

CITY OF UNION

SPECIAL INSPECTION PROCEDURE

IBC CHAPTER 17 – 2012 EDITION

When Required

All projects that require a SC licensed Architect or Engineer per SC Architectural and Engineering registration law.

Overview

The program consists of seven basic forms, which must be filled out by the SC Design Professional in Responsible Charge and submitted to the building codes department. *The Identification of the Design Professional in Responsible Charge, Earthquake Design Data Form, Checklist of Required Special Inspection Reports, & The Statement of Special Inspections* must be submitted at the time of application for Plan Review. The *Final Report of Special Inspections* is to be placed at the jobsite with all the field reports upon completion of the project, and made available to the Building Inspector during or prior to the Final Building Inspection. The *Owners Acknowledgement of Special Inspections* must also be submitted at the time of application for Plan Review. The Contractor's *Statement of Responsibility for Seismic-Force-Resisting Systems* must be submitted prior to permitting.

Identification of the Design Professional in Responsible Charge

This form provides general information about the project and identifies the SC Design Professional in Responsible Charge as required in IBC Section 106.3.3.1. This form is submitted as a condition for permit issuance and as a commitment to Special Inspections.

Earthquake Design Data Form

This form is to be completed by the Structural Engineer and must be consistent with the Structural Analysis on the construction documents.

Checklist of Required Inspections Report, & The Statement of Special Inspections

These forms are to be filled out by the SC Design Professional in Responsible Charge by checking the boxes of the required inspections specific to the project. The names of the individuals or firms providing these inspections will be entered at this time. The qualifications for the inspector will be specific to the inspection performed. The minimum qualifications will be listed by the South Carolina Building Codes Council Special Inspection Policy document, or as approved by the Building Official. The forms will be reviewed by City of Union Building Official for completeness.

Field Reports

These reports are the results of the required inspections and must be performed by the individuals/firms designated by the SC Design Professional in Responsible Charge.

All field reports generated from the inspections must be kept on the jobsite in a binder with the City of Union approved drawings and contain the following information:

- The project name and permit number.
- The project address
- The name, address, phone number of the individual/firm performing the inspection and generating the report.
- The IBC Section or Table number of the inspection. The criteria for each inspection must be performed as outlined in the appropriate code section or table as specified in *The Checklist of Special Inspections*. Some inspections are periodic, some are continuous and others are performed only once. When tables are referenced, all applicable criteria in the table must be addressed.

Final Report of Special Inspections

The SC Design Professional in Responsible Charge shall collect final inspection reports from all required special inspections and compile them into the ***Final Report of Inspections***. This report is to certify that all required inspections have been performed and all corrections have been made. The report is then put with the field report in the binder on the jobsite prior to requesting a Final Building Inspection. An updated *Checklist of Required Special Inspection Reports & The Statement of Special Inspections* including all names and addresses of firms that performed the inspections must also be provided.

interim reports in the jobsite binder prior to requesting the Final Building Inspection.

Contractor's Statement of Responsibility for Seismic-Force-Resisting System – By Contractor
Owners Acknowledgement of Special Inspections – By Owner of project

IDENTIFICATION OF THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE

Project: _____ Permit Number: _____

Project Location: _____

Project Owner: _____

Address: _____

SC Registered Design Professional in Responsible Charge: _____

Firm (optional): _____

SC License Number: _____ Phone: _____ FAX: _____

Address: _____

Architect: _____

Firm (optional): _____

SC License Number: _____ Phone: _____ FAX: _____

Address: _____

Structural Engineer: _____

Firm (optional): _____

SC License Number: _____ Phone: _____ FAX: _____

Address: _____

This *Identification of the Design Professional In Responsible Charge* is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the International Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector(s) and the identity of other approved agencies that are to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Design Professional in Responsible Charge and the Building Official. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Design Professional in Responsible Charge and the Building Official. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections and corrections of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Occupancy.

Job safety and means and methods of construction are solely the responsibility of the Contractor.

