

## Precautions

### Prior to Lifting

Check wind conditions prior to lifting a panel. Make sure the area is clear of spectators. Inspect all panels for projections (such as rebar) that may interfere with the process. Inspect all rigging and hardware for alignment and be sure that the rigging is free of snags. If non swivel sheaves are being used, make certain the sheaves are properly aligned. Braces are usually attached to the panels prior to lifting; be sure that the

braces will not be trapped by the rigging during the lift. Be alert for panels sticking to the casting bed. Carefully positioned pry bars and/or wedges at the insert lines can often help the crane successfully release the panel from the casting bed.

### During the Lift

As the cables are being tensioned, they invariably tend to twist and rotate the hardware. Twisting the hardware can cause side loading. The rigging crew needs to be alert for this condition and halt the lift to realign the hardware. It is the rigger foreman's responsibility to be alert to any obstacles in the path of the panel and crew.

### Plumbing the Panels

Make certain that the panel being plumbed does not strike a previously erected panel or panel bracing. Keep the area surrounding the panel clear of workers until the panel is firmly braced. If the panel being plumbed is a closure panel, take exact measurements prior to lifting to be sure the panel will fit.

Tilt-up panels should be as plumb as possible prior to attaching the bracing to the floor slab. Temporary out-of-plumb should not exceed 4" at the top of the panel. Fine tuning of the panel plumb can be accomplished with the pipe braces.

There are two common conditions that require a panel to be plumb before releasing the crane:

1. When the panel is going to support an adjacent spandrel or lintel panel. The supporting panels need to be accurately placed in their exact position to prevent the need of adjusting them after placement of the spandrel or lintel panel.
2. When the bracing design specifies a subsequent system of knee, lateral, and end or cross bracing. Attempts to adjust a panel after subsequent bracing is in place would necessitate loosening or removing the bracing, putting the panel and workers in a dangerous position.

### Bracing Panels

All bracing should be in place and complete before relaxing the crane load. The crane load should be released slowly. Do not release the crane load if for any reason, the bracing does not appear adequate.

There are instances when the crane's position will prevent the lateral bracing to be completed. Once the crane has cleared the area, the lateral and end bracing can be completed. This should be accomplished as soon as possible, no more than one panel behind the erection crew. Bracing on erected panels must be completed at the end of the work day.