



STRUCTURAL OBSERVATION PROGRAM GUIDE

INFORMATIONAL PACKET

QUESTIONS?

Additional information regarding the permit process can be obtained at the Building and Safety Counter at 630 Garden St., call (805) 564 5485, email: CDBuildingCode@SantaBarbaraCA.gov



INTRODUCTION

This is the Structural Observation Program Guide for the City of Santa Barbara—Building & Safety Division. It describes the steps involved and contains required forms and reports. **STRUCTURAL OBSERVATION** means the visual observation of the structural system by a registered engineer or licensed architect for general conformance to the approved construction documents. Structural observation is intended to assist and supplement the work of the Building Official. Structural observation does not certify, guarantee, or ensure conformance with the specific requirements of the approved plans. It does not waive or supersede the responsibility for ongoing inspections by the building or special inspector.

The purpose of having a registered engineer or licensed architect present during key construction phases is to provide an additional observation of the gravity or lateral load structural systems by a knowledgeable observer. This will substantially increase the likelihood that the structural design will conform to the approved plans by tracking the load paths and preventing gross errors and omissions.

WHEN IS IT REQUIRED?

Structural observation is required by the 2022 California Building Code (CBC) Section 1704.6. Structural observation shall be provided for those structures included in Seismic Design Category D, E, or F, as determined in section 1613, where one or more of the following conditions exist:

1. The structure is classified as Occupancy Category III or IV under section 1604.5.
2. The height of the structure is greater than 75 feet above the base.

3. The structure is assigned to Seismic Design Category E, is classified as Occupancy Category I or II per section 1604.5, and is greater than two stories tall.
4. When designated by the registered design professional responsible for the design.
5. When the building official specifically requires such observation.

Structural observations shall also be provided for those structures sited where the basic wind speed exceeds 110 mph (49 m/sec) as determined from Figures 1609.3 (1), (2), (3), and (4) of the CBC.

DEFINITIONS

- **Structural Observation** is the visual observation of the structural system by a registered design professional for general conformance to the approved construction documents.
- **Structural Observation Schedule** lists the stages of construction identified by the Structural Observer as significant and that require site structural observation.
- **Structural Observer** is the engineer or architect responsible for the structural design, or a registered engineer or licensed architect designated by the engineer or architect responsible for the structural design to perform site structural observation required by the City Building Division.
- **Designated Observer** is a registered engineer or licensed architect designated by the engineer or architect responsible for the structural design to perform site structural observation.

BEFORE THE PERMIT IS ISSUED

Before the City issues a building permit, the design professional responsible for the project shall ensure that the “**Designation of Structural Observer Form**” (page 5) is completed and submitted to the Building Official for review and acceptance. The architect or engineer of record responsible for the building or structure design shall specify a Structural Observation Schedule on a structural sheet of the project plan set similar to the Observed Elements and their Connections table on the Structural Observation Report (page 6). The “**General Notes For Structural Observation**” included on page 4 of this document shall be part of the approved plans.

WHO CAN BE THE STRUCTURAL OBSERVOR?

The individual or firm responsible for performing the structural observation shall be employed by the owner, and this information shall be specified on the “**Designation of Structural Observer Form.**” Such an individual or firm may be called the Structural Observer of record for the project. The Structural Observer of Record must meet all of the following three conditions:

1. The Structural Observer must be a person or firm registered in the state of California to practice engineering or architecture; and
2. The Structural Observer must have a direct, contractual relationship with the owner or owner’s representative to provide the structural observation service; and
3. The Structural Observer must be either the Engineer of Record (EOR) or Architect of Record (AOR) for the structural design or another engineer or architect designated by the EOR/AOR.

The EOR/AOR shall complete the “**Designation of Structural Observer Form**” included in this document when a different engineer or architect is designated as the Structural Observer.

Note: The person who performs the visual structural observation at the site may be the Structural Observer of Record or an engineer or architect under the charge of the Structural Observer of Record.

AFTER THE PERMIT IS ISSUED

- **Pre-Construction Meeting**

The property owner or owner’s representative shall arrange a preconstruction meeting to be attended by the engineer or architect responsible for structural design, Structural Observer, contractor, affected subcontractors, special inspectors, and the building inspector. The purpose of the meeting shall be to identify the major structural elements and connections that affect the structure's vertical and lateral load systems and to review the scheduling of required observations.

- **Performing Structural Observation and Submission of Reports**

The Structural Observer shall perform structural observation at the construction site per the Structural Observation Schedule and approved plans. Upon completion of structural observation at each construction stage, the Structural Observer of record shall complete the “**Structural Observation Report**” form (Page 6).

When a deficiency concerning general conformance with the approved plans or the load path is noted, the form shall be given to the contractor, owner’s representative, special inspector, and the building inspector. The Structural Observer shall report on the form whether the deficiency correction needs to be verified through re-observation by the Structural Observer or a registered special inspector at the discretion of the Structural Observer.

A licensed/registered engineer or architect who works under the supervision of the Structural Observer of record and performs the observation may fill out a report noting any observed deficiencies. That person’s name and registration number shall be stated in the report. The report shall be reviewed, completed, stamped, and signed by the Structural Observer of record, who shall take responsibility for the report.

- **Inspection by Building Inspector**

Generally, to obtain City of Santa Barbara Building & Safety Division inspection approval at the foundation, framing, and final inspection stages, a “**Structural Observation Report**” is required stating that the noted deficiencies, if any, have been corrected for general conformance with the approved plans and load path.



