

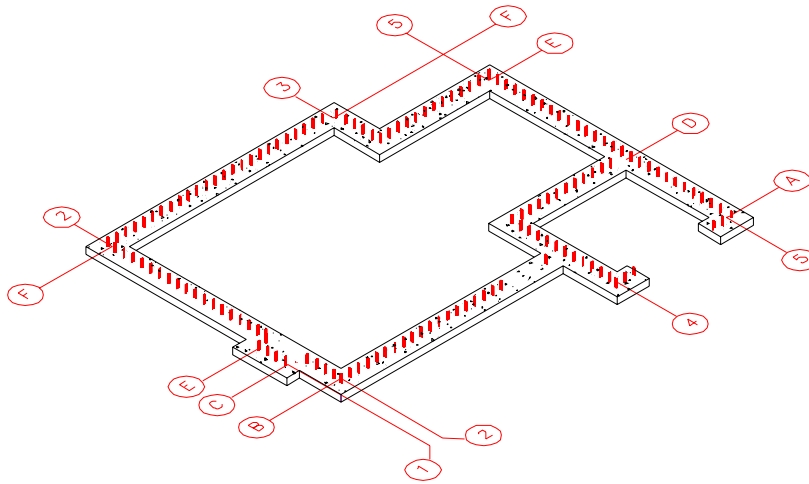
2. Second phase: Start of the Site Work

2.1. Footing.

Footing may be installed by common method, as well as by means of **Armopanel™** foundation forms.

2.1.1. Footing installation. Common method

Establish horizontal levelling of footings according to specified tolerances within approximately



6.0mm (1/4")

Figure 2.1

In accordance with the structural design, insert the dowels in places intended for vertical reinforcement @ 200mm (8") or 400mm (16"). If locations of the dowels are not indicated on the design schemes, seek advice from Manufacturer or Engineer.

Dowels should be installed in compliance with the pattern of vertical reinforcement of the upper wall panel.

Generally, there are two types of patterns for the insertion of dowels:

- 1 – Corner: for the determination of the location of dowels at the crossing of two walls
- 2 – Linear: for the determination of the location of the dowels in straight wall sections as well as door and window openings

Make sure that dowels extended at least as far as specified (usually, 350mm [14"] or higher).

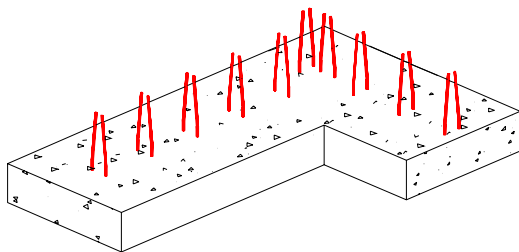
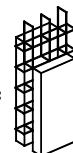


Figure 2.2

Useful Tips:

1. Align the top surface of the footing or slab so that it will not exceed 6.0mm (0.25") on all sides for future panel installation.
2. Vertical step in foundation can be 200mm (8"), 400mm (16") or 600mm (24").

3. The length of the horizontal part of the footing should be divisible by either 600mm (24") or 1200mm (48")



2.1.2. Grid lines

Prior to commencing the work on the strip foundations, you will need to establish the gridlines of the building. Upon the completion of work on strip foundations, you must confirm the location of gridlines and determine the location of the positioning U-guides. After the alignment of the positioning U-guides, they should be fixed with screws or dowels. Mark location of windows and doors by coloured chalk lines. This will be the mark for panel installation adjacent to the door and window openings.

