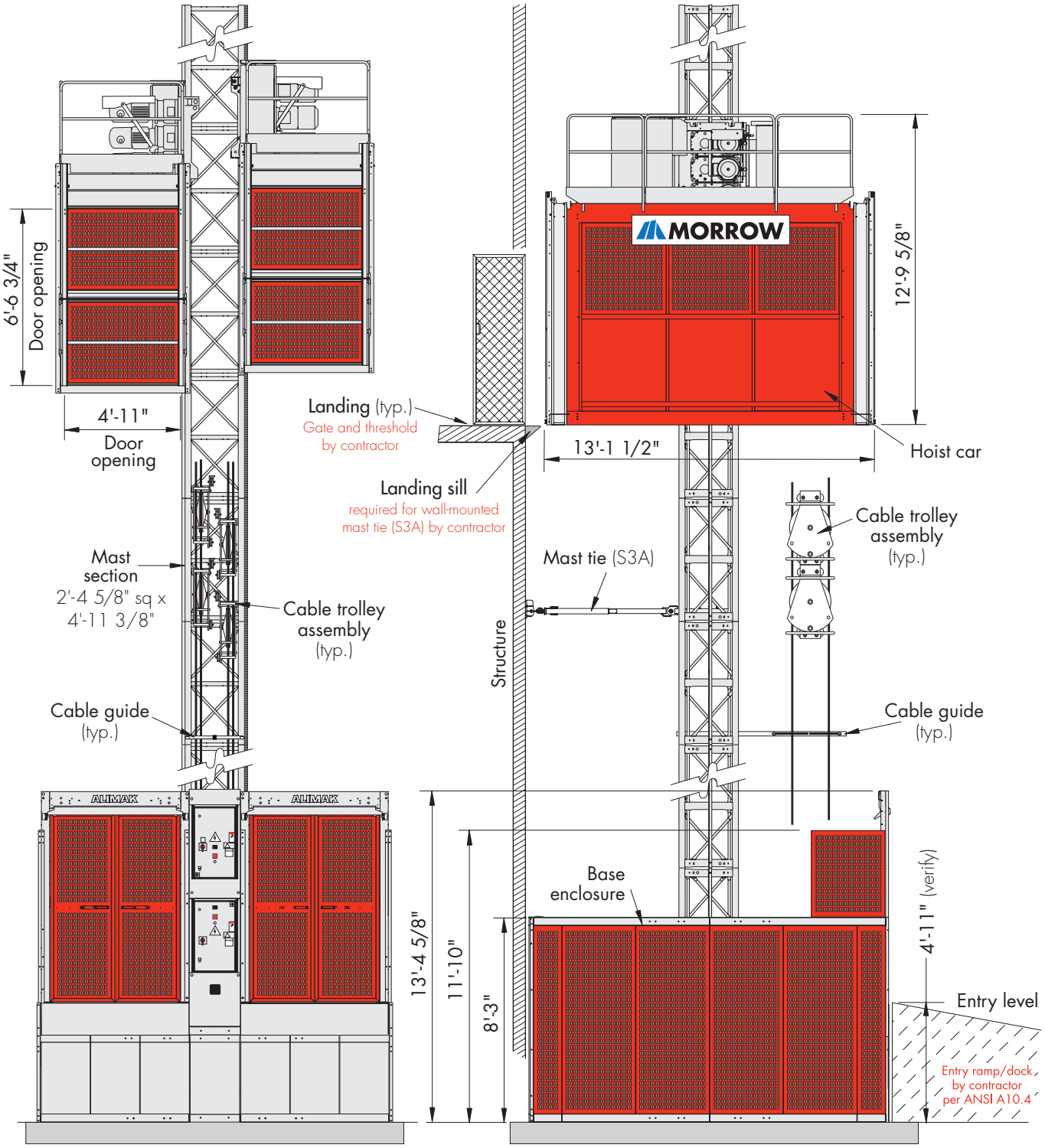
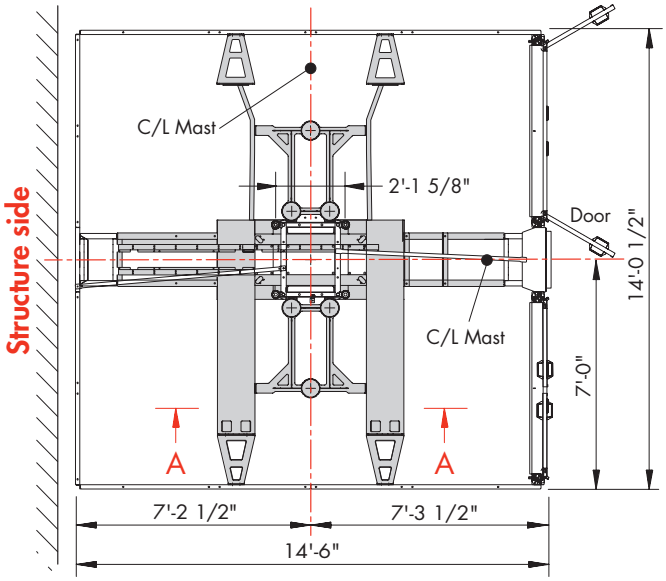
Alimak FC 6800-12D HS

