specify more stringent qualifications. For example, inspection by a structural engineer may be specified for complex concrete reinforcing steel.

Projects requiring special *Requirements for Seismic and/or Wind Resistance* should be identified at the end of the form for cross reference to the *Statement of Special Inspections*.

A commentary with specific requirements for each *Material/Activity* in the *Schedule* is included for assistance in completing the inspection program.

Final Report of Special Inspections:
This form is submitted when all the special inspection requirements for a project have been fulfilled. Each special inspector corresponding to an agent number in the *Schedule of Special Inspection Services* will be required to complete a copy of this for submittal to the Design Professional and GSFIC for their scope of work. The special inspection program will not be considered complete until forms from all agents have been submitted and received.

STATEMENT OF SPECIAL INSPECTIONS

PROJECT NUMBER AND TITLE: _____

LOCATION: _____

_____

ARCHITECT OF RECORD: _____

STRUCTURAL ENGINEER OF RECORD: _____

DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: _____

This Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2012 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☐ No

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? ☐ Yes ☐ No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to GSFIC and to the Design Professional at a frequency agreed upon by the Design Professional and GSFIC prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of GSFIC and the Design Professional prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to GSFIC and the Design Professional at the conclusion of the project.

Frequency of interim report submittals to GSFIC and the Design Professional:

__Bi-Weekly __Monthly Other; specify:_____

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Preparer's Seal

_____
Type or print name

_____
Signature Date

Statement of Special Inspections
Requirements for Seismic Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Seismic Design Category: ____

Statement of Special Inspection for Seismic Resistance Required (Yes/No): _____

Description of seismic force-resisting system subject to special inspection and testing for seismic resistance:
(Required for Seismic Design Categories C, D, E or F in accordance with IBC Sections 1705.11.1 through 1705.11.3, 1707.12.1 and 1705.12.2.)

Description of designated seismic systems subject to special inspection and testing for seismic resistance:
(Required for architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7, have a component importance factor, *Ip*, greater than one and are in Seismic Design Categories C, D, E or F.)

Description of additional seismic systems and components requiring special inspections and testing:
(Required for systems noted in IBC Section 1705.11, cases 3, 4 & 5 in Seismic Design Categories C, D, E or F.)

Statement of Responsibility:
Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

Statement of Special Inspections
Requirements for Wind Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Nominal Design Wind Speed, V_{asd} : _____m.p.h.

Wind Exposure Category: _____

Statement of Special Inspection for Wind Resistance Required (Yes/No): _____
(Required in wind exposure Category B, where the nominal design wind speed, V_{asd}, is 120 miles per hour or greater. Required in wind exposure Category C or D, where the nominal design wind speed, V_{asd}, is 110 miles per hour or greater)

Description of main wind force-resisting system subject to special inspection for wind resistance:
(Required for systems noted in IBC Section 1705.10.1 and 1705.10.2)

Description of wind force-resisting components subject to special inspection for wind resistance:
(Required for systems and components noted in IBC Section 1705.10.3)

Statement of Responsibility:
Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

FINAL REPORT OF SPECIAL INSPECTIONS

PROJECT NUMBER AND TITLE: _____

LOCATION: _____

_____

ARCHITECT OF RECORD: _____

STRUCTURAL ENGINEER OF RECORD: _____

DESIGN PROFESSIONAL: _____

To the best of my information, knowledge, and belief, which are based upon observations or diligent supervision of our inspection services for the above-referenced Project, I hereby state that the special inspections or testing required for this Project, and designated for this Agent in the *Schedule of Special Inspection Services*, have been completed in accordance with the Contract Documents.

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Interim reports submitted prior to this final report and numbered___to___form a basis for, and are to be considered an integral part of this final report. The following discrepancies that were outstanding since the last interim report dated _____ have been corrected:

_____
_____
_____
_____
_____
_____
_____
_____

(Attach 8 ½"x11" continuation sheet(s) if required to complete the description of corrections)

Prepared By:

