

Refer to **Z-IDC Reference Manual, 201-205-001**, for additional information.

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Tools Required:

- Flat-blade screwdriver
- Wrenches: 9 mm , 10 mm, 12 mm, and 17 mm

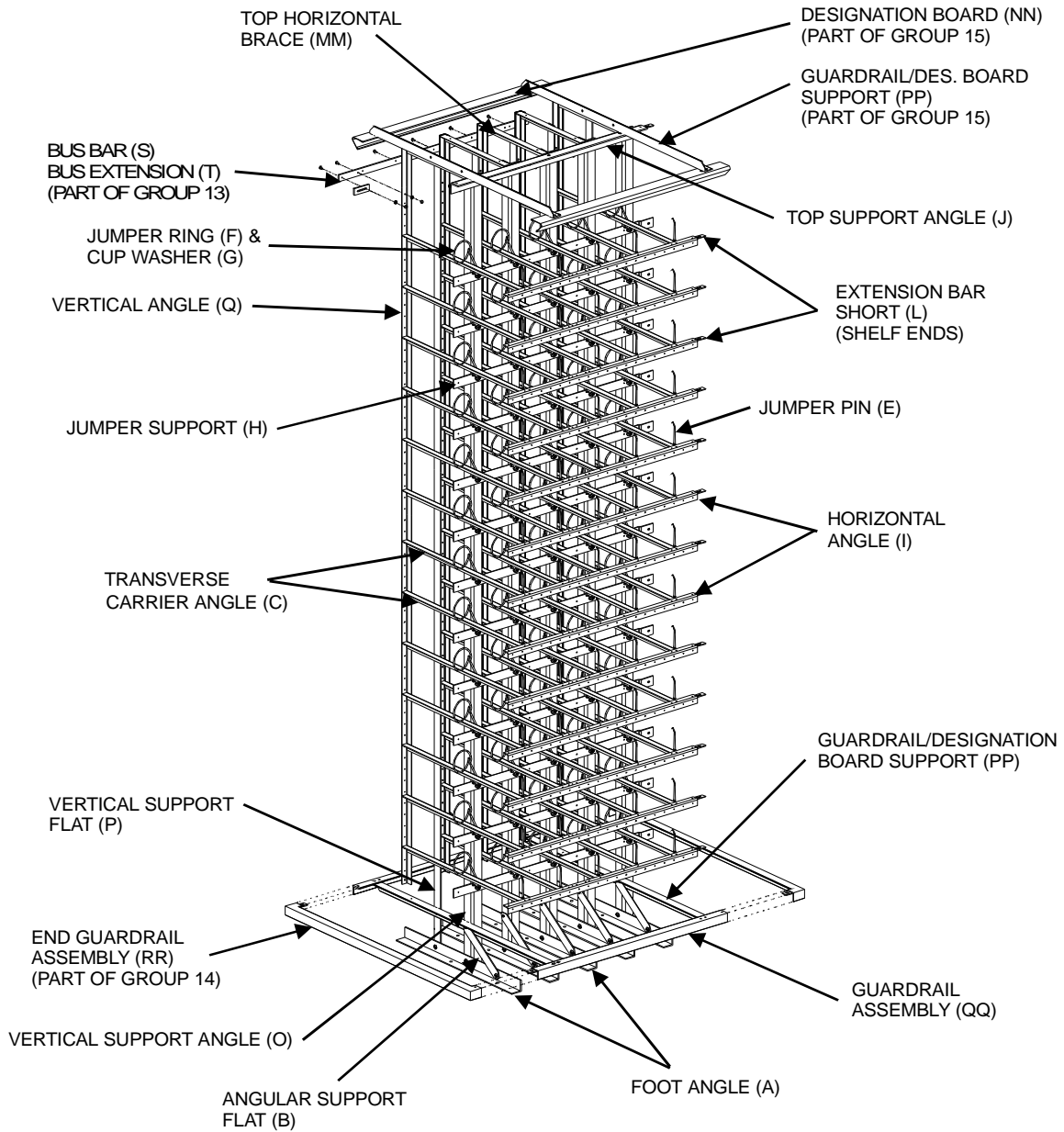


Figure 1. Complete Frame Assembly For Groups 2, 4, and 6 (Groups 1, 3, and 5 Similar)
Sub-Assembly Groups 13, 14, and 15 Included

