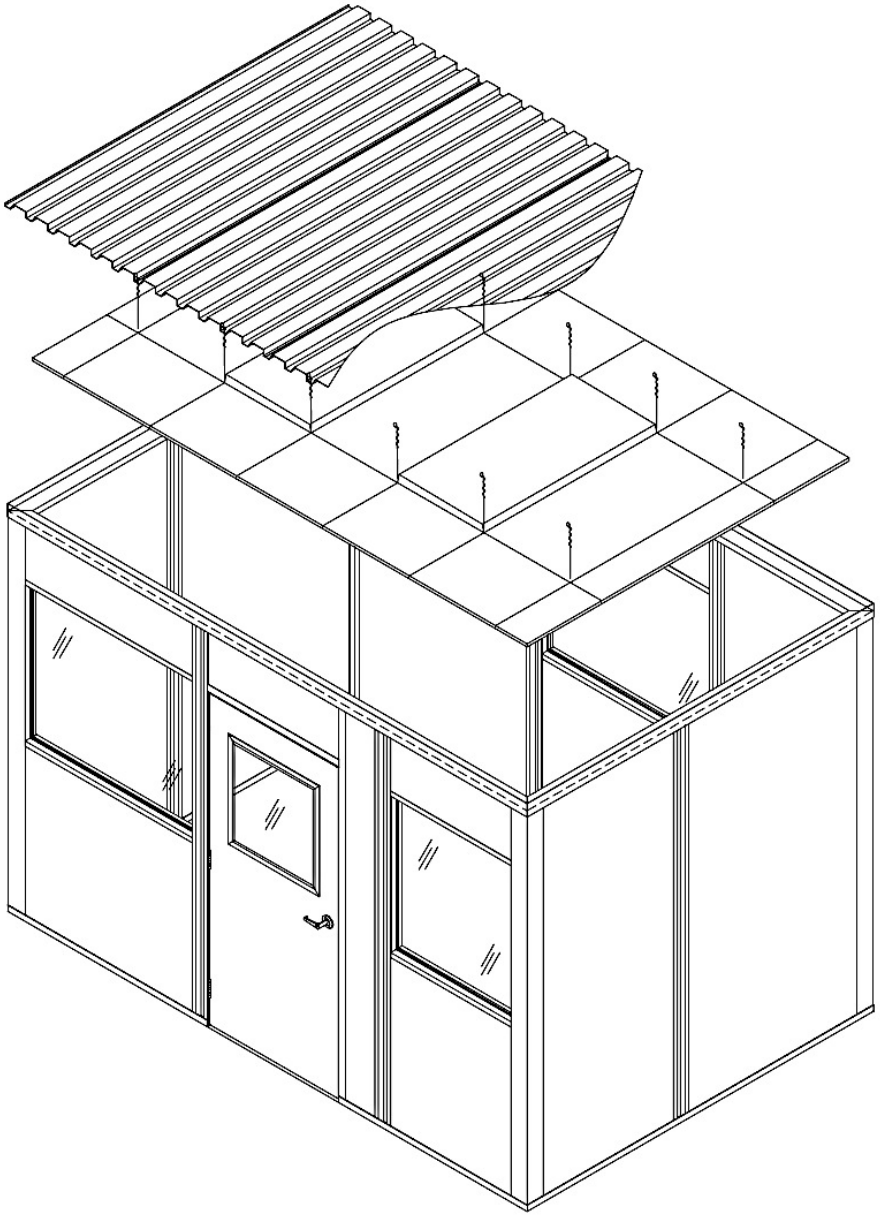
STARRCO

Revolutionizing Interior Construction



INDUSTRIAL OFFICE SYSTEMS, SS3000/SS3500 INSTALLATION AND ASSEMBLY INSTRUCTIONS

Important- Read and follow all safety rules and operating instructions before beginning installation.

STARRCO, INC.
11700 Fairgrove Industrial Boulevard
Maryland Heights, MO 63043-3436 U.S.A.
Tel. (314) 567-5533, 1-800-325-4259
www.starrco.com

Introduction

This manual serves as a guide to help our customers install and assemble their SS3000, SS3500 building independently. Each shipment includes a packing list containing exact layouts and dimensions for that particular building. Please inspect your materials prior to beginning installation, ensure that damage or loss of material hasn't occurred in transit. Notify Starrco promptly if you experience any problems in shipment. Once verified you may use these instructions as a guide to easily and safely install your Starrco building.

Be advised that due to electrical code requirement variations, you may require additional material required to complete the electrical hookup of your Starrco building. (We strongly recommend you use a qualified electrician to install the electrical components.)

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Recommended Tool List

Hammer

Large Carpenter Square

Rubber Mallet

Drill

Ladder

Metal Snips

Ratchet and 5/8" Socket

Chalk Line

Screwdriver Phillips and Flat

Level 48" or Longer

Measuring Tape

Hack Saw

Utility Knife

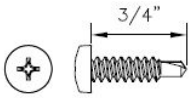
Nut Driver w/ 5/16" Head

Pliers

Circular Saw w/ Carbide Tip Blade

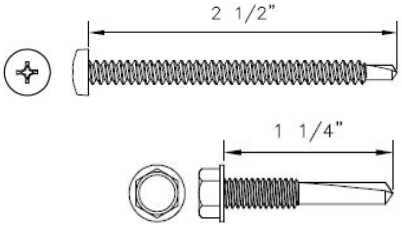
Putty Knife w/ Wide Blade

Fasteners



#10-16 x 3/4" (Painted) Phillips Pan Head TEK Screw, available in 3 colors (White, Grey, and Khaki).

- Assemble SS3000 and SS3500 wall studs @ 24" on center, 12" on center for load bearing.
- Secure wall studs, h-studs, stud inserts, corner posts, wall starter, door frames to floor and ceiling track (3 per stud).
- Fasten electrical box to wire stud (1 per box).
- Fasten A/C bracket to cutout framing (8 places).
- Fasten ceiling grid wall angle to wire stud (2 per stud).



#10-16 x 2 1/2" Phillips Pan Head TEK Screw.

- Secure wall starter to (Starrco) wire stud @ 18" on center.

#12-24 x 1 1/4" Hex Head TEK 5 Screw.

- Fasten joist and joist hanger to top of ceiling track and to face of wire stud or corner post (8 places each side, 14 total).
- Fasten roof deck to ceiling track and over lapping deck @ 18" on centers.