_____
Special Inspection Agent/Firm

_____
Type or print name

_____
Signature Date

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
1704.2.5 Inspection of Fabricators					
Verify fabrication/quality control procedures	In-plant review (3)		Periodic		
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements)	Submittal review, shop (3) and/or field inspection				
1705.2 Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents)	Submittal Review		Each submittal		
2. Material verification of structural steel	Shop (3) and field inspection		Periodic		
3. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection		Continuous		
4. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection		Periodic		
5. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Shop (3) and field inspection		Observe or Perform as noted (4)		
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection		Observe (4)		
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection		Observe or Perform as noted (4)		
d. Nondestructive testing (NDT) of welded joints: *see Commentary*					
1) Complete penetration groove welds 5/16" or greater in *risk category* III or IV	Shop (3) or field ultrasonic testing - 100%		Periodic		
2) Complete penetration groove welds 5/16" or greater in *risk category* II	Shop (3) or field ultrasonic testing - 10% of welds minimum		Periodic		
3) Thermally cut surfaces of access holes when material t > 2"	Shop (3) or field magnetic Partical or Penetrant testing		Periodic		
4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing		Periodic		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
5) Fabricator's NDT reports when fabricator performs NDT	Verify reports		Each submittal (5)		
6. Structural steel bolting:	Shop (3) and field inspection				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)			Observe or Perform as noted (4)		
b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)			Observe (4)		
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings			Periodic		
b) Direct tension indicator			Periodic		
c) Twist-off type tension control bolt			Periodic		
d) Turn-of-nut without matching markings			Continuous		
e) Calibrated wrench			Continuous		
2) Snug-tight joints			Periodic		
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)			Perform (4)		
7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1	Shop (3) and field inspection and testing		Observe or Perform as noted (4)		
1705.2.2 Steel Construction Other Than Structural Steel					
1. Material verification of cold-formed steel deck:					
a. Identification markings	Field inspection		Periodic		
b. Manufacturer's certified test reports	Submittal Review		Each submittal		
2. Connection of cold-formed steel deck to supporting structure:	Shop (3) and field inspection				
a. Welding			Periodic		
b. Other fasteners (in accordance with AISC 360,Section N6)					
1) Verify fasteners are in conformance with approved submittal			Periodic		
2) Verify fastener installation is in conformance with approved submittal and manufacturer's recommendations			Periodic		
3. Reinforcing steel	Shop (3) and field inspection				
a. Verification of weldability of steel other than ASTM A706			Periodic		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special concrete structural walls and shear reinforcement			Continuous		
c. Shear reinforcement			Continuous		
d. Other reinforcing steel			Periodic		
4. Cold-formed steel trusses spanning 60 feet or greater					
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.3 Concrete Construction					
1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Shop (3) and field inspection		Periodic.		
2. Inspection of prestressing steel installation	Shop (3) and field inspection		Periodic		
3. Inspection of anchors cast in concrete where allowable loads have been increased ~~per section 1908.5~~ or where strength design is used	Shop (3) and field inspection		~~Continuous~~ Periodic		
4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection		Periodic or as required by the research report issued by an approved source		
5. Verify use of approved design mix	Shop (3) and field inspection		Periodic		
6. Fresh concrete sampling, perform slump and air content tests and determine temperature of concrete	Shop (3) and field inspection		Continuous		
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection		Continuous		
8. Inspection for maintenance of specified curing temperature and techniques	Shop (3) and field inspection		Periodic		
9. Inspection of prestressed concrete:	Shop (3) and field inspection				
a. Application of prestressing force			Continuous		
b. Grouting of bonded prestressing tendons in the seismic force-resisting system			Continuous		
10. Erection of precast concrete members			Periodic		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
a. Inspect in accordance with construction documents	Field inspection		In accordance with construction documents		
b. Perform inspections of welding and bolting in accordance with Section 1705.2	Field inspection		In accordance with Section 1705.2		
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Review field testing and laboratory reports		Periodic		
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection		Periodic		
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports		Periodic		
1705.4 Masonry Construction					
(A) Level A, B and C Quality Assurance:					
1. Verify compliance with approved submittals	Field Inspection		Periodic		
(B) Level B Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction	Testing by unit strength method or prism test method		Periodic		
(C) Level C Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction and for every 5,000 SF during construction	Testing by unit strength method or prism test method		Periodic		
2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site	Field inspection		Continuous		
3. Verify placement of masonry units	Field Inspection		Periodic		
(D) Levels B and C Quality Assurance:					
1. Verification of Slump Flow and Visual Stability Index (VSI) of self-consolidating grout as delivered to the project	Field testing		Continuous		
2. Verify compliance with approved submittals	Field inspection		Periodic		
3. Verify proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	Field Inspection		Periodic		
4. Verify grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	Field Inspection		Periodic		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
5. Verify construction of mortar joints	Field Inspection		Periodic		
6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Field Inspection		Level B - Periodic		
			Level C - Continuous		
7. Verify grout space prior to grouting	Field Inspection		Level B - Periodic		
			Level C - Continuous		
8. Verify placement of grout and prestressing grout for bonded tendons	Field Inspection		Continuous		
9. Verify size and location of structural masonry elements	Field Inspection		Periodic		
10. Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction.	Field inspection		Level B - Periodic		
			Level C - Continuous		
11. Verify welding of reinforcement (see 1705.2.2)	Field inspection		Continuous		
12. Verify preparation, construction, and protestion of masonry during cold weather (temperature below 40^{o}F) or hot weather (temperature above 90^{o}F)	Field inspection		Periodic		
13. Verify application and measurement of prestressing force	Field Inspection		Continuous		
14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of AAC masonry)	Field inspection		Continuous		
15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first 5000 SF of AAC masonry)	Field inspection		Level B - Periodic		
			Level C - Continuous		
16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Field inspection		Continuous		
17. Verify properties of thin-bed mortar forAAC masonry (after the first 5000 SF of AAC masonry)	Field inspection		Level B - Periodic		
			Level C - Continuous		
18. Prepare grout and mortar specimens	Field testing		Level B - Periodic		
			Level C - Continuous		
19. Observe preparation of prisms	Field inspection		Level B - Periodic		
			Level C - Continuous		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
1705.5 Wood Construction					
1. Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5	In-plant review (3)		Periodic		
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Field inspection		Periodic		
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection		Periodic		
4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection		Periodic		
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection		Periodic		
3. Perform classification and testing of controlled fill materials.	Field inspection		Periodic		
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection		Continuous		
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection		Periodic		
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection		Continuous		
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection		Continuous		
3. Observe driving operations and maintain complete and accurate records for each element	Field inspection		Continuous		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	Field inspection		Continuous		
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2		See Section 1705.2		
6. For concrete elements and concrete-filled elements, perform additional inspections per Section 1705.3	See Section 1705.3		See Section 1705.3		
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection		In accordance with construction documents		
8. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		
1705.8 Cast-in-Place Deep Foundations					
1.Observe drilling operations and maintain complete and accurate records for each element	Field inspection		Continuous		
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	Field inspection		Continuous		
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3		See Section 1705.3		
4. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		
1705.9 Helical Pile Foundations					
1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other data as required.	Field inspection		Continuous		
2. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		
1705.10.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection		Continuous		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection		Periodic		
1705.10.2 Cold-formed Steel Special Inspections For Wind Resistance					
1.Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection		Periodic		
2.Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection		Periodic		
1705.10.3 Wind-resisting Components					
1. Roof cladding	Shop (3) and field inspection		Periodic		
2. Wall cladding	Shop (3) and field inspection		Periodic		
1705.11.1 Structural Steel Special Inspections for Seismic Resistance					
Inspection of structural steel in accordance with AISC 341	Shop (3) and field inspection		In accordance with AISC 341		
1705.11.2 Structural Wood Special Inspections for Seismic Resistance					
1. Inspection of field gluing operations of elements of the seismic-force resisting system	Field inspection		Continuous		
2. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection		Periodic		
1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. Inspection during welding operations of elements of the seismic-force-resisting system	Shop (3) and field inspection		Periodic		
2. Inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection		Periodic		
1705.11.4 Designated Seismic Systems Verification					
Inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.3	Field inspection		Periodic		