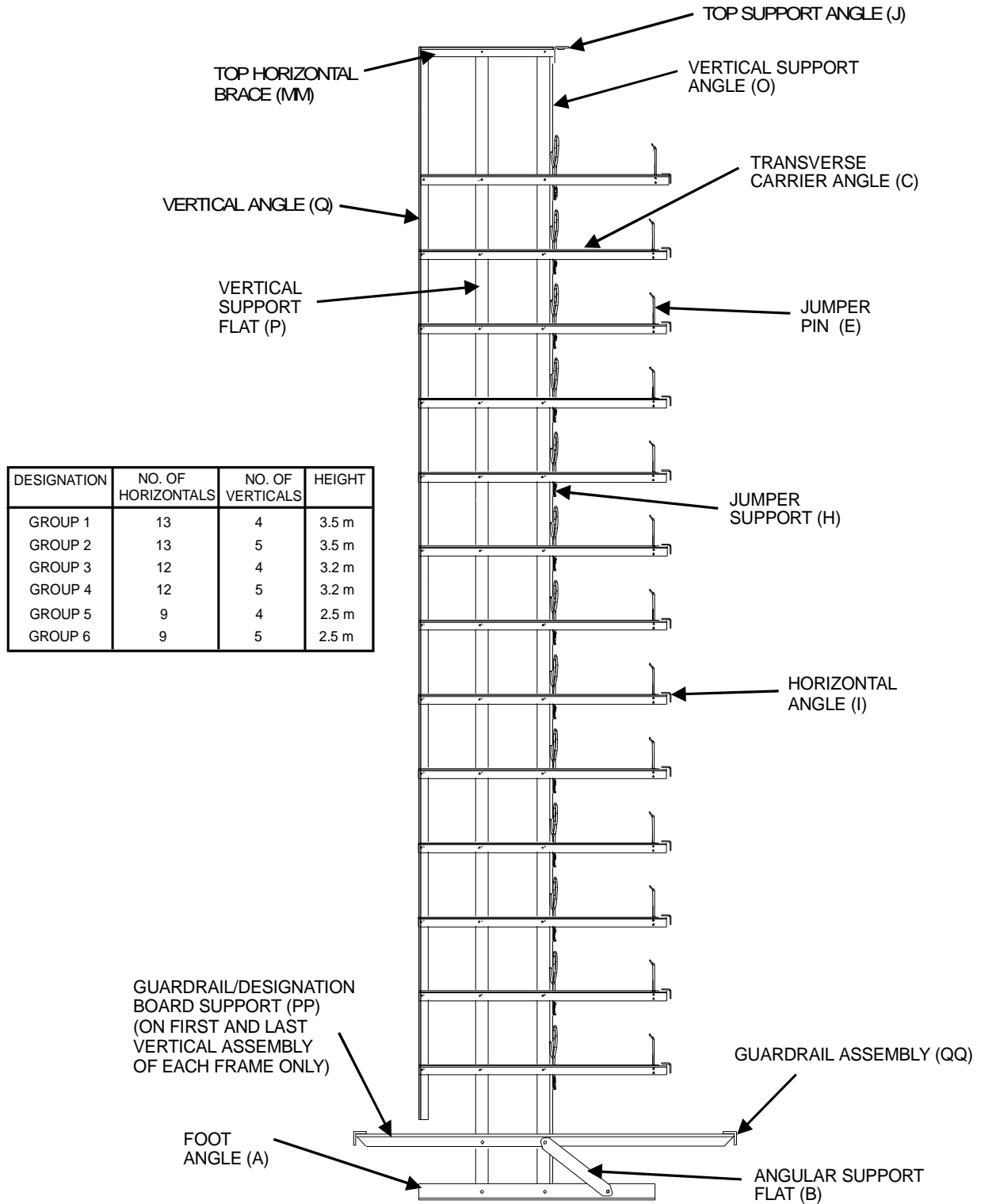
