

AISC CODE OF STANDARD PRACTICE
TOLERANCES FOR SETTING ANCHOR RODS

7.5.1. Anchor rods, foundation bolts and other embedded items shall be set by the owner's designated representative for construction in accordance with embedment drawings that have been approved by the owner's designated representative for design and construction. The variation in location of these items from the dimensions shown in the embedment drawings shall be as follows:

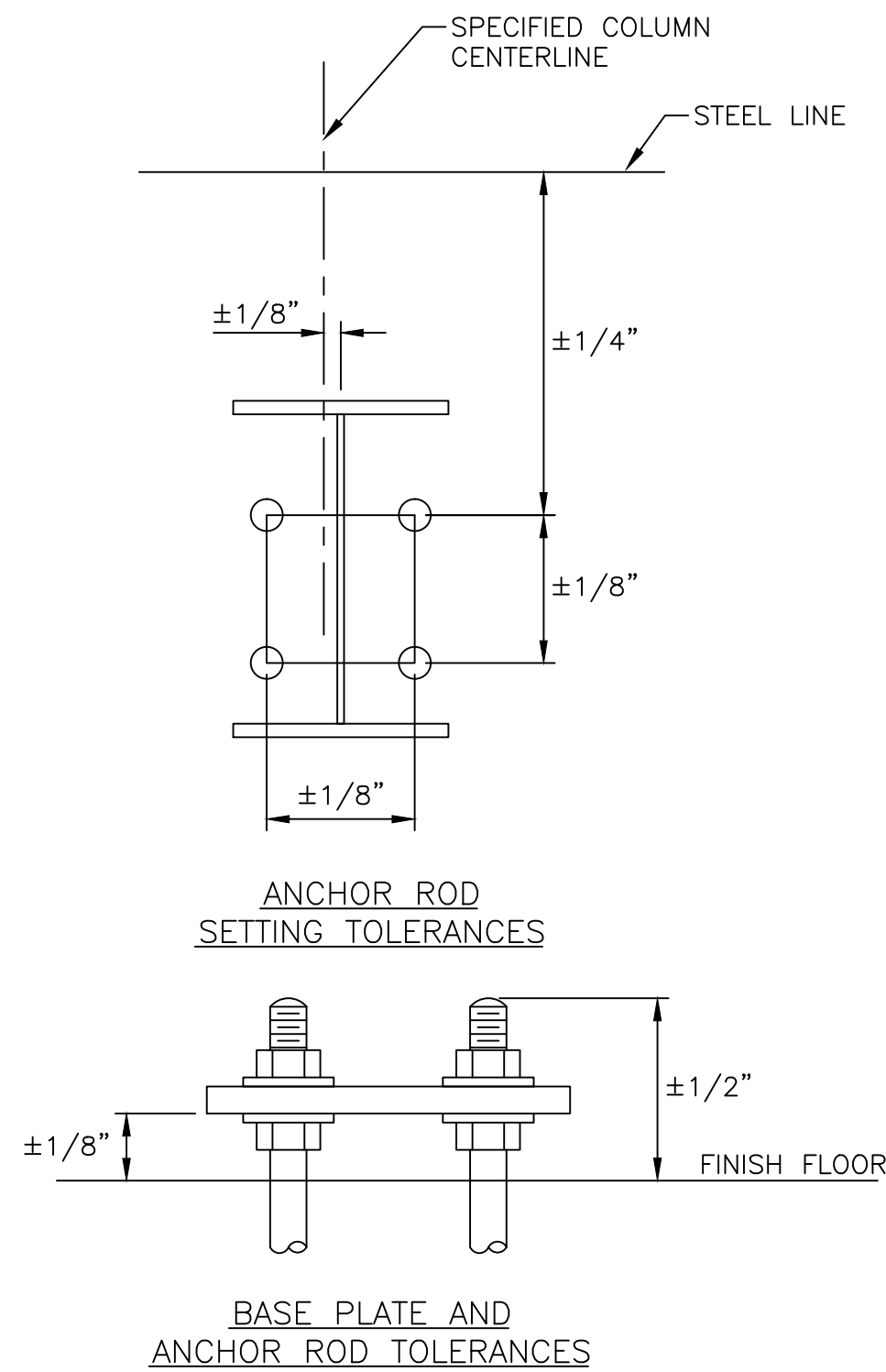
- (a) The variation in dimension between the centers of any two anchor rods within an anchor-rod group shall be equal to or less than 1/8 in. [3 mm].
- (b) The variation in dimension between the centers of adjacent anchor-rod groups shall be equal to or less than 1/4 in. [6 mm].
- (c) The variation in elevation of the tops of anchor rods shall be equal to or less than plus or minus 1/2 in. [13 mm].
- (d) The accumulated variation in dimension between centers of the anchor-rod groups along the column line through multiple anchor-rod groups shall be equal to or less than 1/4 in. per 100 ft [2 mm per 10000 mm], but not to exceed a total of 1 in. [25 mm].
- (e) The variation in dimension from center of any anchor-rod group to the column line through that group shall be equal to or less than 1/4 in. [6 mm].