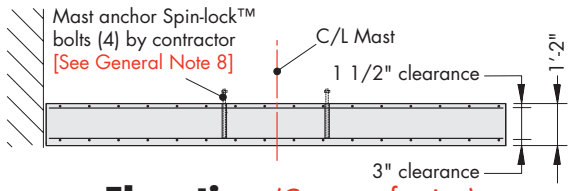
Model 650 FC-S 31/39 Hi-Speed Dual Car Construction Hoist



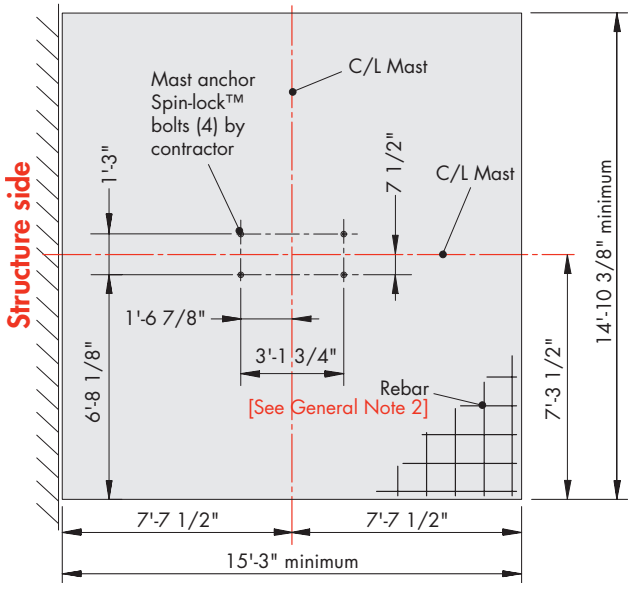
Foundation Details



Plan View
Dual base enclosure

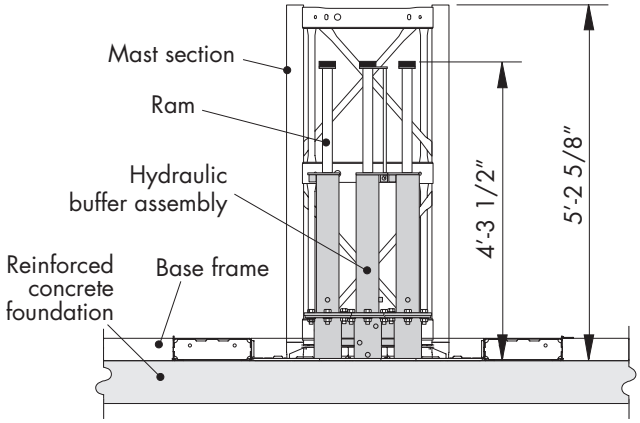


Elevation (Concrete footing)