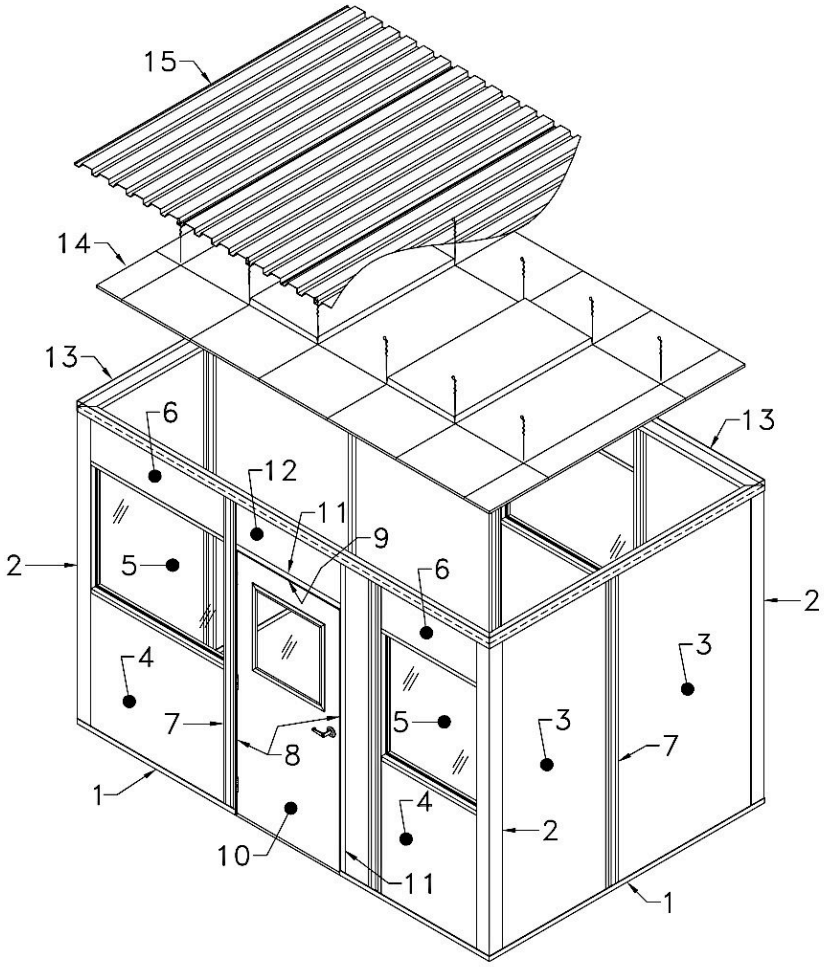
Fasteners not provided by Starrco

Floor track to the flooring, wall starters to existing structures, and C.B. Electrical Box attachments due to installer preferences, local codes, and varying floor and ceiling systems. Refer to section below for Starrco recommended fasteners.

- **Wood Floor:** 1/4" x 1-1/4" Lag Bolts.
- **Concrete Floor:** Power Activated Fastener, 1" nails with #3, 1-1/2" nails with #4 charge, various expansion anchors.
- **Steel Floor:** #14 x 1" Sheet Metal Screws.
- **Drywall:** 1/4" toggle bolts, drywall screws.

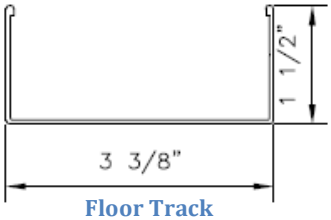
Parts List

1) Floor Track
2) Corner Post
3) Wall Panel
4) Lower Window Panel
5) Window
6) Upper Window Panel
7) Wall Wire Stud
8) Door Frame/Jam
9) Door Frame/Jam Header
10) Door
11) H-Stud
12) Header Panel
13) Ceiling Track
14) Ceiling Grid
15) Dust Cover

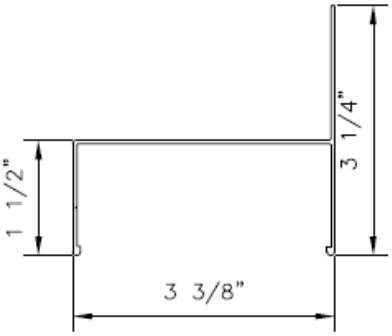


STARRCO

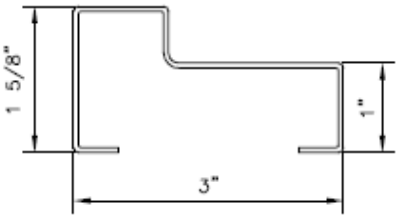
Extrusion Details



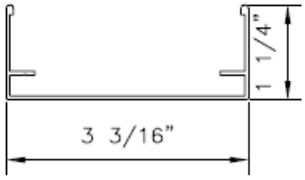
Floor Track
*Can be used as a
Ceiling Track without lip



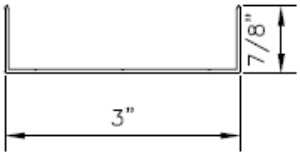
Ceiling Track with Lip



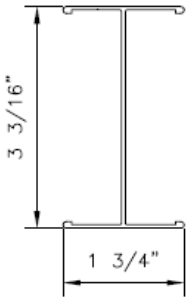
Door frame/Jamb



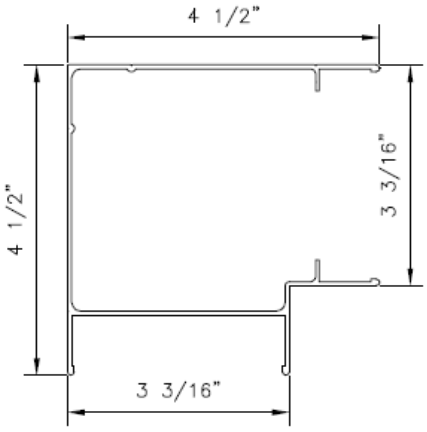
Wall Starter



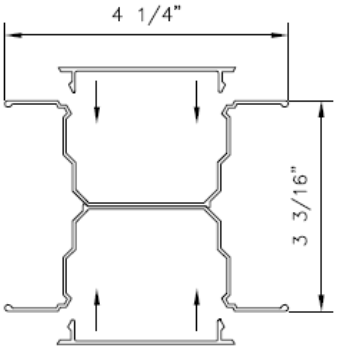
Stud Insert



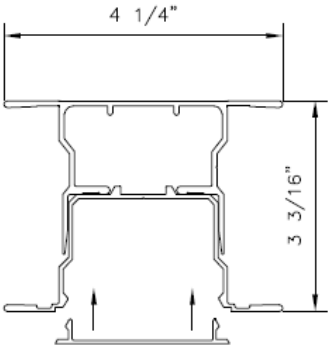
H-Stud



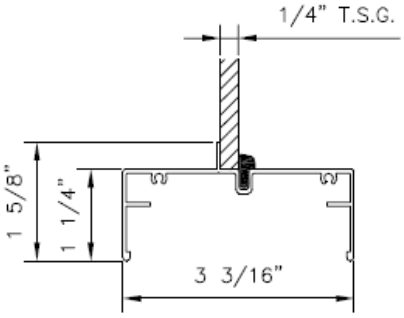
Corner Post



SS3000 Wall Wire Stud with Covers
* Assembly required
*Covers snap into place



SS3500 Wall Wire Stud with Cover
*Assembly required
*Cover snaps into place



Window Extrusion (Window)
*No assembly required
*Shown with 1/4" glass

B Deck 22GA. Steel Dust Cover

Layout and Preparation

In order to ensure an easy installation we recommend verifying all measurements prior to beginning installation.

Step 1: It is important to work in a clean area. Sweep the area clean of all debris and remove any objects that will interfere with the placement of your building.

Step 2: Refer to the **Floor Track Layout** in the **Packing List** for the exact dimensions of your Starrco building. Strike a chalk line on the floor for your first wall.

Note: All chalk lines will represent the outside edge of the floor track.

Step 3: Construct a 90° degree corner at your cross walls using one of the two methods shown in **Figure 1**. Use a large carpenters square or the 3-4-5 triangular method to make an accurate 90° degree corner. Strike a chalk line through this point to mark the outside edge of the cross wall.

Step 4: Complete the outline of your building using the dimensions shown on the **Floor Track Layout**.

Step 5: Now locate the door opening and mark the floor accordingly.