The tolerances that are specified in (b), (c) and (d) shall apply to offset dimensions shown in the structural design drawings, measured parallel and perpendicular to the nearest column line, for individual columns that are shown in the structural design drawings as offset from column lines.

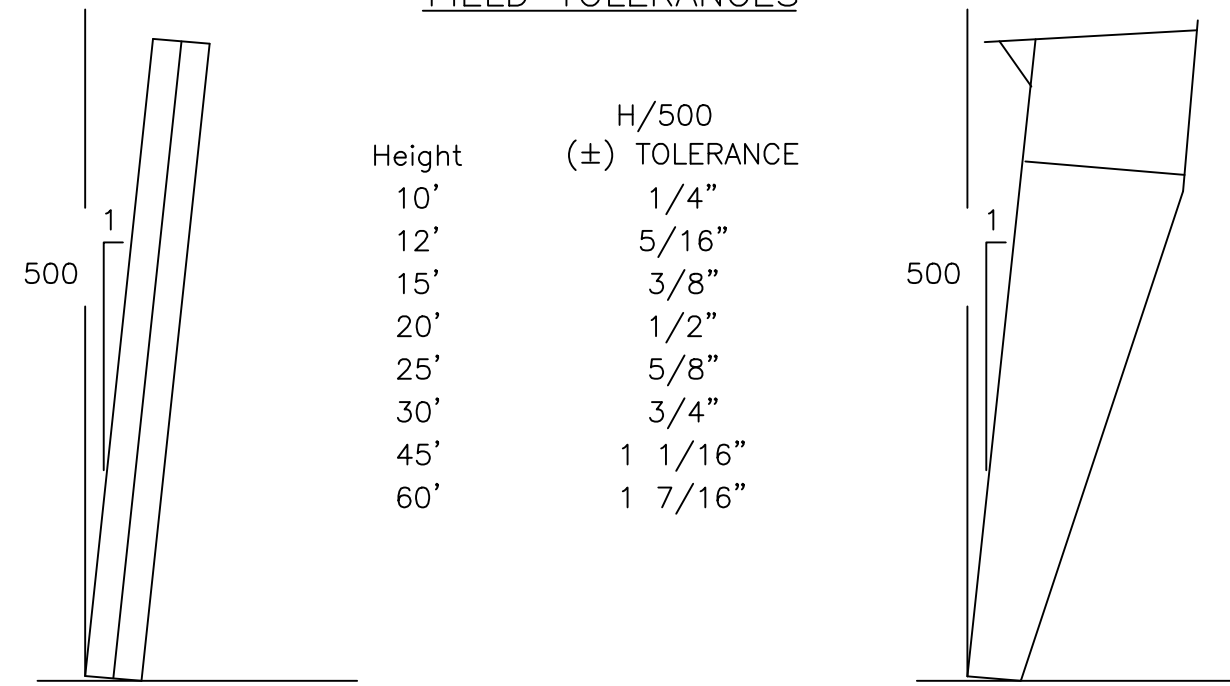
7.5.2. Unless otherwise specified in the contract documents, anchor rods shall be set with their longitudinal axis perpendicular to the theoretical bearing surface.

7.5.3. Embedded items and connection materials that are part of the work of other trades, but that will receive structural steel, shall be located and set by the owner's designated representative for construction in accordance with an approved embedment drawing. The variation in location of these items shall be limited to a magnitude that is consistent with the tolerances that are specified in Section 7.13 for the erection of the structural steel.