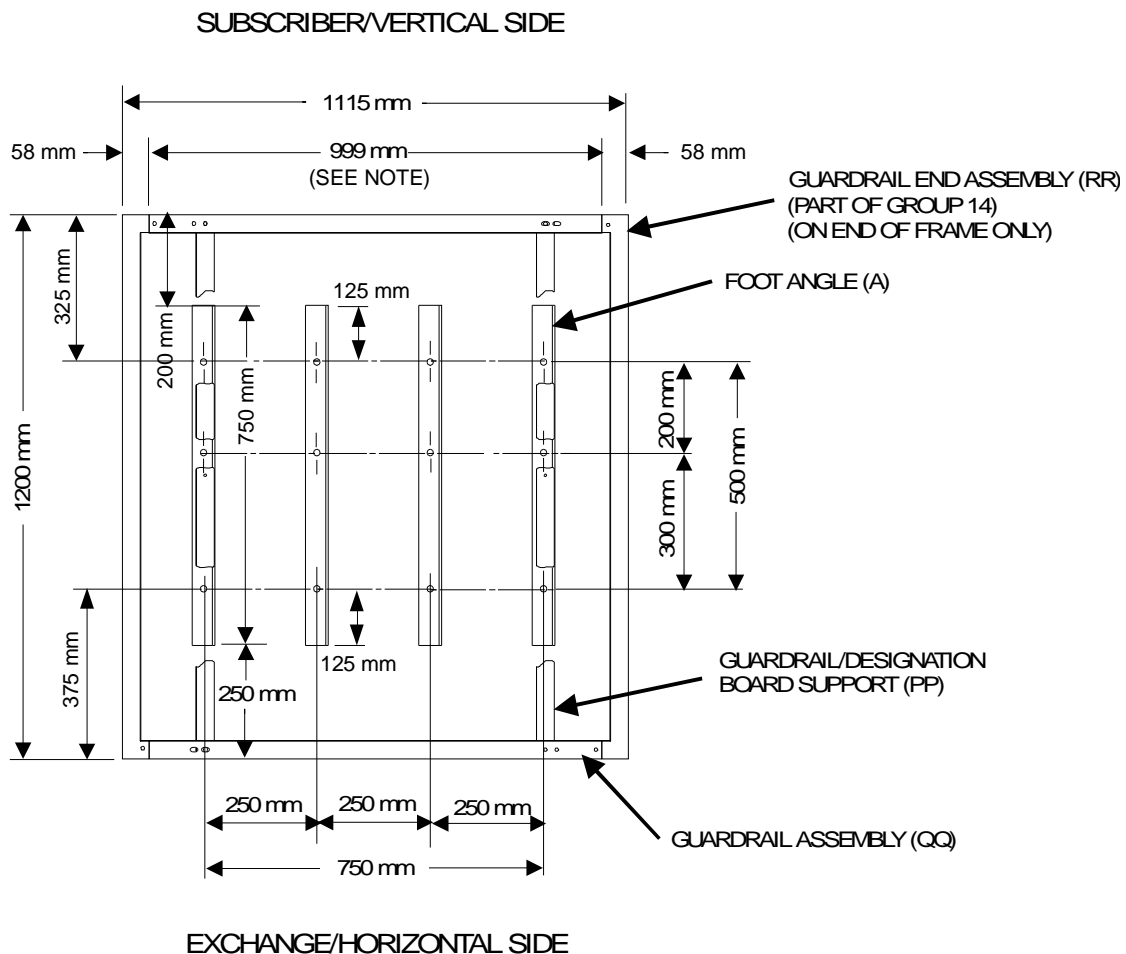