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
1705.11.5 Architectural Components Special Inspections for Seismic Resistance					
1. Inspection during the erection and fastening of exterior cladding and interior and exterior veneer	Field inspection		Periodic		
2. Inspection during the erection and fastening of interior and exterior nonbearing walls	Field inspection		Periodic		
3. Inspection during anchorage of access floors	Field inspection		Periodic		
1705.11.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems	Field inspection		Periodic		
2. Inspection during the anchorage of other electrical equipment	Field inspection		Periodic		
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units	Field inspection		Periodic		
4. Inspection during the installation and anchorage of HVAC ductwork that will contain hazardous materials	Field inspection		Periodic		
5. Inspection during the installation and anchorage of vibration isolation systems	Field inspection		Periodic		
1705.11.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height	Field inspection		Periodic		
1705.11.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system	Shop and field inspection		Periodic		
1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance					

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	**SERVICE**	**Y/N**	**EXTENT**	**AGENT***	**DATE COMPLETED**
1. Review certified mill test reports for each shipment of reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review certified mill test reports		Each shipment		
2. Verify reinforcement weldability of ASTM A615 reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review test reports		Each shipment		
1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance					
Test in accordance with the quality assurance requirements of AISC 341	Shop (3) and field testing		Per AISC 341		
1705.12.3 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components.	Certificate of compliance review		Each submittal		
1705.12.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8	Prototype testing		Per ASCE 7		
1705.13 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection		Periodic		
2. Verify application of sprayed fire-resistant materials	Field inspection		Periodic		
3. Verify average thickness of sprayed fire-resistant materials applied to structural members	Field inspection		Periodic		
4. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing		Per IBC Section 1705.13.5		
5. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing		Per IBC Section 1705.13.6		
1705.14 Mastic and Intumescent Fire-Resistant Coatings					
Inspect mastic and intumescent fire-resistant coatings applied to structural elements and decks	Field inspection		Periodic		
1705.15 Exterior Insulation and Finish Systems (EIFS)					

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT					
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1. Verify materials, details and installations are per the approved construction documents	Field inspection		Periodic		
2. Inspection of water-resistive barrier over sheathing substrate	Field inspection		Periodic		
1705.16 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop systems	Field testing		Per ASTM E2174		
2. Inspect fire-resistant joint systems	Field testing		Per ASTM E2393		
1705.17 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing		Periodic		
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing		Periodic		

* INSPECTION AGENTS FIRM	ADDRESS	TELEPHONE NO.
1.		
2.		
3.		
4.		