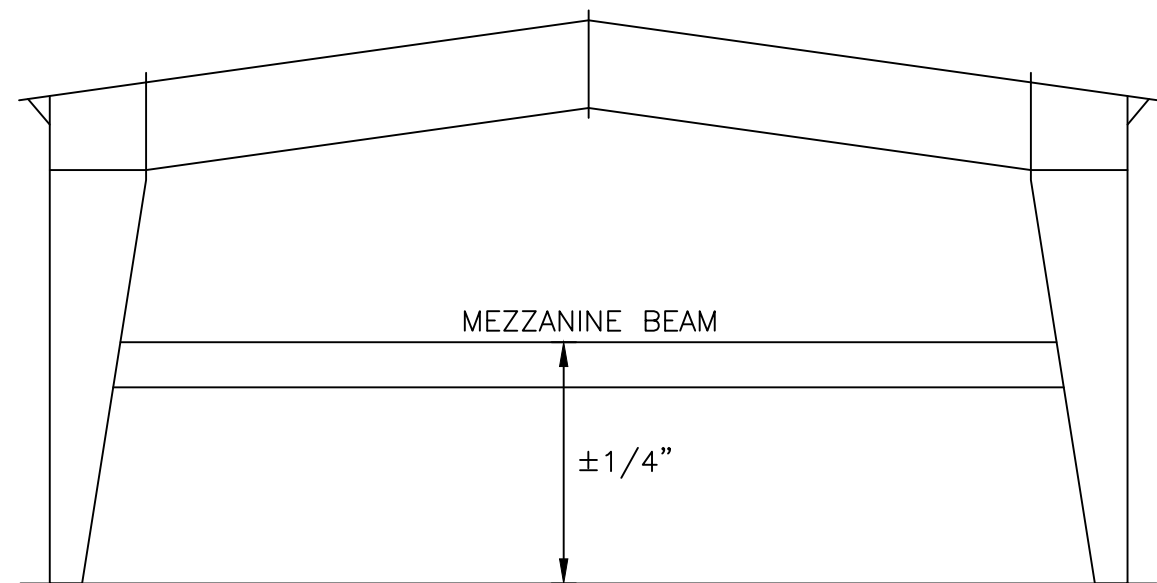
7.5.4. All work performed by the owner's designated representative for construction shall be completed so as not to delay or interfere with the work of the fabricator and the erector. The owner's designated representative for construction shall conduct a survey of the as-built locations of anchor rods, foundation bolts and other embedded items, and shall verify that all items covered in Section 7.5 meet the corresponding tolerances. When corrective action is necessary, the owner's designated representative for construction shall obtain the guidance and approval of the owner's designated representative for design.