Plan View
Concrete footing

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

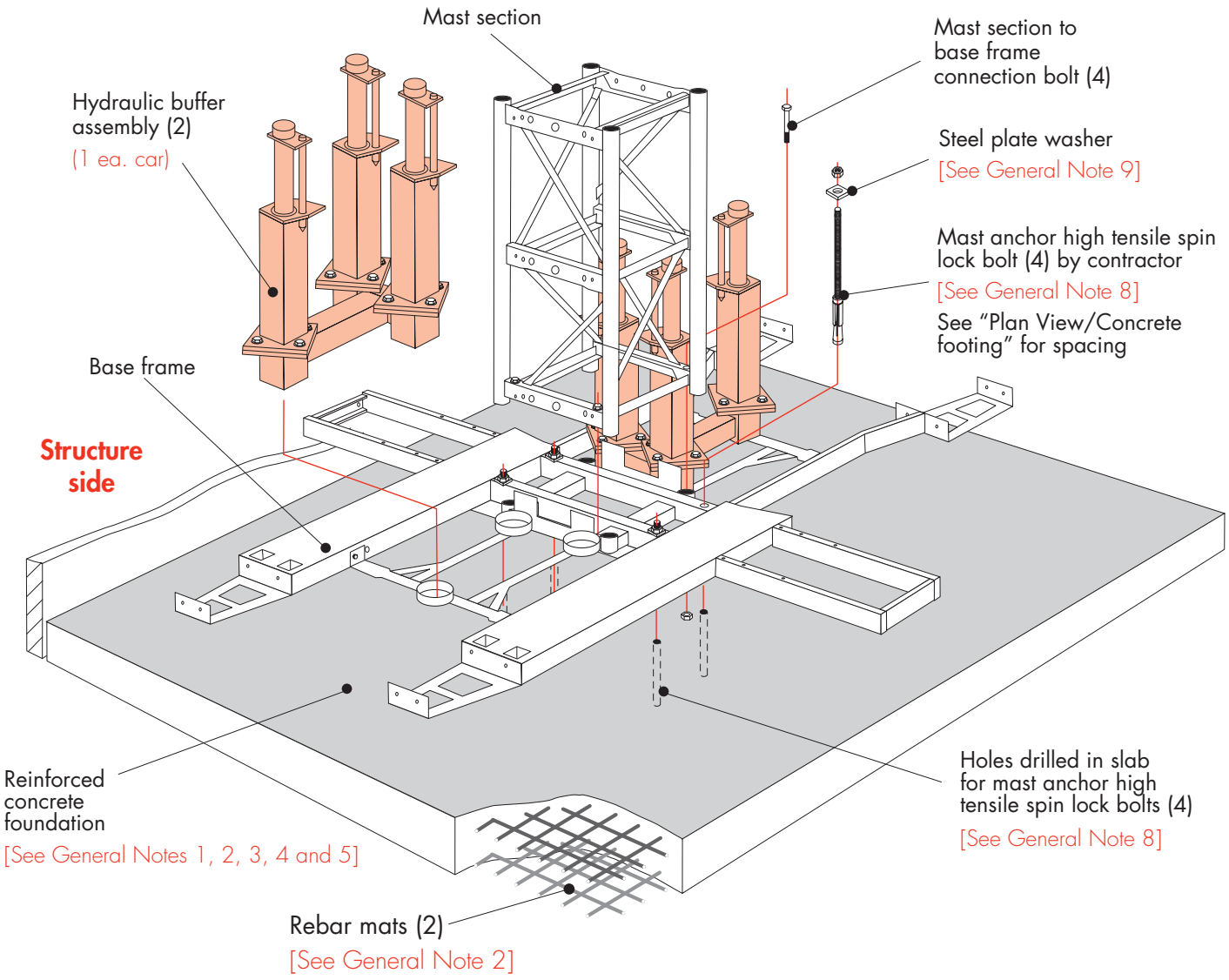


Mast Base
Section A-A

GENERAL NOTES

1. Foundation: 15'-3" x 14'-10 3/8" x 1'-2" with 3,625 psi concrete at 28 days.
2. Rebar: #5 ASTM A615–60 12" o.c. each way, top and bottom. (See 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 6800-12D HS installation. Contact Morrow for additional information.

Foundation Details

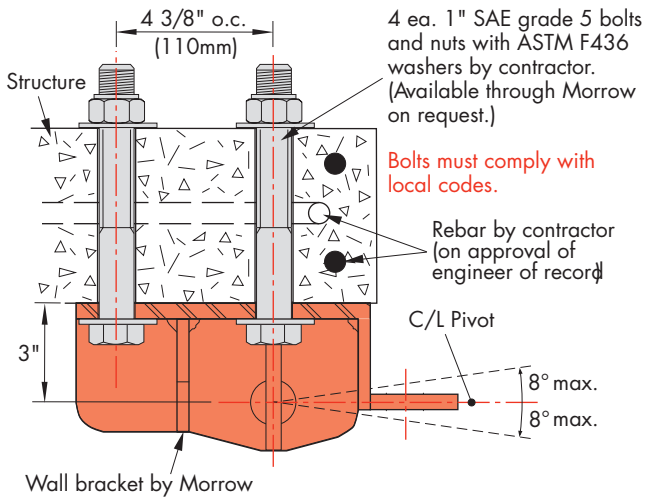


Foundation View
Typical Dual Car Installation

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.

