Concrete Structural Slabs Supporting Light-Frame Construction

How to design a concrete podium slab supporting a light framed construction.

CODE REFERENCE

2016 California Building Code

FINDINGS

When concrete structural slabs support light framed construction above (i.e. wood framed buildings over a concrete podium), for the design of the slab, the superimposed loads shall be considered per one of the methods listed below:

1. The actual type (point load, line load, etc.) and magnitude of loading shall be used in the design of each strip. Or
2. A uniformly distributed load may be assumed, as long as unreduced cumulative superimposed live loads are used for the levels supported by the slab.

Exception: Reduced live loads are permitted to be used. However, sample calculation runs shall be provided for the most critical strips using the actual load types, to validate that the assumption of reduced live loads will not adversely affect the performance of the slab.