

Use of Connectors & Fasteners in damp or wet locations or in contact with Preservative-Treated Wood

The following minimum requirements must be adhered to when using Connectors and Fasteners in **damp and wet locations** or when attaching to **Preservative-Treated Wood**. This includes the use of straps, anchoring devices, joist hangers, and other metal brackets and connectors and the fasteners that are used to secure them, such as lag screws and nails.

All construction within 300 feet of a saltwater shoreline, including bays and rivers or salt water, must use Type 304 or 316 stainless steel Connectors and Fasteners

ONE & TWO FAMILY CONSTRUCTION - INTERNATIONAL RESIDENTIAL CODE (IRC)

Connectors (joist hangers, straps, brackets, etc):

- Minimum Type G185 zinc-coated galvanized steel (ASTM A653)
- Minimum Type G185 post hot-dipped galvanized (ASTM A123)
- Stainless steel

Nails:

- Minimum Type G185 Hot-dipped galvanized (ASTM A153) Class D-<3/8-inch diameter
- Silicon bronze or copper

Lag Screws:

- Hot-dipped galvanized per ASTM A153, Class C->3/8-inch, Class D-<3/8 diameter
- Mechanically galvanized per ASTM B695, Class 55
- 410 stainless steel
- Silicon bronze or copper

CONSTRUCTION UNDER THE INTERNATIONAL BUILDING CODE (IBC)

Connectors (joist hangers, straps, brackets, etc):

- Minimum Type G185 zinc-coated galvanized steel
- Type 304 or 316 stainless steel

Fasteners (including nuts and washers):

- Minimum Type G185 hot-dipped zinc-coated galvanized steel
- Stainless steel, silicon bronze or copper
- Staples shall be of stainless steel

Note: manufacturer's recommendations specifying more stringent requirements must be followed

References

IRC R507.2.3 & IRC Table R507.2.3

IBC 2304.10.6.

American Society of Mechanical Engineers (ASME) 24 C.5

American Society for Testing and Materials (ASTM) A276

ASTM A653

ASTM F1667

ASTM A153

ASTM A123

ASTM B695

FEMA Technical Bulletin 8 *Corrosion for Metal Connectors in Coastal Areas* (FEMA 2019)

FEMA *Improving connections in elevated coastal, residential buildings* RA1, 2013

FEMA P-499 (2010) *Homebuilders Guide to Coastal Construction*, Fact Sheet no. 4.3