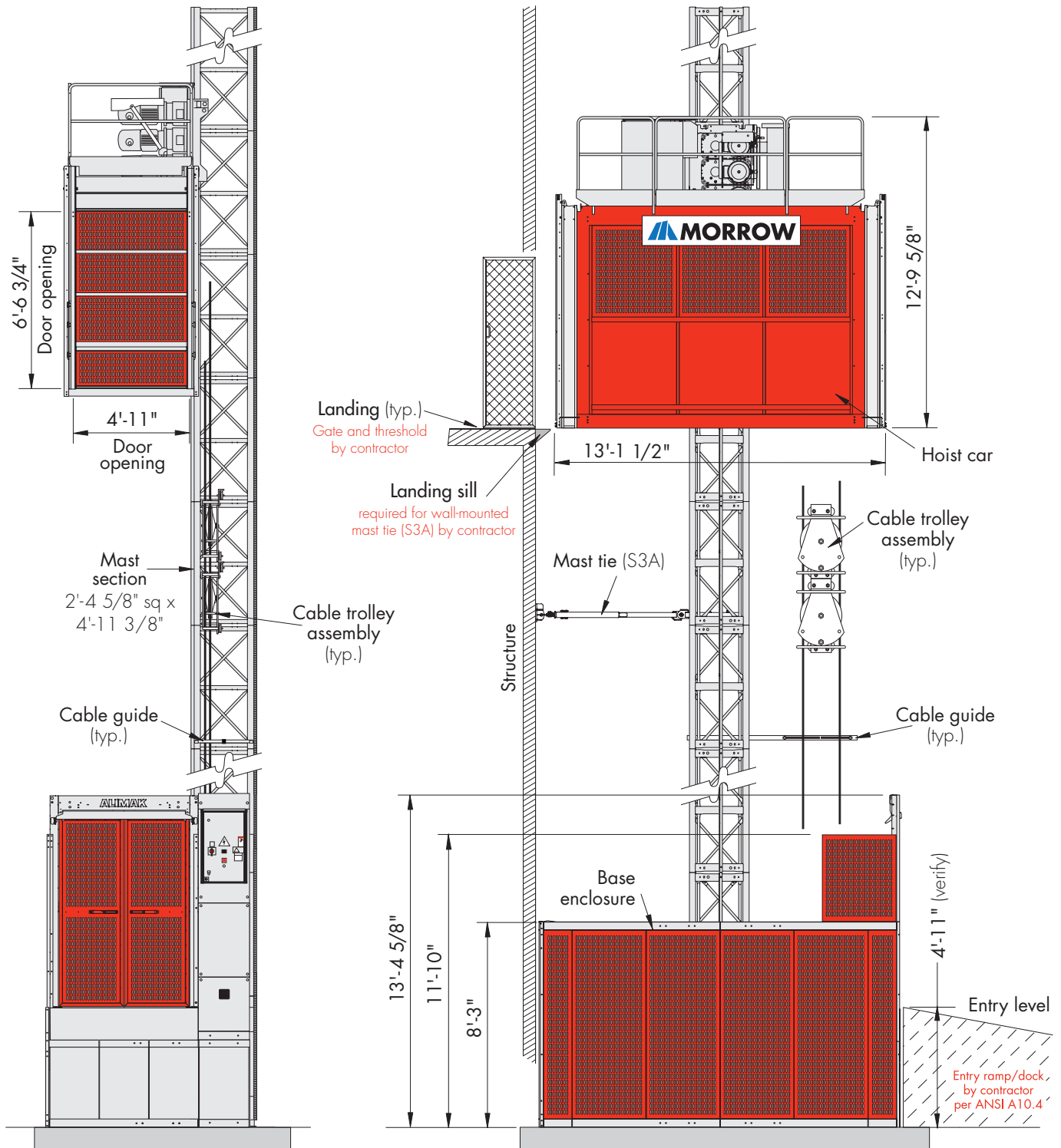
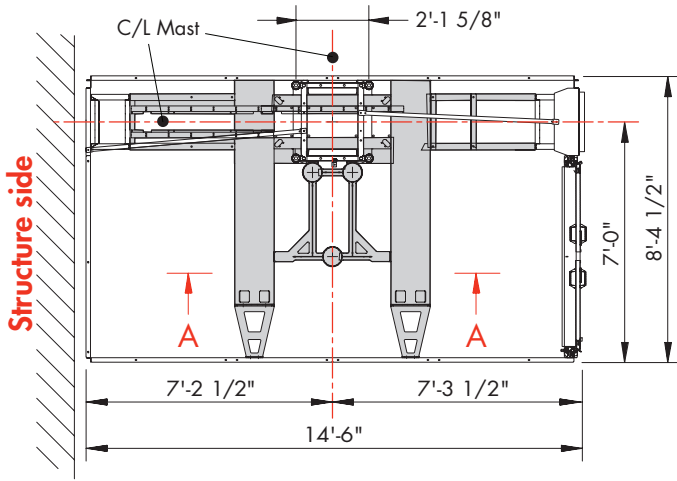


