

**DEVELOPMENT SERVICES – BUILDING INSPECTION****INSPECTION GUIDELINES:  
TRUSSES****INSPECTION CODE:** 216, 248**SCOPE:** RESIDENTIAL & COMMERCIAL**APPLICABLE CODES:** 2016 CBC, CRC, CPC, CMC, CEC, CALGreen, CEnC, and PAMC

*The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.*

**IMPORTANT**

- Failure to complete the items below prior to inspection may result in a re-inspection fee.

**CITY-APPROVED DRAWINGS**

- Truss calculations and layouts shall be submitted to the City of Palo Alto for approval and inclusion into the approved plans. The plans must be stamped by the Engineer of Record. (CBC 2303.4.1.4.1, CRC R802.10.1)
- The following shall be on site at the roof and exterior sheathing inspection (CBC 2303.4.1-3, CRC R802.10.1, CRC RR802.11.1):
  - Approved truss design drawings and calculations
  - Truss calculations that include details of connections and truss-to-truss connection, truss-to-building connections, restraint/bracing methods, and any other details germane to the trusses. (e.g., the truss layout shall clearly state hangers to be installed, uplift resistance, etc.)

**INSPECTION****GENERAL REQUIREMENTS**

- Additional time is required for houses with a truss system. When scheduling this inspection, please indicate that roof frame is a truss system. Windows are not to be installed prior to at this inspection. Additional information regarding trusses is available in the pages that follow.
- Truss calculations shall have a clear layout page that identifies all the types of trusses and their locations.

- Verify the following against the truss calculations and layout (CBC 2303.4.1.1, CRC R802.10.1):
  - Grade marks, lumber size match design specifications.
  - Verify installed truss layout matches approved truss layout.
  - Trusses with more than one ply shall be connected together per the truss manufacturer's specifications
  - Verify that the truss braces are installed, as specified, to prevent rotation and provide lateral stability
  - Posts under all girder bearing points
  - Hardware used to fasten truss to top plate
  - Thickness and span rating of roof sheathing
  - Where trusses span over non-bearing walls, a 1/4" air space shall be provided; clips may be required
  
- Verify attic access location. (CRC R807.1, CMC 304.0)
  
- Install ladder blocking where specified (typically at widened bay for furnace access). (CRC R302.11)
  
- Contractor shall mark layout of collector/girder trusses on the roof, provide nailing per shearwall schedule to each truss, and, if multiple, nail all members. Interior shear walls shall extend to the roof diaphragm unless the truss is specifically designed to transfer the shear through to the roof diaphragm.
  
- Girder truss(es) must be supported directly below their bearing point and provide positive connections (i.e. ST22, H2.5 or girder hanger). (CBC 2303.4.1.1, CRC R802.10.1)

**ALTERATIONS**

- If roof or floor trusses are damaged (e.g., altered or cut), a truss repair design/detail must be obtained from the Engineer of Record verifying the proper repair method to be used; this document shall be on site for the inspector. (CBC 2303.4.5, CRC R802.10.4)
  
- Alterations resulting in the addition of load (i.e. HVAC equipment, water heater) that exceeds the design load for the truss shall not be permitted without a letter from the Engineer of Record that the truss is capable of supporting such additional loading. This document shall be on site for the inspector. (CBC 2303.4.5, CRC R802.10.4)
  
- Verify that roofing materials have not changed, creating added load.