Step 6: As a method for double-checking the accuracy of your layout we recommend that you measure the diagonal lines. They should be the same length. **(See Figure 1)**

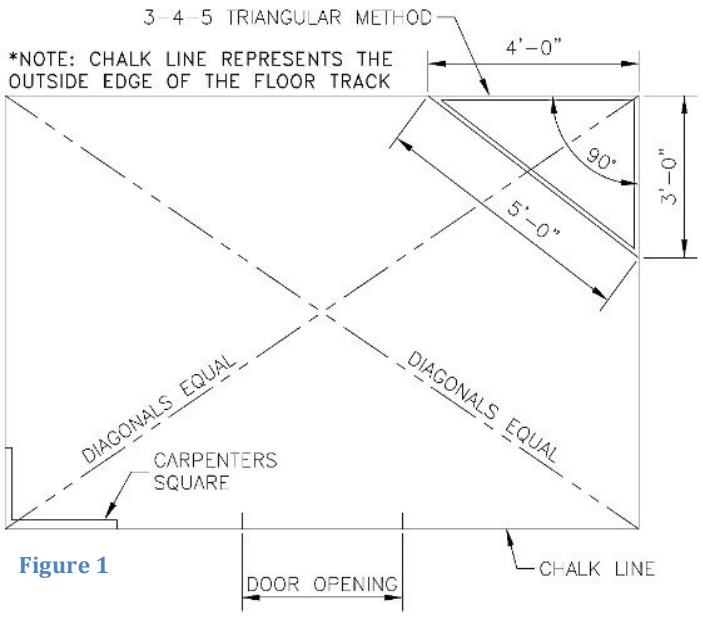


Figure 1

Floor Track Installation

Note: It is very important this dimension be established accurately now because it is very difficult to make changes when you begin installing the door.

Step 1: All the floor track pieces provided with your building have been pre-cut and mitered to the proper length at the Starrco factory. Refer to your **Floor Track Layout** and place the outside edge of the Floor Track along your chalk line.

Step 2: Anchor the floor track using the appropriate fastener for the type of floor in your office or plant. Starrco does not furnish these fasteners; however refer back to fasteners section on page 3 for recommended fasteners. Make sure you place a fastener near both ends of each piece of floor track and on 3' centered through out the length of the track. **(See Figure 2)**

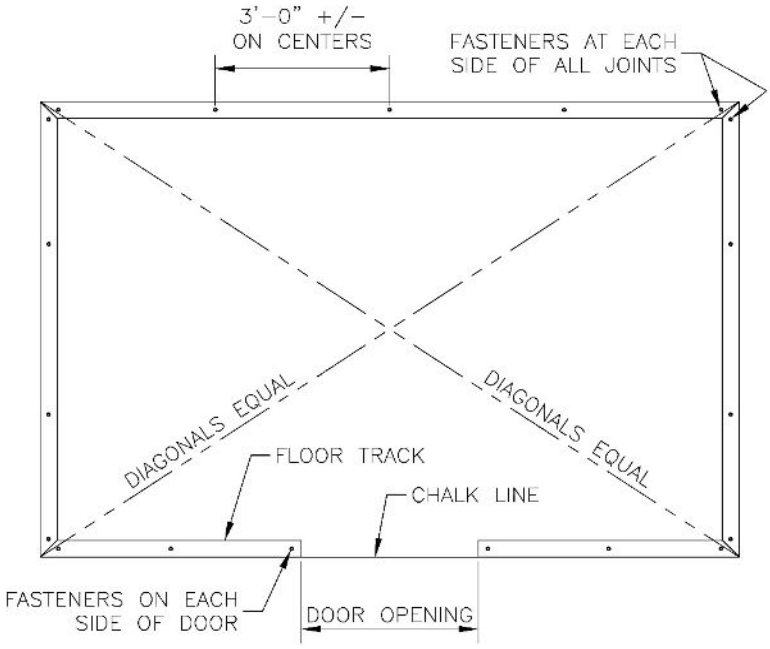


Figure 2

Some Recommended Fasteners

- **Wood Floor:** 1/4" x 1-1/4" Lag Bolts.
- **Concrete Floor:** Power Activated Fastener, 1" nails with #3, 1-1/2" nails with #4 charge, various expansion anchors.
- **Steel Floor:** #14 x 1" Sheet Metal Screws.
- **Drywall:** 1/4" toggle bolts, drywall or wood screws.

Wall Panel Installation

If your Starrco building is a 2 or 3 wall design, which will be constructed to existing walls, go to **Wall Starter Installation** on page 10 before installing the wall panels. The wall panels have been pre-fabricated and cut to size. Refer to the **Wall Panels Layout** in your packing list for the proper arrangement of Wall Panels.

The SS3000 system includes (2) piece wire studs along with (2) snap in covers. The SS3500 system includes (2) piece wire studs along with (1) snap in cover. Wire studs can be pre-assembled prior to placing them in the floor track. The wire studs are fastened together by #10-16 3/4" Self Drilling Phillips Pan Head TEK Screw. The screws heads are painted the same color as the wall studs. **(See Figure 3)**

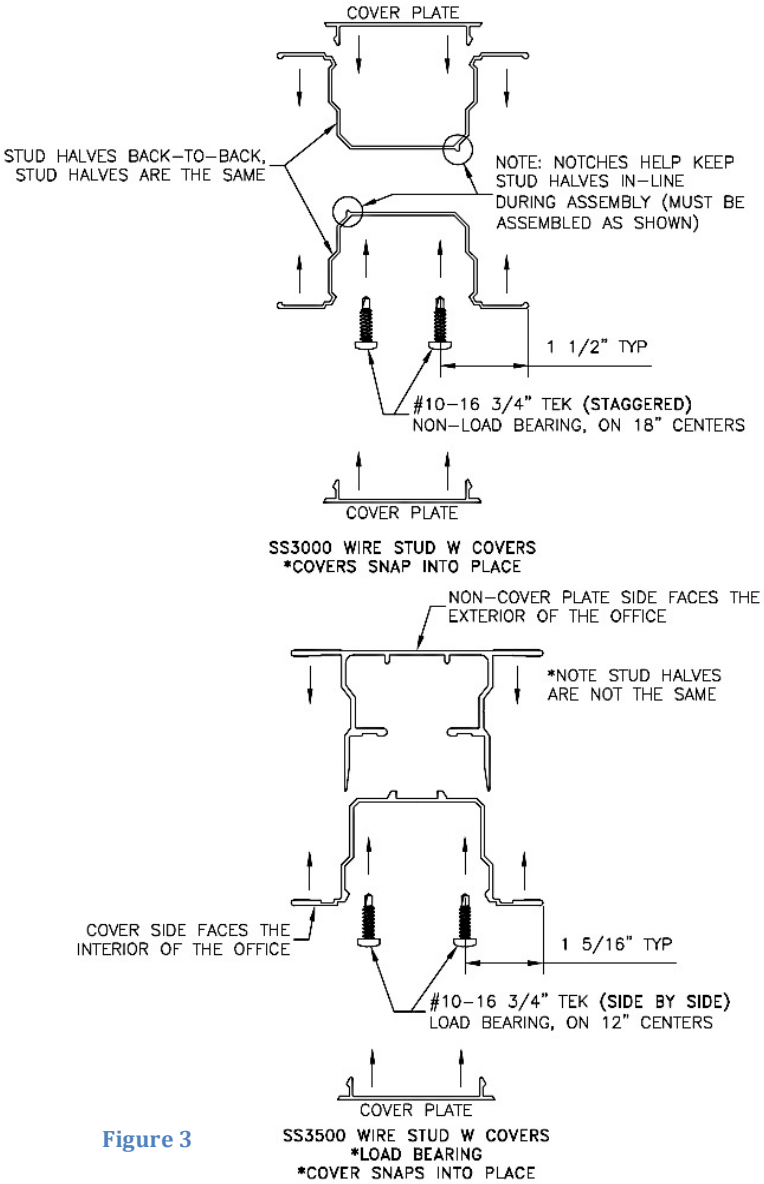


Figure 3

Step 1: Begin wall installation by inserting a corner post into the floor track shown in **Figure 4** below. We recommend you begin at a corner and work around your building in order to finish at the door opening.

