RULON
INTERNATIONAL

Linear Open Style
Suspended Ceiling
Installation Guide

Receipt and Storage:

a. All material shall be delivered to the project site in the original, labeled, unopened packages. Keep packages of components unopened until it is time to acclimate to the building conditions
b. Material shall be stored flat and level in a fully enclosed space. **DO NOT Store Rulon products in direct sunlight.** Seventy-two hours before beginning ceiling installation, wood strips must be moved into the room where the HVAC system is operating and the packaging shall be opened. This is to allow the boards to adjust to the room environment. Wood strips are to be stored off the floor.
c. Care in handling must be exercised to avoid damage.

Before You Begin Installation:

a. Ensure that all necessary tools are available (see below)
b. Check Wall components to ensure all items required are at hand (see Page 2)
c. Review this guide in its entirety. If you have any questions, call Rulon Company before you start the installation
d. Installation shall be done only when the temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. The heating and cooling systems shall be operating before, during, and after installation, with the humidity of the interior spaces maintained between 25% and 55%, temperature between 60 to 90 degrees F.
e. It is important that area have proper ventilation, especially in high moisture areas. There shall be no excessive build up of heat in the space.
f. Prior to the start of installation, all exterior windows and doors are to be in place, glazed, and weather-stripped. The roof is to be watertight, and all wet trades' work is to be completed, and thoroughly dry.
g. Mechanical, electrical, and other utility service installations above the ceiling plane shall have been completed. No materials should rest or wrap around, the ceiling suspension components or connecting hangers.

If You Need Further Assistance:

- If you have any questions, or if you encounter a situation not covered by this installation guide, contact the Rulon Engineering Department.
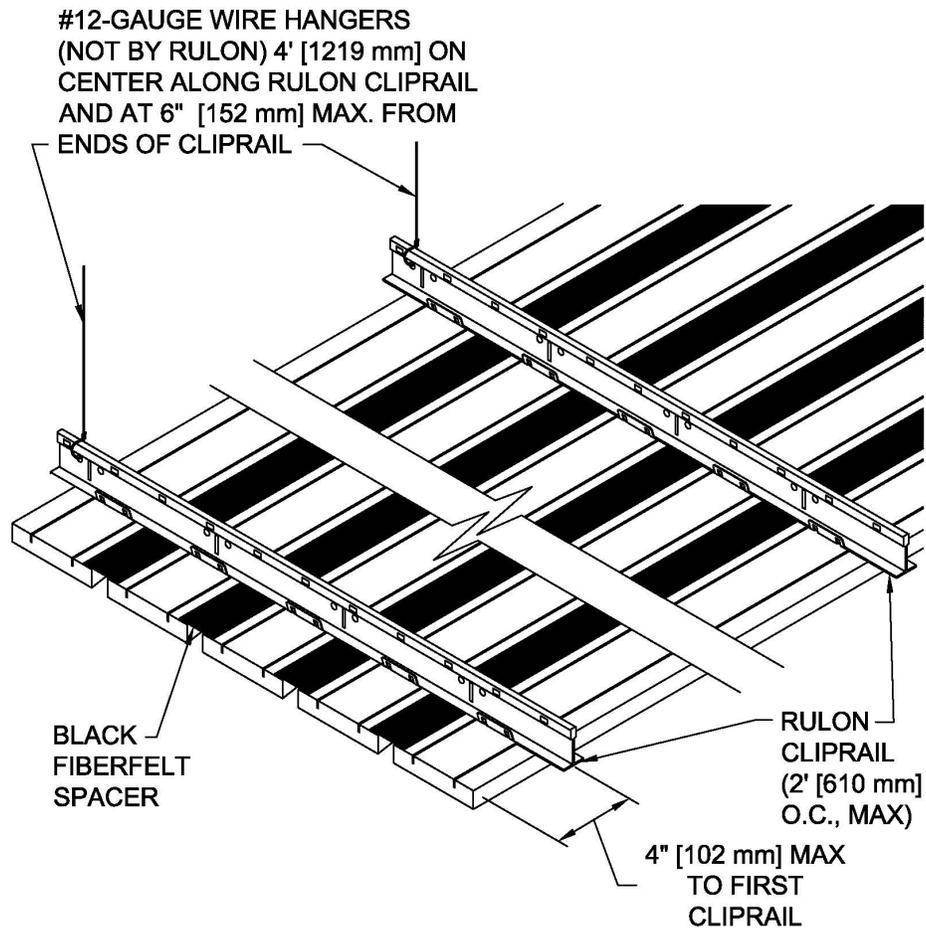 Phone: 904-584-1400

