

Anatomy of Madden Cable Rail Systems

Madden offers cable railing using their 3 in. x 3 in. square posts supporting an aluminum frame with either 1/8 in. or 3/16 in. cable infill with tensioner. A cable run will consist of 2 terminal posts and a set of intermediate line posts based on the length of the run. Max runs between terminal posts should not exceed 60ft. When you have a run that's longer than 60 ft., use additional terminal posts following the rule of no more than 60ft. between runs or terminal posts. Cable frames between all posts should be used in all runs. Cables are recommended to be spaced every 3 in. (to be code compliant) or can be customized onsite to job specific requirements. 9 cables high for a residential 36 in. installed height railing, or 11 cables high for a 42 in. commercial installed height is usually the best practice. Each cable will require a tensioner with a stud on one end and a stud only on the opposite end of the cable. Studs along with tensioners with studs are what anchor your cable to the terminal posts in the cable run. Cables are always run in straight lines; cables that must make a turn or elevation change are ALWAYS terminated with a terminal post and a new run begun in the direction of the turn or change in elevation. Cables cannot make a change in direction as the cables we supply in cable railing are stiffer than most common hardware store cable or winch cable which is not recommended.

Post Kits:

We offer 2 types of 3x3 post: terminal post and intermediate line post. Posts are available in 38 in., and 44 in. height configurations and have an integrated base plate welded to the post for secure mounting.

Key Differences:

1. Purpose:

- Terminal posts anchor and tension the cables.
- Intermediate line posts guide the cables and reduce sagging between terminal posts.

2. Structural Design:

- Terminal posts are structural posts with a thicker wall thickness to handle cable tension loads.

- Intermediate line posts are structural posts with a thinner wall thickness, focusing on cable frame and cable support rather than cable load.

3. Position:

- Terminal posts are used at the ends or corners of a cable run. A terminal post can support load from more than one side, such as a 90 degree turn where the terminal post supports the tensioners on multiple sides of the post.
- Intermediate line posts are placed mid-span between terminal posts with a max of 6ft OC spacing between other 3x3 posts.

4. Customization:

- Madden's terminal posts and intermediate line posts are non-drilled for custom cable spacing, emphasizing flexibility at anchor points.

Cable Frames:

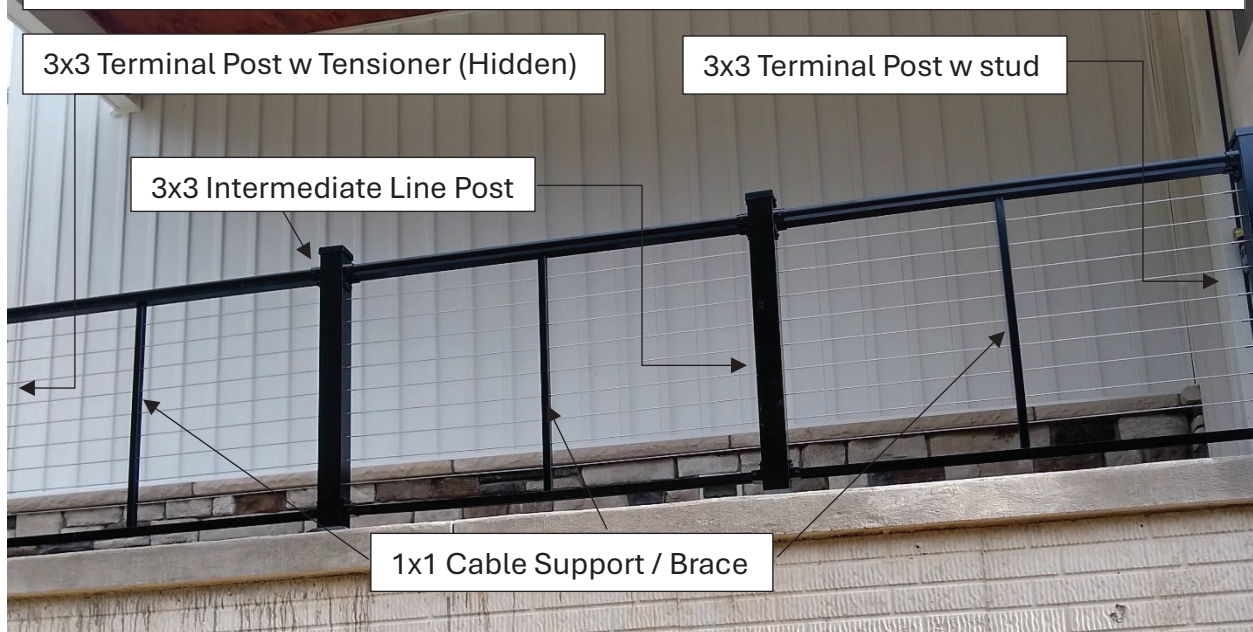
Madden cable frames are designed to fit between 3 in. terminal and/or intermediate line posts with a max span of 6ft. Each cable frame consists of an aluminum top cap, aluminum bottom rail, and a centered 1 in. square baluster with a choice of level bracketry or angle brackets. The 1 in. baluster is non-drilled to allow custom cable spacing and designed to support the cables in the cable run between the posts. The baluster technical name would be a cable support or cable brace. The purpose of the cable support is to limit cable stretch while preventing a gap greater than 4 in. between cables or frames. A gap greater than 4 in. violates the current baluster 4 in. sphere rule for railings.

