



**Steelrite®  
Structural Wall Units  
Installation  
Manual**

March 1, 2011

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## **1. Introduction**

The Steelrite® system includes our processes of installing structural wall units that are pre-manufactured and assembled on the construction site. This approach to building offers clients substantial benefits over traditional methods of design-build for low and mid-rise commercial and multi-unit residential buildings, especially when combined with our Thinflor™ flooring system.

Benefits can include elimination of outside engineering and design work as well as improvements in construction quality and installation speed due to pre-fabrication.

This manual is provided as a basic guide of recommended techniques for the installation of the Steelrite® structural wall units. It is not intended to take the place of local building codes and project specific design. Local code requirements must be followed. Every actual installation must be in accordance with the contract drawings, specifications and appropriate installation drawings. Therefore, while the guidelines in this manual are intended as recommended techniques to be followed, they can only be used to the extent that they do not conflict with applicable codes, contract documents and direction by engineer of record.

## **2. Safety**

These instructions are intended to describe the sequence and proper placement of parts. They are not intended to prescribe safety procedures.

Safe erection practices may be defined and made mandatory by provincial, state and/or local ordinances as well as good construction and erection practices. Maintaining good housekeeping on the jobsite is recognized as being a key ingredient to safety and successful job completion.

## **3. Hoisting Equipment**

Hoisting equipment is necessary to unload and position the structural wall units for erection and site storage if required. The equipment must have sufficient capacity and reach to place the material where it will be required. A 10,000 pound capacity would normally be sufficient.

## **4. Material Receiving**

Material inventory at the time of delivery of the shipment is an essential part of the overall success of the installation. By performing the materials inventory, the installer is able to identify any potential or damage to the material before erection is interrupted due to such shortage and damage.

It is imperative that any shortages or damage to the materials at the time of delivery be noted at once and clearly marked on the Bill of Lading before the signature of acceptance. Notify Steelrite® immediately of any conflicts.

## **5. Installation**

### **5.1 Panel Lifting Procedure**

1. Refer to panel diagrams in Figures 1 and 2 for applicable lifting requirements. Panels are a maximum of 25' long and 10' high.
2. No panel shall be erected under weather conditions below -20 °C or winds exceeding 50 km/hr.
3. All panels are to be rigged and lifted from a stationary position.
4. All panels are to be lifted by a crane, chain and crane hooks capable of lifting a minimum 10,000 lbs. with capacity shown on the lifting equipment.
5. The panels are to be lifted by a 3/8" wire rope with a 10,000 lb. capacity and a hoisting hook with a safety catch. The wire rope and hoisting hook shall have the load rating cast or stamped where it can be readily seen.
6. All cables, chains, hooks or similar hoisting devices shall be inspected by the crane operator who will be responsible for maintaining the inspection log book. This log book shall be updated on a daily basis prior to use as required by O. Reg. 213/91 amended or other applicable regulations.
7. All panels shall be rigged by a competent person (swamper). Wire rope shall be inserted through the structural knock out hole provided in the structural stud, at the bridging member. The wire rope will be fastened by the hoisting hook at each end. The other end is to be attached to the crane hook. This is illustrated on panel diagrams in Figures 1 and 2.
8. A tag line is to be secured to the bottom edge of the panel.
9. All panels are to be guided by a competent person in communication at all times with the crane operator. This person shall be able to view all aspects of the erection at all times.
10. Each panel can now be lifted to a vertical position, and then to its location on the slab.

### **5.2 Panel Attachment**

1. Each panel shall be placed vertically on the slab, and attached in accordance with the structural drawings and to the adjacent panel (where applicable).
2. Temporary Steelrite® bracing (or approved equal), at a transverse direction and 45 degrees to the horizontal are to be attached to the panel and the slab. Bracing attachment to the web of panel studs shall be with a minimum of 4-#12 screws. Bracing attachment to concrete floor shall be with a minimum of 4 Tapcon screws 1/4" diameter by 1 1/4" long. See Table 1 for minimum no. of

braces. Also see Figure 3 for bracing attachment. Note that these wall units may be used as a tie off support for Thinflor™ installation. Please refer to the Steelrite® Thinflor™ Installation Manual for additional information.