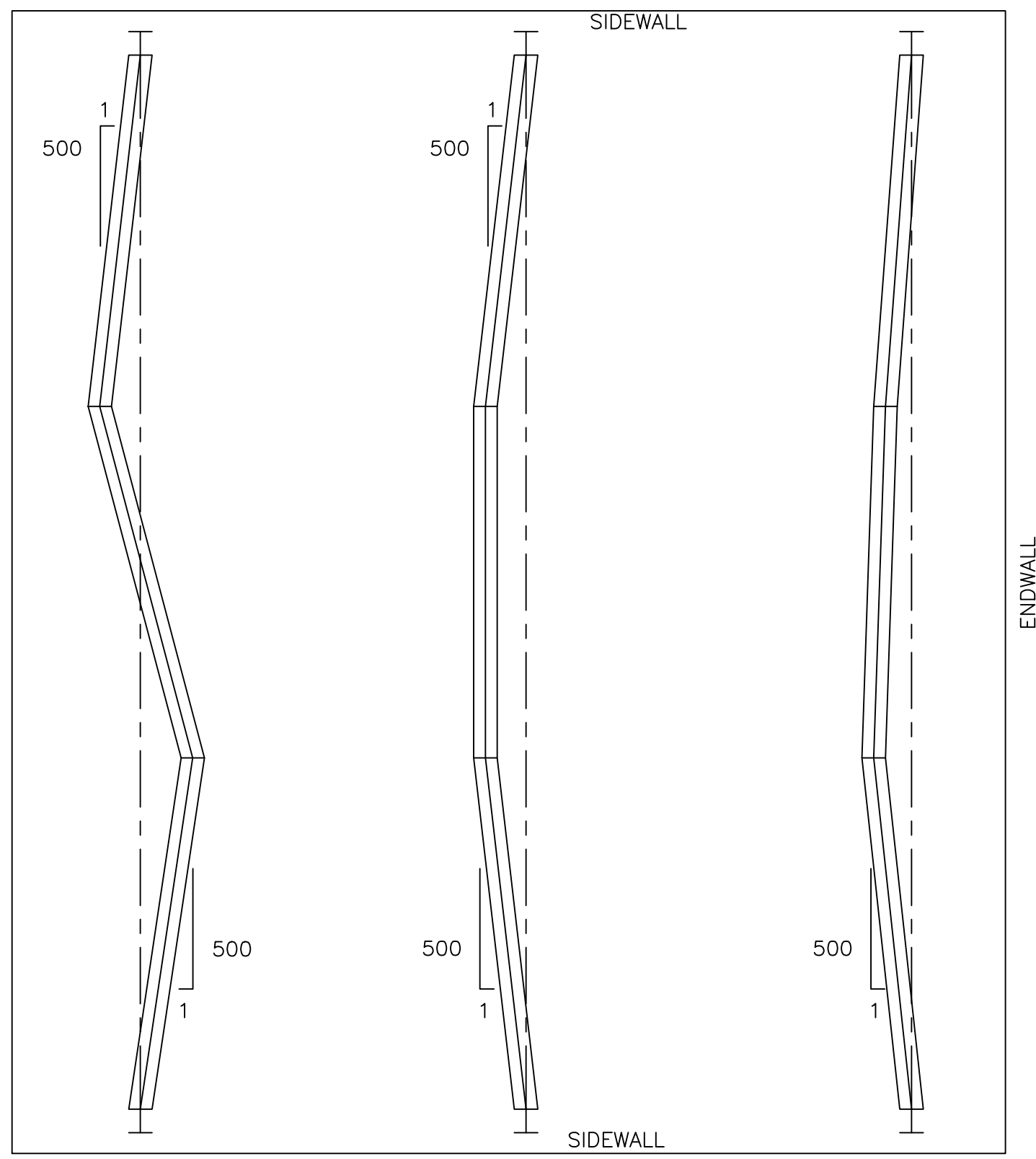
FIELD TOLERANCES



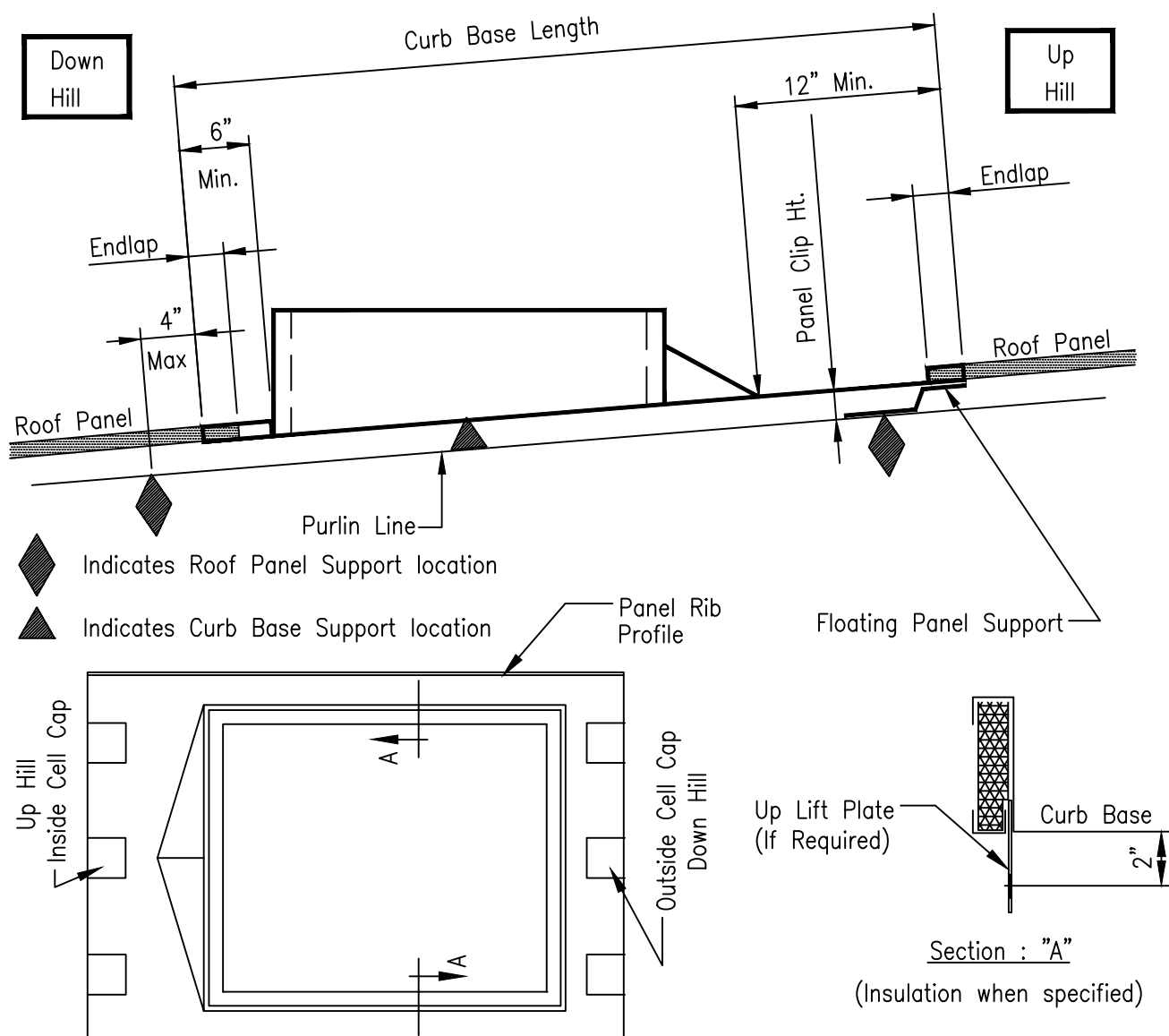
COLUMN ALIGNMENT TOLERANCES



