

# Chapter 3 - Foundation

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## Things to Consider

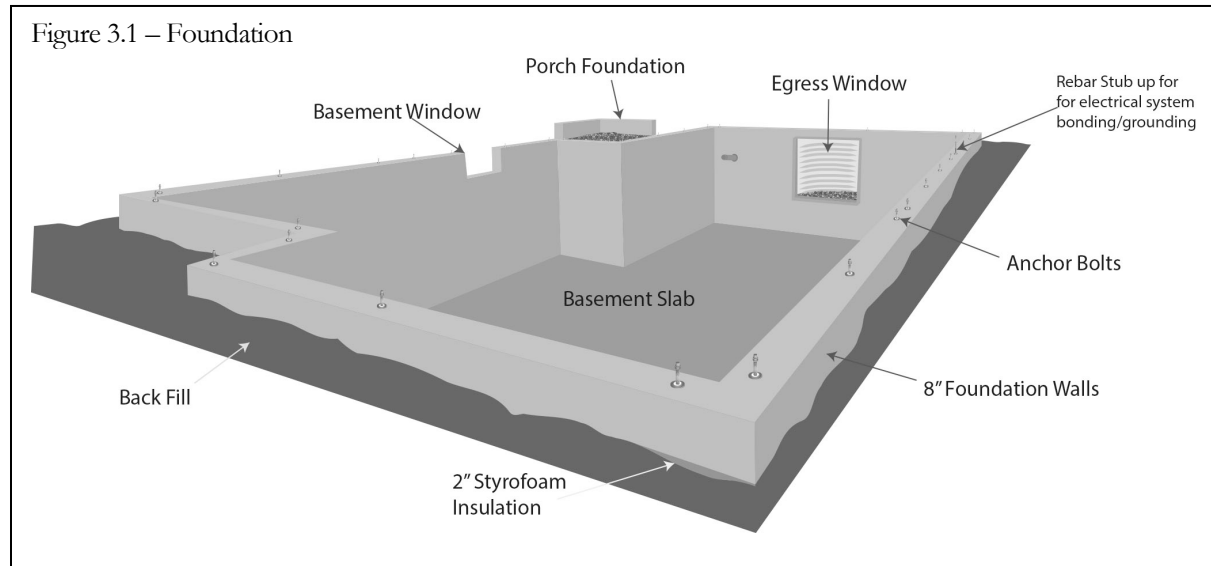
- During this phase, Contractors and Volunteers will need to coordinate activities.
- Caution: Tie the sump pump switch up off the floor to keep it from getting wet.

## Components

Footers	Foundation Walls	Post pad
Sump Pump	Interior Drainage	Backfill
Temporary Power Pole	Sewer Tap	Water Tap
Gas Tap		

## Timing and Prerequisites

- This is the initial phase of the build.
- The Construction Superintendent will work with the contractors to initiate this phase and co-ordinate the timing of Contractor and Volunteer activities throughout the phase.



## Materials Needed

Temporary Power Pole
5/8"x8' Grounding Rods
Temp Power Pole
2x4 Braces
2 1/2" wood Screws

## Site Setup

### Temp Power Pole (Habitat Support Staff)

- Using a post-hole digger, dig a 32" deep hole for power pole.
- Set the power pole in the hole. Plumb the pole and pack dirt around the pole.
- Cut and install two (2) stakes. Place one to the side and one to the back of the pole.
- Cut and install power pole braces.
- Drive one grounding rod into the ground. This rod should be 4' from the pole.
- Attach grounding wire to grounding rod.

## Foundation (Contractor)

The cement contractor will:

- Excavate the hole for the house
- Pour the footers and thicken slabs.
- Frame up the basement walls
- Pour the walls
- Clean off the frames
- Install the bituminous asphalt coating
- Install the 2" Styrofoam insulation on the exterior foundation walls
  - The Styrofoam insulation will be installed vertically from the footer to the top of grade.

### Utility Taps (Contractor)

The contractor will install the water, sewer, and gas taps and lateral lines.

### Exterior and Interior Drainage (Contractor)

1. The contractor will install the exterior drainage piping and cover it with gravel.
2. The foundation contractor will install the sump pump pit and interior drainage.
3. The cement contractor will install 4" of gravel over the interior drainage.
4. After the basement slab is poured, a temporary sump pump will be installed. The permanent pump will be installed during plumbing rough-in. **(KEEP THE PIT CLEAN).**

### Under Slab Insulation

Under Slab insulation will no longer be used in Mid-Ohio Habitat homes.

**Basement Slab (Contractor)**

The cement contractor will pour the basement floor.

After the concrete slab sets up, the cement contractor will return and cut expansion joints into the slab.

**Foundation Backfill (Contractor)**

Once the slab is poured and the utilities taps are installed, the contractor will backfill the foundation. Some settling will occur in the following weeks. Additional backfill may be needed.

**Window Wells**

The contractor will install window wells on the basement window and egress window. The window wells should be slightly above grade and 18" deep. The window wells will be filled in with gravel later. (See "Window Wells" in "Exterior Finishes"). **Keep the window wells covered.**

**Temporary Sump Pump & Discharge Hose**

The contractor will install a temporary sump pump in the sump pit and attach a temporary flexible discharge hose.

- The pump remains plugged in to prevent flooding. Check it at the beginning and end of each work day.
- Ensure the discharge hose is discharging the water at a safe distance from the foundation and not onto the neighbor's property.

**Site Safety****Perimeter Fencing (Habitat Support Staff)**

As soon as possible after the foundation has been installed, the perimeter fencing must be installed.

1. Install "T" stakes or rebar every 8' around the foundation.
2. Install orange safety caps over the top of the "T" stakes or rebar.
3. Attach plastic orange fencing to the supports with zip ties.
4. Leave one section unsecured to allow access to the site. Hook the fence over the next support.
  - The fencing must remain in place until the first floor decking is installed.
  - Inspect the fencing every work day and re-install missing stakes, fencing and safety caps.

**Trip Hazards**

- Before work can begin on the next phases of the project a thorough inspection of the site must be done ensuring trip hazards such as rocks and limbs have been removed.
- Trenches and holes must be filled or marked off
- Window wells must be covered and marked as "Holes"

- Ensure the sump pit is clear of debris.
- Ensure the sump pump power cord and extension cord are not laying in water.