Figure 2. Side View of Complete Frame (Group 2 Shown)
Groups 1, 3, 4, 5, and 6 Similar

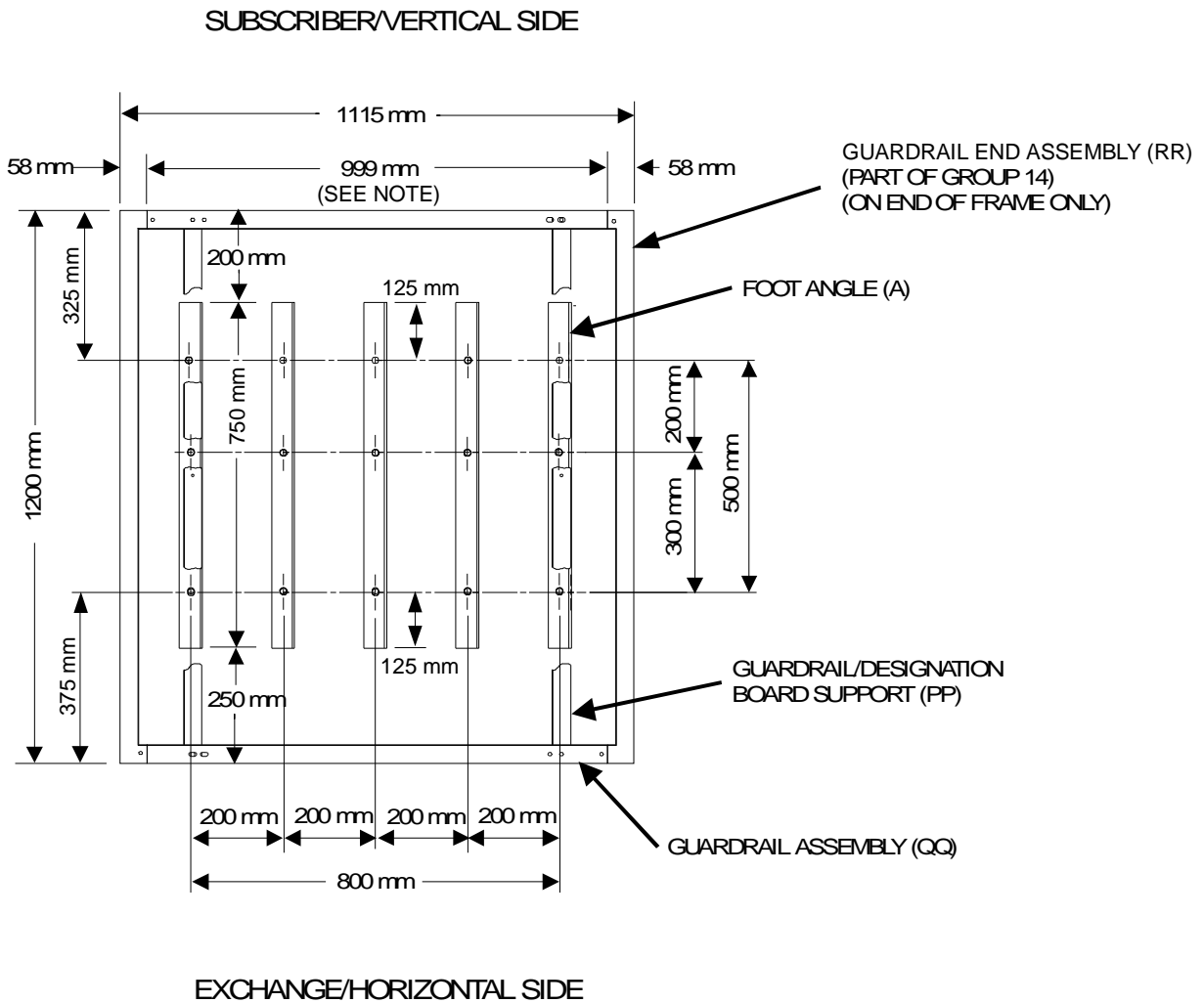
Determine Mounting Hole Pattern (Footprint) for Main Distributing Frame

1. Determine the number of verticals to be installed.
 - Pattern A is used for verticals on 250 mm centers; Groups 1, 3, and 5 (see Figure 3)
 - Pattern B is used for verticals on 200 mm centers; Groups 2, 4, and 6 (see Figure 4).
2. Use the following hole patterns to mark the locations of the mounting holes on the floor. *(As the guardrail end assembly is the last item assembled in this installation, it is shown here for reference only.)* Clearance holes in foot angle (A) accept M10 bolts for securing the frame to the floor. Typically, only the two holes nearest to the ends on each one of the foot angles (A), will require bolting to the floor (325 mm from vertical side of frame and 375 mm from horizontal side of frame).
3. Install locally obtained floor anchors per manufacturers' instructions.



NOTE: NOMINAL LENGTH OF FRAMEWORK GROUP IS 1.0 METER (SEE FIGURE 10)

Figure 3. Pattern A For Frame Groups 1, 3, and 5



NOTE: NOMINAL LENGTH OF FRAMEWORK GROUP IS 1.0 METER (SEE FIGURE 10)

Figure 4. Pattern B For Frame Groups 2, 4, and 6

Assemble Vertical Support Angle, Vertical Support Flat, Angular Support Flat, and Foot Angle

1. Secure the vertical support angle (O) and vertical support flat (P) to the foot angle (A) with M10 x 1.5 x 25 bolts (CC), M10 lockwashers (LL), and M10 hex nuts (HH). *Keep the nuts and lockwashers to the inside of the angle iron parts.*
2. Brace the vertical support angle (O) by securing an angular support flat (B) to the foot angle (A) and the vertical support angle (O) with M10 x 1.5 x 25 bolts (CC), M10 hex nuts (HH), and M10 lockwashers (LL).
3. A guardrail/designation board support (PP) is attached to the first and fourth vertical assembly for Groups 1, 3, and 5 or to the first and fifth vertical assembly for Groups 2, 4, and 6. This is determined by the spacing of the vertical assemblies (250 mm or 200 mm) respectively, to support the guardrails. *See Figure 3 (Pattern A) and Figure 4 (Pattern B) for location of guardrail/designation board supports. Figure 10 shows the lower section of a completed frame assembly.*

NOTE: See Figure 2 for a full side view of the vertical assembly.

