**COUNTY OF SAN LUIS OBISPO**

**DEPARTMENT OF PLANNING & BUILDING**

**STRUCTURAL OBSERVATION PROGRAM**

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| Based on the 2019 California Building Code (CBC) Chapter 17Published 2020 |



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# INTRODUCTION

This is the Structural Observation Program for the County of San Luis Obispo Department of Planning & Building (hereafter referred to as County Planning & Building). The policy and procedures are stipulated as well as the responsibilities of all parties involved in structural observation.

Structural observation is intended to assist and supplement the work of the building official. Structural observation by itself does not certify, guarantee, or ensure conformance with all of the specific requirements of the approved plans. The program does not provide the quality assurance of continuous inspection, nor does it include or waive the responsibility for progress or continuous inspections by the building inspector or special inspector.

The program’s requirement for having a registered engineer or licensed architect present during key construction phases provides an additional observation of the gravity and/or lateral load structural systems by a knowledgeable observer. This will substantially increase the likelihood that the structural system will be in general conformance with the approved plans by tracking the load paths to prevent gross errors and omissions.

# DEFINITIONS

**Structural Observation** is the visual observation of the structural system by a registered engineer or licensed architect for general conformance to the approved construction documents. Structural observation does not include nor waive the responsibility for the inspection required by Section 110, 1704, or other sections of the 2016 California Building Code (CBC).

**Structural Observation Schedule** lists the stages of construction that the Structural Observer has identified as significant and that require site structural observation.

**Structural Observer of Record** (SOR)is the registered engineer or licensed architect of record responsible for the structural design who will perform the site’s structural observation as required by the Department of Planning & Building’s Building Division.

**Designated Structural Observer** (DSO) is a registered engineer or licensed architect designated by the engineer or architect of record to perform the structural observation.

# PROJECTS REQUIRING STRUCTURAL OBSERVATION

Structural observation is required by the 2016 CBC Section 1704.5. Structural observation shall be provided for those structures included in Seismic Design Category D, E, or F, as determined in CBC Section 1613, where one or more of the following conditions exist:

1. The structure is classified as Occupancy Category III or IV in accordance with CBC Section 1604.5
2. The height of the structure is greater than 75 feet (22,860 millimeters) above the base as defined in ASCE 7
3. The structure is assigned to Seismic Design Category E, is classified as Occupancy Category I or II in accordance with CBC Section 1604.5, and is greater than two stories in height
4. When so designated by the registered engineer or licensed architect responsible for the design
5. When such observation is specifically required by the building official

Structural observations shall be provided for those structures sited where the basic wind speed exceeds 110 miles per hour (49 meters per second) determined from CBC Figures 1609.3 (1), (2), & (3), or where one or more of the following conditions exist:

1. The structure is classified as Occupancy Category III or IV in accordance with CBC Table 1604.5
2. The building height of the structure is greater than 75 feet (22,860 millimeters)
3. When so designated by the registered design professional responsible for the structural design
4. When such observation is specifically required by a County building official

# DOCUMENTING STRUCTURAL OBSERVATION REQUIREMENT

At the time of application submittal of a building permit, the engineer/architect of record (EOR/AOR) shall ensure that the “Structural Observation Program & Structural Observer Designation” form (BLD-1036) and associated structural observation schedule is completed and attached as part of the submitted plans to a County building official for review and acceptance. The document “GENERAL NOTES FOR STRUCTURAL OBSERVATION” (BLD-2036) shall also be attached as part of the approved plans.

The individual or firm responsible for performing the structural observation shall be employed by the owner, and this information shall be specified on form BLD-1036. Such an individual or firm may be called the “Structural Observer of Record” for the project. The SOR must meet the following three conditions:

1. The SOR must be a person or firm registered in the state of California to practice engineering or architecture.
2. The SOR must have direct contractual relationship with the owner, or owner’s representative, to provide the structural observation service.
3. The SOR must either be the EOR/AOR for the structural design, and may designate another engineer or architect to be the DSO. The EOR/AOR shall fully complete the second line of the Declaration and Acknowledgement portion of form BLD-1036 when another engineer or architect is designated as the “DSO”.

**Note:** The person who actually performs the visual structural observation at the construction site in the field. As stated above, this person may be either the EOR/AOR, or a designated DSO.

# EXECUTION OF STRUCTURAL OBservation

## Pre-construction Meeting

The owner or owner’s representative shall arrange a preconstruction meeting that includes the engineer or architect responsible for structural design, the DSO (if not the EOR/AOR), the contractor, any affected subcontractors, all special inspectors, and the building inspector. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load systems of the proposed structure and to review scheduling of required observations as agreed and documented in the plan review process.

## Performing Structural Observations and Submission of Reports

The SOR or DSO shall perform structural observation at the construction site in accordance with the Structural Observation Schedule and approved plans. Upon completion of structural observation at each construction stage, the SOR or DSO shall complete the “Structural Observation Report” form (BLD-1037). The report shall be reviewed, completed, stamped, and signed by the EOR/AOR, who shall take responsibility for the report.

When a deficiency with respect to 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 SOR or DSO shall note on the form whether the correction of the deficiency needs to be verified through re-observation by himself/herself or a registered special inspector at the discretion of the SOR or DSO as directed by the SOR.

## Inspection by Building Inspector

In order to obtain a County building official’s approval at the foundation, framing, and final inspection stages, a Structural Observation Report (BLD-1037) is required stating the noted deficiencies, if any, have been corrected with respect to general conformance with the approved plans and load path.

Structural observation does not include or waive the responsibility of the inspections required by County Planning & Building.