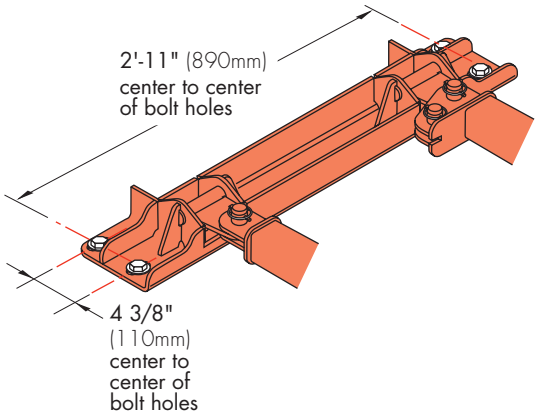
Tie Details (S3A System) • slab mounted



Mast Tie Connection

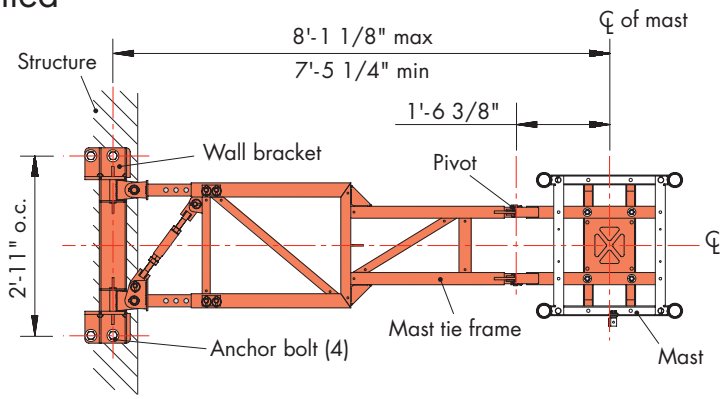
Slab mounted – Side view

Bottom attachment type



Slab Bracket

Typical – Isometric views

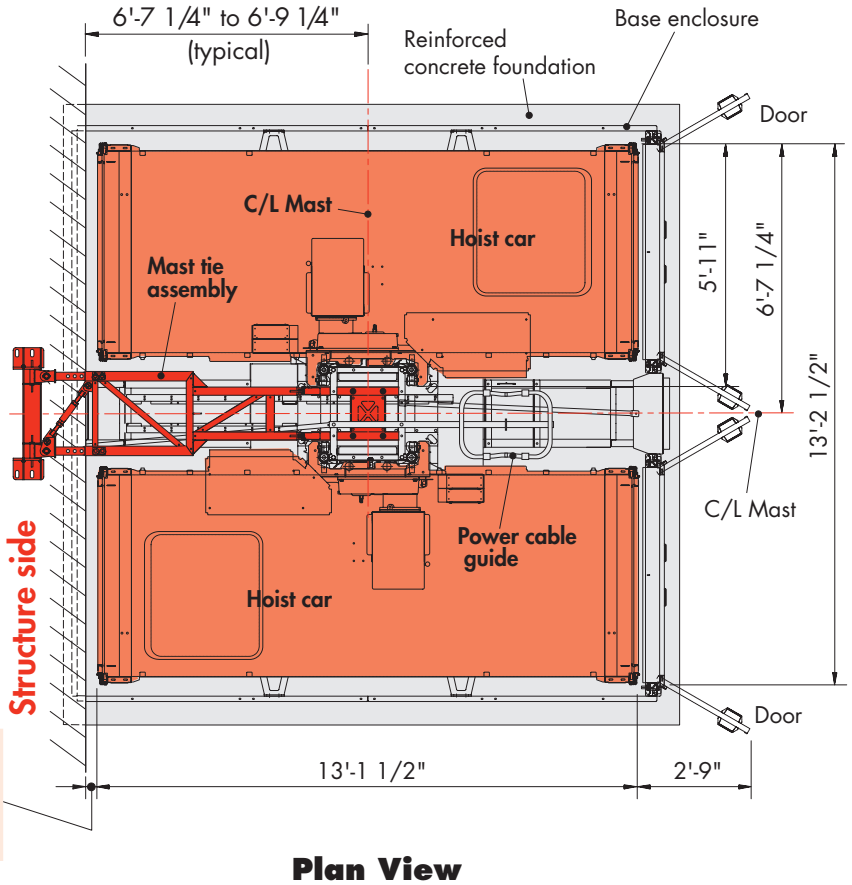


Mast Tie Assembly

Plan view

Note: Mast tie assemblies may be installed between ±8° from the horizontal.