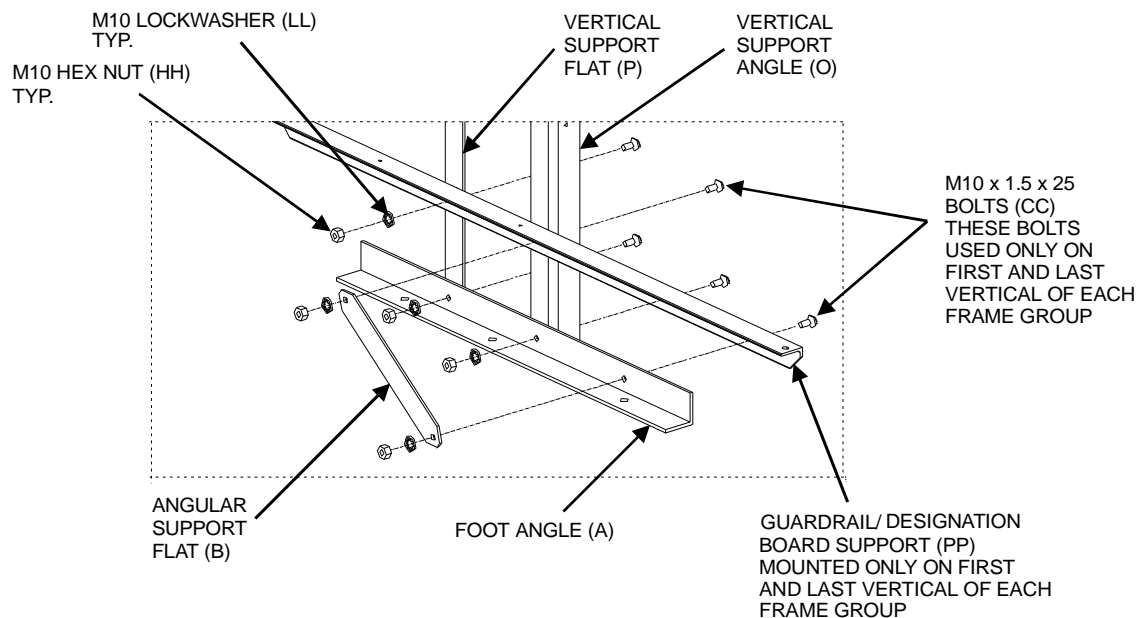


Figure 5. Vertical Assembly (Lower Section)

Assemble Transverse Carrier Angle and Vertical Angle to Vertical Assembly

1. Loosely attach all transverse carrier angles (C) to the vertical support angle (O) and the vertical support flat (P) using M6 x1.0 x 16 bolts (X), nuts (FF), and lockwashers (JJ). The quantity of transverse carrier angles to be attached is determined by frame height. Frame Groups 1 and 2 have thirteen, Groups 3 and 4 have twelve, and Groups 5 and 6 have nine. See table in Figure 2.
2. Loosely attach top horizontal brace (MM) to the vertical support angle (O) and the vertical support flat (P) also, using same hardware as transverse carrier angles.
3. Secure a vertical angle (Q) to all transverse carrier angles (C) and top horizontal brace (MM) using M6 x 1.0 x 16 bolts (X), nuts (FF), and lockwashers (JJ).
4. Tighten all nuts and bolts.

NOTE: See Figures 1 and 2 for a full view of the vertical assembly with transverse carrier angles.