Design Professional in Responsible Charge

Type or print Name

Signature Date

Accepted By: (Code Official)

Type of print Name

Signature Date

Firm Seal

Individual Seal

Earthquake Design Data Form

City of Union Permit Number: _____

IBC Section 1603.1.5 "The following information related to seismic loads shall be shown, regardless of whether seismic loads govern the design of the lateral-force-resisting system of the building":

1. Occupancy Category: _____ Importance Factor: _____
(IBC 1604.5 Table)

2. Mapped spectral response accelerations S_s _____ and S_1 _____.
(USGS website: <http://earthquake.usgs.gov/2002> maps, IBC 1613.5.1)

3 Site Class: _____.
(IBC Section 1613.5.2 and table 1613.5.2 Verified by soil test 1802.4)

4. Spectral Response Coefficients S_{DS} _____, S_{D1} _____.
(IBC Section 1613.5.3(1) and 1613.5.3(2), (equations 16-37 through 16-38)

5. Seismic Design Category _____.
(IBC sections 1613.2, 1613.6 and IBC Tables 1613.5.6(1) or 1613.5.6(2) Note: most sever shall apply).

6. Basic Seismic Force Resisting Systems:

(IBC 1613.2 Must conform with section 12.2 of ASCE 7)

7. Design Base Sheer _____.
Total design lateral force or shear at the base.

8. Seismic response coefficient(s) C_s _____.
ASCE 7 section 9.5.5.2.1 (equation)

9. Response modification factor(s), R _____.

10. Analysis procedure used: _____

11. SC Licensed Engineer to affix seal on this document and provide phone number.

Name: _____ Phone: _____

Firm: _____ Fax: _____

OWNERS ACKNOWLEDGEMENT OF SPECIAL INSPECTIONS

I hereby acknowledge that I am the owner of the project referenced below and I have contracted with the design professional listed below to act as my agent in contracting and coordinating the required special inspections for this project.

PERMIT NUMBER: _____

Project Name: _____

Owner's Name: _____

Owner's Address: _____

Owner's telephone contact numbers: _____

SC Registered Design Professional in Responsible Charge: _____

Firm (optional): _____

License Number: SC _____ Phone: _____ FAX: _____

Address: _____

Signature

Date

Print Name

STATEMENT OF SPECIAL INSPECTIONS

Project: _____ Permit No. _____

Project Location: _____

Project Owner: _____

Address: _____

SC Registered Design Professional in Responsible Charge: _____

Firm: _____

SC License Number: _____ Phone: _____ Fax: _____

Address: _____

Project Architect: _____

Firm: _____

SC License Number: _____ Phone: _____ Fax: _____

Address: _____

Project Structural Engineer: _____

Firm: _____

SC License Number: _____ Phone: _____ Fax: _____

Address: _____

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the International Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector(s) and identifies any other approved agencies that are to be retained for conducting these inspections.

The Special Inspector(s) shall keep records of all inspections and shall furnish inspection reports to the Design Professional in Responsible Charge and the Building Official. Documented discrepancies shall be brought to the immediate attention of the Contractor for correction. If discrepancies are not corrected, the discrepancies shall be brought to the attention of the Design Professional in Responsible Charge and the Building Official. The Building Official may post a Stop-Work Order when discrepancies remain uncorrected for more than 14 days. The Special Inspection Program does not relieve the Contractor of his/her responsibilities.

A *Final Report of Special Inspections* shall be submitted prior to the issuance of a Certificate of Occupancy. This report shall document the completion of all required Special Inspections and list corrections of any discrepancies noted in the inspection reports.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Prepared By:

Type or print name

Signature Date

Accepted By:

Type or print name

Signature Date

Individual Seal

Firm Seal

CHECKLIST OF REQUIRED SPECIAL INSPECTION REPORTS & FIRMS/INDIVIDUALS PERFORMING INSPECTIONS

Project: _____ Permit No. _____

Project Location: _____

Fabricator ISO 9000 Lead Quality Assurance Auditor. IBC 1704.2

Firm/Individual Name: _____ Phone: _____
Address: _____

Metal Building Fabrication
Firm/Individual Name: _____ Phone: _____
Address: _____

Precast Concrete Fabrication
Firm/Individual Name: _____ Phone: _____
Address: _____

Prefabricated Trusses
Firm/Individual Name: _____ Phone: _____
Address: _____

Steel Bar Joist Fabrication
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Steel Fabrication
Firm/Individual Name: _____ Phone: _____
Address: _____

Site Welding IBC Table 1704.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Steel Frame IBC Table 1704.3
Firm/Individual Name: _____ Phone: _____
Address: _____

High Strength Bolts IBC Table 1704.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Concrete IBC Table 1704.4
Firm/Individual Name: _____ Phone: _____
Address: _____

Masonry IBC Table 1704.5.1 and IBC Table 1704.5.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Wood Construction IBC 1704.6 and IBC 2306.3.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Soils IBC Sections 1704.7.1 through 1704.7.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Project: _____ Permit No. _____