MEZZANINE BEAM HEIGHT TOLERANCE



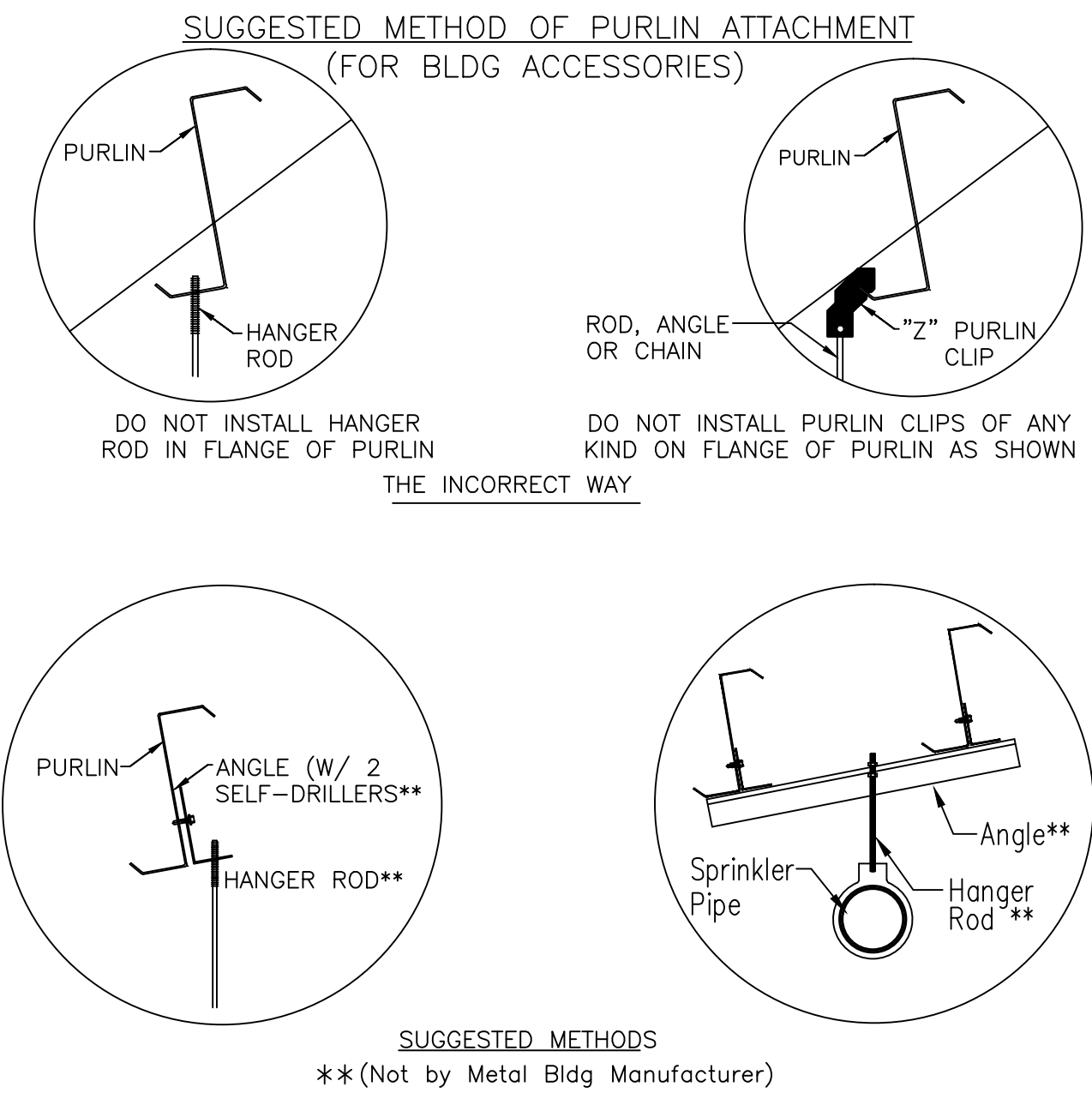
ALIGNMENT TOLERANCE FOR MEMBERS WITH FIELD SPLICES