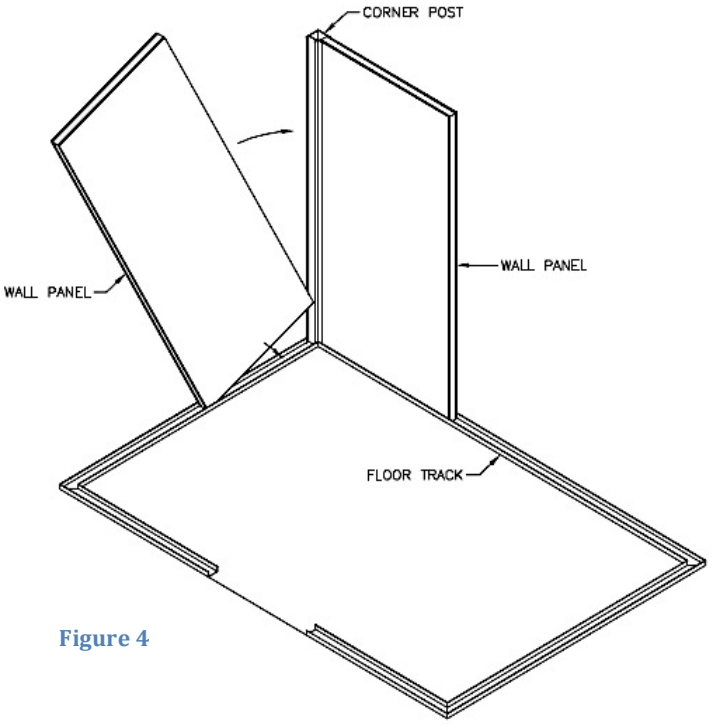


Figure 4

Step 2: Install the two adjacent panels into the floor track to ease the installation of the wall panels. First, place a bottom corner of the panel into the floor track. Next, slide the other bottom corner into the wall stud or corner post approximately 12" to 18" above the floor. As you push down and forward on the panel it will slide into the floor track and the corner post or wire stud simultaneously with a 3/4" panel engagement into corner post or wire stud. **(See Figure 4)**

Note: The 3/4" panel engagement leaves a 7/8" space, which is necessary for floor irregularities. Do not engage panels more than 3/4".

Installer Tip: For stud spacing reference, floor track splices coincide with stud centerlines.

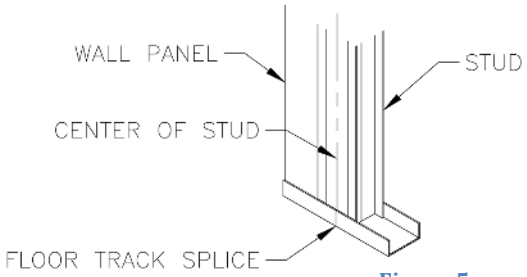


Figure 5

Step 3: Fasten the wall to the corner post shown in **Figure 6A.**

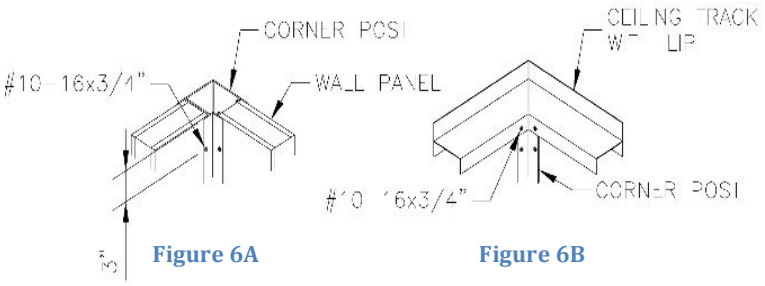


Figure 6A Figure 6B

Step 4: Next, place a wall stud on the open end of the wall panels already in place, making sure that the stud fits securely into the floor track and over the wall panel. Slide a wall panel into the other side of the wall stud using the same method as described in Step 2. When you have placed all the panels, studs, and corner post the entire length of a wall, place the ceiling track over the top of the wall panels. **(See Figure 7)**

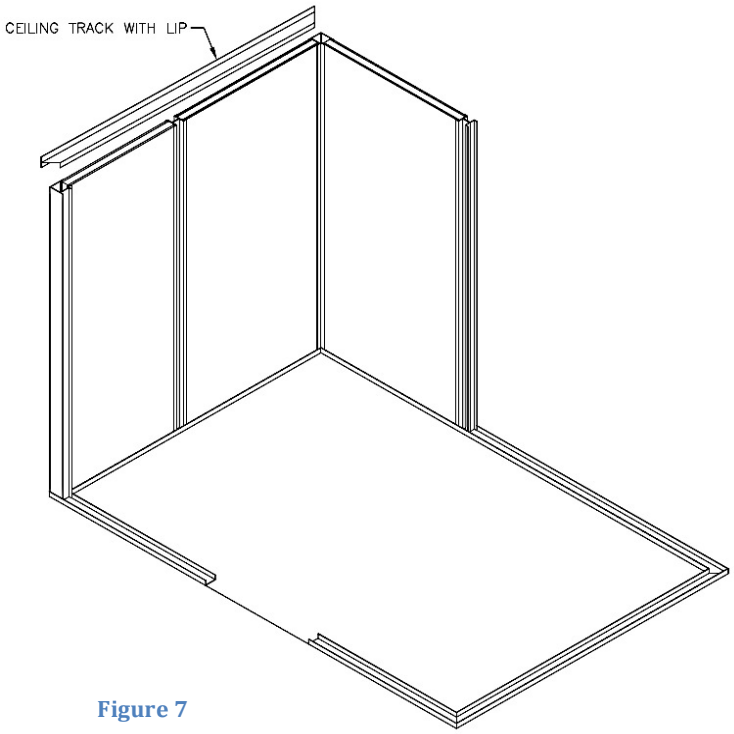


Figure 7

Note: ***For lengths over 12' it is advisable to place the ceiling track on as you complete each run of 12' or greater. Fasten the ceiling track to the corner post.*** **(See Figure 6B)**

Step 5: Window panels are installed in a similar manner as other wall panels, the only difference being you install 3 pieces instead of one shown in **Figure 8**. First, insert a lower window panel, followed by the window panel. Next, place a wall stud or corner post on the open end of the window panels already in place.

Note: Install window with vinyl gasket facing inside of building.