Fill Placement IBC 1803.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Pile Foundations IBC Section 1704.8
Firm/Individual Name: _____ Phone: _____
Address: _____

Pier Foundations IBC Section 1704.9
Firm/Individual Name: _____ Phone: _____
Address: _____

Wall Panel Veneers IBC Section 1704.10
Firm/Individual Name: _____ Phone: _____
Address: _____

Sprayed Fire Resistance Materials IBC Sections 1704.11.1 through 1704.11.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Exterior Insulation and Finish Systems (EIFS) IBC Section 1704.12
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Cases IBC Section 1704.13
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Inspection for Smoke Control IBC Sections 1704.14.1 through 1704.14.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Inspections for Seismic Resistance IBC Section 1707.1

Structural Steel IBC Section 1707.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Wood IBC Section 1707.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Cold Formed Steel Framing IBC Section 1707.4
Firm/Individual Name: _____ Phone: _____
Address: _____

Pier Foundations IBC Section 1707.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Storage Racks and Access Floors IBC Section 1707.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Project: _____ Permit No. _____

Architectural Components IBC Section 1707.6
Firm/Individual Name: _____ Phone: _____

Address: _____

Mechanical and Electrical Components IBC Section 1707.7 and 1707.7.1 through 1707.7.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Observations IBC Section 1709
Firm/Individual Name: _____ Phone: _____
Address: _____

CHECKLIST OF REQUIRED QUALITY ASSURANCE PLANS & FIRMS/INDIVIDUALS DRAFTING PLAN

Quality Assurance Plan for Seismic Requirements IBC Section 1705.1
Firm/Individual Name: _____ Phone: _____
Address: _____

Quality Assurance Plan Preparation by Design Professional IBC Section 1705.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Contractor Statement of Responsibility for Seismic System IBC Section 1705.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Project: _____ Permit No. _____

CHECKLIST OF REQUIRED TESTING & FIRMS/INDIVIDUALS PERFORMING TESTS

Masonry IBC Sections 1708.1.1 through 1708.1.4
Firm/Individual Name: _____ Phone: _____
Address: _____

Level 1 Quality Assurance IBC Table 1708.1.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Level 2 Quality Assurance IBC Table 1708.1.4
Firm/Individual Name: _____ Phone: _____
Address: _____

Reinforcing and Prestressing Steel IBC Section 1708.3 as required by 1708.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Steel IBC Section 1708.4 as required by 1708.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Mechanical and Electrical Equipment IBC Section 1708.5 as required by 1708.2
Firm/Individual Name: _____ Phone: _____
Address: _____
(this section includes sprinkler systems)

Contractor Statement of Responsibility

IBC 1706 Contractor Responsibility. Each contractor responsible for the construction of a seismic-force-resisting system, designated seismic system, wind or seismic resisting component listed in the Statement of Special Inspections.

Permit Number: _____

Project Name: _____

Project Address: _____

Contractor's Name: _____

Contractor's License Number: _____

Contractor's Address: _____

Contractor's Phone Number: _____

1. I hereby acknowledge that I have read and am aware of the special inspection requirements contained in the Statement of Special Inspections.
2. I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.
3. The procedures for exercising control within the contractor's organization are as follows:

The reports will be put in the jobsite 3 ring binder in reverse chronological order. Additional copies of the reports will be distributed by: _____ to the individual firms: _____

Submitted on a _____ basis.

4. Control of this process will be exercised by:
Name: _____ Qualifications: _____

Position within the organization: _____

Signature

Date

Print Name

FINAL REPORT OF SPECIAL INSPECTIONS

Project: _____ Permit No. _____

Project Location: _____

Project Owner: _____

Address: _____

SC Registered Design Professional in Responsible Charge: _____

Firm: _____

SC License Number: _____ Phone: _____ Fax: _____

Address: _____

To the best of my information, knowledge and belief, the Special Inspections and /or Testing required for this project, and designated for this Agent in the *Statement of Special Inspections* submitted for permit, have been completed in accordance with the contract documents.