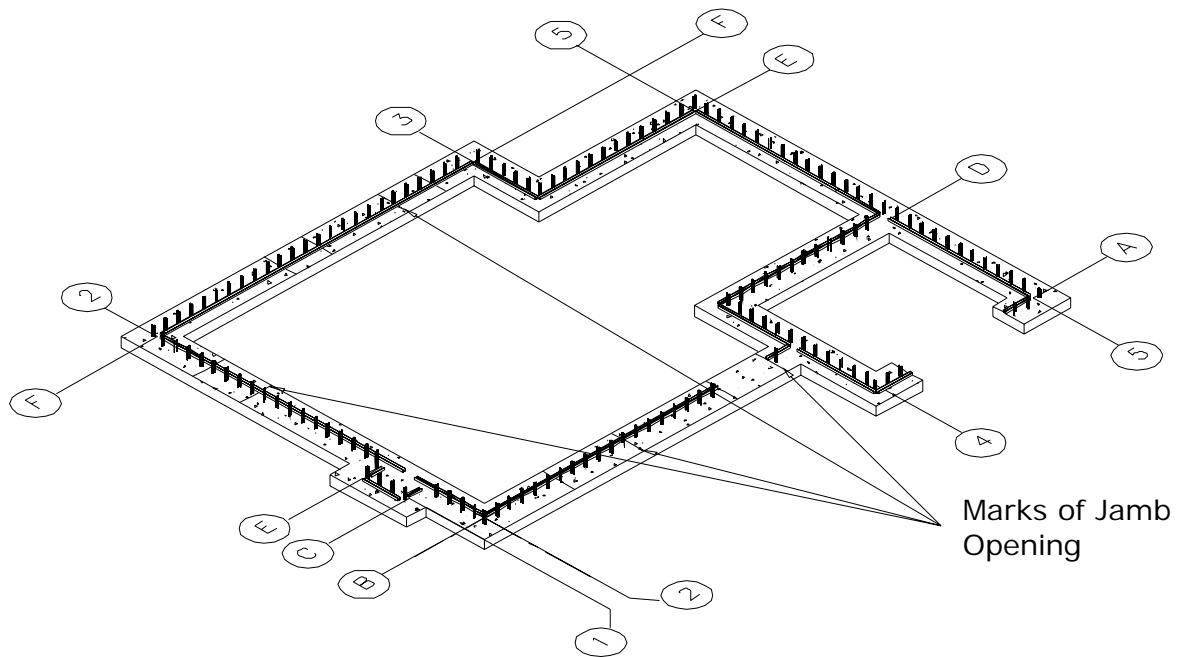


Figure 2.3 Footing Plan with U - Guide

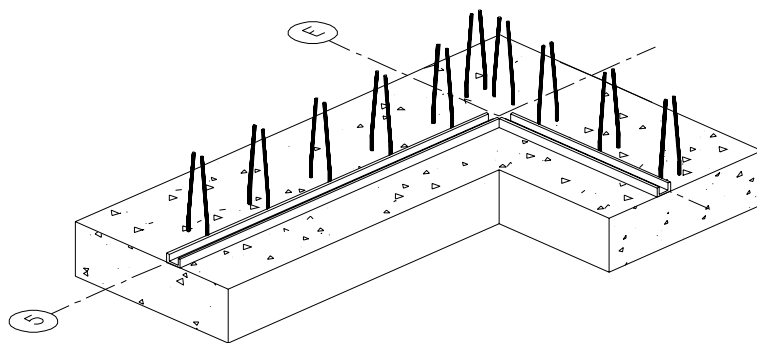
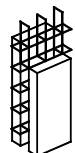


