

Railing frames need to be designed and built strong enough to support the tension of properly installed cables, which is a load in excess of 300 lbs for each cable. Here are some basic guidelines to help you properly prepare your composite railing frame. These guidelines apply whether you are using 1/8" or 3/16" cable.

## Minimum sizes for all corner and end posts:

All other posts should be sized as required for cap rail support strength or for code.



### 4X4 WOOD

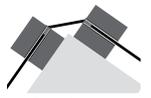
3-1/2" wide, 3-1/2" thick

Note: Softer woods may require larger post sizes, especially for 42" high railings

Cables can either terminate or run through corner posts



Terminating



Continuous

## Basic Frame Design

### Spacing From Walls

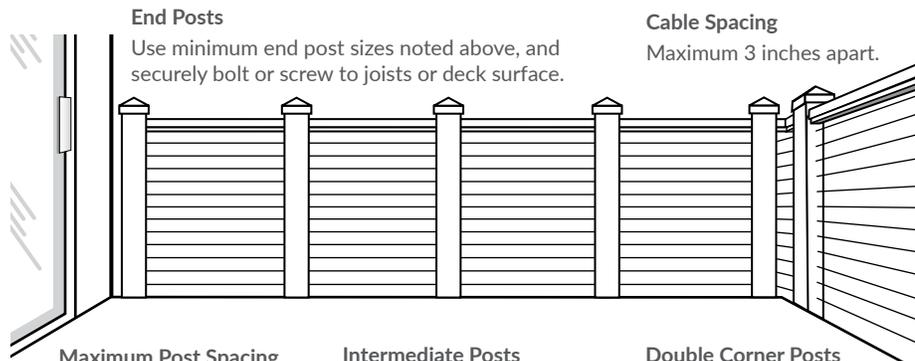
Set end posts 3 to 4 inches away from the house/wall face to allow access for attaching cable end fittings.

### Top Rail

Always include a strong, rigid top rail that is securely fastened to all posts. Minimum recommended size is 2"x 6" wood. Set railing height per local code.

### Wood Blocking

Underneath the top rail attach minimum 1"x 4" wood blocking between posts to provide additional lateral reinforcement to the posts so that they won't pull out of plumb when the cables are tensioned.



### End Posts

Use minimum end post sizes noted above, and securely bolt or screw to joists or deck surface.

### Cable Spacing

Maximum 3 inches apart.

### Maximum Post Spacing

Space all posts and vertical spacers (see below) a maximum of 3 feet apart to minimize any deflection that may occur if the cables are ever forced apart.

### Intermediate Posts

Size all intermediate posts as required for top rail support strength or per local code.

### Double Corner Posts

If possible use double corner posts to allow the cable to run continuously through the corners without terminating (see single corner post option above). Securely bolt or screw posts to joists or deck surface and use minimum corner post sizes noted above.

## CONSTRUCTION CHECKLIST

Observe minimum end/corner post size shown above. Securely fasten all posts and top rails.

Carefully plan all termination and corner posts for proper clearance, positioning, and maximum cable run lengths.

Cables can either terminate or run through corner posts.

Straight runs of cable (no turns/dips) should not exceed 70 feet; runs with corner bends (2 bends at most) should not exceed 50 feet.

Space cables no more than 3 inches apart. Space posts/verticals no more than 3 feet apart.

### Number of cables needed:

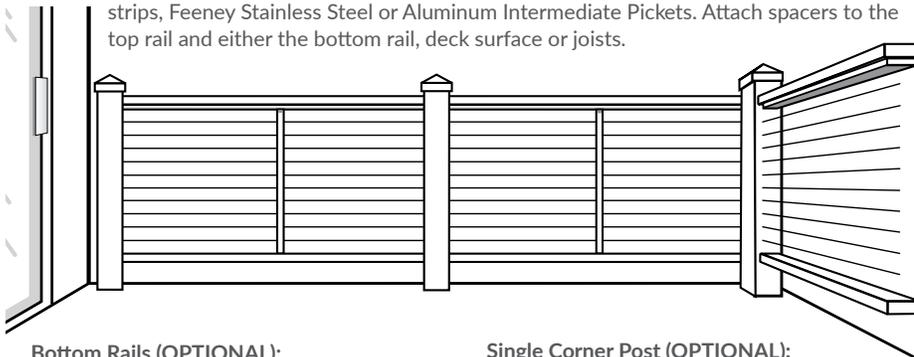
- 36-inch, NO bottom rail = 11 cables
- 36-inch, with bottom rail = 9 cables
- 42-inch, NO bottom rail = 13 cables
- 42-inch, with bottom rail = 11 cables

To tension cable railing: start at the center cable and alternate.

## Other Frame Options

### Vertical Spacers (OPTIONAL):

Slender spacers may be used instead of some of the larger intermediate posts to achieve a more open railing design. These are non-structural members and are only intended to maintain cable spacing and minimize deflection. you may use 2"x2" wood strips, Feeney Stainless Steel or Aluminum Intermediate Pickets. Attach spacers to the top rail and either the bottom rail, deck surface or joists.



### Bottom Rails (OPTIONAL):

Bottom rails should be spaced no more than 4 inches above the deck surface, or as required by local code, and should be sized as needed for support strength and design appearance.

### Single Corner Post (OPTIONAL):

At single corner wood posts, cables must be terminated. When terminating on a single corner post, be sure to offset the drill holes at least 1/2" to allow internal clearance for the cable fittings. Use minimum end post sizes noted above and securely bolt or screw to joists or deck surface.

## IMPORTANT NOTES

Please note that since building codes vary by state, county and city, our recommendations may not comply with code requirements in all areas.

Always consult with your local building department before starting your project.

Immediately following installation, the product should be cleaned, followed by a regular maintenance schedule. For areas within 1 mile of salt or brackish water, cleaning must be performed quarterly. More details online:

[feeneyinc.com/Warranty-and-Care](http://feeneyinc.com/Warranty-and-Care)