

CITY OF LAGUNA BEACH



BUILDING DIVISION

SPECIAL INSPECTOR MANUAL

Revised: February, 2018

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SECTION 1

SPECIAL INSPECTION OVERVIEW

SECTION 1

1.1 - Special Inspection Overview

The California Building Code (CBC) in its provision for special inspectors, commencing with the 1937 U.B.C., it sets forth a number of situations in which the employment of a special inspector is mandatory. For the first time, the *owner* was required to provide specially qualified inspectors for *continuous* inspection during construction in addition to *called* inspections provided by the municipality and in addition to *periodic site visits* provided by the architect or engineer.

A special inspector is a person who has been approved by the Chief Building Official to perform certain types of inspection. The use of special inspectors is reserved for complex installations requiring highly developed inspection skills in one or more construction crafts. These generally include:

1. **Concrete:** during the taking of test specimens and placing of reinforced concrete and pneumatically placed concrete.
2. **Bolts Installed in Concrete:** during installation of bolts and placing of concrete around such bolts.
3. **Ductile Moment-resisting Concrete Frames**
4. **Reinforcing Steel and Prestressing Steel:** during stressing and grouting of prestressed concrete and placing of reinforced steel, placing of tendons, and prestressing steel.
5. **Welding:** of ductile moment-resisting steel frames, and for all structural welding.
6. **High-strength Bolting:** during all bolt installations and tightening operations.
7. **Structural Masonry:** during preparation of masonry wall prisms, sampling and placing of all masonry units, placement of reinforcement, inspection of grout spaces, and during all grouting operations.
8. **Reinforced Gypsum Concrete:** when cast-in-place Class B gypsum concrete is being mixed and placed.
9. **Insulating Concrete Fill:** during the application of insulating concrete fill when used as part of a structural system.
10. **Spray-applied Fireproofing:** as required by U.B.C. Standard Number 43-8.
11. **Piling, Drilled Piers, and Caissons:** during driving and testing of piles and construction of cast-in-place drilled piles or caissons.
12. **Shotcrete and Rebar Placement:** during the taking of test specimens and placing of shotcrete.
13. **Special Grading, Excavation, and Filling.**
14. **Structural Wood.**

An additional provision allows the Chief Building Official to use discretion for the employment of a special inspector in other cases where it is deemed appropriate.

The use of special inspectors is not discretionary. Chapter 17 of the CBC clearly states the condition under which they must be utilized, but there is a provision for the Chief Building Official to waive special inspection for work of a minor nature.

It is the responsibility of the Chief Building Official to determine the qualifications of special inspectors. This can be done in any manner satisfactory to the Chief Building Official, and often includes written examinations, oral interviews and a review of relevant education and experience. The CBC does not make specific requirements for the determination of an inspector's qualifications, but that in no way lessens the importance of being selective in this crucial process.

A truly qualified special inspector usually has skills which significantly outpace the skills of regular municipal inspectors except that they are ordinarily narrower in scope. For example, a municipal inspector is required to have a general knowledge of a great number of code requirements. This naturally limits one's ability to specialize in knowledge of one area. Special inspectors, on the other hand, are able to devote their abilities to a limited subject and become more proficient in that subject.

SECTION 2

GENERAL PROGRAM GUIDELINES

SECTION 2

2.1 - General Program Guidelines

Purpose of Special Inspection

Special inspection is the monitoring of the materials and workmanship which are critical to the integrity of the building structure. It is the review of the work of the contractors and their employees to assure that the approval plans and specifications are being followed and that relevant codes and ordinances are being observed. The special inspection process is in *addition* to those conducted by the municipal building inspector and by the engineer or architect of record as part of periodic structural observations. The special inspectors furnish *continuous* inspections at all times that construction requires their presence.

Good communication between the special inspector and the designers, contractor and Building Division is essential.

Duties and Responsibilities of the Project Owner

The project owner or the engineer or architect of record acting as the owner's agent is responsible for funding special inspection services.

Duties and Responsibilities of the Engineer or Architect of Record

The engineer or architect of record has many duties and responsibilities related to special inspection activities. They include the following:

- 1. Identify the need for special inspection services.**

The project plans and/or specifications which are submitted to the Chief Building Official need to clearly indicate the design parameters and material selection. The engineer or architect of record is the development team member who analyzes the critical elements of the design and notes on approved plans where special inspection is necessary in accordance with the CBC

- 2. Develop the structural tests and inspection schedule and acknowledge the testing and inspecting agreement.**

The engineer or architect of record shall specify types of special inspection required in the construction documents.

The engineer or architect of record should also be a consenting party by written acknowledgement of special inspection and testing agreements. This acknowledgement provides the communications and understanding of special inspection services.

3. Recommend and assist in the selection of special inspectors.

The selection and qualifying of the special inspector can often be a difficult and challenging process. This procedure can be facilitated through the involvement of the engineer and architect of record, with the Chief Building Official's approval, in review of the following:

- The number of special inspectors required.
- Procedures for testing in the field and in the shop.
- Reporting procedures.

4. Respond to field discrepancies.

Material and design discrepancies, which are not resolved in a timely manner or are about to be incorporated in the work must be brought to the attention of the engineer or architect of record and the Chief Building Official. Uncorrected field deficiencies observed by the special inspector must be brought to their attention. The engineer or architect of record is instrumental in implementing the remedial process of deficiency correction. The engineer or architect of record is responsible for any design changes in addition to acknowledgement and approval of shop drawings, which may detail structural information, and for submission of such changes to the Building Division for approval.

Duties and Responsibilities of the Special Inspector

The special inspectors are individuals with highly developed, specialized skills who observe those critical building or structural features, which they are qualified to inspect. Duties of special inspectors and/or inspection agencies include the following:

a. Acknowledge the testing and inspection agreement and structural tests and inspection schedule.