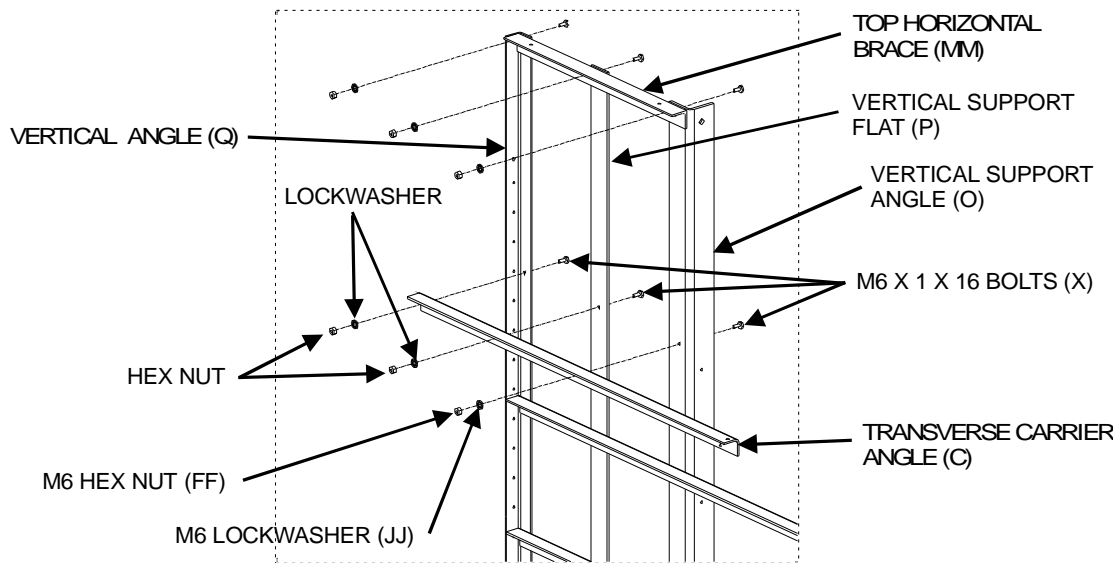


Figure 6. Assemble Transverse Carrier Angle to Vertical Assembly

5. Assemble jumper pin (E) to the transverse carrier angle (C) using the M5 x 0.8 x 12 slotted cheesehead screw (SS), M5 nut (TT), and M5 lockwasher (UU). Position the projecting stud of the pin into upper hole in the carrier angle to prevent rotation of the pin.

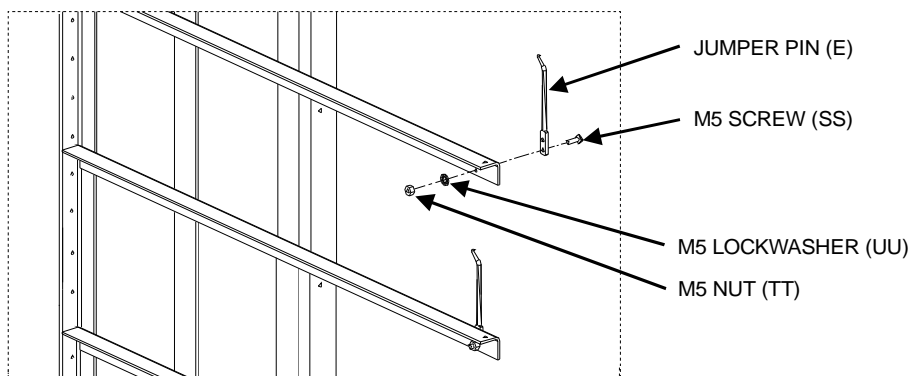


Figure 7. Assemble Jumper Pin

Erect, Align, Assemble, and Secure Vertical Assemblies

1. Fasten the completed vertical assemblies **loosely** to the floor using locally obtained expansion anchors (wedge bolts). **Do not tighten frame to floor at this time.** Provide locally obtained shims or washers and level vertical assemblies to each other. *Figures 1 and 2 show an assembled frame.*
2. Attach jumper ring (F), cup washer (G), and jumper support (H) to vertical support angles (O), using M6 x 1.0 x 25 bolts (Y), nuts (FF), and washers (JJ).