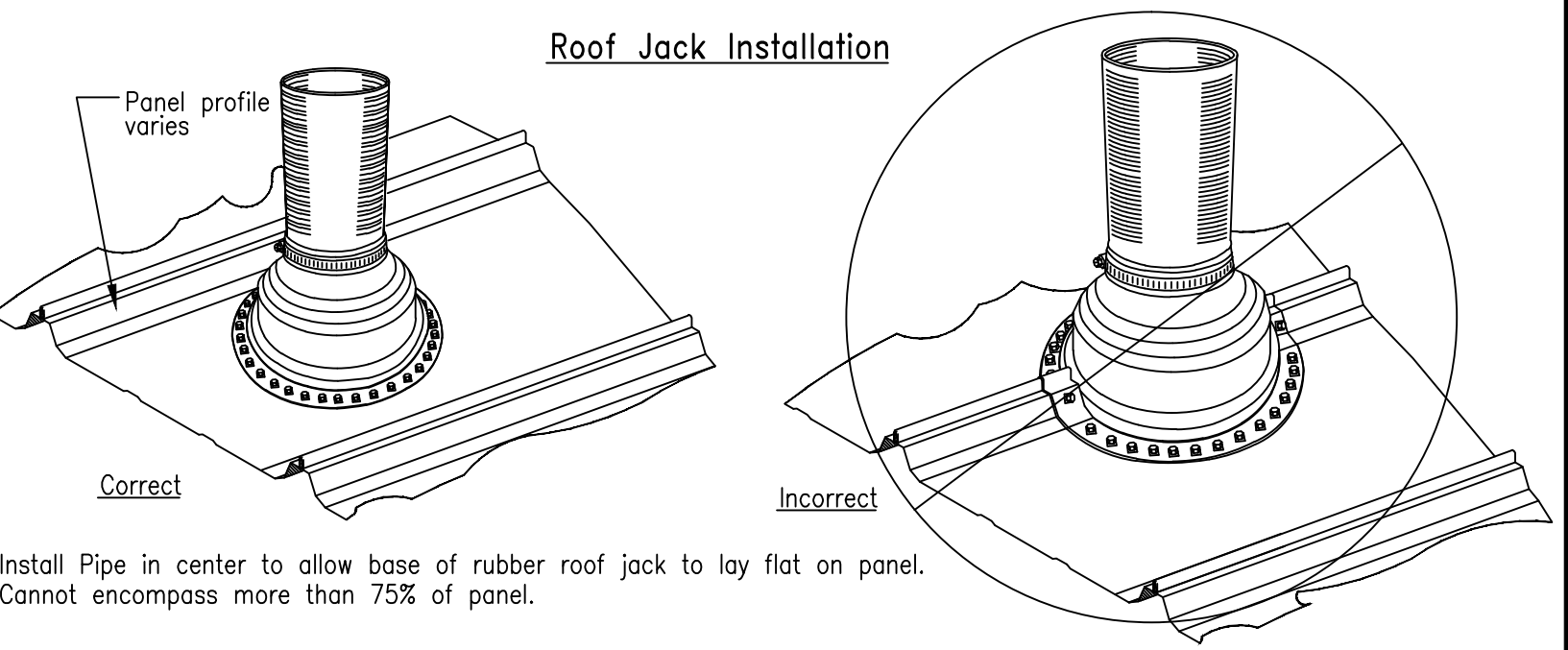
The curb details shown illustrate the building manufacturers recommended curb style and installation method. It is the erector / installer's responsibility to provide the proper curb style and install them in accordance with the procedures established by these details. Failure by the erector / installer to follow these recommendations may result in the curbs damaging the roof system or excluded from warranties.