Notes: 1. The inspection and testing agent(s) shall be engaged by the Design Professional or GSFIC, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Design Professional and GSFIC prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the GSFIC and/or the Design Professional.

2. The list of Special Inspectors may be submitted as a separate document, if noted so above.

3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2

4. Observe on a random basis, operations need not be delayed pending these inspections. Perform these tasks for each welded joint, bolted connection, or steel element.

5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the GSFIC. Refer to AISC 360, N7.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? **Yes** **No**

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? **Yes** **No**

COMMENTARY ON SCHEDULE OF SPECIAL INSPECTION SERVICES	
MATERIAL / ACTIVITY	**COMMENTARY**
General	Other items may be added to the Schedule of Special Inspection Services at the discretion of the Design Professional and/or the Owner.
Definition: Special Inspection	Inspection of construction requiring the expertise of an approved special inspector in order to ensure compliance with this code and the approved construction documents.
Definition: Special Inspector	A qualified person employed or retained by an approved agency and approved by the building official as having the competence necessary to inspect a particular type of construction requiring special inspection.
Definition: Continuous Special Inspection	Special inspection by the special inspector who is present when and where the work to be inspected is being performed.
1704.2.5 Inspection of Fabricators	Required where structural load-bearing members and assemblies are fabricated in a shop, except not required where fabricator is approved in accordance with section 1704.2.5.2. Where this exception is utilized, at the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.
1705.2 Steel Construction	Special inspection of the steel fabrication process shall not be required where the fabricator does not perform any welding, thermal cutting or heating operation of any kind as part of the fabrication process.
5d. Non destructive testing (NDT) of welded joints	As a minimum for special inspections, AISC 360 Chapter N requires UT testing of complete joint penetration groove welds (CJP) subject to transversely applied tension loading in butt, T- and corner joints, in materials 5/16" (8mm) thick or greater. Further NDT testing, including UT testing of partial penetration groove welds (PJP) and magnetic particle or penetrant testing of fillet welds, may be added at the option of the engineer of record as a project requirement. AISC 360 Chapter N also allows reduction or increase in the rate of UT testing if approved by the engineer of record and by the authority having jurisdiction.
5d. 3, Non destructive testing of thermally cut surfaces of access holes.	This requirement is intended to apply when the flange thickness of rolled shapes exceeds 2" or when the web thickness of built up shapes exceeds 2". Any crack shall be deemed unacceptable regardless of size or location.
5d. 5, Review of fabricator's NDT reports.	NDT of welds completed in an approved fabricator's shop may be performed by that fabricator only when approved by the authority having jurisdiction. Special Inspections include review of reports of all NDT testing done by the fabricator.
1705.2.2 Steel Construction Other Than Structural Steel	
1. Inspection of welding	
a. Floor and roof cold-formed steel deck welds.	Per AWS D1.3.
b. Reinforcing Steel	Per AWS D1.4 and ACI 318 Section 3.5.2.
1705.3 Concrete Construction	Special Inspections are not required for certain isolated spread concrete footings, certain continuous concrete footings, nonstructural concrete slabs supported directly on the ground, and concrete foundation walls constructed in accordance with Table 1807.1.6.2. See Section 1705.3 for these specific exceptions. Special inspections are not required for any concrete patios, driveways and sidewalks, on grade.
Erection of precast concrete members.	Inspection of the erection of precast concrete has always been included in IBC, but no specific inspections have been indicated. Inspection of bolts and welds for precast concrete are covered in Section 1705.2 Steel Construction. Any specific precast erection inspection requirements should either be added to the project Special Inspection Schedule or Construction Documments. The following are some inspections that the Design Professional should consider:
	a. Verify member locations and joint details comply with construction and erection documents
	b. Verify proper bearing pad type and placement
	c. Verify placement of grout (including hot and cold weather procedures and that maximum specified number of levels to be placed before grouting are not exceeded)
	d. Verify joint widths are within specified tolerance where joints are to receive sealant
	e. Verify thread engagement and torque for mechanical connections
1705.4 Masonry Construction	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. **Exceptions:** See 1705.5 Risk Categories: See 1604.5