# Alimak FC 6800-12 HS

Model 650 FC-S 31/39 Hi-Speed Single Car Construction Hoist

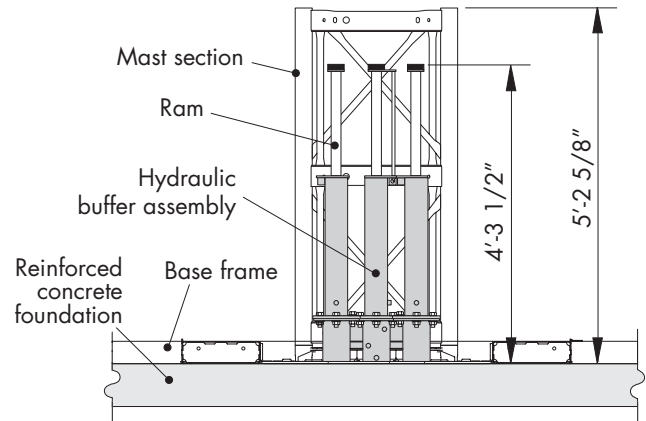


## Foundation Details

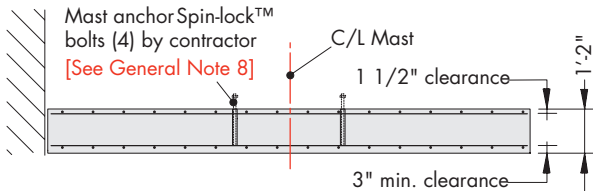


**Plan View**  
Single base enclosure

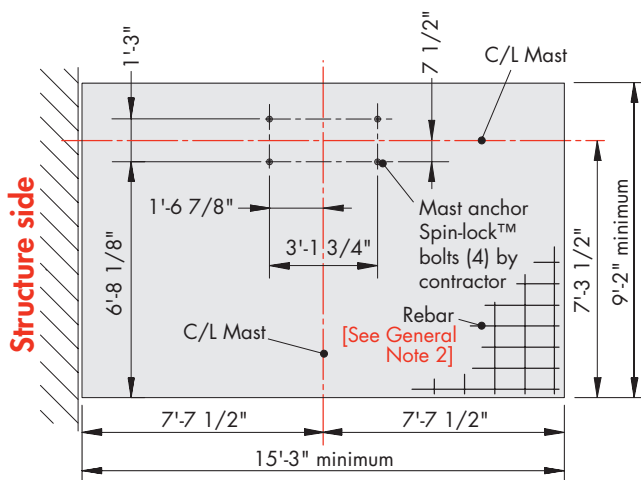
**IMPORTANT:** Verify that the use of a slab foundation conforms to all applicable federal, state and local standards and codes PRIOR to foundation installation.