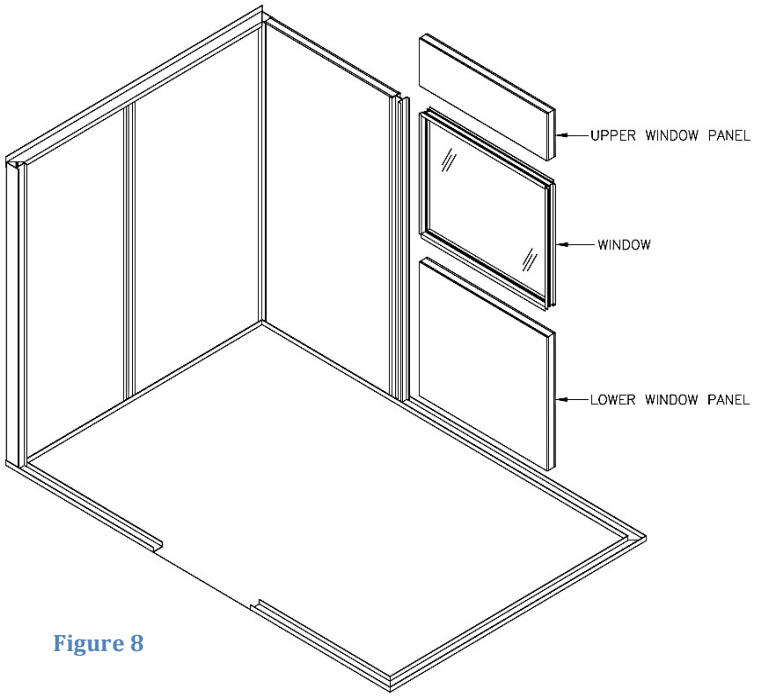


Figure 8

Step 6: Complete the remainder of the walls, in the same manner, leaving a door assembly as the last part to assemble shown in **Figure 9.**

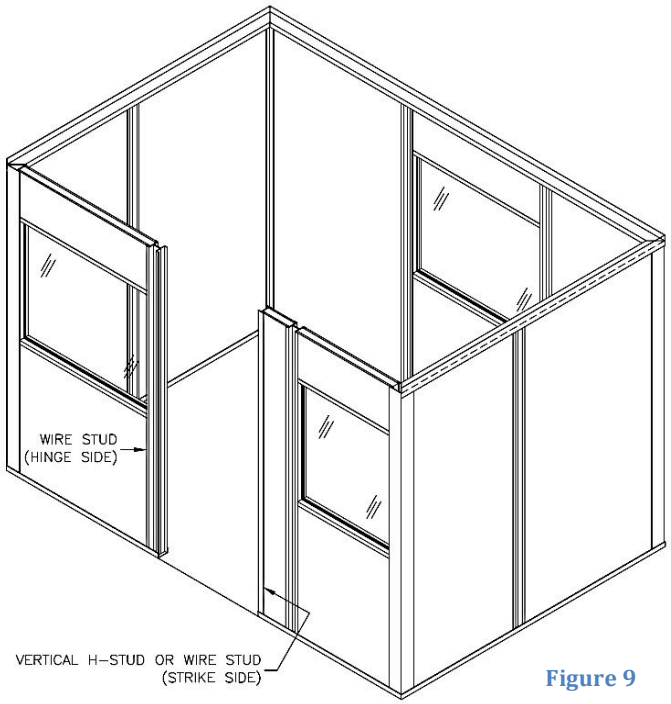


Figure 9

Steel Door Frame Installation

Step 1: Locate stud or corner post with doorframe attached.

Step 2: Check the direction of the door swing. Hinge side and strike side of the door frame are different and must be placed on the appropriate side.

Step 3: Next, insert the top of the door frame, the header h-stud and the header panel. **(See Figure 10)**

Note: This step should be completed in the process of installing the wall panels. Tighten screws in wall studs SS3000 or SS3500 at this time.

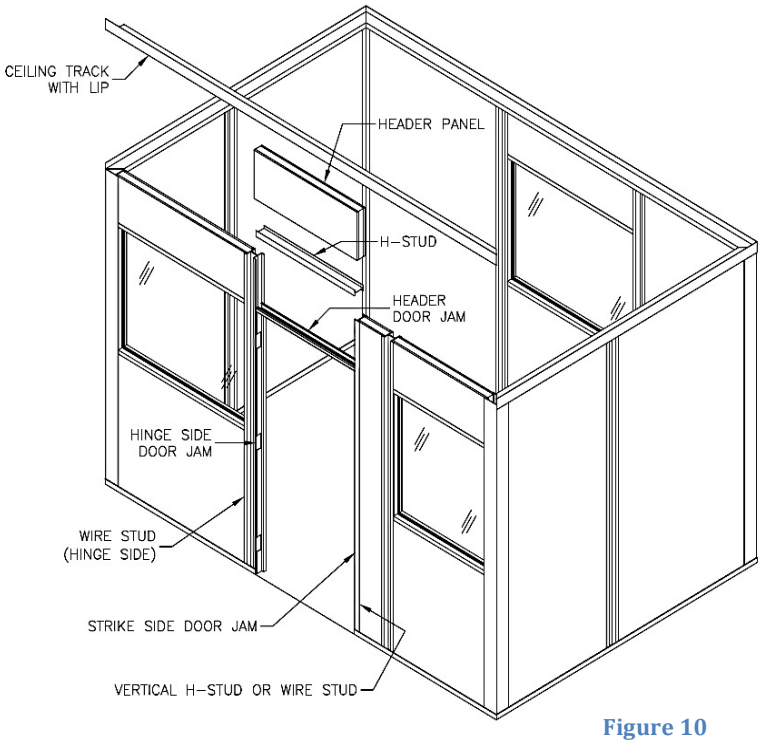


Figure 10

Step 4: Complete this phase by placing the remaining ceiling track on top of the last wall completed. Fasten the ceiling track to the corner posts shown in **Figure 6B**.

Door Installation – Steel Frame

Step 1: Hang the door to the hinge side stud shown in **Figure 11**. Using your level, make sure this stud is plumb and verify that the door swings freely over the floor.

Note: Hinge and /or strike jamb may have to be raised due to floor condition.

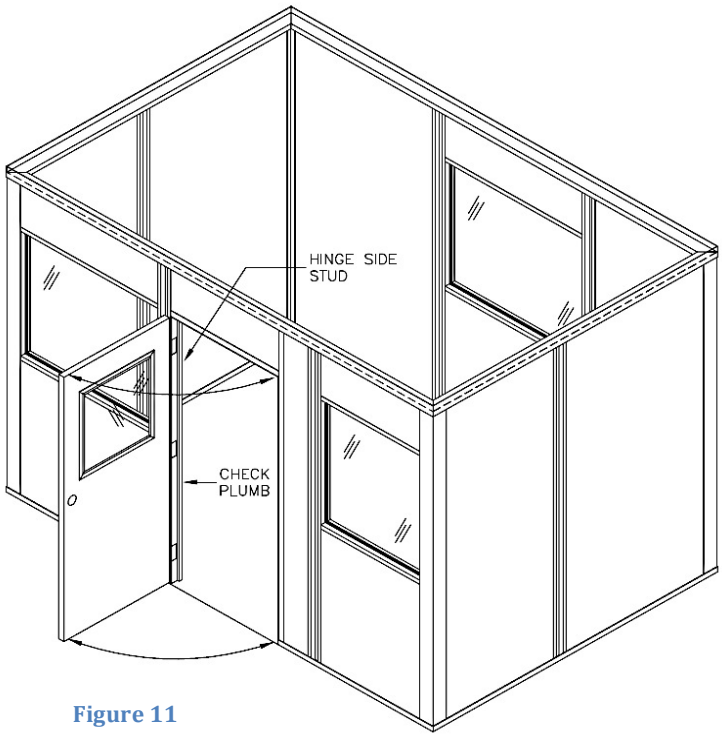


Figure 11

Step 2: Using the door as a guide, adjust the strike side jam so there is an equal clearance between the door and the door frame on all sides and top, and the door operates freely. Once adjustments are made screw threw wire stud into jamb. Fasten the strike side and hinge side at the floor track, ceiling track, and behind each hinge. **(See Figure 12)**