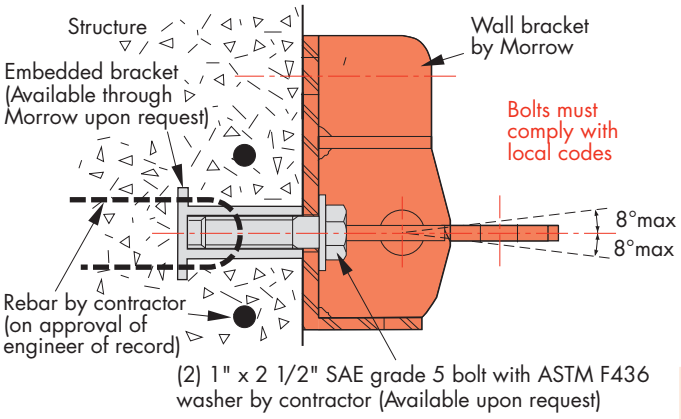
Important: An additional 3" in mast tie length is added when using a wall-mounted tie connection.



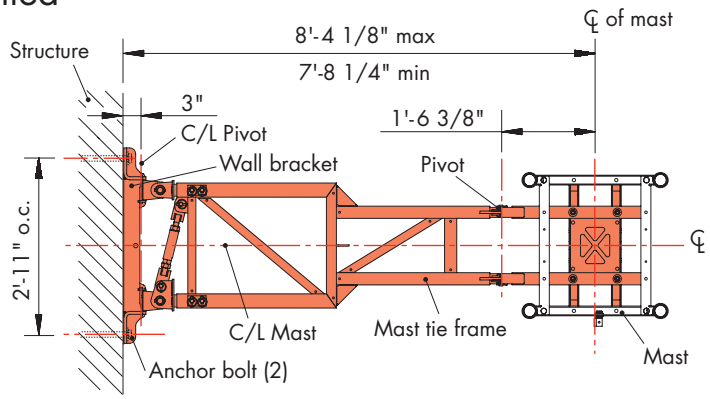
Plan View

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



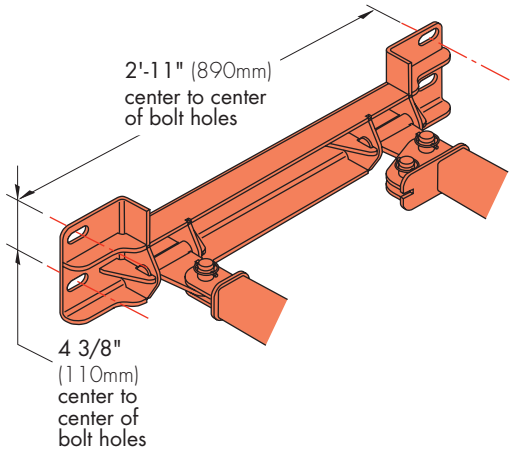
Mast Tie Connection
Face mounted – Side view
Wall attachment type