**Mast Base**  
Section A-A



**Elevation** (Concrete footing)

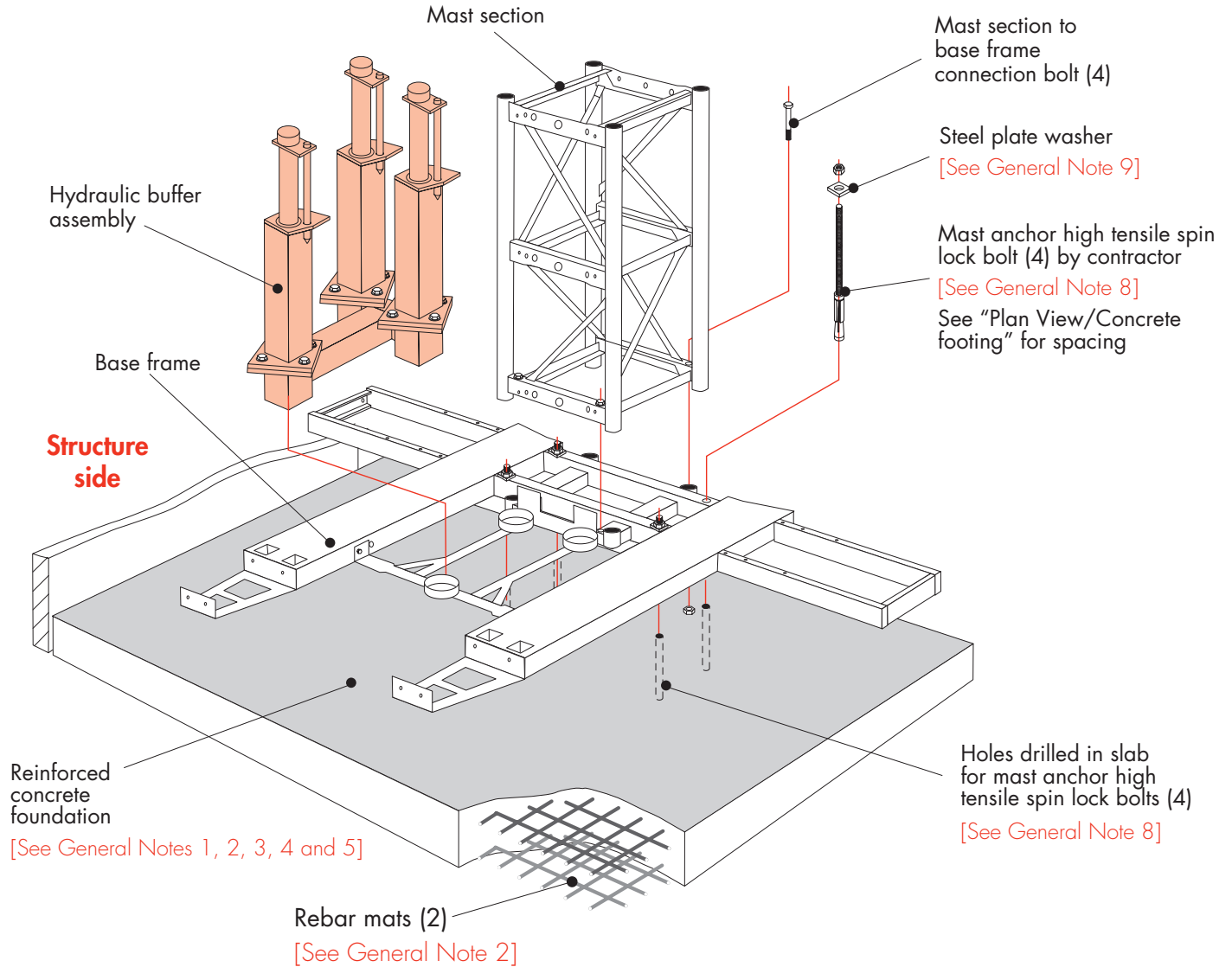


**Plan View**  
Concrete footing

## GENERAL NOTES

1. Foundation: 15'-3" x 9'-2" x 1'-2" with 3,625 psi concrete at 28 days.
2. Rebar: #5 ASTM A615-60. Top mat: 10" o.c. each way. Bottom mat: 10" o.c. width way and 7" o.c. length way. (See details in operations manual.)
3. Foundation based on 490-foot mast height. For greater heights, contact Morrow engineering department.
4. Foundation designed for minimum soil bearing of 1,000 psf.
5. Alternative pit foundation available. Contact Morrow for information.
6. Refer to the manufacturer's manual before installing, operating, servicing, repairing, jumping or dismantling hoist.
7. For specific information including dimensions, forces or alternative configurations, contact Morrow engineering.
8. 3/4" x 17" Williams™ High Tensile Spin-Lock Anchor Bolt and nut assembly. (R1S06C14 Head assembly with ASTM A109/C1045 bolt and nut) or approved equivalent. Bolt by contractor. Install according to bolt manufacturer's requirements. Drill holes 1 3/4-in diameter allowing for 11" embedment. Bolt is also available through Morrow upon request. R1S-type anchor bolts not intended for use at extreme cold temperatures.
9. 1/2" x 3" x 3" sq. washer ASTM A36 steel plate by contractor. Washer also available from Morrow upon request. Drill hole = 13/16" dia. at centerline.
10. This datasheet contains information for "typical" FC 6800-12 HS installation. Contact Morrow for additional information.