- All roof curbs to be:
- .080 Aluminum or 18ga. Stainless (No Galvalume/No Galvanized)
 - Panel rib to rib installation (No flat skirt or lay-over Curbs)
 - Installed over low end / under high end application for water flow at panel splice
 - Up lift prevention for clip applied roof systems are required if:
 - a. Wind load exceeds 110 mph or
 - b. Curb base crosses a purlin
 - Supported on (4) four side by primary or secondary framing
 - Max Single Curb weight Recommend = 1500#

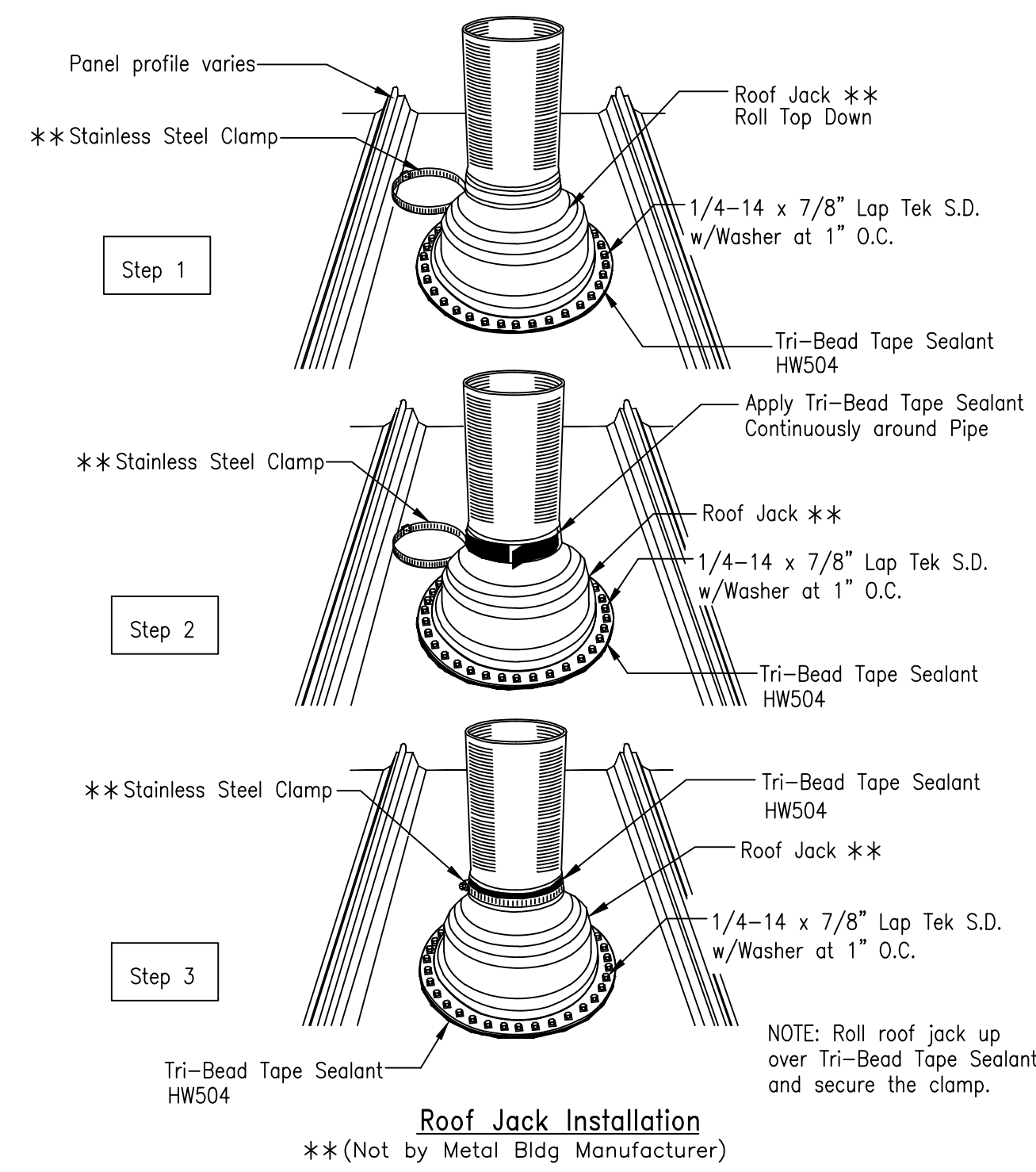
Roof Curbs
(When not Supplied by Building Manufacturer)