Figure 2.4 Footing Plan with U – Guide. Detail



2.1.3. Construction of Foundation with Armopanel™

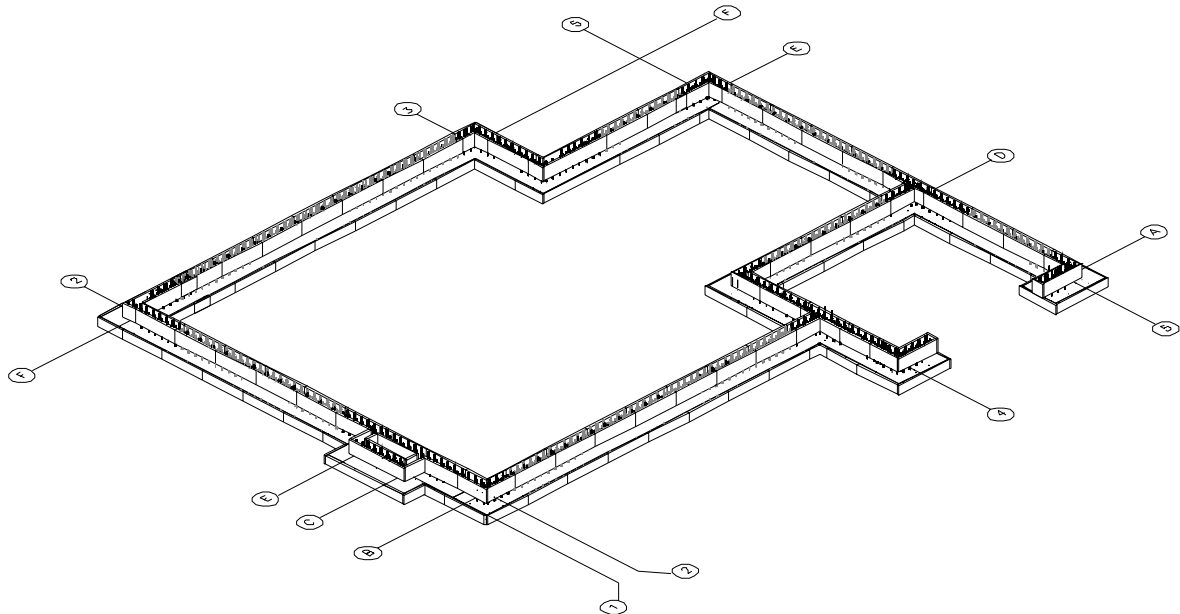


Figure 2.5

The procedure for the construction of foundation with the use of Armopanel™ footing is as follows:

- 1) Excavate the ground for foundation to the bottom of the foundation + 50mm
- 2) Pour 50mm of Lean Concrete
- 3) Establish the layout of gridlines. Install U- Guides along gridlines for positioning of the foundation panels.
- 4) Mark the window and door openings with coloured chalk.
- 5) Install **Armopanel™** footing panels onto U- Guides and level them.
- 6) Pour concrete up to the height of the base of footing.

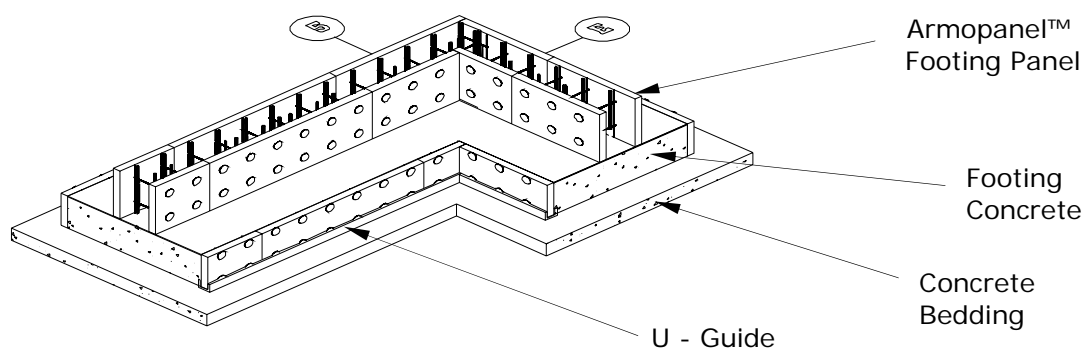
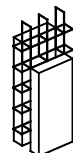


Figure 2.6 Detail of the foundation plan with Armopanel™ footing



2.2. Form assembly

There are two types of the panels delivered to the construction site:

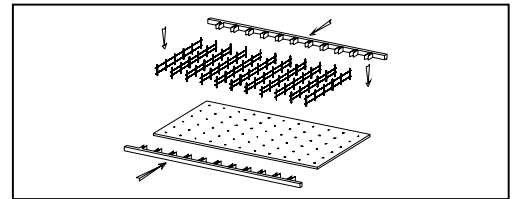
- 1) Pre-fabricated panels ready for installation,
- 2) In components: sets of polystyrene boards, reinforcing cages, plastic caps, connecting elements and re-bars.

To assemble the form quickly, it is required to have an assembly table, which can be supplied by Hi-Tech Building Systems Corp.