## Foundation Details

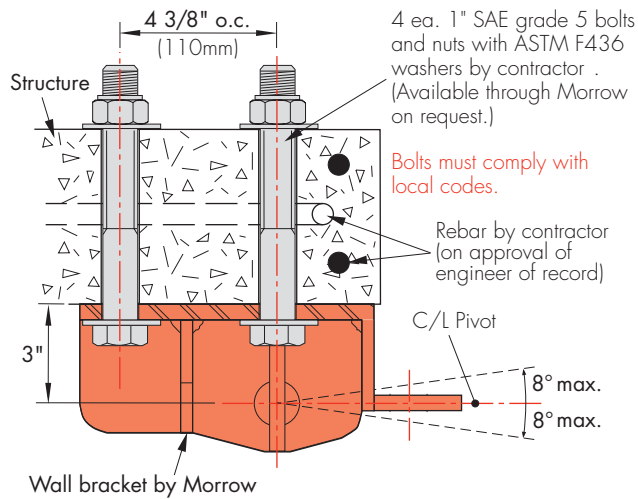


### Foundation View Typical Single Car Installation

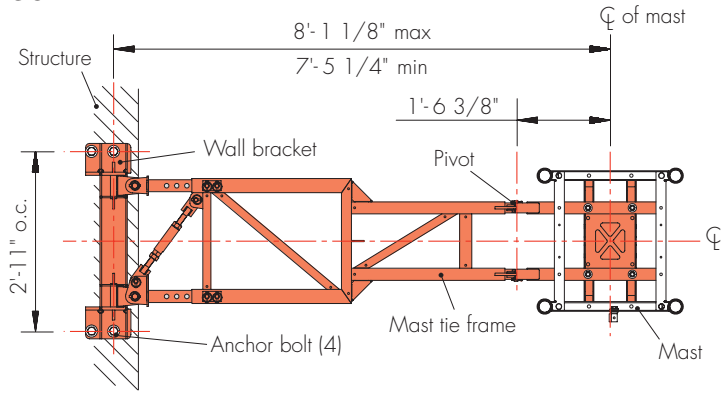
**Note:** Distance from building face to center of mast depends on the type of mast tie installed. Alternate anchoring methods available. Refer to Manual or contact Morrow Equipment for information.

**Note:** Hoist cars are equipped with doors at each end. An optional side door with a 10'-6" x 6'-7" opening is available.

## Tie Details (S3A System) • slab mounted



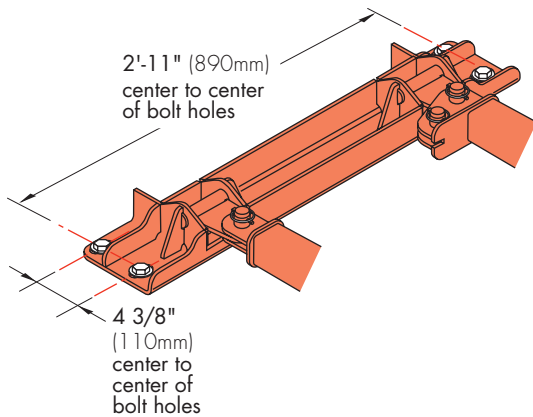
**Mast Tie Connection**  
Slab mounted – Side view  
Bottom attachment type



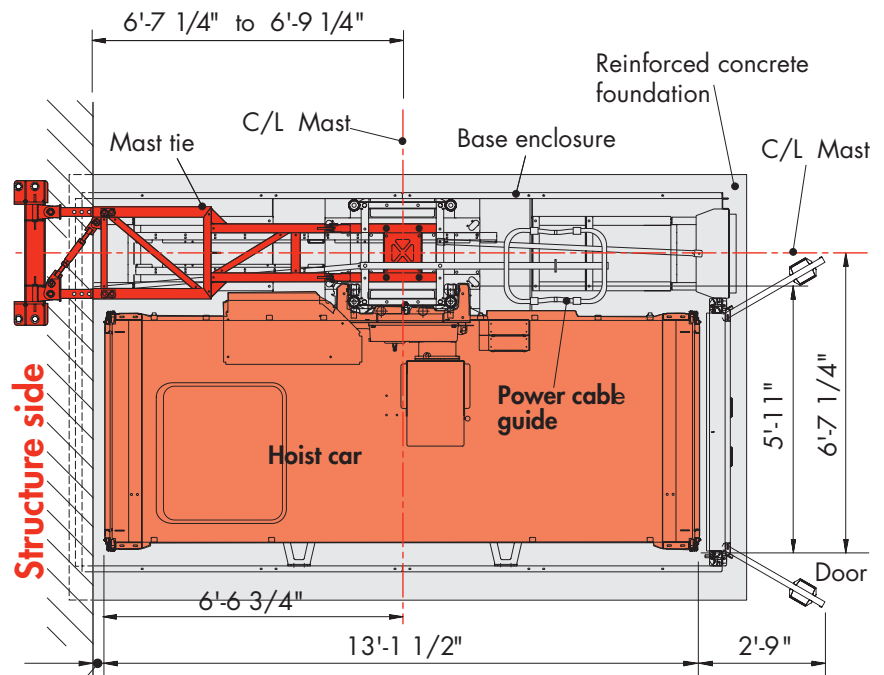
**Mast Tie Assembly**  
Plan view

**Note:** Mast tie assemblies may be installed between  $\pm 8^\circ$  from the horizontal.

**Important:** An additional 3" in mast tie length is added when using a wall-mounted tie connection.



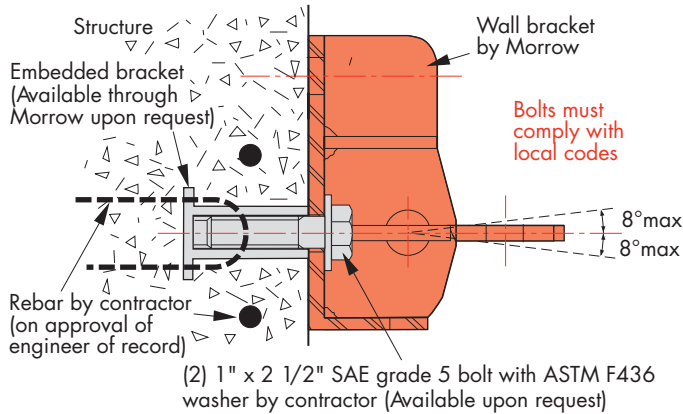
**Slab Bracket**  
Typical – Isometric views