Tools and Equipment:

- Rulon Clamping Tool
- Standard leveling devices
- Jamb / Undercut saw for trimming ceiling at perimeter
- Saber saw
- Miter saw

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- Nail gun
- Screw gun
- Rubber or cushioned mallet

#12-GAUGE WIRE HANGERS
(NOT BY RULON) 4' [1219 mm] ON
CENTER ALONG RULON CLIPRAIL
AND AT 6" [152 mm] MAX. FROM
ENDS OF CLIPRAIL

BLACK
FIBERFELT
SPACER

RULON
CLIPRAIL
(2' [610 mm]
O.C., MAX)

4" [102 mm] MAX
TO FIRST
CLIPRAIL

Ceiling Components:

Supplied by Rulon:

-   Ceiling Boards
-   Cliprails
-   Perimeter and border trim (when specified)
-   Touch-up finish

Supplied by Others:

-   #12-Guage wire
-   Hanger Inserts
-   1½" [38 mm] finishing nails
-   #6 x 9/16" sharp point (NOT self-tapping) screws
-   Acoustical Blanket (when specified)

Wood Conditions:

a. Boards are generally random length with tongue-and-groove ends.

b. If boards were ordered in nominal fixed lengths due to the areas being less than ten feet (10'[3048 mm]) across, they will be provided without tongue-and-groove ends and require field trimming.

c. **Bowed Boards:** Such boards can be used with Rulon's cliprail system. The installer needs to firmly seat the tongue-and-groove end and then snap the clip into the slots in the back of the board.
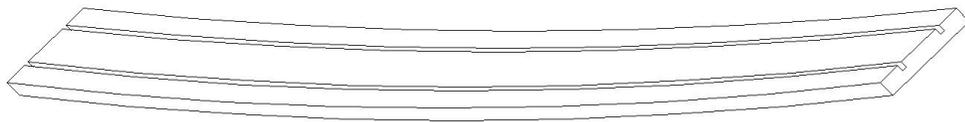
BOWED BOARD

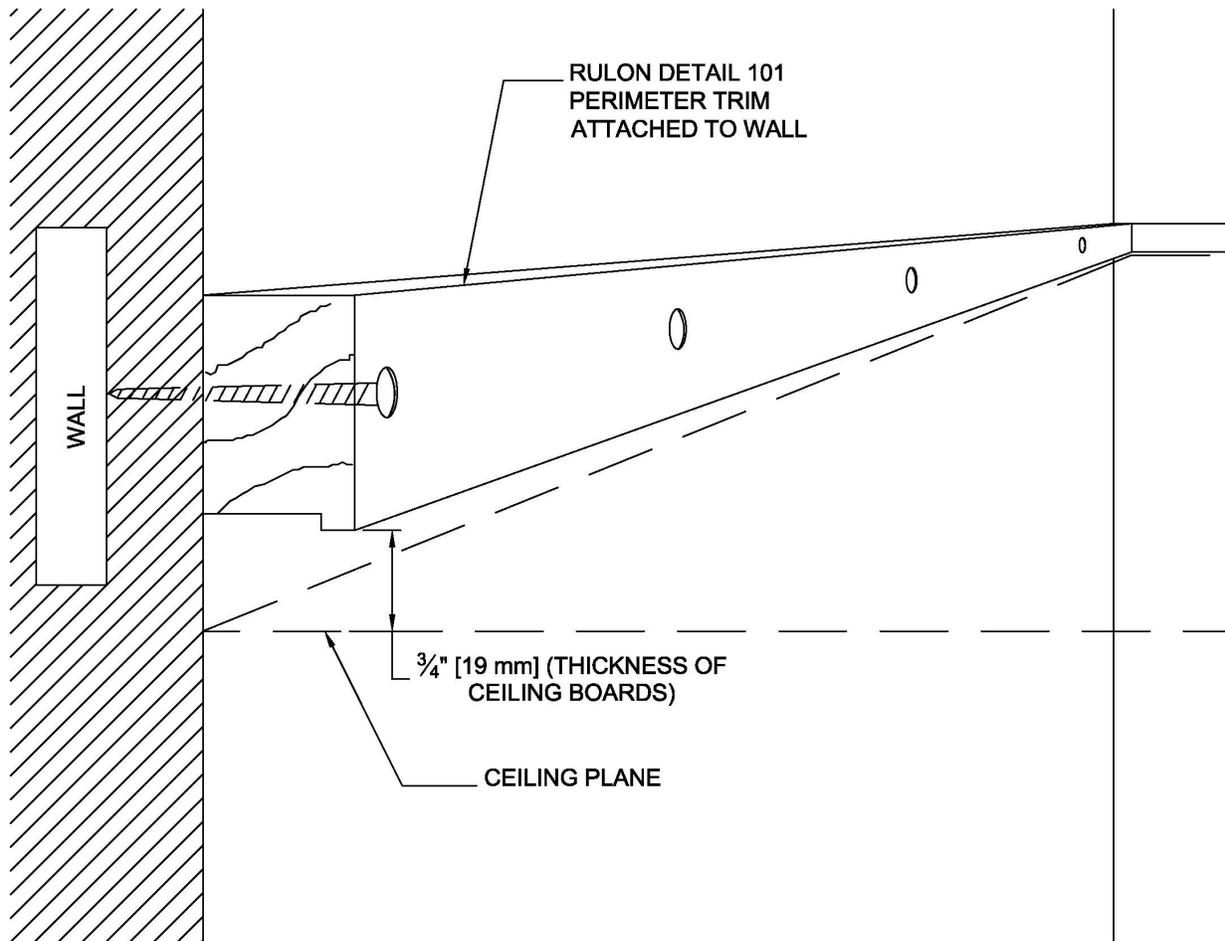d. **Curved Boards:** These boards can be cut and used as beginning or ending boards.
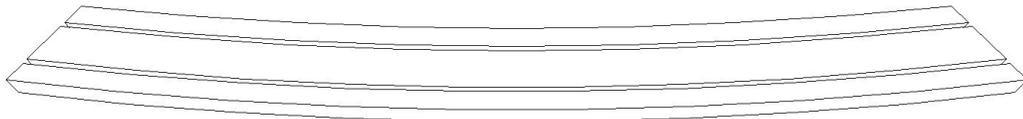
CURVED BOARD