The following assembly technique must be followed:

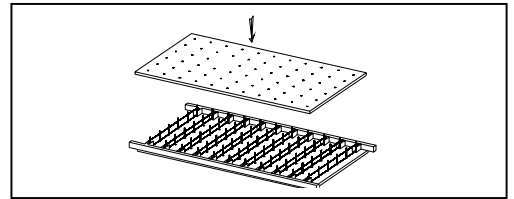
Step 1:

- a) Fix the first polystyrene sheet onto the assembly table.
- b) Insert the metal spacers into the holes in the polystyrene sheet



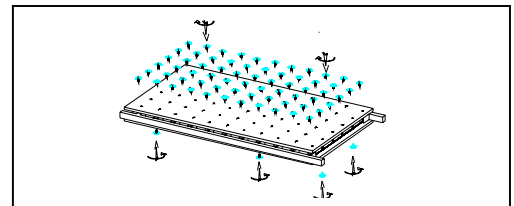
Step 2:

- c) Onto the protruding ends of the metal spacers, attach the second polystyrene sheet.



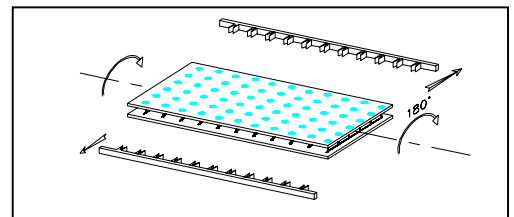
Step 3:

- d) In several places along the first polystyrene sheet, fix the spacers to the sheet using plastic caps.
- e) Repeat the same procedure onto the second polystyrene sheet



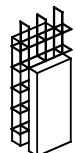
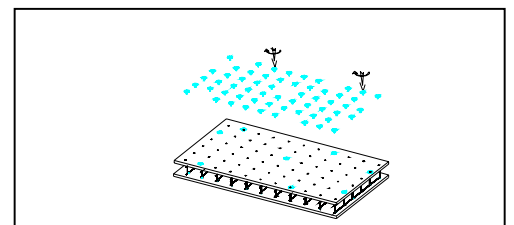
Step 4:

- f) Flip the panel over



Step 5:

- g) Insert all the necessary plastic caps into the openings in the first polystyrene sheet. Screw the plastic caps tightly



2.3. Door and window buck construction

Build bucks for all doors and windows of the story before you begin wall erection. For this purpose, use pressure treated lumber. Wrap the pressure treated lumber with two layers of tarpaper or polystyrene film to seal all wooden parts that will be in touch with the concrete.

Please follow the instructions below:

Make the buck from lumber with thickness that is identical to or exceeds that of the wall. For concrete wall with 250mm (10") thickness, the buck will have dimensions of 50 x 355mm (2" x 14"). Make the thickness of the buck identical to that of the wall. The lintel is supported by vertical jamba. The bottom part of the formwork for window consists of two pieces of 50 x 100mm (2 x 4") with a gap for concrete pouring.

Determine the approximate size of the door or window opening. Add 75mm (3") to the width of the opening to account for a piece of lumber on each side. In this demonstration, we will assume that the thickness of a piece of lumber is 40mm (1 1/2").

Either insert anchor bolts into every vertical jamb to secure the buck in the concrete or insert a nail through the jamb into the concrete cavity with galvanized nails.

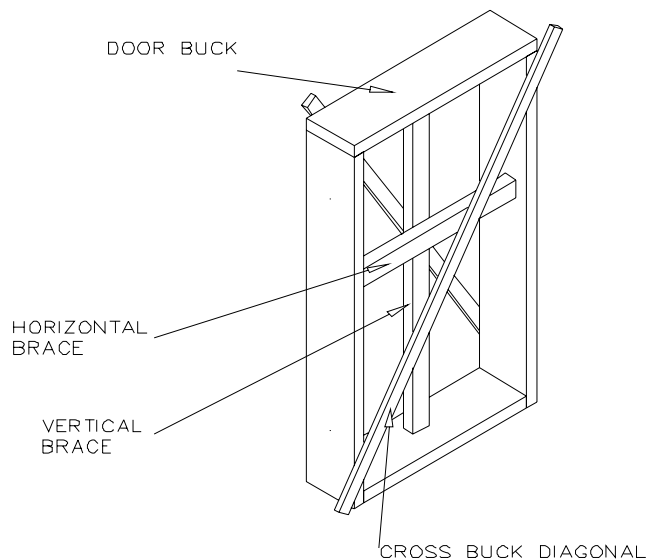


Figure 2.7