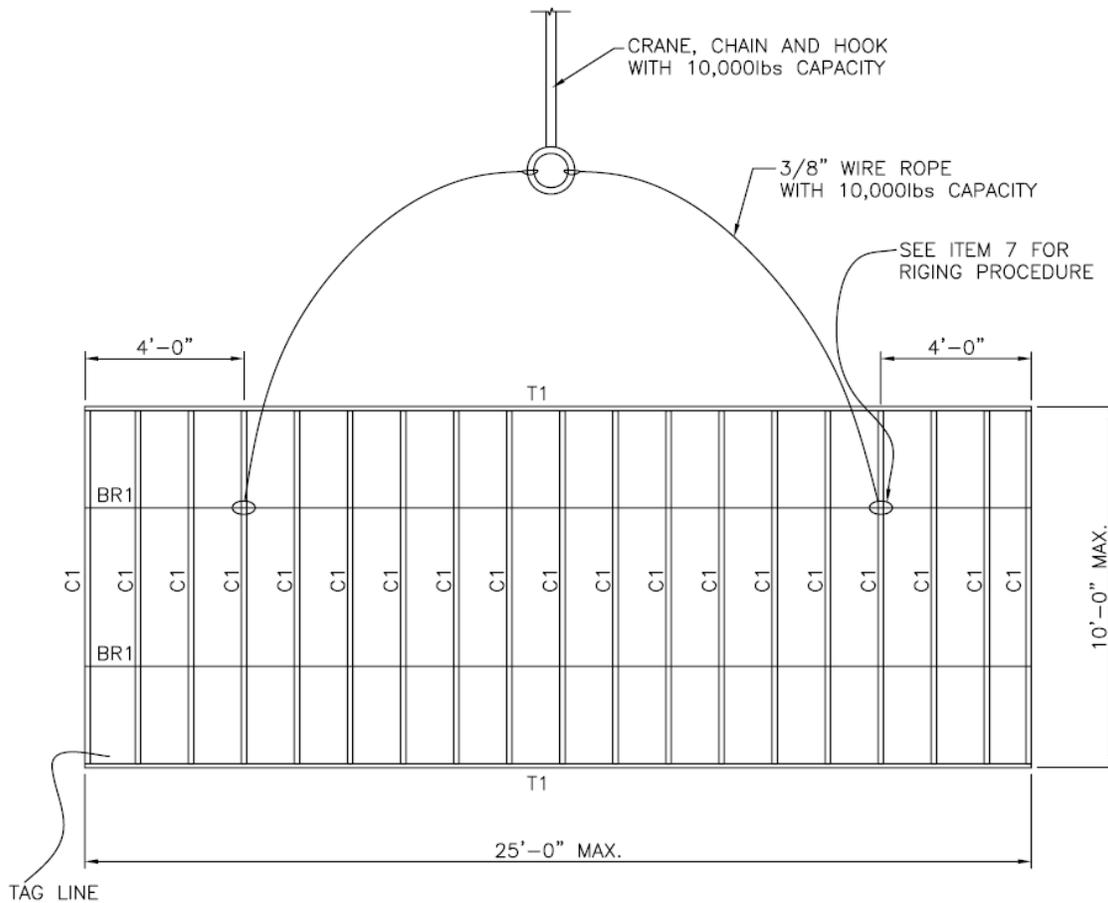
**Table 1 - Panel Brace Quantity**

Panel Length	No. of Braces
$L \leq 14'$	2
$14' < L \leq 21'$	3
$21' < L \leq 25'$	4

3. Once the panel is adequately secured, the rigging can be removed.

### 5.3 Other Considerations

1. Panel hoisting and attachment is to be performed with the supervision of a competent supervisor.
2. Any modification to this procedure must be made by written instruction from the Engineer.