e. **Twisted Boards:** These boards should not be installed. If you should run short of boards due to having some of these boards, save them. Rulon will replace at no charge.
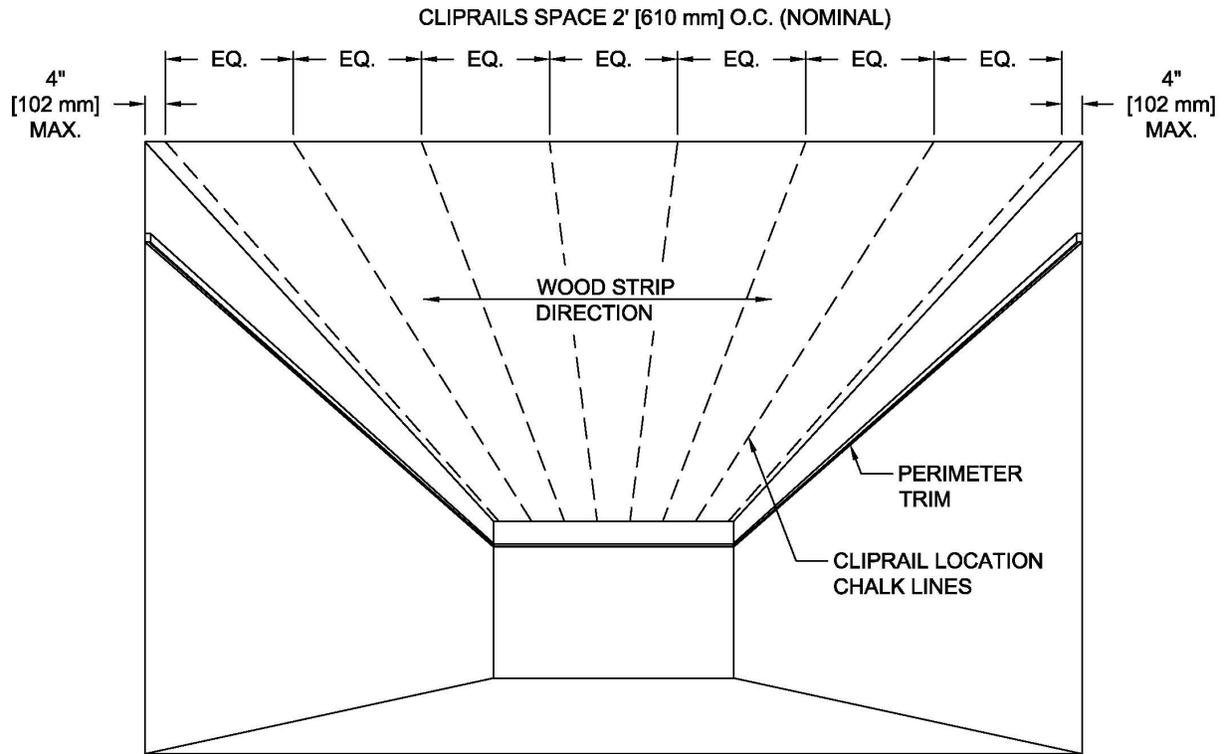
TWISTED BOARD