Special inspectors and/or inspection agencies must understand their role and scope of their responsibilities, with written acknowledgement of special inspection and testing agreements.

b. Signify presence at jobsite.

Special inspectors shall notify the Building Division and contractor personnel of their presence and responsibilities at the jobsite.

c. Observe all work for which they are responsible.

Special inspectors shall inspect all work for conformance with the Building Division approved (stamped) drawings and specifications and applicable provisions of the CBC

d. Separately identify all nonconforming work.

Special inspectors shall bring all nonconforming items to the immediate attention of the contractor. If any such item is not resolved in a timely manner or is about to be incorporated in the work, the engineer or architect of record and the Chief Building Official should be notified immediately by telephone or in person and the item noted in the special inspector's written report. The report should contain the following information about each nonconforming item:

- Exact nature and exact location of the nonconforming item.
- Reference to applicable detail of approved plans/specifications.
- Name and title of each individual notified and method of notification.
- Resolution or corrective action.
- All other pertinent information.

e. Provide timely reports.

The special inspector should complete written inspection reports for each inspection visit and provide the reports on a timely basis to the inspector of record at the Building Division, unless otherwise determined by the Chief Building Official. The special inspector or inspection agency shall furnish these reports directly to the Chief Building Official, engineer or architect of record and others as designated. These reports should be organized on a daily format and submitted each week. Alternate forms may be approved by the Building Division. In these reports, special inspectors shall:

- Describe inspections and tests made with applicable locations.
- List all nonconforming items.
- Indicate how nonconforming items were resolved
- List unresolved items, parties notified, time and method of notification.
- Itemize changes authorized by architect/engineer of record and approved by the Building Division if not included in nonconforming items.

f. Submit a signed final report.

Special inspectors or inspection agencies shall submit a signed final report to the Building Division stating that all items requiring special inspection and testing were fulfilled and reported and, to the best of their knowledge, in conformance with the approved design drawings, specifications, approved change orders and the applicable provisions of the CBC Items not in conformance, unresolved items or any discrepancies in inspection coverage (i.e. missed inspections, periodic inspections when continuous was required, etc.) should be specifically itemized in this report. Alternate forms may be approved by the Building Division. The final report shall be submitted at the site within seven (7) days of completion of the job.

Duties and Responsibilities of the Chief Building Official

Of all the team members in the development process, the Chief Building Official is the only member who has the legal authority to see all of the provisions of special inspections are carried out. This is clearly identified under the administrative provision of Section 104.1 of the CBC

***Section 104.4 Inspections.** The Chief Building Official shall make all of the required inspections, or the Chief Building Official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The Chief Building Official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.*

1. Review and examine plans, specifications, and contract documents for compliance with special inspection requirements.

The Chief Building Official is granted the legal authority to review the plans and specifications for compliance with the requirements of the CBC

2. Communicate special requirements to the development team.

Once special requirements are identified in the plan approval process and the structural test and inspection schedule is completed and approved, the Chief Building Official shall stipulate that these requirements be incorporated into the approved plans.

The Chief Building Official may also require a preconstruction conference to review the requirements of special inspections for full time / part time option.

3. Approve the inspector.

Since special inspectors observe specialized work, they must possess very specialized skills. Therefore, special inspectors must be competent individuals, qualified in the areas they are to inspect, and approved by the Chief Building Official to observe the work assigned. Qualifications for special inspectors are listed in Section 4.

4. Monitor the special inspection activities.

The Chief Building Official should monitor the jobsite to see that special inspection is continuous where required and that an adequate number of special inspection staff is present, depending upon extent and complexity of the project.

5. Review inspection reports.

The Chief Building Official receives, reviews, and makes the inspection reports part of the inspection records.

6. Receive the final report.

The Certificate of Occupancy shall not be issued until the final report has been received and accepted by the Chief Building Official.

Duties and Responsibilities of the Contractor

The contractor's duties include the following:

1. Notify the special inspector.

The contractor is responsible for notifying the special inspector or agency regarding individual inspections required by the Building Division. Adequate notice shall be provided so that the special inspector has time to become familiar with the project.

2. Provide access to approved plans.

The contractor is also responsible for providing the special inspector with access to approved plans at the jobsite.

3. Retain special inspection records.

The contractor is also responsible for retaining all special inspection records submitted by the special inspector at the jobsite and providing these records for review by the Building Division's inspector upon request.

STATEMENT OF SPECIAL INSPECTION

Certain types of construction shall have continuous inspection as specified in Section 1704 of the California Building Code (CBC). The level of special inspection (continuous or periodic), in addition to material testing requirements, should be identified in the Statement of Special Inspections, prepared by the registered design professional for each project. For the convenience of our clients, we have reproduced draft copies of the Statement of Special Inspections and Schedule of Structural Testing developed by Structural Engineers Association of Northern California (SEAONC)

SECTION 3

FORMS



**CITY OF LAGUNA BEACH
COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION**

505 Forest Ave | Laguna Beach, CA 92651-2394
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**SPECIAL INSPECTION
Project Report**

Project Address: _____

Permit Number: _____

Inspection Type (s): _____

Inspection Date (s): _____ () Periodic () Continuous

Describe Inspection, Including Location(s):

List Tests Made:

Total Inspection Time Each Day:						
Date:						
Hours:						

List All Items Requiring Correction (Include Previously Listed Uncorrected Items):

Comments:

To the best of my knowledge, the work inspected was in accordance with the Building Division approved design drawings, specifications and applicable workmanship provisions of the CBC except as noted above.

Special Inspector Signature:	Date:
Print Full Name:	Laguna Beach Registration No.:

