

Your Guide to Installing  
Suspended Ceilings

**Note: Prior to installation, CertainTeed Ceiling Tile & Suspension System products must be stored in a dry and clean area, and protected from possible damage caused by rain, snow and/or excessive moisture.**

Please read the following Pre-Installation Instructions before you install a CertainTeed Ceilings System.

#### Environment

- Make sure that the temperature and humidity are consistent with the limits printed in the CertainTeed Ceilings product warranty. As a general rule, no CertainTeed Ceiling product should be installed in uncontrolled conditions, in temperatures below 60°F or above 85°F, in non-enclosed rooms, or in areas where the relative humidity is more than 70%.
- The respective product warranties are available for examination in the CertainTeed Ceilings Product Catalog or on the web at [www.certainteed.com/ceilings](http://www.certainteed.com/ceilings).
- The product should be stored in a dry, clean, and controlled area protected from the elements until it is ready for use.

# Installing Your Ceiling Panels

Installing your ceiling isn't difficult, but it does take careful planning. Read through all the instructions in advance and follow them carefully for a ceiling you'll be proud of.

## Tools and Supplies

- Main Tees
- Cross Tees
- Wall Angle
- Hanger Wire Hooks
- 12 Gauge Hanger Wire
- Drywall Screws
- Carpenter's Square
- Safety Glasses
- Utility Knife
- Tape Measure
- Carpenter's Level
- Metal Snips
- Chalk Line or Laser Level
- Hammer
- Drill and Drill Bits
- Pliers
- String and Clamps



### ESTIMATION GUIDE

| Room Size           | 8x10' | 8x12' | 8x14' | 10x10' | 10x12' | 10x14' | 10x16' | 12x12' | 12x14' | 12x16' | 12x20' | 14x16' | 14x20' | 14x22' | 14x26' | 16x16' | 16x18' | 16x20' | 16x24' | 16x28' | 18x18' | 18x20' | 18x24' | 18x28' | 18x32' |
|---------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>2'x2' Layout</b> |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 2'x2' Panels        | 20    | 24    | 28    | 25     | 30     | 35     | 40     | 36     | 42     | 48     | 60     | 56     | 70     | 77     | 91     | 64     | 72     | 80     | 96     | 112    | 81     | 90     | 108    | 126    | 144    |
| 2' Cross Tees       | 10    | 12    | 14    | 14     | 15     | 18     | 20     | 18     | 21     | 24     | 30     | 28     | 35     | 41     | 48     | 32     | 36     | 40     | 48     | 56     | 36     | 45     | 54     | 63     | 72     |
| 4' Cross Tees       | 8     | 10    | 12    | 10     | 13     | 15     | 18     | 15     | 18     | 21     | 27     | 25     | 32     | 35     | 42     | 28     | 32     | 36     | 44     | 52     | 36     | 41     | 50     | 59     | 68     |
| <b>2'x4' Layout</b> |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 2'x4' Panels        | 12    | 12    | 16    | 15     | 18     | 21     | 24     | 18     | 24     | 24     | 30     | 28     | 40     | 44     | 52     | 32     | 40     | 40     | 48     | 56     | 45     | 50     | 60     | 70     | 80     |
| 4' Cross Tees       | 9     | 10    | 12    | 12     | 15     | 18     | 21     | 15     | 20     | 21     | 27     | 25     | 36     | 40     | 48     | 28     | 35     | 36     | 44     | 52     | 40     | 45     | 55     | 65     | 75     |
| 12' Wall Angle      | 3     | 4     | 4     | 4      | 4      | 5      | 5      | 4      | 5      | 5      | 6      | 5      | 6      | 6      | 7      | 6      | 6      | 6      | 7      | 8      | 6      | 7      | 7      | 8      | 9      |
| 12' Main Tees       | 2     | 2     | 2     | 2      | 2      | 3      | 3      | 2      | 3      | 3      | 4      | 4      | 5      | 6      | 7      | 4      | 6      | 7      | 8      | 9      | 6      | 7      | 8      | 10     | 11     |

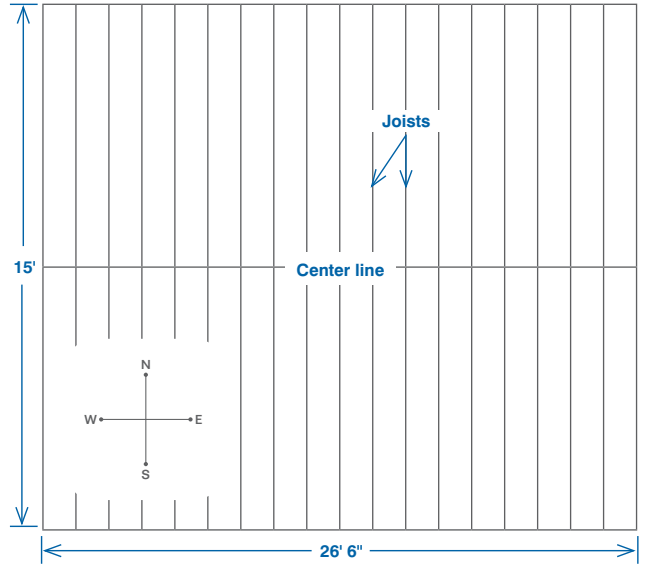
# Pre-Installation Planning

Use graph paper to plan your grid and panel placement and ensure a trouble-free installation.



## Locate Center Line

1. Draw the room to scale on graph paper. Be sure to note the room dimensions on the drawing.
2. Determine the center line of the room (preferably perpendicular to the ceiling joists) and add it to the drawing. Installation will be easier if main tees are aligned perpendicular to the ceiling joists. Main tees should be located 4 ft. on center.