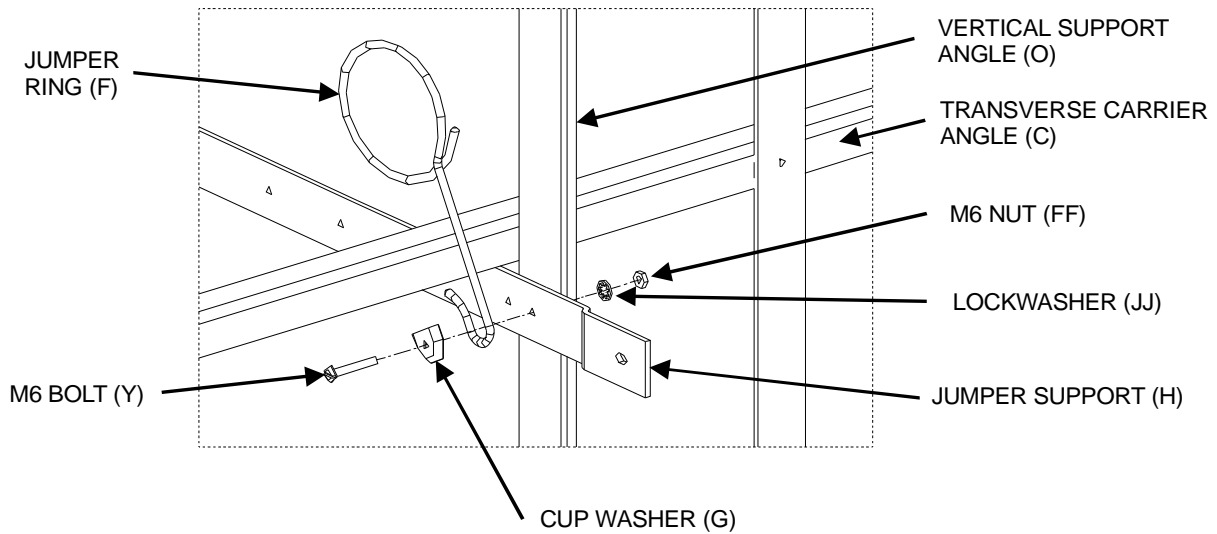


Figure 8. Jumper Support and Jumper Ring Installation

3. Attach horizontal angles (I) to transverse carrier angles (C) and short extension bars (L) to the horizontal angles (I) and to top support angle (J) using the M6 x 1.0 x 16 bolts (X), nuts (FF), and lockwashers (JJ).
4. Attach earth bus bar (S) to vertical angles (Q) using M6 x 1.0 x 12 hex washer head thread forming screw (VV). Attach bus bar extension (T) to bus bar (S) at growth end of frame. The bus bar extension (T) is used to splice adjacent bus bars together using M6 x 1.0 x 16 bolts (X), nuts (FF), and washers (JJ).
5. Attach guardrail/designation board support (PP) to top of first and last horizontal brace (MM) using M6 x 1.0 x 16 bolts (X), M6 nuts (FF), and M6 lockwashers (JJ).
6. Attach a designation board (NN) on each end of the guardrail/designation board supports (PP).
7. Terminate earth bus bar to the building earth per local practices.

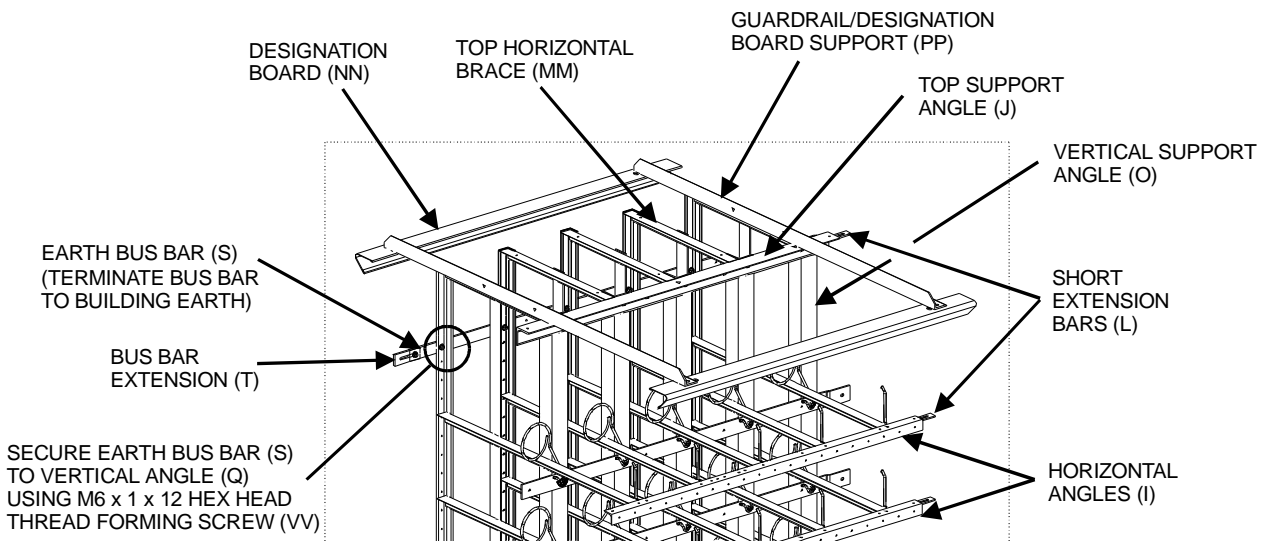


Figure 9. Designation Boards and Horizontal Bus Bar Installation

8. Tighten floor anchors securing the frame to the floor.
9. To complete the frame assembly, attach guardrails (QQ) to the ends of the lower set of guardrail /designation board supports (PP) using M8 x 1.25 x 16 screws (AA), M8 nuts (GG), and M8 lockwashers (KK). To complete the guardrail assembly, attach the welded guardrail end assembly (RR) (part of Group 14) **at each end of the frame lineup only** using M8 x 1.25 x 16 screws (AA), M8 nuts (GG), and M8 lockwashers (KK).