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RULON DETAIL 101
PERIMETER TRIM
ATTACHED TO WALL

WALL

¾" [19 mm] (THICKNESS OF
CEILING BOARDS)

CEILING PLANE

Step 1: Perimeter Installation

Establish the ceiling height with laser, water-level, or other appropriate method. Mark location. Install border material so that the bottom of the trim is 3/4" [19 mm] above the ceiling plane.

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CLIPRAILS SPACE 2' [610 mm] O.C. (NOMINAL)

EQ. — EQ. — EQ. — EQ. — EQ. — EQ. — EQ.

4"
[102 mm]
MAX.

4"
[102 mm]
MAX.

WOOD STRIP
DIRECTION

PERIMETER
TRIM

CLIPRAIL LOCATION
CHALK LINES

Step 2: **Cliprail Placement**

Mark cliprail locations. Cliprails shall be located at 2' [610 mm] (nominal) O.C. starting 4" [102 mm] from one wall, and ending within 4" [102 mm] of the opposite wall. Cliprails shall run perpendicular to the direction of the wood strips.
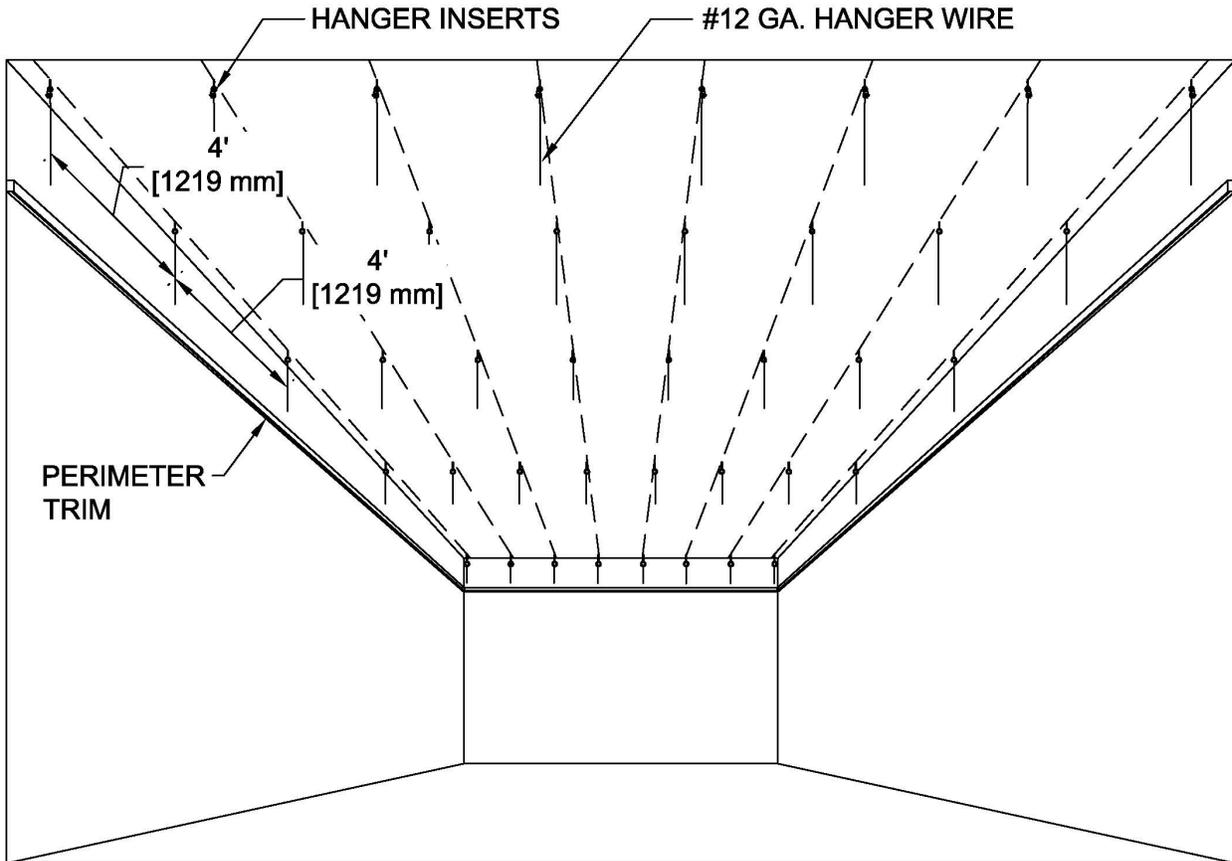
Step 3: **Attaching Hangers**

