

2.8 – REINFORCEMENT

2.8.1 – BASIC PRINCIPLES OF REINFORCEMENT



Reinforcing steel (rebar) strengthens concrete walls to help minimize cracking and buckling under load due to backfill, wind, and other loads. Rebar also helps control cracking due to temperature swings and shrinkage.

A non-contact splice is typically the splice of choice in Logix walls except in heavily reinforced walls or in cases of narrow wall cavities.

Reinforcement around windows and doors needs to be installed as required.



Reinforcing steel must meet the requirements of ASTM A615, ASTM A996, or ASTM A706 for low-alloy steel. Minimum of Grade 40 (300MPa).

Reinforcing steel in a Logix wall must have minimum 3/4 inch (19 mm) concrete cover.

 see section 6.0 – Engineering

Refer to Logix Design Manual for reinforcing tables or refer to EB118.



It is the responsibility of the installer to verify table rebar specifications with local building codes and engineer specs.

2.8.2 – HORIZONTAL REINFORCEMENT



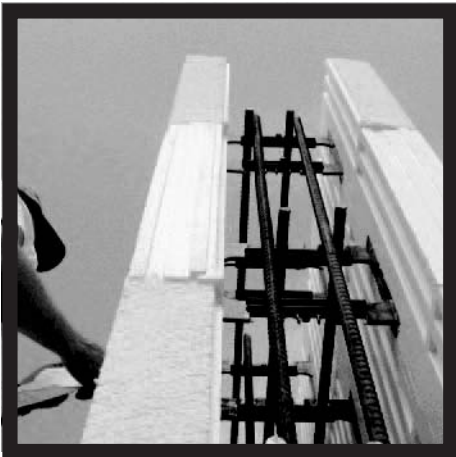
STEP 1: Horizontal rebar, sized as required, should be placed in the wall as each course is installed.

STEP 2: Hold the reinforcement back from door and window openings by 2" (51mm).

STEP 3: Maintain the proper overlap splice length of 40d (40 x bar diameter) or 24 inch lap length, whichever is greater, or as otherwise specified when placing horizontal rebar. A non-contact lap splice is recommended.



STEP 4: The notch pattern on the Logix web allows for horizontal rebar to be alternated in location, course by course. This allows ideal support and positioning for vertical steel. Vertical rebar diameter will dictate horizontal offset from course to course.



I
N
S
T
A
L
L
A
T
I
O
N
G
U
I
D
E

Build Anything Better.

www.logixcf.com

2 – 36

LOGIX[®]
INSULATED CONCRETE FORMS

REPRINTED 2017


Rev. Sep 23/09

2.8.3 – VERTICAL REINFORCEMENT



STEP 1: Install vertical rebar, as required, after all courses and horizontal reinforcement have been placed.

STEP 2: Place vertical reinforcement under windows, if required.

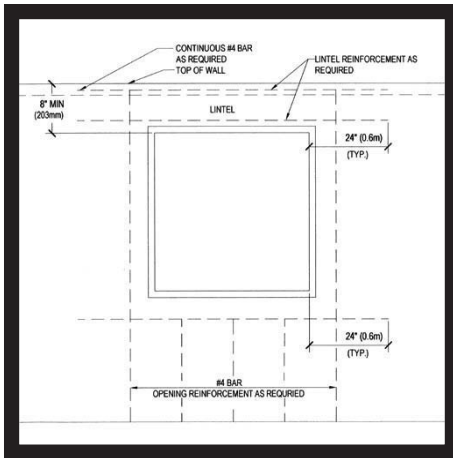
STEP 3: Place vertical rebar on each side of every opening as required.  see section 6.0 – Engineering

STEP 4: Cold joints between upper floor walls and lower floor walls need to be reinforced with a lap length of 40d or 24 inch (610 mm) lap length, whichever is greater (unless otherwise specified).



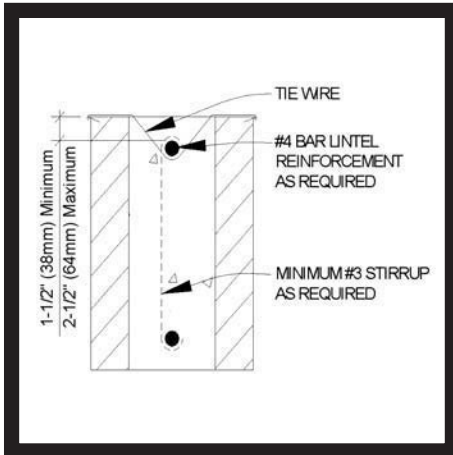
It is the responsibility of the installer to verify table rebar specifications to comply with local building codes and engineer specs.

2.8.4 – LINTELS



Appropriate lintel rebar should be placed in the proper sequence directly above doors and windows to carry loads over these openings.

STEP 1: Before placing forms across the top of door or window openings, rest the bottom lintel bar on buck material. This provides easier access to rebar for fast lintel steel installs. Check to make sure the bottom lintel steel has enough clearance. It should be 1-1/2 to 2-1/2 inches (38 to 64 mm) from buck material.



STEP 2: Install a course of forms across the top of the buck.

STEP 3: Install Form Lock across the entire length of the course. In some cases it may be require to install top lintel rebar before installing Form Lock, in order to achieve necessary concrete cover.



STEP 4: Suspend the top lintel rebar 1-1/2 to 2-1/2 inches (38 to 64 mm) below the top of the form.

STEP 5: Use stirrups to hang the bottom lintel rebar from the top steel, making sure the bottom rebar is 1-1/2 to 2-1/2 inches (38 to 64 mm) above the buck material.

Consistent stirrup dimensions will maximize efficiency.

The top and bottom lintel rebar must extend 24 inches (610mm) beyond both sides of window and door opening.