**Plan View**

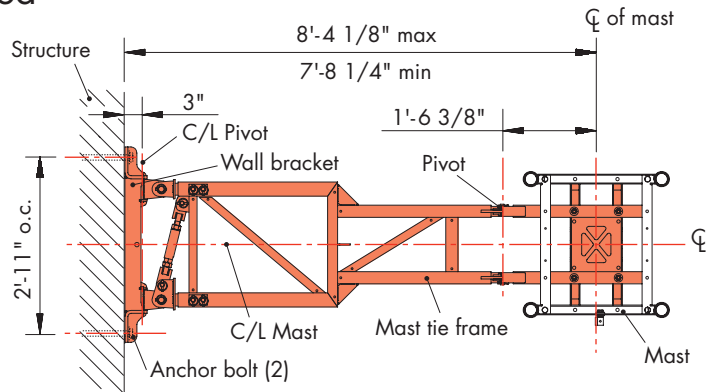
**IMPORTANT:** ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

## Tie Details (S3A System) • wall mounted



### Mast Tie Connection

Face mounted – Side view  
Wall attachment type

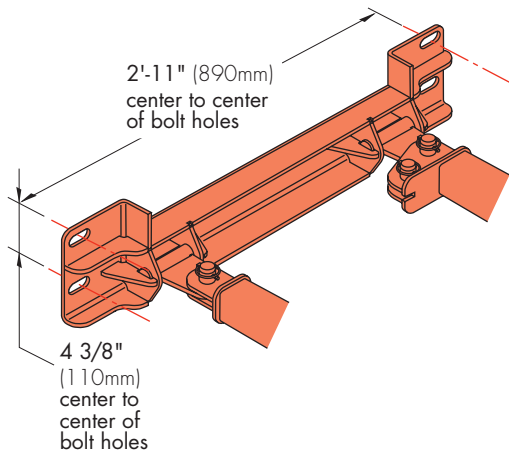


### Mast Tie Assembly

Plan view

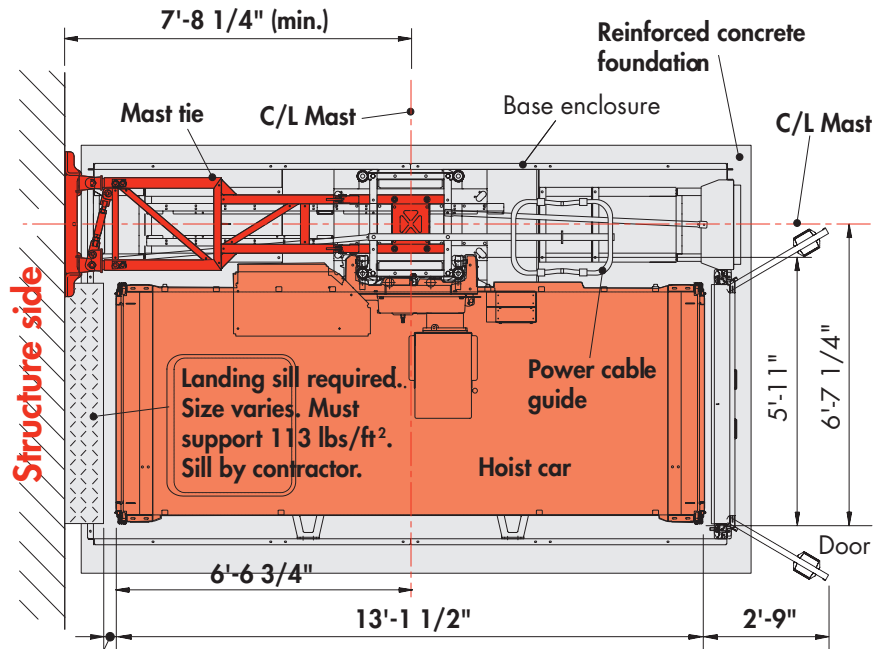
**Note:** Mast tie assemblies may be installed between  $\pm 8^\circ$  from the horizontal.