Install hanger inserts (i.e. screw eyes, star anchors, or eye pins shot or hammered into building structure or clips attached to beam flanges) at 4' [1219 mm] O.C. Hang #12-ga. Wire from the inserts. Wires need to be hung directly from building structure, unless otherwise covered in the Rulon shop drawings, or reviewed and approved by the Rulon Engineering Department.

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CLIPRAIL   #12 GA. HANGER WIRE
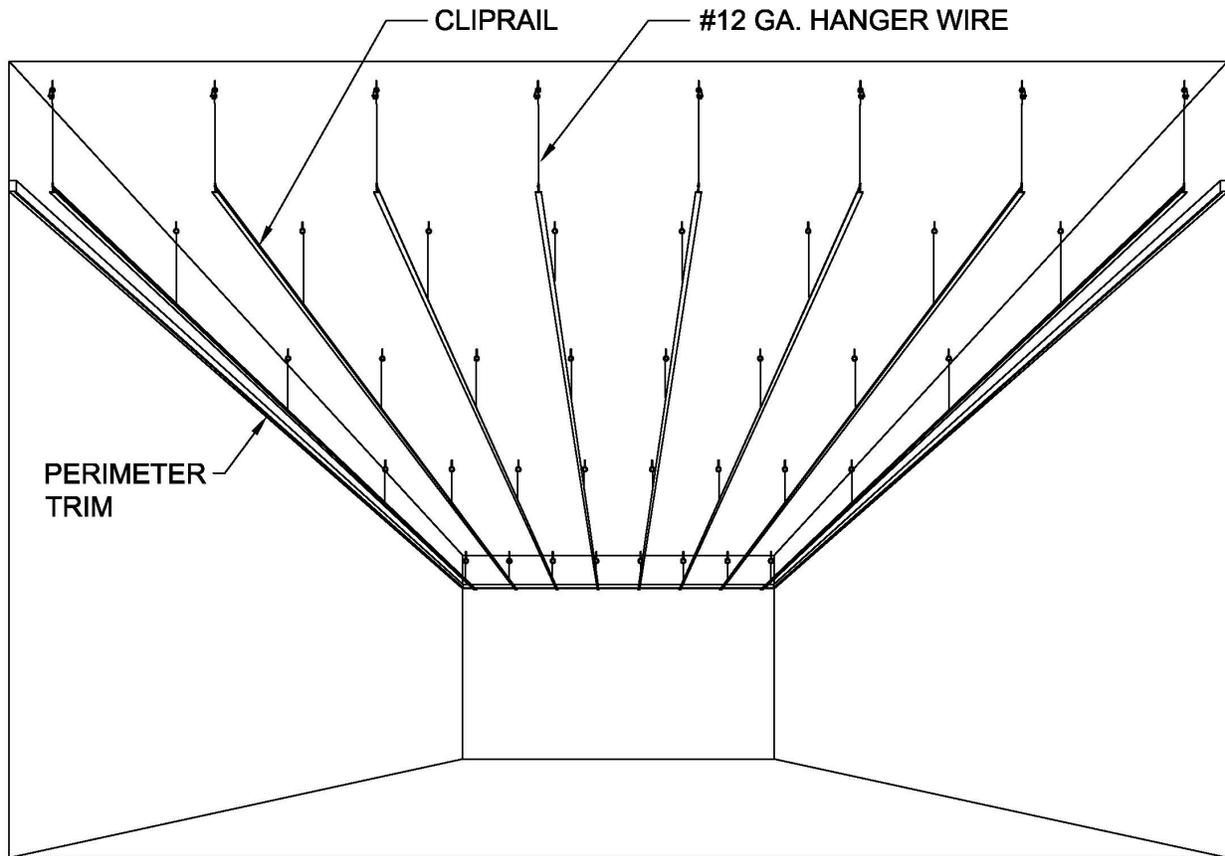
PERIMETER
TRIM