COMMENTARY ON SCHEDULE OF SPECIAL INSPECTION SERVICES	
MATERIAL / ACTIVITY	**COMMENTARY**
1. Level A Quality Assurance	Masonry in Risk Category I, II, or III structures and designed in accordance with ACI 530 Chapter 5, 6, or 7 (Empirical Design, Veneer, Glass Unit Masonry)
2. Level B Quality Assurance	1. Masonry in Risk Category IV structures and designed in accordance with ACI 530 Chapter 6 or 7 (Veneer, Glass Unit Masonry) 2. Masonry in Risk Category I, II, or III structures and designed in accordance with ACI 530 Chapter 2, 3, 4, 8 or Appendix B (Allowable Stress Design, Strength Design, Prestressed Masonry, AAC Masonry, Masonry Infill)
3. Level C Quality Assurance	Masonry in Risk Category IV structures and designed in accordance with ACI 530 Chapter 2, 3, 4, 8 or Appendix B (Allowable Stress Design, Strength Design, Prestressed Masonry, AAC Masonry, Masonry Infill)
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. High-load diaphragms designed in accordance with Section 2306.2 shall be installed with special inspections as indicated in Section 1704.2. **Exception:** Special inspections are not required for portions of structures designed and constructed in accordance with IBC Section 2308 unless the approved construction documents indicate otherwise.
1705.6 Soils	The approved geotechnical report and the construction documents prepared by the registered design professionals shall be used to determine compliance. Where Section 1803 does not require reporting of materials and procedures for fill placement, the special inspector shall verify that the in-place dry density of the compacted fill is not less than 90 percent of the maximum dry density at optimum moisture content determined in accordance with ASTM D 1557.
1705.7 Driven Deep Foundations	The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.
1705.8 Cast-in-Place Deep Foundations	The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.
1705.9 Helical Pile Foundations	The approved geotechnical report, and the construction documents prepared by the registered design professional, shall be used to determine compliance.
1705.10 Special Inspections for Wind Resistance	Special inspections are required for buildings and structures constructed in the following areas: 1. In wind Exposure Category B, where Vasd as determined in accordance with Section 1609.3.1 is 120 miles per hour (52.8 m/sec) or greater. 2. In wind Exposure Category C or D, where Vasd as determined in accordance with Section 1609.3.1 is 110 mph (49 m/sec) or greater. **Exceptions:** 1. Structural wood Special Inspection is not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other components of the main windforce-resisting system, where the fastener spacing is more than 4 inches on center. 2. Cold-formed steel light-frame construction Special Inspection is not required for cold-formed steel light-frame shear walls, braces, diaphragms, collectors (drag struts) and hold-downs where either of the following apply: the sheathing is gypsum or fiberboard; or the sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the fastener spacing of the sheathing is more than 4 inches on center.
1705.11.1 Structural Steel Special Inspections for Seismic Resistance	Mandatory in accordance with AISC 341 for the seismic force-resisting systems in Seismic Design Category C, D, E or F. **Exceptions:** 1. Structures assigned to Seismic Design Category C with structural steel systems not specifically detailed for seismic resistance with a Response Modification Coefficient, R, of 3 or less, excluding cantilever column systems. 2. Exceptions listed in Sections 1704.2 and 1705.11.
1705.11.2 Structural Wood Special Inspections for Seismic Resistance	Mandatory for the seismic force-resisting systems in Seismic Design Category C, D, E or F. **Exceptions:** 1. Special inspection is not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other components of the seismic force-resisting system, where the fastener spacing of the sheathing is more than 4 inches on center. 2. Exceptions listed in Sections 1704.2 and 1705.11.

COMMENTARY ON SCHEDULE OF SPECIAL INSPECTION SERVICES	
MATERIAL / ACTIVITY	**COMMENTARY**
1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance	Mandatory for the seismic-force-resisting systems in Seismic Design Category C, D, E or F. **Exceptions:** 1. Sheathing is gypsum board or fiberboard. 2. Sheathing is wood structural panel or steel sheet on only one side and the fastener spacing of the sheathing is more than 4 inches on center. 3. Exceptions listed in Sections 1704.2 and 1705.11.
1705.11.4 Designated Seismic Systems Verification	Definition, Designed Seismic Systems: Those nonstructural components that require design in accordance with ASCE 7 Chapter 13 and for which the component importance factor, Ip, is greater than 1 in accordance with ASCE 7 Section 13.1.3.
Inspect and verify that that the component label, and anchorage or mounting conforms to the certificate of compliance in accordance with 1705.12.3.	Mandatory for structures assigned to Seismic Design Category C, D, E or F.
1705.11.5 Architectural Components Special Inspections for Seismic Resistance	
1. Inspection during the erection and fastening of exterior cladding, interior and exterior nonbearing walls and interior and exterior veneer.	Mandatory for structures assigned to Seismic Design Category D, E or F. **Exceptions:** 1. Not required for exterior cladding, interior and exterior nonbearing walls, and interior and exterior veneer 30 feet or less in height above grade or walking surface. 2. Not required for exterior cladding and interior and exterior veneers weighing 5 psf or less. 3. Not required for interior nonbearing walls weighing less than 15 psf.
2. Inspection during anchorage of access floors.	Mandatory for structures assigned to Seismic Design Category D, E or F.
1705.11.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance	
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems.	Mandatory for structures assigned to Seismic Design Category C, D, E or F.
2. Inspection during the anchorage of other electrical equipment	Mandatory for structures assigned to Seismic Design Category E or F.
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials and their associated mechanical units.	Mandatory for structures assigned to Seismic Design Category C, D, E or F.
4. Inspection during the installation and anchorage of ductwork designed to carry hazardous materials.	
5. Inspection during the installation and anchorage of vibration isolation systems.	Mandatory for structures assigned to Seismic Design Category C, D, E or F, where the construction documents require a nominal clearance of 0.25 inches or less, between the equipment support frame and restraint.
1705.11.7 Storage Racks Special Inspections for Seismic Resistance	
Inspection during the anchorage of storage racks 8 feet or greater in height.	Mandatory for structures assigned to Seismic Design Category D, E or F.
1705.11.8 Seismic Isolation Systems	