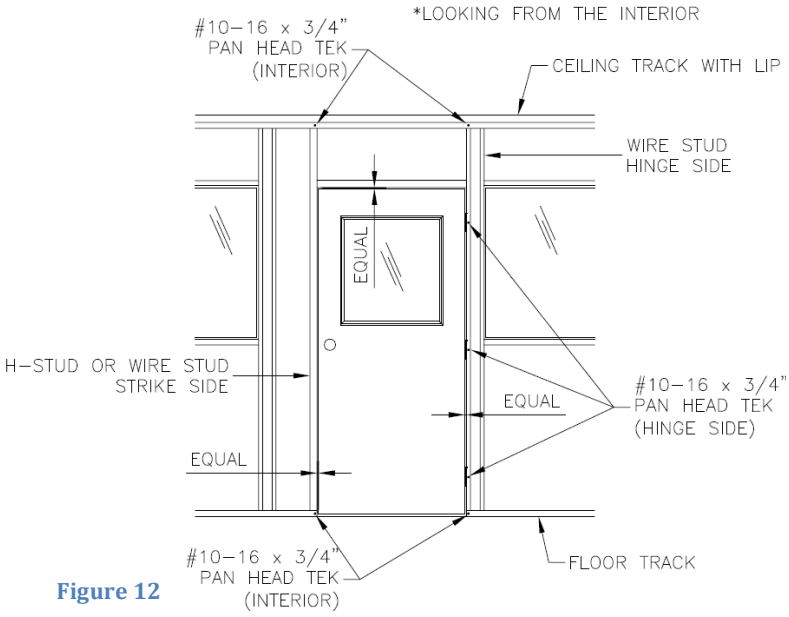


Figure 12

Step 3: Install the lockset using the instructions provided, if you purchased door hardware, install it at this time.

Steel Dust Cover Installation

For spans greater that 12’ refer to **Wall Panel Layout** for placement of the support joist. Install this prior to installing the dust cover. See page 11 for instructions on how to install support joists.

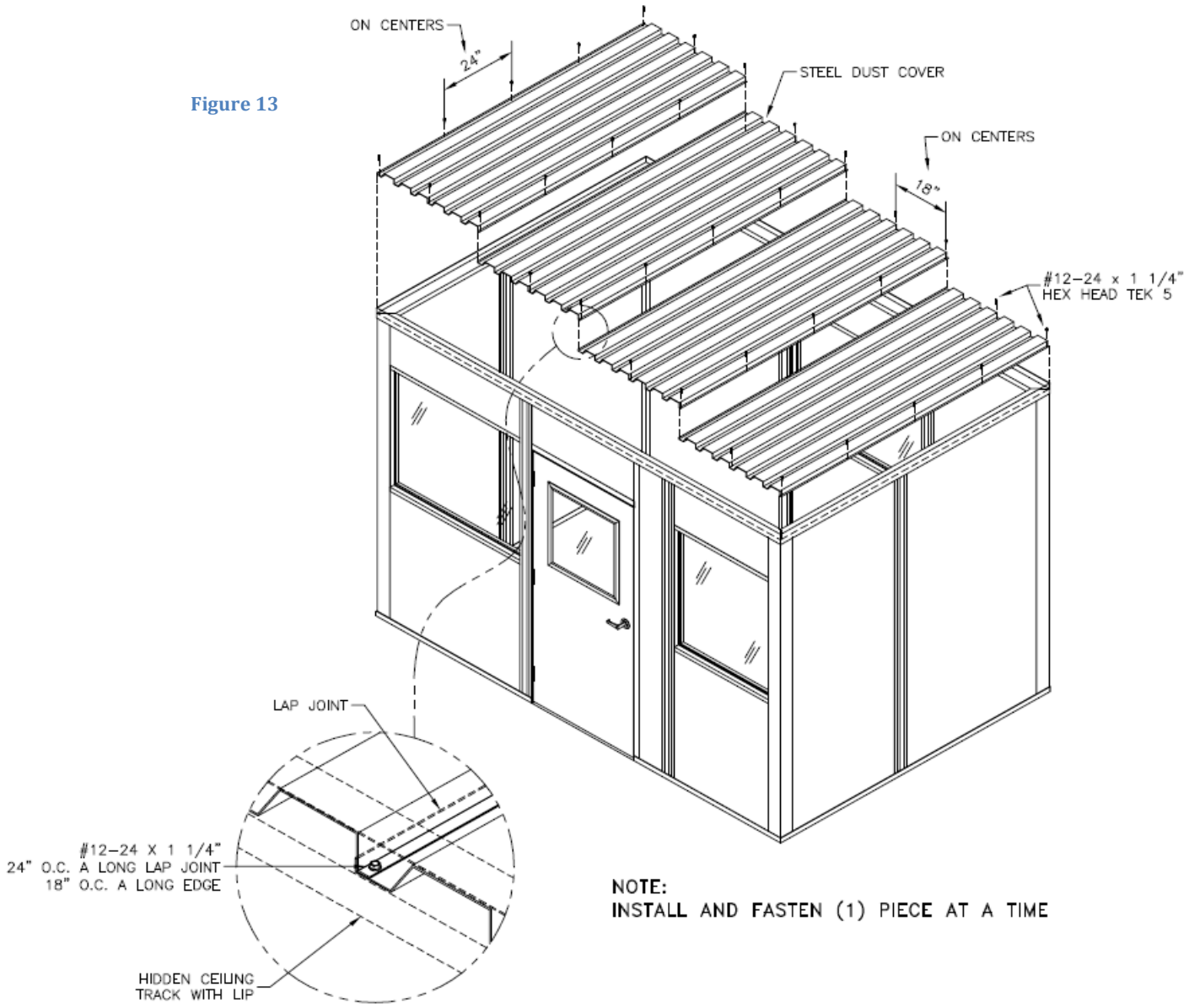
Step 1: With the ceiling track in place you can begin lying in the corrugated steel dust cover. The dust cover comes 1/2” less than the width of the building.

The corrugated steel dust cover has a lap joint and must not be lapped beyond this joint with the exception of the last dust cover, which can be lapped to fit.

Step 2: Fasten the dust cover to the ceiling track with #12-24 x 1 1/4” hex head TEK 5 screws. Also fasten the dust cover together where they overlap.
(See Figure 13)

Safety Advisory: Roof deck may not be designed to support the weight of a man or for storage.

Figure 13



Wall Starter Installation

Wall starters are required when attaching your Starrco building to an existing wall. The floor track should be in place prior to installing the wall starters.

Step 1: Place the wall starter against the wall and insert the end into the floor track. Place a level against the edge of the wall starter and make sure it is plumb. **(See Figure 14)**

Step 2: Fasten the wall starter to the wall using an appropriate fastener for the type of wall.

Note: When attaching to existing Starrco walls, the wall starter will be notched to fit between floor and ceiling track.