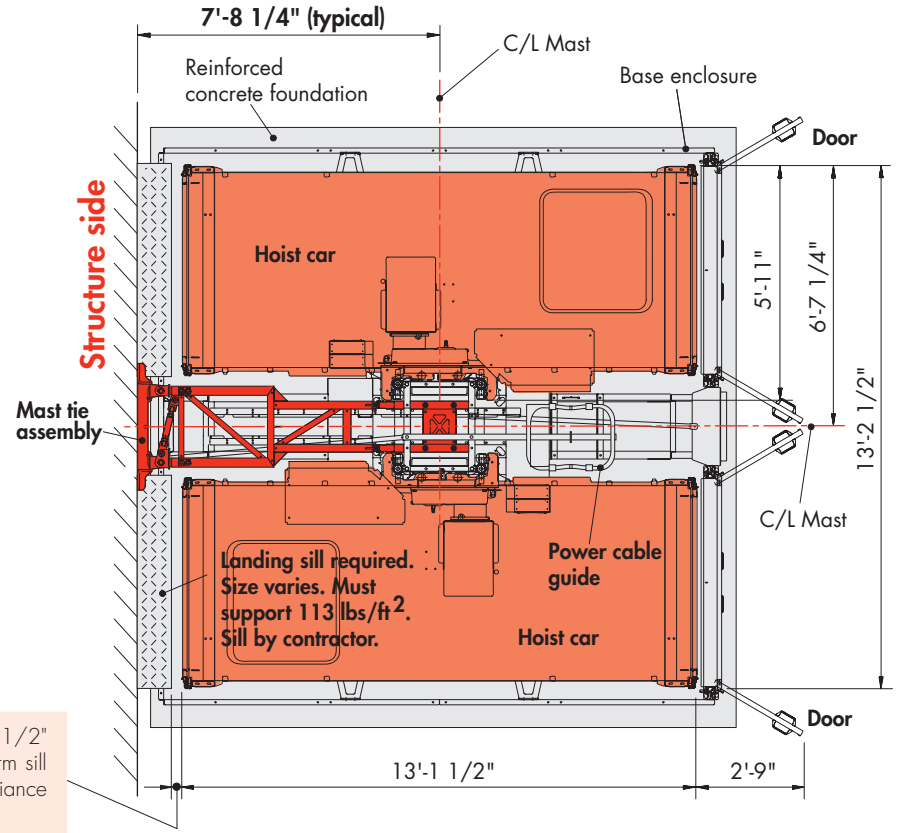
Mast Tie Assembly
Plan view

Note: Mast tie assemblies may be installed between ±8° from the horizontal.