COMMENTARY ON SCHEDULE OF SPECIAL INSPECTION SERVICES	
MATERIAL / ACTIVITY	**COMMENTARY**
Inspection during the fabrication and installation of isolator units and energy dissipation devices.	See ASCE 7 Section 17 for additional inspection and quality control requirements.
1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance	Applies to special moment frames, special structural walls, and coupling beams connecting special structural walls in structures assigned to Seismic Design Category B, C, D, E or F. The reinforcement shall comply with ACI 318 Section 21.1.5.2, and if it is to be welded, also determine weldability in accordance with ACI 318 Section 3.5.2.
1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance	Applies to structural steel systems designed to AISC 341 and assigned to Seismic Design Category C, D, E or F. This is not required for steel structures assigned to Seismic Design Category C that are not specifically detailed for seismic resistance, with a response modification coefficient, R, of 3 or less, excluding cantilever column systems.
1705.12.3 Seismic Certification of Nonstructural Components	Applies to 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.
Review certificate of compliance.	Review the construction documents for the requirements for certification by analysis, testing or experience data for nonstructural components and designated seismic systems in accordance with ASCE 7 Section 13.2.
1705.12.4 Seismic Isolation Systems	Test in accordance with ASCE 7 Section 17.8.
1705.13 Sprayed Fire-Resistant Materials	Inspect in accordance with ASTM E 605, ASTM E 736, and the written instructions of approved manufacturers.
Verify average thickness of sprayed fire-resistant materials applied to structural members.	Thickness testing required for minimum of 25% of structural members on each floor. See Section 1705.13 for testing requirements for floor, roof and wall assemblies.
1705.14 Mastic and Intumescent Fire-Resistant Coatings	
Inspect mastic and intumescent fire-resistant coatings applied to structural elements and decks.	Special inspections 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.
1705.15 Exterior Insulation and Finish Systems (EIFS)	
1. Verify materials, details and installations are per the approved construction documents.	Mandatory except for applications installed over masonry or concrete walls, or where installed over a water-resistive barrier with means of draining moisture to the exterior.
2. Inspect water-resistive barrier coating over sheathing substrate.	Mandatory where water-resistive barrier coating is installed over sheathing substrate.
1705.16 Fire-Resistant Penetrations and Joints	Mandatory in high-rise buildings or in buildings assigned to Risk Category III or IV in accordance with Section 1604.5.
1705.17 Smoke Control Systems	Mandatory by special inspection agencies having expertise in fire protection engineering, mechanical engineering and certification as air balancers.

Appendix C

MIMIMUM SPECIAL INSPECTOR QUALIFICATIONS

Attached below for reference is Table 1704.2 of the 2012 International Building Code as added per the 2014 Georgia State Amendments

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS

Category of Testing and Inspection	Minimum Qualifications (refer to key at end of Table)		
	Shop Testing or Inspection	**Field Testing or Inspection**	**Review Testing, Certification, & Lab Reports**
1704.2.5 Inspection of Fabricators			
Pre-cast concrete	A, C, E		
Structural steel construction	C, F, G		
Wood construction	A		
Cold formed metal construction	A		
1705.2, 1705.10, 1705.11& 1705.12 Steel Construction			
Verification of welding comsumables, filler metals, procedure specifications, procedure qualification records and personnel performance qualification records			C, F
Nondestructive testing of welding	G	G	
Inspection of welding	C, F	C, F	
Verification of fabricator and erector documents as listed in AISC 360, 14th edition, chapter N, paragraph 3.2			A, C
Material verification of weld filler materials			C, F
Inspection of high strength bolting and steel frame joint details		A, C	
Inspection of embedments and erection of fabricated steel and steel frame elements		A, C, F	
Inspection of steel elements of composite construction		A, C, F	
Verification of reinforcing steel, cold formed steel deck and truss materials			A, C, F
Inspection of reinforcing steel, cold formed steel deck and trusses		A	
1705.3 & 1705.12Concrete Construction			
Reinforcing placement, cast-in-place bolts, post installed anchors concrete and shotcrete placement and curing operations. Inspection of formwork for shape, location and dimensions		A, C, H	
Pre-stressing steel installation		A, C, D, E	
Erection of pre-cast concrete members		A, C, H	
Concrete field sampling and testing		A, J	
Review certified mill reports			A, C
Verify use of required design mix		A, I, J, H, C	
Pre-stressed (pre-tensioned) concrete force application	A, C, E		
Post-tensioned concrete force application		A, C, D	
Review of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		A, C, D,H	
Reinforcing steel weldability, reinforcing welding, weld filler material		C, F	
Testing of welding of reinforcing steel		G	
1705.4 Masonry			
Verification of f'_m and f'_{AAC}		A, C, L, M	
Mortar joint construction, grout protection and placement, materials proportion, type/size/location of reinforcement, structural elements, anchorage, and connectors		A, C, K	
Sampling/testing of grout/mortar specimens		A, C, L, M	
Observe preparation of masonry prisms for testing of compressive strength of masonry, f'_m and f'_{AAC}		A, C, K, L, M	
Inspection of welding of reinforcing steel		C, F	
Testing of welding of reinforcing steel		G	