An angle is self-tapped to the web of the purlin to catch hanger rod. This method does not preclude other forms of attachment to the purlin web.
The total hanger load shall not exceed the design collateral load for the building. a sample calculation is shown below:
5' (purlin spacing) x 5' (hanger spacing) x 6 psf (collateral load) = 150 lbs.
See cover sheet for design collateral load for this building.
Note: If this building is designed for 0 psf collateral load, then adding any suspended system (ie. duct work, piping, lights, ceilings, etc.) will correspondingly reduce the design live load.



- Do not use galvanized roof jacks, lead hats or other residential grade roof jacks. These roof jacks do not have 20-year service life and, in the case of lead hats, will cause galvanic corrosion of the roof panels.
- Use EPDM rubber roof jacks with an integral aluminum band bonded into the perimeter of the base. For high temperature applications (200-400 degrees Fahrenheit) use silicone rubber roof jacks. Retrofit rubber roof jacks are available for applications in which the top of the pipe is inaccessible, eliminating the possibility of sliding the roof jack over the top of the pipe.
- Do not use tube caulk/silicone to seal roof jack to the roof panels. Use only tape sealant as supplied by Metal Bldg Manufacturer. Fasten the roof jack to the roof panels with 1/4"-14 x 7/8" Lap Tek Stitch Screws at 1" on center around base of roof jack.
- Roll down the top of the roof jack and apply tape sealant continuously around the exposed portion of the pipe. Roll the top of the roof jack back over the tape sealant. Apply the stainless steel clamp over top of roof jack and firmly tighten to form a secure compression seal.
- Do not install a pipe through the standing seam of the roof panel. Keep pipe penetration in center of panel to allow the base of the rubber roof jack to seal to the pan of the panel. If a pipe must be installed through a panel seam, or if the pipe diameter is so large to block the flow of water down the roof panel, you must install a "pipe curb" into the roof and then seal the pipe curb with rubber roof jack. For pipes in which top cannot be accessed, a two-piece pipe curb is available.
- In Northern climates, protect all pipe penetrations from moving ice or snow with a snow retention system immediately up slope from the pipe.



Roof Jack Installation
**(Not by Metal Bldg Manufacturer)

Revision	Date	Description

Ferro Building Systems
103-18292 60TH AVENUE, V5S 3M2
SURREY, BRITISH COLUMBIA
PHONE # 604-530-3224 - FAX # 604-530-9851

Project Name & Location:
FCMP STEEL BUILDING, INNISFAIL AB
HIGHWAY 2, EXIT 365, EAST
INNISFAIL, AB T4G, T5B, CN

Customer:
FERRO BUILDING SYSTEMS LTD
C/O ROYAL CANADIAN MOUNTED POLICE
5600 11TH AVE
REGINA, SK S4P 3J7, CN

Drawing Status:
 Preliminary (Not For Construction)
 For Approval (Not For Construction)
 For Construction Permit
 For Erector Installation

Scale: NOT TO SCALE
 Drawn by: RJA 2/28/13
 Checked by: 2207 3/7/13
 Project Engineer:
 Job Number: 12-B-93855
 Sheet Number: R2 of 12
 The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.