Step 4: **Cliprail Suspension**
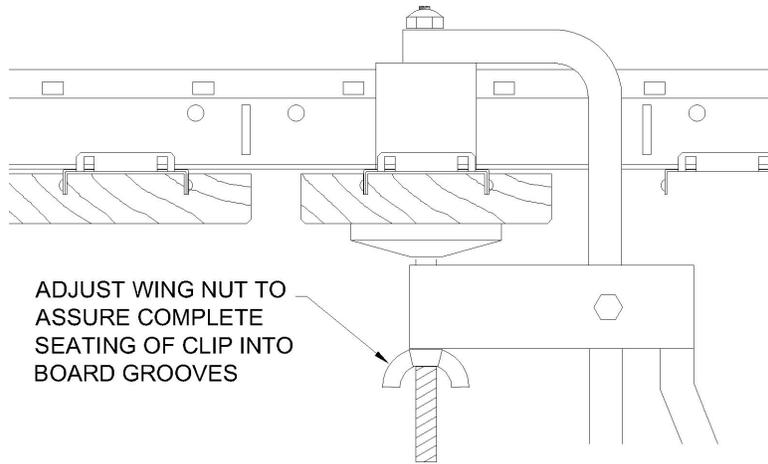
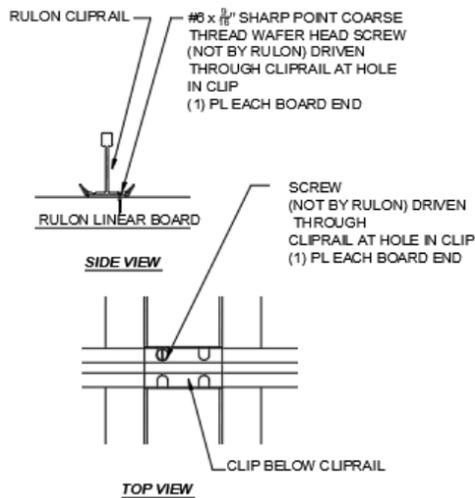Hang cliprails from ceiling hangers. Level. At cliprail junctions, insert one cliprail into the end of the other.

½" [13 mm]
APPROX.
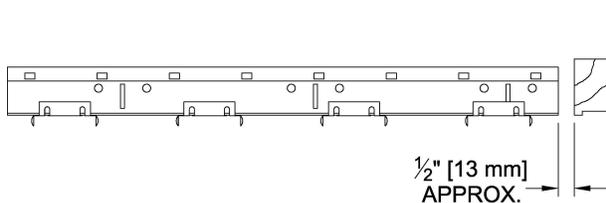
Note:
Leave approx. 1/2" [13 mm] space
Between cliprail end and perimeter trim.

Step 5: Ceiling Board Attachment

Beginning at one wall, connect the first board to the cliprails. The contractor shall use the Rulon clamping tool to snap wood strips onto cliprails. The clips, which are factory-attached to the cliprail, have projections that insert into the grooves cut into the back side of the wood strips. Proper tool adjustment is important to ensure that the clips achieve a deep seat within the wood grooves. Installation shall proceed, in sequence, from one wall to the opposite side.

ADJUST WING NUT TO ASSURE COMPLETE SEATING OF CLIP INTO BOARD GROOVES

RULON CLIPRAIL — #6 x 9/16" SHARP POINT COARSE THREAD WAFER HEAD SCREW (NOT BY RULON) DRIVEN THROUGH CLIPRAIL AT HOLE IN CLIP (1) PL EACH BOARD END

RULON LINEAR BOARD

SIDE VIEW

SCREW (NOT BY RULON) DRIVEN THROUGH CLIPRAIL AT HOLE IN CLIP (1) PL EACH BOARD END

CLIP BELOW CLIPRAIL

TOP VIEW

Note:
It is standard practice to screw tight all boards onto the cliprail. This is done after the boards have been snapped in place with the clamping tool. It is recommended for the installer to use a #6 x 9/16" long sharp point **(NOT self-tapping)** screw, driven through the cliprail into the board below, at one of the openings in the clip (see illustrations at left). As a minimum, a screw should be used at each end of the board, and also at the center if needed, drawing it tightly against the cliprail.

Special:
Some hardwoods may require pre-drilling for back screwing. Heavy, dense woods, such as Ipe, will require a screw at each cliprail location.

Special: Softwoods require screws at every cliprail.