**Important:** A reduction of 3" in mast tie length is made when using a slab-mounted tie connection.



### Wall Bracket

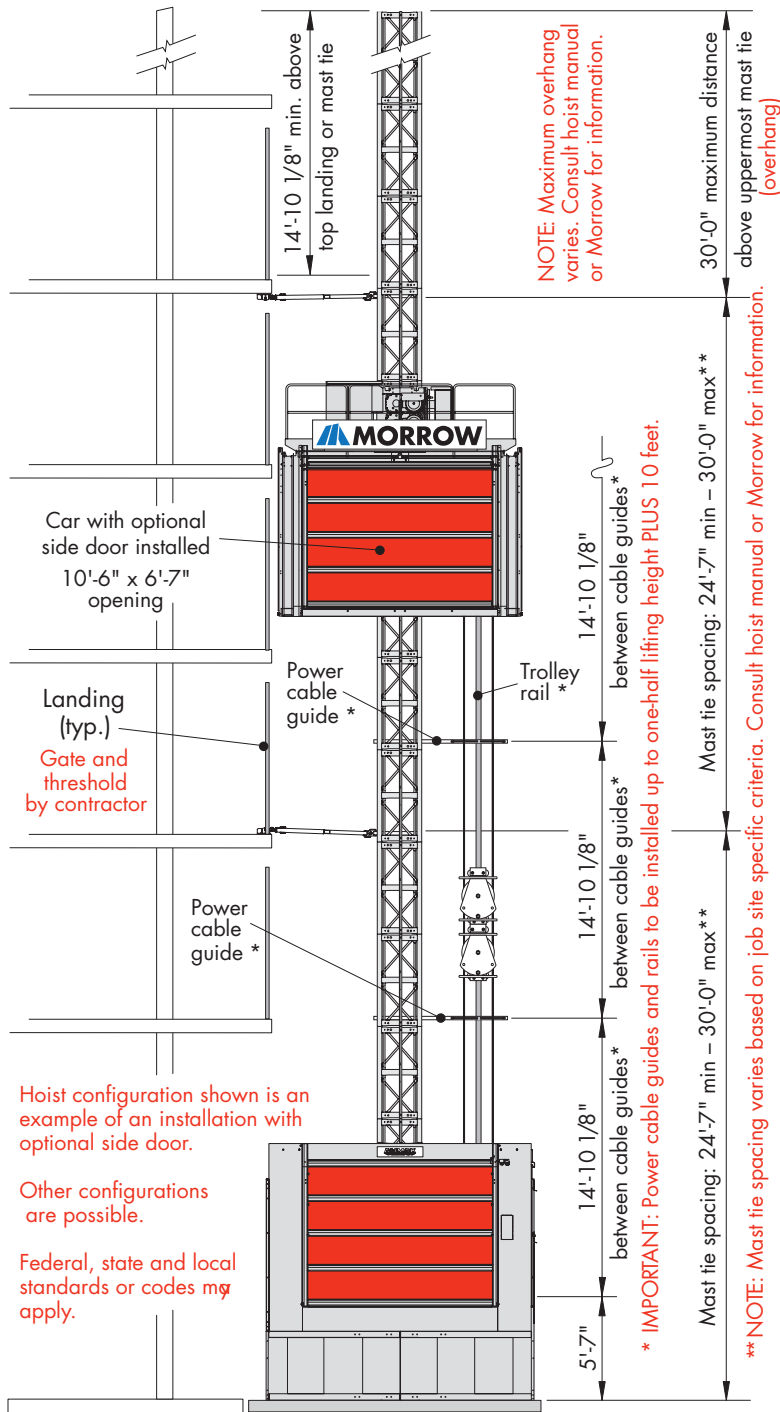
Typical – Isometric views



### Plan View

**IMPORTANT:** ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

## Tie-in Details

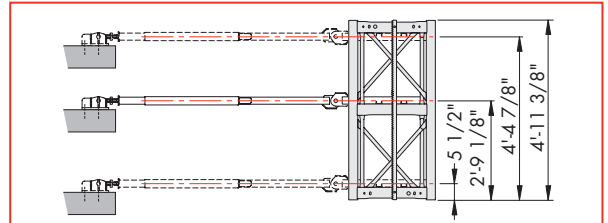


Hoist configuration shown is an example of an installation with optional side door.

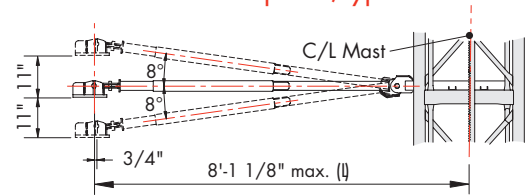
Other configurations are possible.

Federal, state and local standards or codes may apply.

**NOTE: Engineer of record to verify that slab/wall is adequate for anchor forces**  
Maximum mast tie spacing is based on ANSI A10.4.

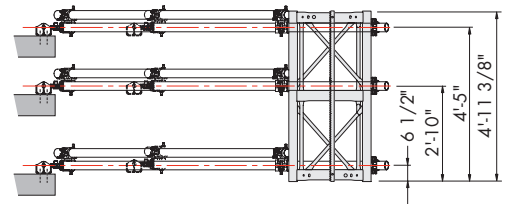


**Mast S3A Tie**  
Attachment points/types

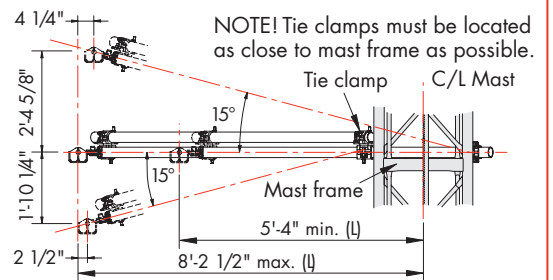


Inclination details

Mast tie lengths are from 7'-5 1/4" minimum to 8'-1 1/8" maximum when angle of inclination is 0° (horizontal). Mast tie inclination 0° to ±8°. Angles greater than 8° will cause interference with tie-in and car. Tie length adjustments are in 2" (50mm) increments. An additional 3" is gained in length (L) for wall mounting.