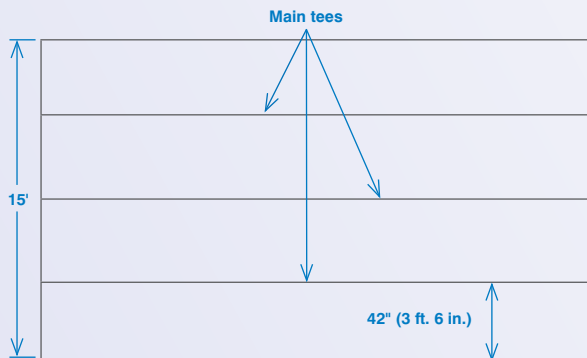
## Locate Main Tees

3. Divide the width of the room by the length of the panel. The result is the number of panels across the width of the room, plus a remainder.

Divide the remainder by 2. If the result is at least half the length of a normal panel, that result is the length of your border panels.

If the result is less than half the length of a normal panel, take the original remainder and add it to the length of a single panel. Once done, divide this new dimension in half, and that will give you the length of the border panels. Note: This will result in one less full panel (see example below).

In this example, the first main tee will be placed 3 ft. 6 in. from the side wall. Each main tee after will be located 4 ft. on center.



### Example: for 2 ft. x 4 ft. panels

(room width) 15 ft. ÷ (panel length) 4 ft. = 3 panels, remainder of 3 ft.

$$3 \text{ ft.} \div 2 = 1 \text{ ft. } 6 \text{ in.}$$

Since 1 ft. 6 in. is less than half of the length of a panel, add the original remainder (3 ft.) to the length of a normal panel and then divide by 2.

$$3 \text{ ft.} + 4 \text{ ft.} = 7 \text{ ft.}$$

$$7 \text{ ft.} \div 2 = 3.5 \text{ or } 3 \text{ ft. } 6 \text{ in.}$$

So you would have 2 full panels across the room, with 3 ft. 6 in. wide border panels on both sides.

This method will produce the least amount of scrap/wasted material.



# Pre-Installation Planning

## Locate Cross Tees

4. Use same method outlined in step 3 to determine the number of panels down the length of the room and the width of border panels. (For both 2 ft. x 4 ft. panels and 2 ft. x 2 ft. panels, the width is 2 ft.)

### Example:

(room length) 26.5 ft. ÷ (panel width) 2 ft. = 13.25 or 13 panels, remainder 6 in.

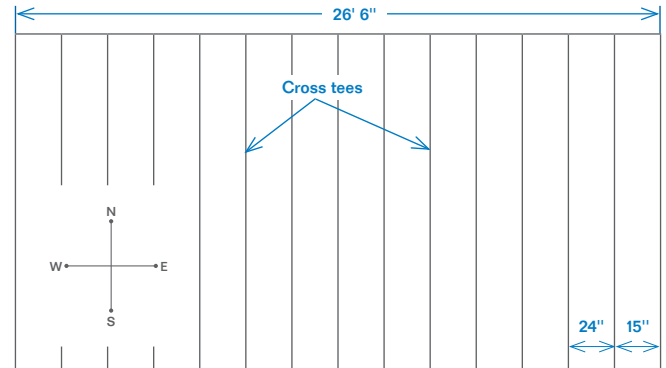
Since 6 in. is less than half of the width of a panel, add the original remainder to the width of a normal panel.

$$6 \text{ in.} + 24 \text{ in.} = 30 \text{ in.}$$

$$30 \text{ in.} \div 2 = 15 \text{ in.}$$

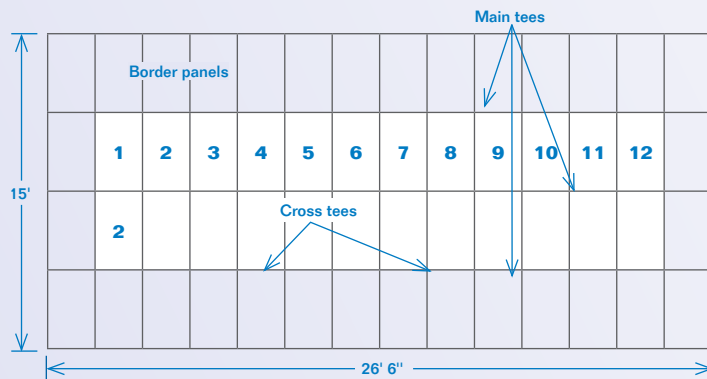
So you would have 12 full panel widths down the room, with 15 in. long border panels at both ends.

In this example, the first cross tee will be placed 15 in. from the end wall and snapped into the main tees.



## Calculate Materials

5. From the diagram, determine the number of pieces of wall angle, main tees, cross tees and ceiling panels you'll need to finish. Main tees come in 12 ft. lengths, cross tees in 2 ft. and 4 ft. lengths (2 ft. cross tees are required only if 2 ft. x 2 ft. panels are used) and wall angle in 12 ft. lengths. Also, you will need one hanger wire and screw eye for every 4 ft. of main tees.



You can Be Certain™ that CertainTeed Ceilings is your source for complete ceiling solutions and expertise.

### For Product and Installation Questions:

Call 1-800-233-8990 (Monday – Thursday: 7:30 a.m. – 6:30 p.m. , Friday: 7:30 a.m. – 6:00 p.m. EST); English, Spanish and French speakers available. Or email [ceilingtechnicalservices@certainteed.com](mailto:ceilingtechnicalservices@certainteed.com)

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