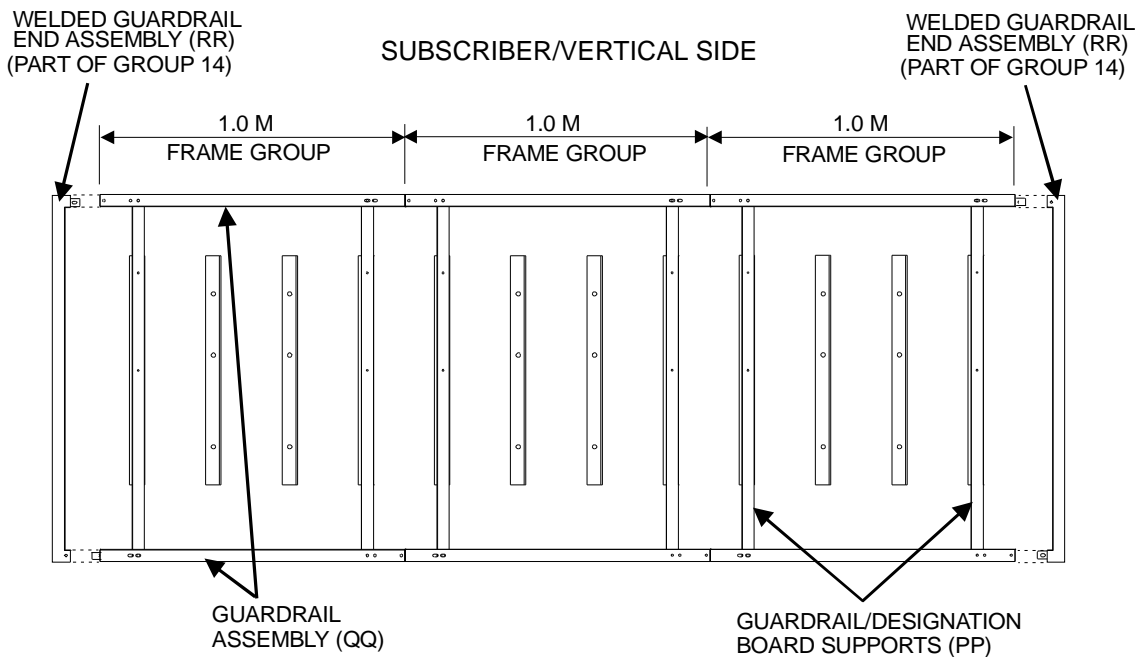
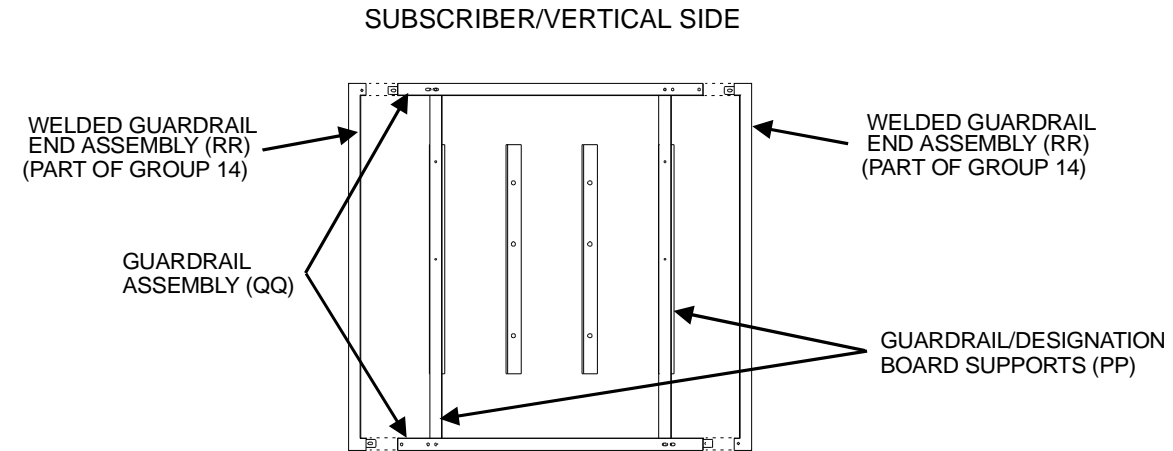


Figure 10. Guardrail Assembly