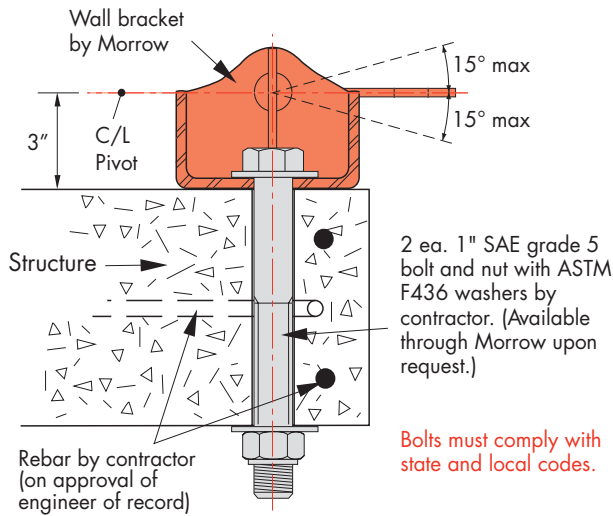
**Mast S1A Tie**  
Attachment points/types



Inclination details

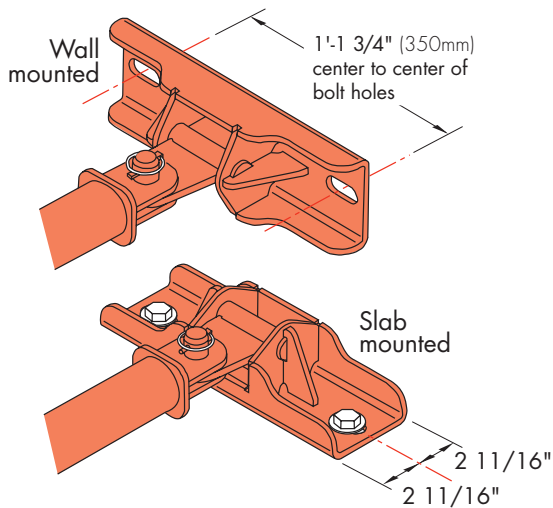
Mast tie lengths are from 5'-4" minimum to 8'-2 1/2" maximum when angle of inclination is 0° (horizontal). Mast tie inclination 0° to ±15°. An additional 3" is gained in length (L) for wall mounting.

## Tie Details (S1A System)



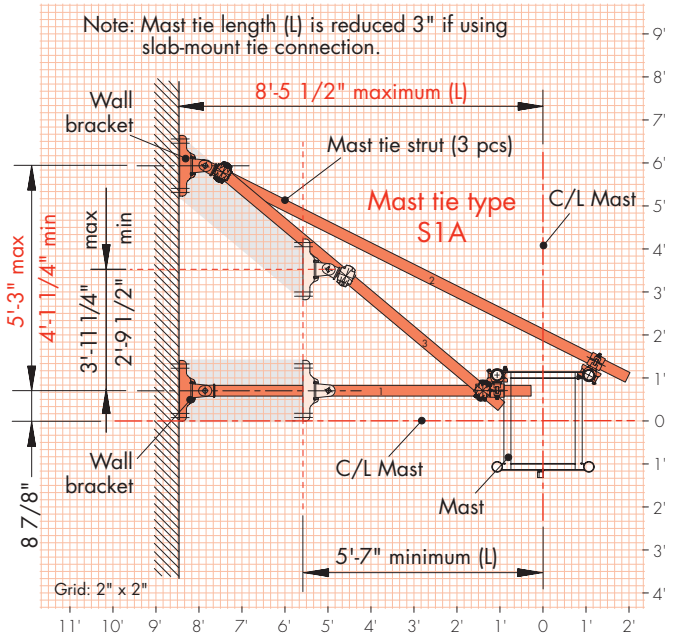
**S1A Tie-in Bracket**  
Typical – Slab mount position