OPEN AREA

FIBERFELT SPACER
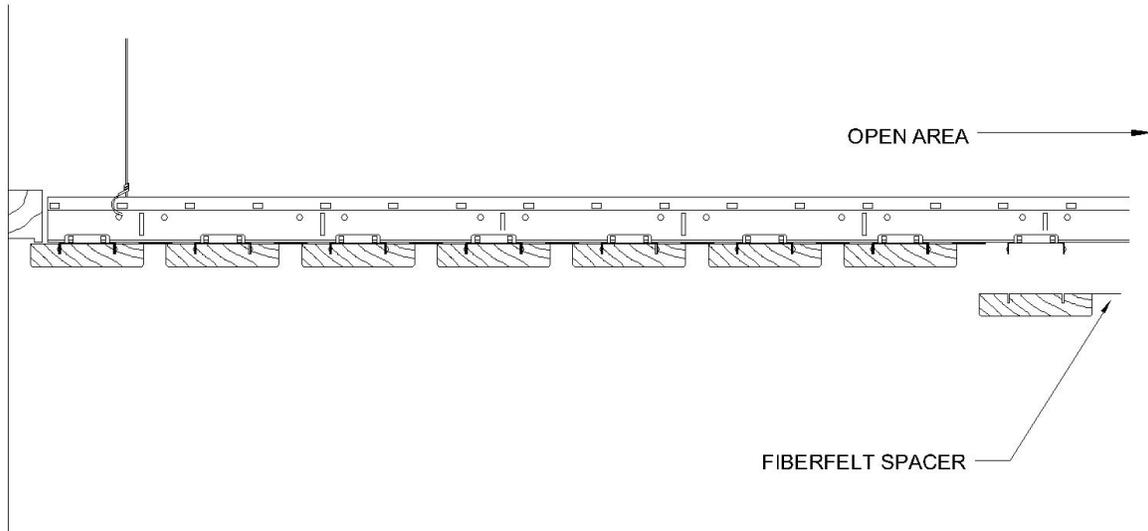
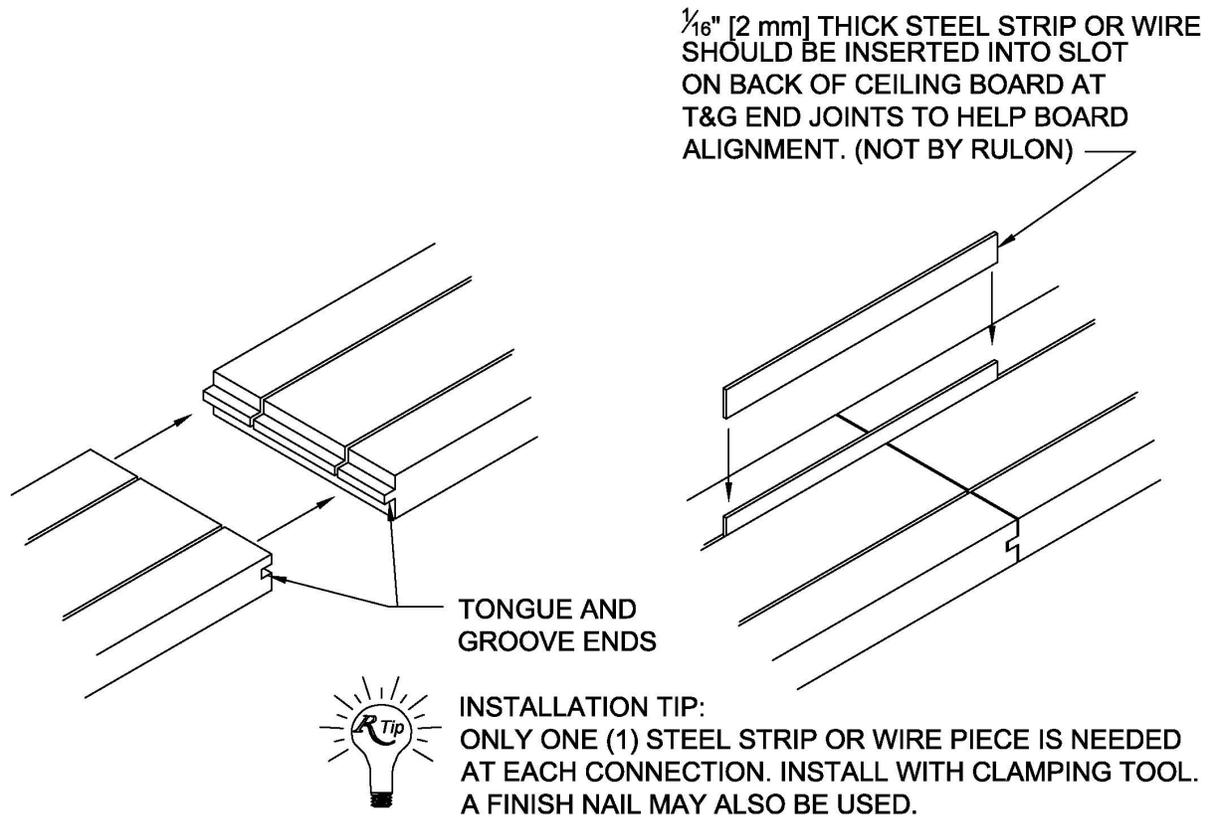### Step 6: Ceiling Board Installation Sequence

Install the wood ceiling strips with the fiberfelt edge pointing toward the area to be filled. The ceiling should be leveled, as needed, as boards are installed.