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



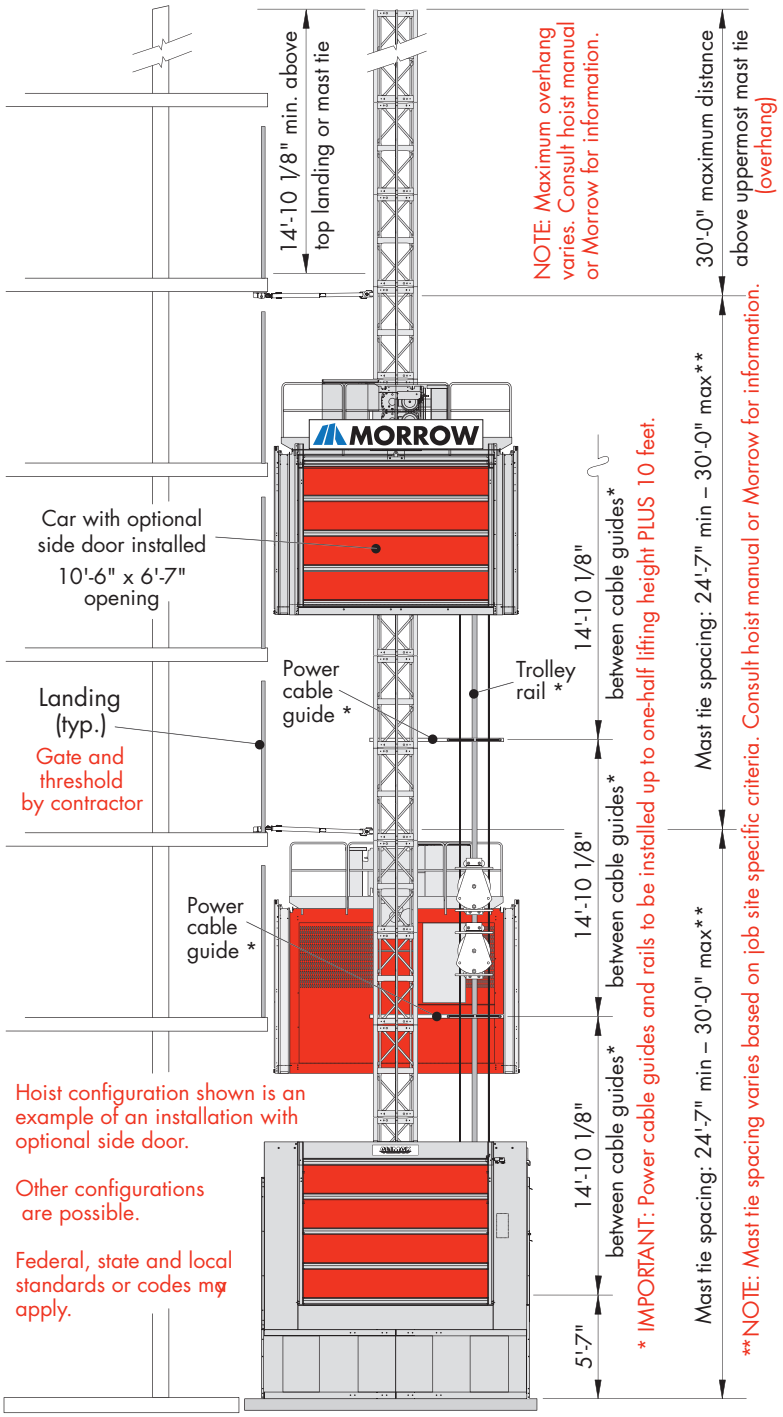
Wall Bracket
Typical – Isometric views



Plan View

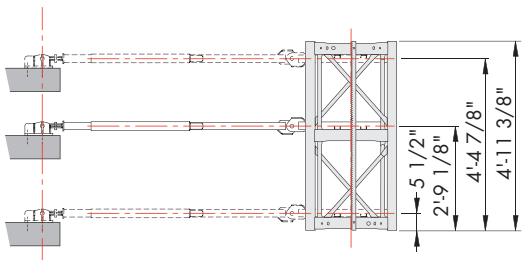
IMPORTANT: ANSI A10.4 11.3 specifies a 1/2" (min.) to 2 1/2" (max.) clearance between car platform sill and landing sill. Verify before installing to assure compliance with applicable standards, codes and regulations.

Tie-in Details

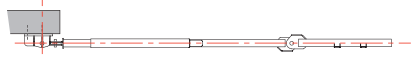


NOTE: Engineer of record to verify that slab/wall is adequate for anchor forces

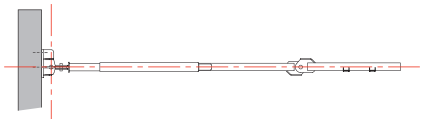
Maximum mast tie spacing is based on ANSI A10.4.



Attachment Type A: Mast tie with tie-in bracket mounted on top of reinforced slab.



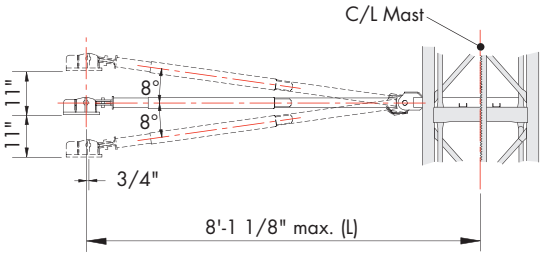
Attachment Type B: Mast tie with tie-in bracket attached to bottom of reinforced slab.



Attachment Type C: Mast tie with tie-in bracket mounted on face of reinforced structure.