**Note:** S1A system mast tie assemblies may be installed between ±15° from the horizontal.



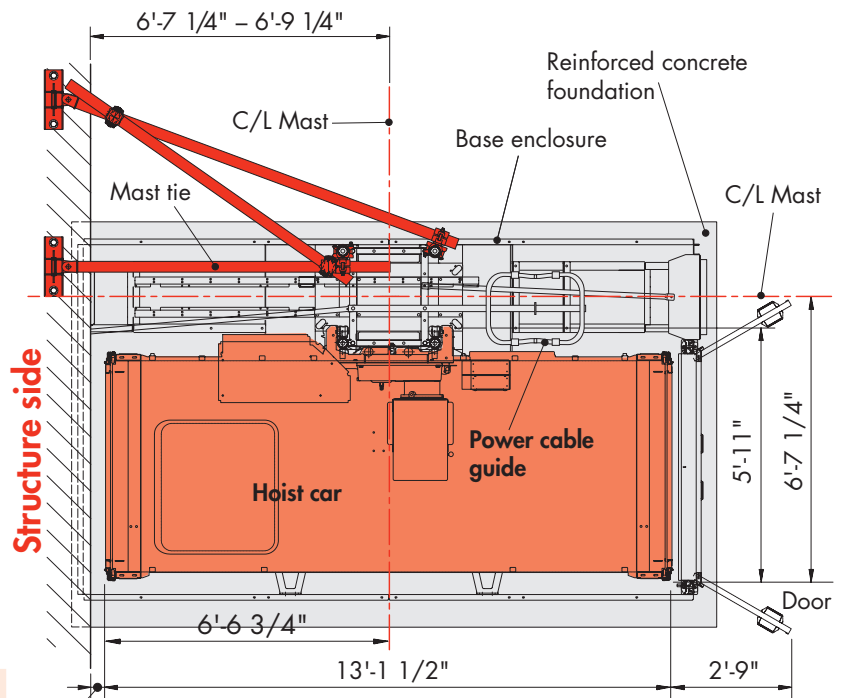
**S1A Mast Tie Connection**

**IMPORTANT:** ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.



**S1A Mast Tie Assembly**  
Plan view

[See General Note 7]



**Plan View**  
Slab-mounted mast tie



## SPECIFICATIONS

### GENERAL

Max. load capacity .....	6,835 lbs	Max. height on standard masts .....	660'
Car inside dimensions (approx.) ....	12'-9" x 4'-11" x 7'-6 1/2"	Max. freestanding mast height <sup>2</sup> .....	30'- 0"
Door opening .....	6'-6 3/4" x 4'-10 3/4"	Maximum mast overhang <sup>3</sup> .....	30'- 0"
Mast section length.....	4'-11 3/8"	Maximum mast tie spacing <sup>3</sup> .....	30'- 0"
Speed .....	0 - 328 fpm	Minimum mast tie spacing .....	24'- 7"
Motors (VFD) .....	3 x 30 hp	Power supply fuses .....	200 Amps
Power requirement <sup>1</sup> .....	480 Volt - 3 phase - 60 Hz	Starting current.....	185 Amps
		Power consumption .....	115 kVA

<sup>1</sup> 480 V phase-phase, 277 V each phase to ground with 120° phase shift between phases. 3-phase, 60 Hz power supply plus ground wire. Do not use Open-Delta supply.

<sup>2</sup> Requires use of an embedded foundation frame in lieu of mast anchor expansion bolts. See operation manual or contact Morrow engineering for specific information.

<sup>3</sup> Overhang and mast tie spacing figures vary. See operation manual or contact Morrow engineering for specific information.

### WEIGHTS

Base enclosure (without car or motor).....	2,340 lbs	Hoist car (without motorpack).....	3,610 lbs ea.
Base enclosure (with car & motor).....	8,600 lbs	Mast section (single rack) .....	254 lbs ea.
Motorpack (3 x 30 hp) (with panel).....	2,650 lbs	Mast section (double rack).....	298 lbs ea.

### SAFETY FEATURES

- Electronic and mechanical door interlocks on hoist car and base enclosure doors.
- Automatic stop and final limit switches limit hoist car travel when reaching end positions.
- Main "ON/OFF" switch lockable to prevent unauthorized operation.
- Hydraulic buffers.
- NO counterweights required.

### KEY FEATURES

- Hi-speed capability provides increased productivity delivering personnel and material more quickly.
- Equipped with highly efficient variable frequency drives for smooth, economical and dependable operation.
- Mast sections can be added without special equipment.
- Modular design facilitates ease of transport, erection and dismantlement.
- Recessed stainless steel control panel.
- ALC-II collective control system internal fault diagnostics system.
- A3 remote diagnostics system offers advantage of continuous and prompt service support.

**IMPORTANT:** Refer to manufacturer's manual before installing, operating, servicing, repairing, jumping or dismantling hoist. This datasheet contains general information for a "typical" FC 6800-12 HS (650 FC-S 31/39) Hi-Speed single car installation. For dimensions, reaction forces, mast tie locations, alternate configurations and special applications, contact Morrow Equipment.

Specifications and equipment shown are subject to modification without prior notification. This product and its components must be used in a safe manner, in conformity with manufacturer's specifications and in compliance with all applicable standards, codes, regulations, etc.