**Figure 1 - Lifting Requirements - Arrangement 1**

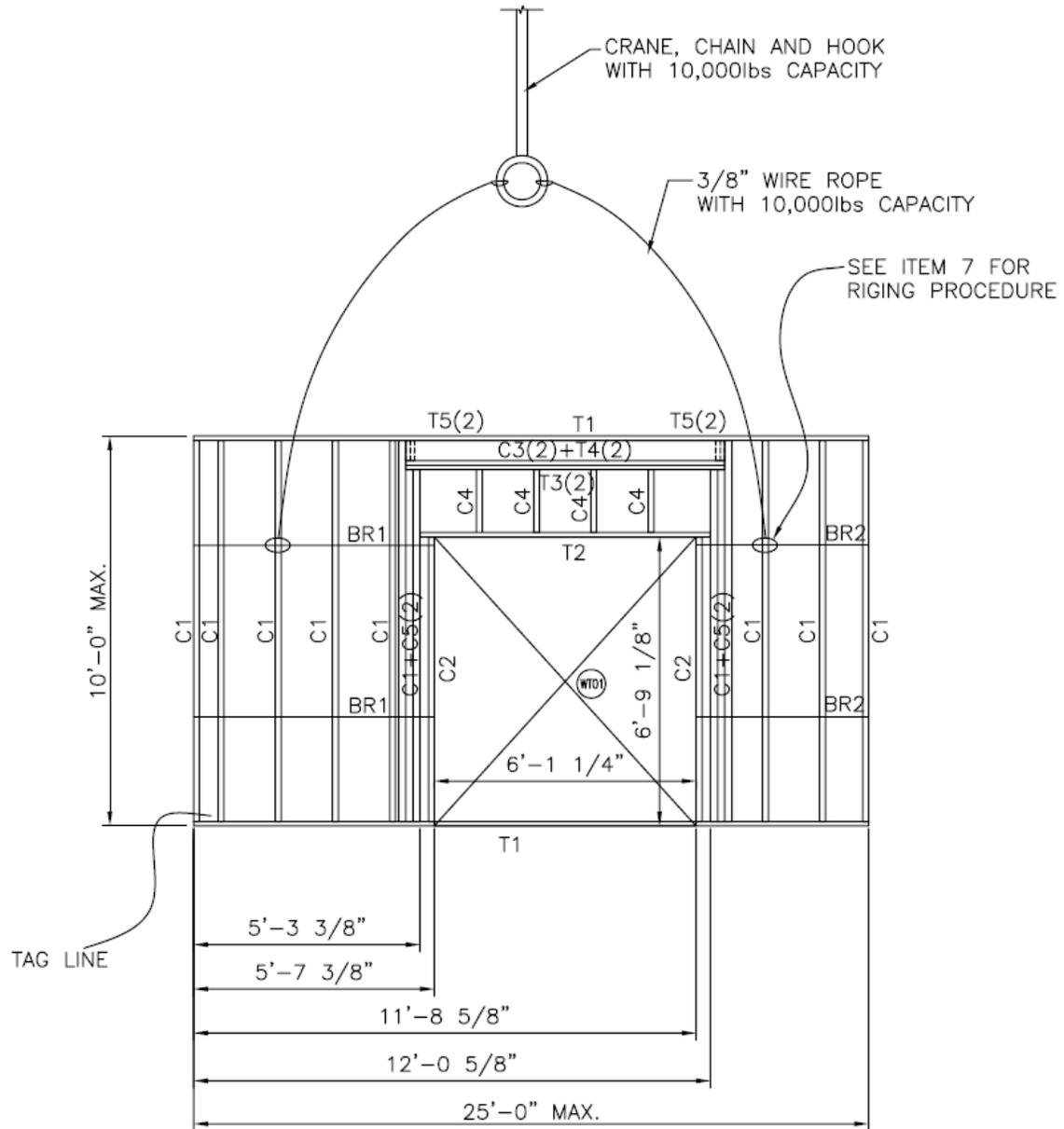


Figure 2 - Lifting Requirements - Arrangement 2