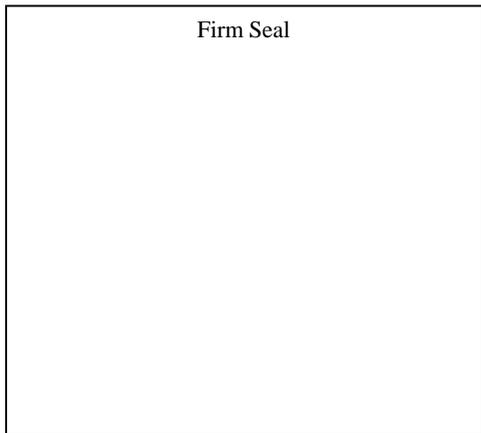
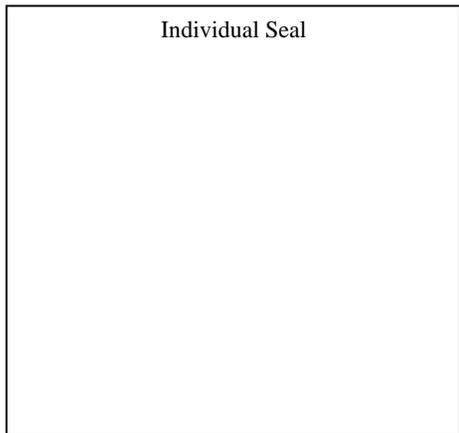
Interim reports submitted prior to this *Final Report of Special Inspections* form a basis for, and are to be considered as integral part of this Final Report. All discrepancies that were outstanding in all of the Interim reports have been corrected.

Prepared By:

Type or print name

Firm

Signature Date



SPECIAL INSPECTOR QUALIFICATIONS

INTRODUCTION

This policy sets forth the minimum qualification requirements for individuals and firms offering Special Inspection services. Nothing in this policy prevents the project owner or the registered design professional in responsible charge, acting as the owner's agent, from requiring qualifications above those identified in this document.

An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

Firms offering special inspection services for projects and fabrications located in South Carolina shall be licensed, registered or certified by either; The South Carolina Board of Architectural Examiners, The South Carolina Contractors Licensing Board or the South Carolina Board of Professional Engineers and Land Surveyors in accordance to the South Carolina Code of Laws, Title 40, Chapter 26.

Any questions or correspondence regarding special inspections should be directed to the Building Official of the jurisdiction in which the project will be located.

This Special Inspection Policy in no way relieves any participant from the proper performance of work according to contract documents and applicable codes, standards and regulation.

INSPECTION OF FABRICATORS

Fabrication and Implementation Procedures

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein.

Fabricator Approval

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein.

The following fabricator certifications are considered sufficient.

Metal Building Fabrication

Current American Institute of Steel Construction – Metal Building Systems Certification

Precast Concrete Fabrication

Current National Precast Concrete Association Plant Certification.

Prefabricated Trusses

Current Truss Plate Institute Certification

Steel Bar Joist Fabrication

Current Steel Joist Institute Certification

Structural Steel Fabrication

Current American Institute of Steel Construction – Conventional Steel Building Structures

Current American Institute of Steel Construction – Complex Steel Building Structures

Current American Institute of Steel Construction – Simple Steel Bridges

Current American Institute of Steel Construction – Major Steel Bridges

Qualifications of Special Inspectors

The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the Building Official, for inspection of the particular type of construction requiring special inspection. The Building Official shall approve the qualifications of all personnel new to an agency before being assigned to any project.

Except for professional engineers and architects registered in the State of South Carolina, special inspectors shall meet at least one of the following requirements for each category in which approval is sought.

Steel Construction

Welding

Current American Welding Society (AWS) Certified Welding Inspector

Or

Current AWS Certified Welding Educator

Or

Current AWS Certified Welding Engineer

Or

Current American Welding Society/American Institute of Steel Construction (AWS/AISC) Certified Steel Structure Inspector

Nondestructive Testing of Welds

Current Nondestructive Testing Level II and III (Magnetic Particle Testing, Liquid Penetrate Testing, Ultrasonic Testing or Radiographic Testing)

- (1) Level II personnel shall be qualified in accordance with the American Society of Nondestructive Testing (ASNT) document SNT-TC-IA (current edition). Level II certification as determined by a Level III examiner is required for each category.

OR

- (2) Level III Examiner shall be certified by ASNT unless all level II personnel have a current ASNT Central Certification Program certification. Only then will in-house designation of Level III nondestructive testing personnel be permitted.

Steel Frame Inspection

Current International Code Council (ICC) Structural Steel and Welding Certificate plus one year of related experience

Or

Current AWS/AISC Certified Steel Structure Inspector.

High-Strength Bolting

Current ICC Structural Steel and Welding certificate with one year of related experience

Or

Current AWS/AISC Certified Steel Structure Inspector.