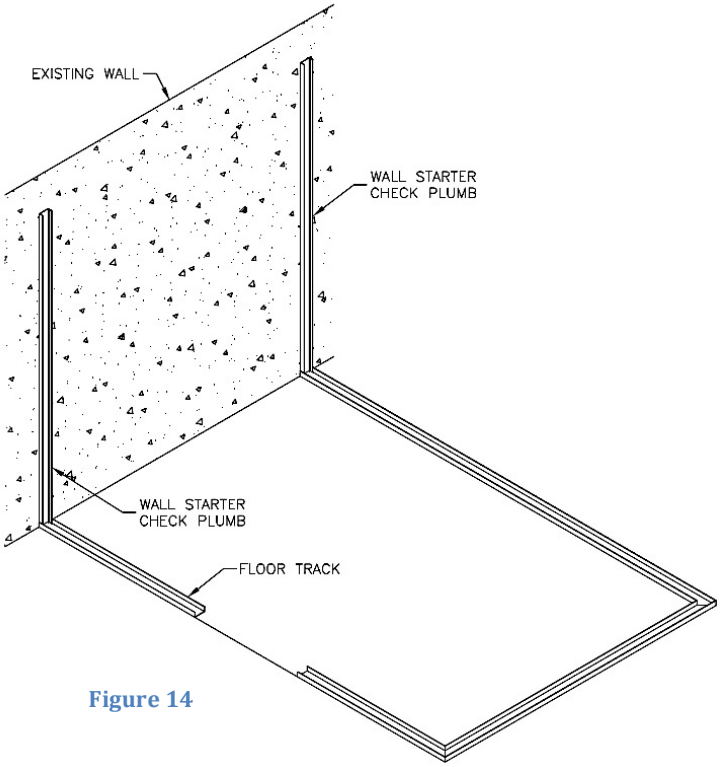


Figure 14

Roof Deck Support Joist Installation

Step 1: Place steel roof deck joist support hangers where indicated on the **Wall Panel Layout**. Joist support hangers should always be placed on top of the ceiling track and located directly over a wall stud. Fasten through pre-punched holes and into ceiling track with six #12-24 x 1 1/4" hex head TEK 5 self-drilling screws. **(See Figure 15)**

Note: Before you completely fasten each end, make sure that the walls are plumb.

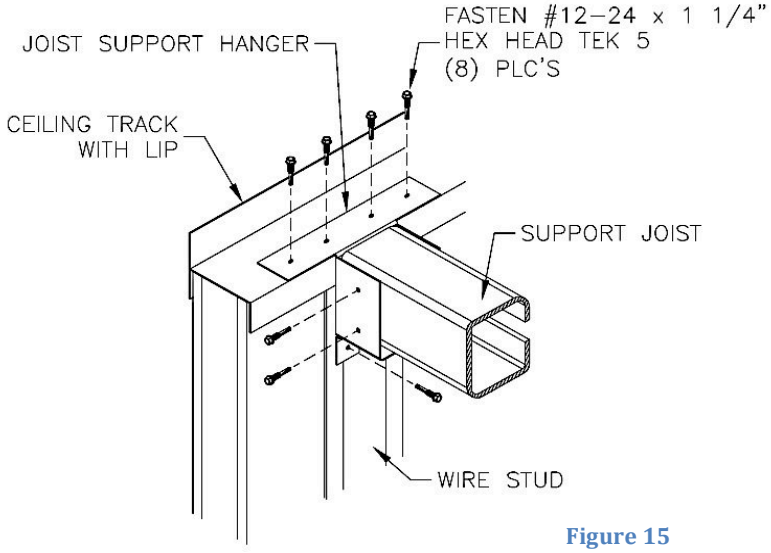


Figure 15

Step 2: Fasten the corrugated steel roof panels to the joist the same as you would to the ceiling track. Screws should be placed 24" on centers.

Load Bearing Walls: Structural steel beams with welded clip angles are used to support the roof deck. Similar to joist installation, the beams are placed on top of the ceiling track over a wall stud. Fasten the clip angles to the ceiling track with #12-24 x 1 1/4" hex head TEK 5 screws. The roof deck should be fastened to the beams with #12-24 x 1 1/4" hex head TEK 5 screws as well. **(See Figure 16)**

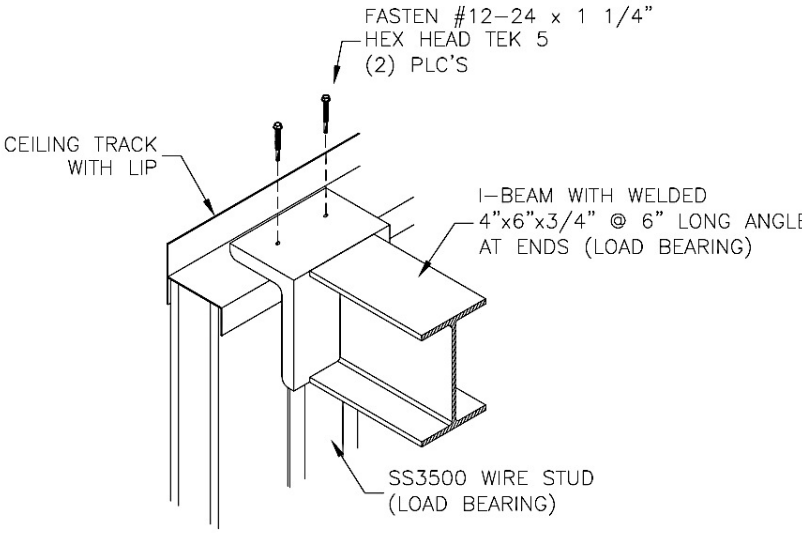


Figure 16

Grid Ceiling Installation

Refer to the **Ceiling Grid Layout** in your packing list for the suggested layout pattern of the ceiling tiles and light fixtures.

Step 1: The first step is to install the wall angle (provided on 12' lengths). The wall angel must be cut to fit the walls of your building approximately 6" below the top of the walls panels or 6" below the joists. Secure at each wall stud and corner post with the crews provided. **(See Figure 17)**

Note: Starrco recommends attaching the wall angle to the wire stud and corner post. The angle may be attached if desired to panels to close off gap between angle and panel.

Step 2: From your **Ceiling Grid Layout** determine the location of the main tees and strike a chalk at 24" intervals. Drill holes through the dust cover and thread the wires through the holes. **(See Figure 17)**

Step 3: Attach ceiling support tie wires along this chalk line at 24" intervals. Drill holes through the dust cover and thread the wires through the holes. **(See Figure 17)**

Step 4: Install main tees by hanging them from the tie wires just installed. Make sure the main tees are at the same height as the wall angle.

Step 5: Install cross tees per your **Ceiling Grid Layout**.

Step 6: Lay the fluorescent light fixtures into the grid system and complete the electrical installation.

Step 7: Lay the 2'x4' pads into the ceiling.

Step 8: Determine the exact size of the end pieces and cut 2'x4' pads to fit. Lay these into place to complete your ceiling.

For additional requirements such as seismic grid, refer to **Ceiling Grid Layout** specific to project.