Mast Tie
Attachment points/types

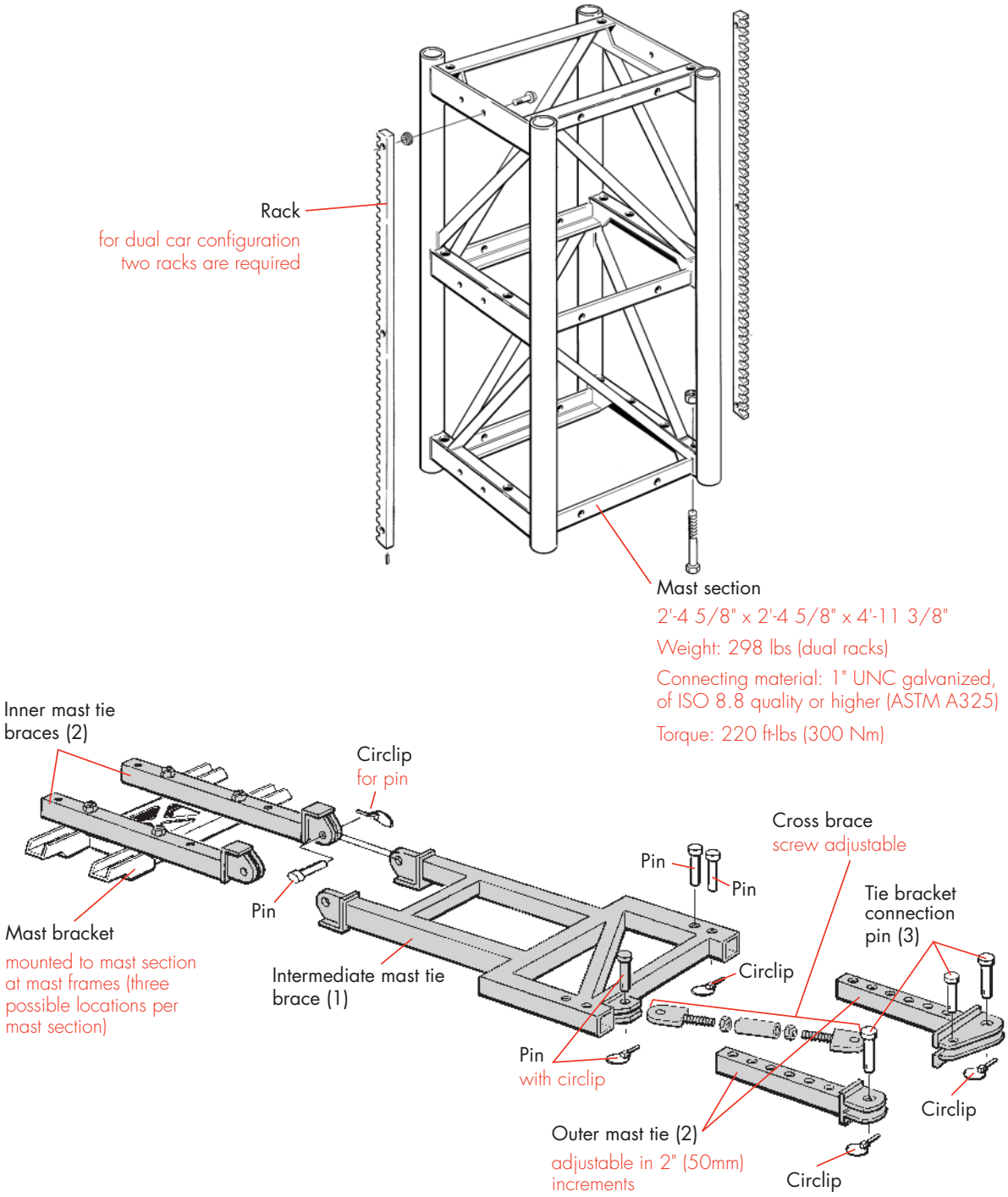
NOTE: When wall bracket is mounted to face of structure, an additional 3" (75mm) is added to the distance from the centerline of mast to the point of bracket attachment to structure



Mast Tie
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.

Tie Details (S3A System) • components



S3A System Mast Tie Assembly
Exploded view

SPECIFICATIONS

GENERAL

Max. load capacity .....6,835 lbs per car
Car inside dimensions (approx.) ....12'-9" x 4'-11" x 7'-6 1/2"
Door opening .....6'-6 3/4" x 4'-10 3/4"
Mast section length.....4'-11 3/8"
Speed .....0 - 328 fpm
Motors (VFD) (per car).....3 x 30 hp
Power requirement [1].....480 Volt - 3 phase - 60 Hz

Max. height on standard masts .....660'
Max. freestanding mast height [2].....30'-0"
Maximum mast overhang [3] .....30'-0"
Maximum mast tie spacing [3] .....30'-0"
Minimum mast tie spacing .....24'-7"
Power supply fuses (per car).....200 Amps
Starting current (per car).....185 Amps
Power consumption (per car) .....115 kVA

[1] 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.**
[2] Requires use of an embedded foundation frame in lieu of mast anchor expansion bolts. See operation manual or contact Morrow engineering for specific information.
[3] Overhang and mast tie spacing figures vary. See operation manual or contact Morrow engineering for specific information.

WEIGHTS

Base enclosure (without car or motor).. 2,690 lbs *(per car)*
Base enclosure (with car & motor)..... 9,700 lbs *(per car)*
Motorpack (3 x 30 hp) ..... 2,650 lbs *(per car)*

Hoist car (without motorpack).....4,360 lbs ea.
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 6800-12D HS (650 FC-S 31/39 II) Hi-Speed dual 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.