General Notes for Structural Observation

The following language must be reproduced on the construction plans:

1. Structural observation is required for the structural system by the City of Santa Barbara Building & Safety Division's Structural Observation Program. Structural Observation is the visual observation at the construction site of the elements and connections of the structural system at significant construction stages and the complete structure for general conformance to the approved plans and specifications. Structural observation does not waive responsibility for the inspections required by the City of Santa Barbara Building Division or any special inspectors.
2. The owner shall employ a State of California registered civil or structural engineer or licensed architect to perform the structural observation.
3. The owner or owner's representative shall coordinate a call for a meeting between the engineer or architect responsible for the structural design, the Structural Observer, the contractor, affected subcontractors, special inspectors, and the City of Santa Barbara Building & Safety Division. The purpose of the meeting shall be to identify the major structural elements and connections that affect the structure's vertical and lateral load systems and to review the scheduling of the required observations. A record of the meeting shall be included in the first observation report submitted to the Building Official.
4. The Structural Observer shall perform site visits at those steps in the progress of the work that allows for the correction of deficiencies without substantial effort or uncovering of the work involved. At a minimum, the listed items on the Structural Observation Schedule require site visits and an observation report from the Structural Observer.
5. The Structural Observer shall prepare a Structural Observation Report for each significant construction stage observed. The original of the Structural Observation report shall be sent to the Building Official and signed and sealed with a wet stamp by the responsible Structural Observer. One copy of the observation report, signed and sealed with a wet stamp by the responsible Structural Observer or their designee, shall be retained at the project site for the use of the owner, contractor, and inspectors. Any deficiency noted on the observation report will become the responsibility of the structural engineer of record to verify its completion by the Structural Engineer of Record or by a registered special inspector at the discretion of the Structural Observer.
6. A final observation report must be submitted, which shows that all observed deficiencies are resolved, and the structural system generally conforms with the approved plans and specifications. The City of Santa Barbara Building Division will only accept the structural work with this final observation report and that of the approved special inspector, including the correction of specific deficiencies noted by the City building inspector.
7. The Structural Observer shall provide the original stamped and signed Structural Observation report to the City of Santa Barbara Building & Safety Division.
8. When the owner elects to change the Structural Observer of record, the owner shall: a) Notify the Building Official in writing before the next inspection by submitting a revised "Structural Observation Program and Designation of the Structural Observer" form, b) Call an additional preconstruction meeting; and c) Furnish the replacement Structural Observer with a copy of all previous observation reports. The replacement Structural Observer shall approve the correction of all the original observed deficiencies unless otherwise approved by plan check supervision. The policy of the City of Santa Barbara Building & Safety Division shall be to correct any appropriately noted deficiencies without consideration of their source.
9. The engineer or architect of record shall develop all changes relating to the structural systems. The City of Santa Barbara Building Division shall review and approve all approved plans and specifications changes.

DESIGNATION OF STRUCTURAL OBSERVER

PROJECT INFORMATION

Project Address:

BLD#:

STRUCTURAL OBSERVATION SCHEDULE

(Checked items are required prior to inspection unless indicated otherwise)

FOUNDATION	WALL	FRAME	DIAPHRAGM
<input type="checkbox"/> Footing, Stem Walls, Piers	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete
<input type="checkbox"/> Mat Foundation	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input type="checkbox"/> Steel Deck
<input type="checkbox"/> Caissons, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood
<input type="checkbox"/> Hillside, Retaining		<input type="checkbox"/> Masonry Wall Frame	
<input type="checkbox"/> Special Anchors			
<input type="checkbox"/> Other Describe:			

DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE

Name:

Title (Architect, etc.):

ENGINEER OF RECORD (EOR) or ARCHITECT OF RECORD (AOR)

Name:

License #:

Exp. Date:

STRUCTURAL OBSERVER – IF DIFFERENT FROM EOR/AOR

Name:

License #:

Exp. Date:

DECLARATION AND ACKNOWLEDGEMENT OF STRUCTURAL OBSERVATION

I, the Engineer of Record (EOR) or Architect of Record (AOR) for the above project, declare responsibility for the structural observation of this project. If necessary, I may designate an alternate Structural Observer.

EOR's/AOR's Signature

Date

I, the property owner, acknowledge that the above-listed individual has been hired as the Structural Observer.

Owner's Signature

Date

Owner's Name (printed)

STRUCTURAL OBSERVATION REPORT

REPORT INFORMATION

Project Address: _____ BLD#: _____

Work Through the Following Date: _____

Structural Observation Performed By: _____

OBSERVED ELEMENTS AND THEIR CONNECTIONS

FOUNDATION	WALL	FRAME	DIAPHRAGM
<input type="checkbox"/> Footing, Stem Walls, Piers	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete
<input type="checkbox"/> Mat Foundation	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input type="checkbox"/> Steel Deck
<input type="checkbox"/> Caissons, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood
<input type="checkbox"/> Hillside, Retaining		<input type="checkbox"/> Masonry Wall Frame	
<input type="checkbox"/> Special Anchors			
<input type="checkbox"/> Other Describe: _____			

NOTED DEFICIENCIES

Note any deficiencies below, or on separate sheet, with the approved plans or in load path, and corrective actions:

THE FOLLOWING STATEMENTS ARE TRUE TO THE BEST OF MY KNOWLEDGE:

1. I am the engineer or architect retained by the owner to be responsible for the structural observation per the Santa Barbara Building & Safety Division.
2. I, or another engineer or architect whom I have designated above and under my responsible charge, have performed the required site visits at each significant construction stage to verify if the structure generally complies with the approved plans and specifications.
3. All noted deficiencies that remain to be corrected have been indicated above.
4. I recommend that acceptance of the structural system be withheld until any noted deficiencies are corrected.

EOR's/AOR's Stamp

Signature of Structural Observer

Date