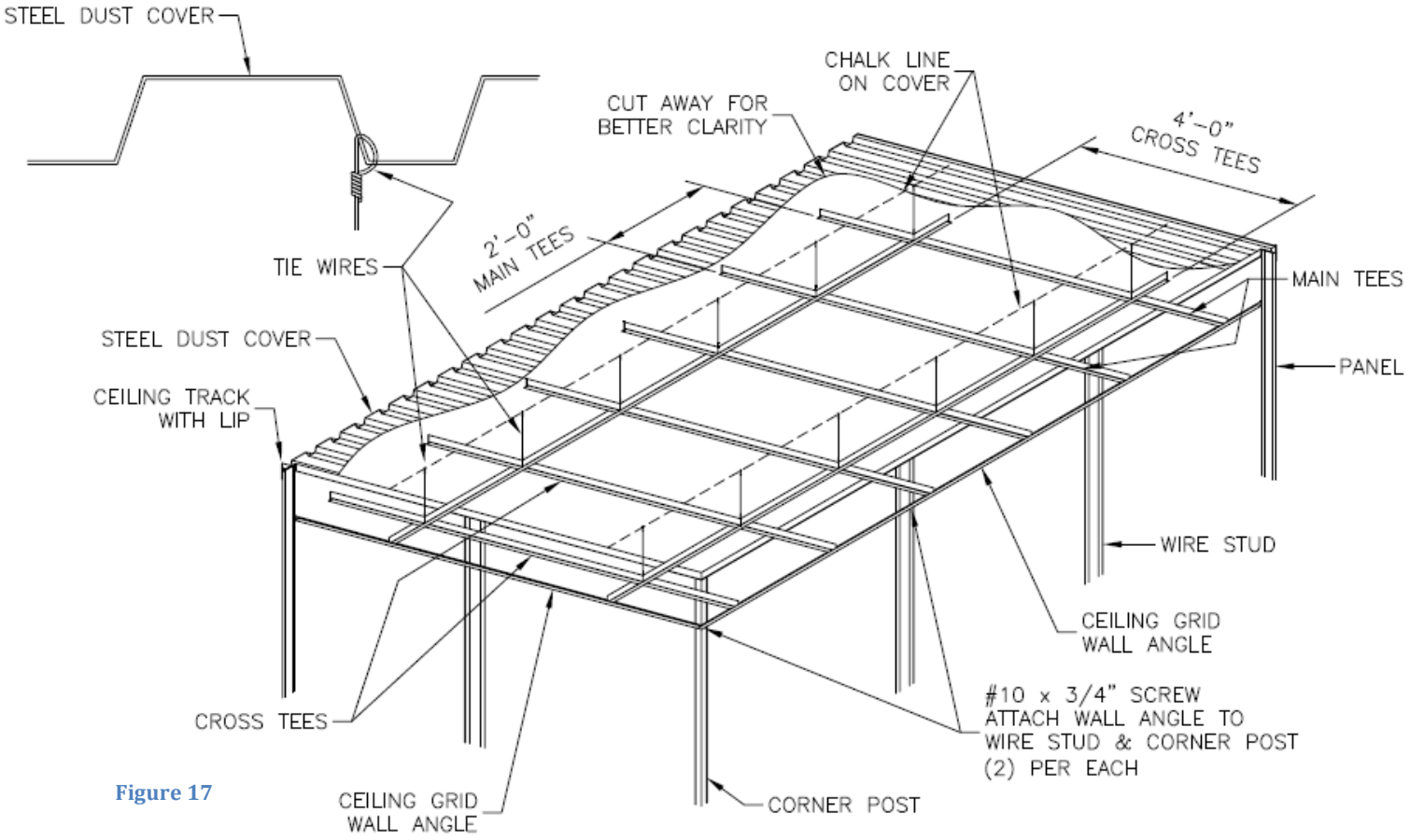
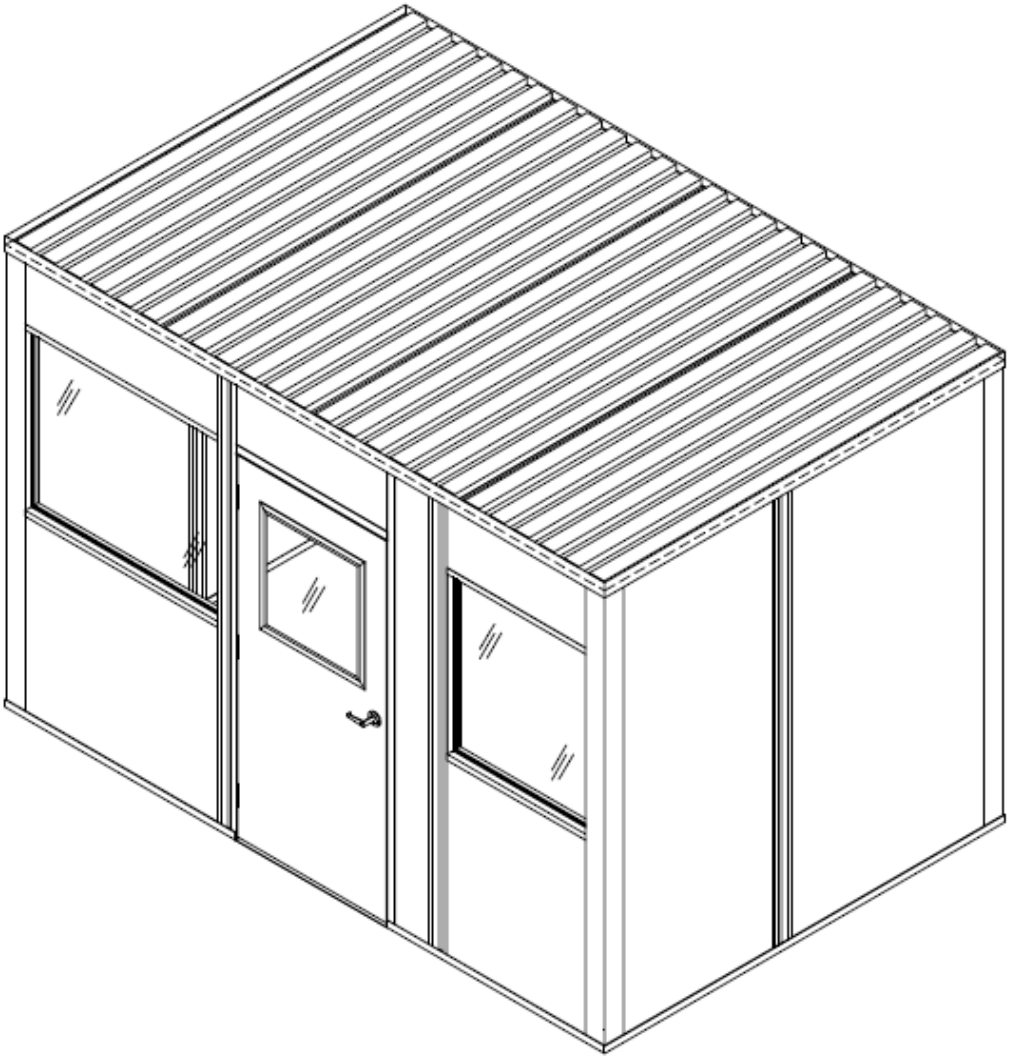


Figure 17



Finishing up

Now that you have finished up with the install of your new Starrco building, we suggest wiping down all panels and extrusions with damp cloth or sponge. For the windows you may use any glass cleaner. Along with the shipment of your building will be a touch-up paint pen. This may be used now, touch-up any extrusions or doors that may have been scratched during the install process.

Thank you for the purchase of your new Starrco modular building system. If you have any questions or comments feel free to contact your dealer or leave Starrco a comment at www.starrco.com/contact/

STARRCO, INC.
11700 Fairgrove Industrial Boulevard
Maryland Heights, MO 63043-3436 U.S.A.
Tel. (314) 567-5533, 1-800-325-4259
www.starrco.com
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