(Table continued on next page)

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS *(continued)*

	Minimum Qualifications (refer to key at end of Table)		
	Shop Testing or Inspection	**Field Testing or Inspection**	**Review Testing, Certification, & Lab Reports**
1705.6& 1804 Soils			
Observe site preparation, fill placement testing of compaction for compliance with the construction documents for the project		A, C, I, N	
Observe test bearing materials below shallow foundations for ability to achieve design bearing capacity		A, C, N, I (Level III)	
Review compaction testing for compliance with the construction documents for the project			A
1705.5, 1705.10, 1705.11 & 1705.12Wood Construction			
Observe structural panel sheathing, size of framing members, nail or staple diameter and length, number of fastener lines, and spacing of fastener lines and fasteners for compliance with construction documents for the project		**A**	
Observe temporary and permanent truss member restraint/bracing, field gluing of elements. Observe bolting, anchoring or other fastening of: shear walls, diaphragms, drag struts, braces and hold-downs.		**A**	
1705.7, 1705.8, 1705.9 & 1810 Pile and Pier Foundations			
Observe installation		A, N	
Observe load tests		A	
1705.13Sprayed Fire-Resistant Materials			
Observe surface conditions, application, average thickness and density of applied material, and cohesive/adhesive bond		A, C	
1705.14Mastic and intumescent fire-resistant coatings			
Observe application compliance with AWCI 12-B		A, C	
1705.15Exterior Insulation and Finish Systems			
Inspect EIFS systems		A, B, C, O	
1705.1 Special Cases			
Work of unusual or special nature		A, B, O	
1705.16 Fire-Resistant Penetrations and Joints	*See Requirements of IBC Sections 1705.16.1 and 17016.2*		
1705.17Smoke Control	*See Requirements of IBC Section .1705.17.2*		
1705.10, 1705.11, 1705.12, Seismic and Wind Resistance			
Periodic inspection of fabrication, installation and/or anchorage of building systems and components		A	

(Table continued on next page)

TABLE 1704.2 MINIMUM SPECIAL INSPECTOR QUALIFICATIONS *(continued)*

KEY:

A. Georgia Professional Engineer (GA PE) competent in the specific task area or graduate of accredited engineering/engineering technology program under the direct supervision of a GA PE.

B. Georgia Registered Architect (GA RA) or graduate of accredited architecture/architecture technology program under the direction of a GA RA.

C. International Code Council (ICC) Special Inspector Certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.

D. Post-tensioning Institute (PTI) Certification, Level 2, bonded or unbonded as applicable.

E. Pre-stressed Concrete Institute (PCI) Certified Inspector.

F. American Welding Society (AWS) Certified Welding Inspector (CWI) or AWS Certified Associate Welding Inspector working under the direct on-site supervision of a CWI.

G. American Society for Nondestructive Testing (ASNT) Level II certification, or a Level III certification if previously certified as a Level II in the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.

H. American Concrete Institute (ACI) Concrete Construction Special Inspector.

I. National Institute for Certification in Engineering Technologies (NICET) Level II or higher certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.

J. ACI Concrete Field Testing Technician with Grade 1 certification.

K. Georgia Concrete and Products Association (GC&PA) – Masonry Association of Georgia (MAG) Masonry Construction Inspector Certification.

L. National Concrete Masonry Association (NCMA) Concrete Masonry Testing Procedures certification.

M. GC&PA – MAG Masonry Testing Technician certification.

N. NICET Certified Engineering Technologist (CT).

O. Other Qualified Special Inspector as approved by the Building Official.

Notes:

1. *The Special Inspector shall meet one of the minimum qualifications listed for the applicable Category of Testing and Inspection.*
2. *Materials testing shall be done by an Approved Testing Agency meeting the requirements of IBC Section 1703 and ASTM E 32*9.