Concrete Construction

Reinforced Concrete

Current ICC Reinforced Concrete Special Inspector

Or

Current American Concrete Institute (ACI) Concrete Field Testing Technician – Grade 1 Certification

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

Prestressed Concrete – Pre-tension Tendons

Current ICC Reinforced Concrete Certification

Or

Current American Concrete Institute (ACI) Concrete Field Testing Technician – Grade 1 Certification plus one year of related experience.

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

Prestressed Concrete – Post-tension Tendons

Current Post-Tensioning Institute (PTI) Certification

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

Prestressed Concrete – Post-tension Slabs-on-Ground

Current Post-Tensioning Institute (PTI) Certification

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

Precast Concrete Erection

IBC Table 1704.4 Items 1 and 3 through 10

Current ICC Reinforced Concrete Special Inspector

Or

Current American Concrete Institute (ACI) Concrete Field testing Technician – Grade 1 Certification

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

IBC Table 1704.4 Item No. 2

Current AWS Certified Welding Inspector

Or

Current AWS Certified Welding Educator

Or

Current AWS Certified Welding Engineer

Or

Current AWS/AISC Certified Steel Structure Inspector

Masonry Construction

Current ICC Structural Masonry certificate and one year related experience
Or
South Carolina Engineer in Training (EIT) with one year of related experience.

Wood Construction

Current ICC Building Inspector
Or
Current ICC Commercial Building Inspector
Or
Current ICC Commercial Combination Inspector
Or
Current ICC Combination Inspector
Or
Current ICC Residential Building Inspector
Or
Current ICC Residential Combination Inspector
Or
Current ICC Building Code Official
Or
Current ICC Certified Building Official
Or
Current ICC Master Code Professional
Or
South Carolina Engineer in Training (EIT) with one year of related experience.

Soils

Site Preparation

Current National Institute for Certification in Engineering Technologies (NICET) Level II Certification in geotechnical engineering technology/construction
Or
South Carolina Registered Geologist
Or
South Carolina Engineer in Training (EIT) with one year of related experience.
Or
South Carolina Geologist in Training (GIT) with one year of related experience.

During Fill Placement

Current NICET Level II Certification in geotechnical engineering technology/construction
Or
South Carolina Registered Geologist
Or
South Carolina Engineer in Training (EIT) with one year of related experience.
Or
South Carolina Geologist in Training (GIT) with one year of related experience.

Evaluation of In-Place Density

Current NICET Level II Certification in geotechnical engineering technology/construction
Or
South Carolina Registered Geologist
Or
South Carolina Engineer in Training (EIT) with one year of related experience.
Or
South Carolina Geologist in Training (GIT) with one year of related experience.

Pile Foundations

Current NICET Level II Certification in geotechnical engineering technology/construction
Or
South Carolina Registered Geologist
Or
South Carolina Engineer in Training (EIT) with one year of related experience.
Or
South Carolina Geologist in Training (GIT) with one year of related experience.

Pier Foundations

Current NICET Level II Certification in geotechnical engineering technology/construction
Or
South Carolina Registered Geologist
Or
South Carolina Engineer in Training (EIT) with one year of related experience.
Or
South Carolina Geologist in Training (GIT) with one year of related experience.

Wall Panel and Veneers

Current ICC Building Inspector
Or
Current ICC Commercial Building Inspector
Or
Current ICC Commercial Combination Inspector
Or
Current ICC Building Code Official
Or
Current ICC Certified Building Official
Or
Current ICC Master Code Professional
Or
South Carolina Engineer in Training (EIT) with one year of related experience.

Sprayed Fire-Resistant Materials

Current ICC Spray-Applied Fire Proofing Certificate
Or
South Carolina Engineer in Training (EIT) with one year of related experience.

Smoke Control

South Carolina Professional Engineer with expertise in fire protection engineering, mechanical engineering and certification as air balancers by either:

Current National Environmental Balancing Bureau certified Testing, Adjusting and Balancing Supervisor
Or
Current Associated Air Balance Council Test and Balance Engineer Certification.

Exterior Insulation and Finish System

Current ICC Building Inspector
Or
Current ICC Commercial Building Inspector
Or
Current ICC Commercial Combination Inspector
Or

Current ICC Building Code Official

Or

Current ICC Certified Building Official

Or

Current ICC Master Code Professional

Or

South Carolina Engineer in Training (EIT) with one year of related experience.

Special Cases

Approval on a case-by-case basis.