



Deck Porch Addition Footing Design

10801 Town Square Drive NE, Blaine MN 55449

Building Inspections Department

phone: 763-785-6170 | fax: 763-785-6111 | **BlaineMN.gov**

Residential

Most homes in Blaine are constructed on corrected soil pads. This is because soil conditions prior to development were too low and often unsuitable. These corrected building pads are not much larger than the home structure itself.

Soils outside of these corrected pads may not be suitable for the construction of decks, porches, or home/garage additions. Any proposed construction of a deck, porch, or an addition may require soils corrections, or an engineer's soils report may be required to verify minimum bearing capacity of 1,500 PSF.

HOW TO DESIGN FOOTING FOR A DECK OR PORCH

Note: Areas of known poor soils require soils corrections and/or deck footings must be designed by a licensed professional engineer prior to the issuance of the permit. Please call the Building Department for soil information in your development @ 763-785-6170 as your first step in planning for your deck or porch.

1. **Concrete Footings** – The permit holder is responsible for the design size, but they cannot be a smaller diameter than listed in the City of Blaine Deck or Porch Handout footing guide. In lieu of using the guide in the handout, another option is to provide an engineer's soils report to verify minimum bearing capacity, and design them accordingly.

Footings must still be set on sandy/suitable soils (no black organic type soils) or the footing inspection will fail. In some developments, the depth to suitable soil may be much deeper than the 42" frost depth. The footing inspection will fail if suitable soils cannot be verified, and soils corrections and/or deck footings must be designed by a licensed professional engineer.

2. **Non-concrete manufactured pin style footings** – The permit holder is responsible for the design size, and the *base area comparison* must be equal to or greater than concrete footing diameter listed in the City of Blaine Deck Handout footing guide. These pin style footings are only permitted for decks and may not be permitted for porch footings – verify with the product manufacturer.
3. **Helical piles (screw-pile)** are permitted in accordance with manufacturer's instructions. These are long screw-like piles that can reach suitable soils without the need for soils corrections. Screw-piles must be installed by a certified contractor.

FROST FOOTINGS FOR HOME & GARAGE ADDITIONS

The following applies to all areas in the City of Blaine that have corrected soil pads, or other areas with black organic type soils at the depth of the footings. Soils corrections must be designed by a licensed professional engineer, or provide an engineer's soils report to verify minimum bearing capacity of 1,500 PSF prior to issuance of the building permit.