

**ANSI/ASAE EP486.2 OCT2012 (R2016)  
Shallow Post and Pier Foundation Design**



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## Shallow Post and Pier Foundation Design

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### 1 Purpose and scope

**1.1 Purpose.** The purpose of this Engineering Practice is to present a procedure for determining the adequacy of shallow, isolated post and pier foundations in resisting applied structural loads. This Engineering Practice will help ensure that soil and backfill are not overloaded, foundation elements have adequate strength, frost heave is minimized, and lateral movements are not excessive.

**1.2 Scope.** This engineering practice contains safety factors and other provisions for allowable stress design (ASD) which is also known as working stress design, and for load and resistance factor design (LRFD) which is also known as strength design. It also contains properties and procedures for modeling soil deformation for use in structural building frame analyses.

**1.2.1 Limitations.** Application of this Engineering Practice is limited to post and pier foundations with the following characteristics:

- Vertically installed in relatively level terrain;
- Centrally-loaded footings;
- Minimum post or pier foundation spacing equal to the greater of 4.5 times the maximum dimension of the post/pier cross-section, or three times the maximum dimension of a footing or attached collar.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

#### 2.1 Structural design specifications

ACI 318, Building Code Requirements for Structural Concrete and Commentary

ANSI/AWC NDS, National Design Specification (NDS) for Wood Construction with Commentary

ANSI/ASAE EP484, Diaphragm Design of Metal-Clad, Wood-Frame Rectangular Buildings