****Optional Cable Frame Build** - If you prefer to delete the bottom rail: Request a "top cap only cable frame build". We will quote an additional 2 cables and add 1.8 in. square posts with base plate to be used in place of the 1x1 cable support in the cable frames.

We recommend drilling your terminal posts, intermediate post, and cable supports AFTER installation of posts and frames. Creating a template works best, we recommend cable spacing not exceed 3 in. on center. Always move the template to each side of the component to be drilled.

Please review the engineering and photos on the next pages, call or email us with job specific questions.

This cable run is 18 ft. wide; cables pass through the intermediate posts and 1x1 cable supports. MAX run is 60ft. between terminal posts, cable frame max spacing between any post is 6ft., cable support or cable brace max is 3ft from any 3x3 post. Cable is always supported every 3ft regardless of 3x3 post or 1x1 cable support / brace.



Stair Cable Anatomy:

Each Cable to get (2) Stair T-Angle Studs (one for top of stair cable, and one for the bottom stair cable) and (1) stud and stud tensioner.

Stair T-Angle Studs (inside posts)

Stud and Stud Tensioner (center of cable)

3x3 Terminal Post (taller post at bottom)

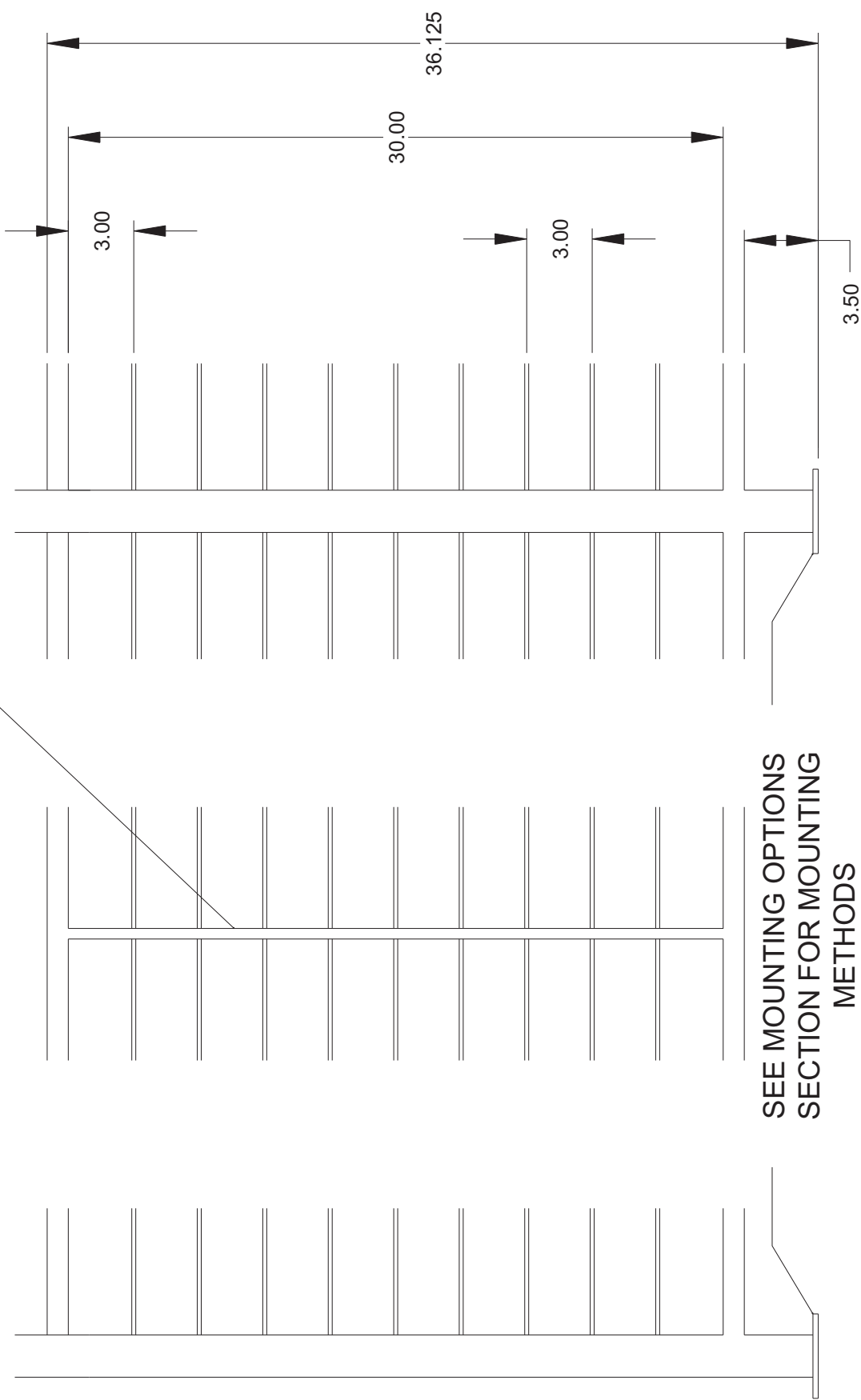
Engineering on next page.



36" HIGH 9-STRAND CABLE RAIL WITH 3" SQ END POSTS
2 1/2" x 1 5/8" MUSHROOM TOP RAIL
1 3/4" x 1" BOTTOM RAIL

SEE RAILING FRAME COMPONENTS
MATERIAL SPECIFICATIONS SECTION

1" X 1" CABLE BRACE



SEE MOUNTING OPTIONS
SECTION FOR MOUNTING
METHODS