Contractor's Statement of Responsibility

Each contractor responsible for the construction or fabrication of a main wind or seismic force-resisting system, designated seismic system or wind or seismic-resisting component listed in the Statement of Special Inspections, Requirements for Seismic or Wind Resistance, must submit a Statement of Responsibility.

Project: _____

Contractor's Name: _____

Address: _____

License No.: _____

Description of building systems and components included in Statement of Responsibility:

_____
_____
_____
_____
_____
_____
_____

Contractor's Acknowledgement of Special Requirements

I hereby acknowledge that I have received, read, and understand the Statement of Special Inspections and Special Inspection program:

I hereby acknowledge that control will be exercised to obtain conformance with the approved construction documents.

_____
Name and Title (type or print)

_____ _____
Signature Date

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement

Fabricator's Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2.5.2 of the International Building Code must submit *Fabricator's Certificate of Compliance* at the completion of fabrication.

Project: _____

Fabricator's Name: _____

Address: _____

Certification or Approval Agency: _____

Certification Number: _____

Date of Last Audit or Approval: _____

Description of structural members and assemblies that have been fabricated:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

_____
Name and Title (type or print)

_____ _____
Signature Date

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual.

SPECIAL INSPECTION DAILY REPORT

PROJECT NAME / ADDRESS:
INSPECTION TYPE(S) COVERAGE O CONTINUOUS O PERIODIC TIME BEGINNING INSPECTION: TIME ENDING INSPECTION:
DESCRIBE INSPECTIONS MADE, INCLUDING LOCATIONS:
LIST TESTS MADE:
LIST ITEMS REQUIRING CORRECTIONS, CORRECTIONS OF PREVIOUSLY LISTED ITEMS AND PREVIOUSLY LISTED UNCORRECTED ITEMS: PROVIDE COPIES OF DISCREPANCY NOTICES:
COMMENTS:
TO THE BEST OF MY KNOWLEDGE, WORK INSPECTED WAS IN ACCORDANCE WITH THE APPROVED DESIGN DRAWINGS, AND SPECIFICATIONS, EXCEPT AS NOTED ABOVE.

PRINTED FULL NAME	
NOTE BY "SPECIAL INSPECTOR" OR PROVIDE NAME OF TESTING AGENCY	

SIGNED:		DATE:	
CERTIFICATION:		NUMBER:	
CCS SIGNOFF:		DATE:	

One copy of this report to remain at job site with the contractor for review upon request.

SPECIAL INSPECTION WEEKLY REPORT

PROJECT NAME / ADDRESS:								
INSPECTION TYPE(S) COVERAGE O CONTINUOUS O PERIODIC TIME BEGINNING INSPECTION: TIME ENDING INSPECTION:								
DESCRIBE INSPECTIONS MADE, INCLUDING LOCATIONS:								
LIST TESTS MADE:								
TOTAL INSPECTION TIME EACH DAY	DATE							
	HOURS							
LIST ITEMS REQUIRING CORRECTIONS, CORRECTIONS OF PREVIOUSLY LISTED ITEMS AND PREVIOUSLY LISTED UNCORRECTED ITEMS: PROVIDE COPIES OF DISCREPANCY NOTICES:								
COMMENTS:								
TO THE BEST OF MY KNOWLEDGE, WORK INSPECTED WAS IN ACCORDANCE WITH THE APPROVED DESIGN DRAWINGS, AND SPECIFICATIONS, EXCEPT AS NOTED ABOVE.								
PRINTED FULL NAME								
NOTE BY "SPECIAL INSPECTOR" OR PROVIDE NAME OF TESTING AGENCY								
SIGNED:						DATE:		
CERTIFICATION:						NUMBER:		
CCS SIGNOFF:						DATE:		

One copy of this report to remain at job site with the contractor for review upon request.

DISCREPANCY NOTICE No. _____

SPECIAL INSPECTION DISCREPANCY NOTICE

PROJECT NAME / ADDRESS:		
INSPECTION TYPE(S) COVERAGE O CONTINUOUS O PERIODIC		
AREA INSPECTED	TYPE OF INSPECTION	
NOTICE DELIVERED TO: O CONTRACTOR O ENGINEER/ARCHITECT O OWNER	DATE:	TIME:
MAKE THE FOLLOWING CORRECTIONS AND SECURE INSPECTION APPROVAL PRIOR TO PROCEEDING WITH THIS PHASE OF THE WORK.		
PRINTED FULL NAME		
NOTE BY "SPECIAL INSPECTOR" OR PROVIDE NAME OF TESTING AGENCY		
SIGNED:	DATE:	
CERTIFICATION:	NUMBER:	
CCS SIGNOFF:	DATE:	

One copy of this report to remain at job site with the contractor for review upon request.