Note:

> When an acoustical blanket is to be installed, it should be placed behind the ceiling as the installation progresses, and staple occasionally to the boards to keep it in place.

¹⁄₁₆" [2 mm] THICK STEEL STRIP OR WIRE
SHOULD BE INSERTED INTO SLOT
ON BACK OF CEILING BOARD AT
T&G END JOINTS TO HELP BOARD
ALIGNMENT. (NOT BY RULON)

TONGUE AND
GROOVE ENDS

INSTALLATION TIP:
ONLY ONE (1) STEEL STRIP OR WIRE PIECE IS NEEDED
AT EACH CONNECTION. INSTALL WITH CLAMPING TOOL.
A FINISH NAIL MAY ALSO BE USED.

Step 7: Ceiling Board Joints

When boards are random lengths with tongue-and-groove ends, be sure that the tongues are firmly seated into the grooves. Where necessary, to ensure a tight connection, insert a corrugated fastener, or piece of tight-fitting, stiff material, into the groove across both boards.

Note:
> It is not necessary for joints to occur under the cliprail. The tongue-and-groove end connection gives sufficient support to the wood strips.

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PADDED WOOD

RUBBER OR
CUSHIONED
MALLET
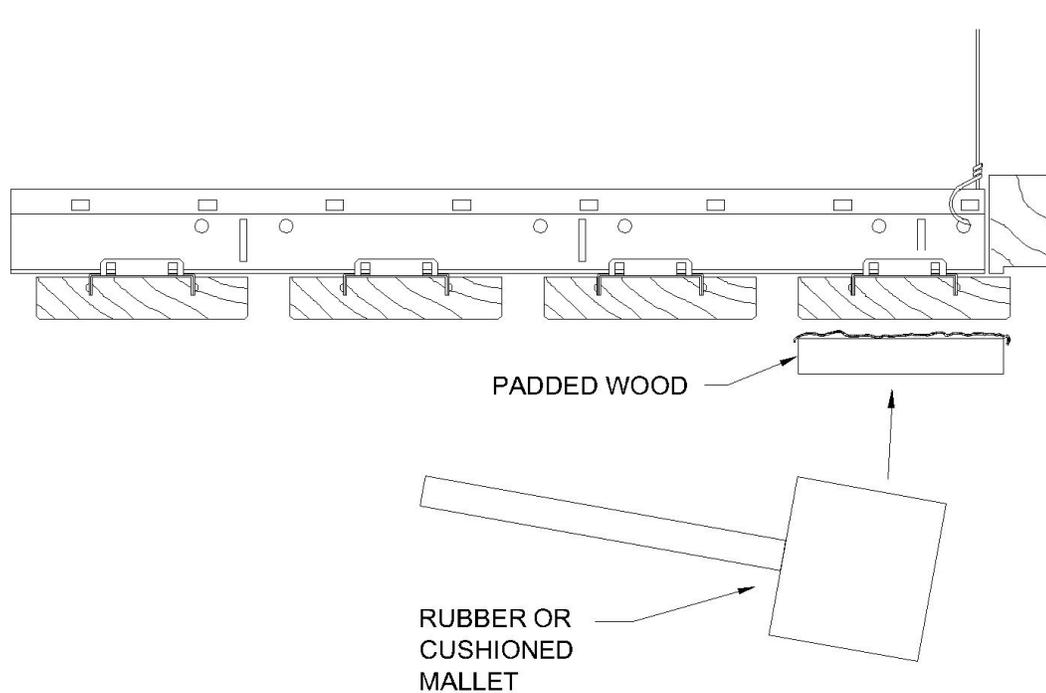
Step 8: Installation of Final Ceiling Board

The last row of boards is NOT installed using the clamping tool. Install these boards by tapping the clip tangs into the grooves on the backside of the board using a rubber or cushioned mallet, with a piece of padded wood, to prevent marring of the ceiling board.

DETAIL 101
PERIMETER
TRIM

RULON CLIPRAIL

CEILING BOARDS

¾" [19 mm]
(UNDER
NORMAL
CONDITIONS)
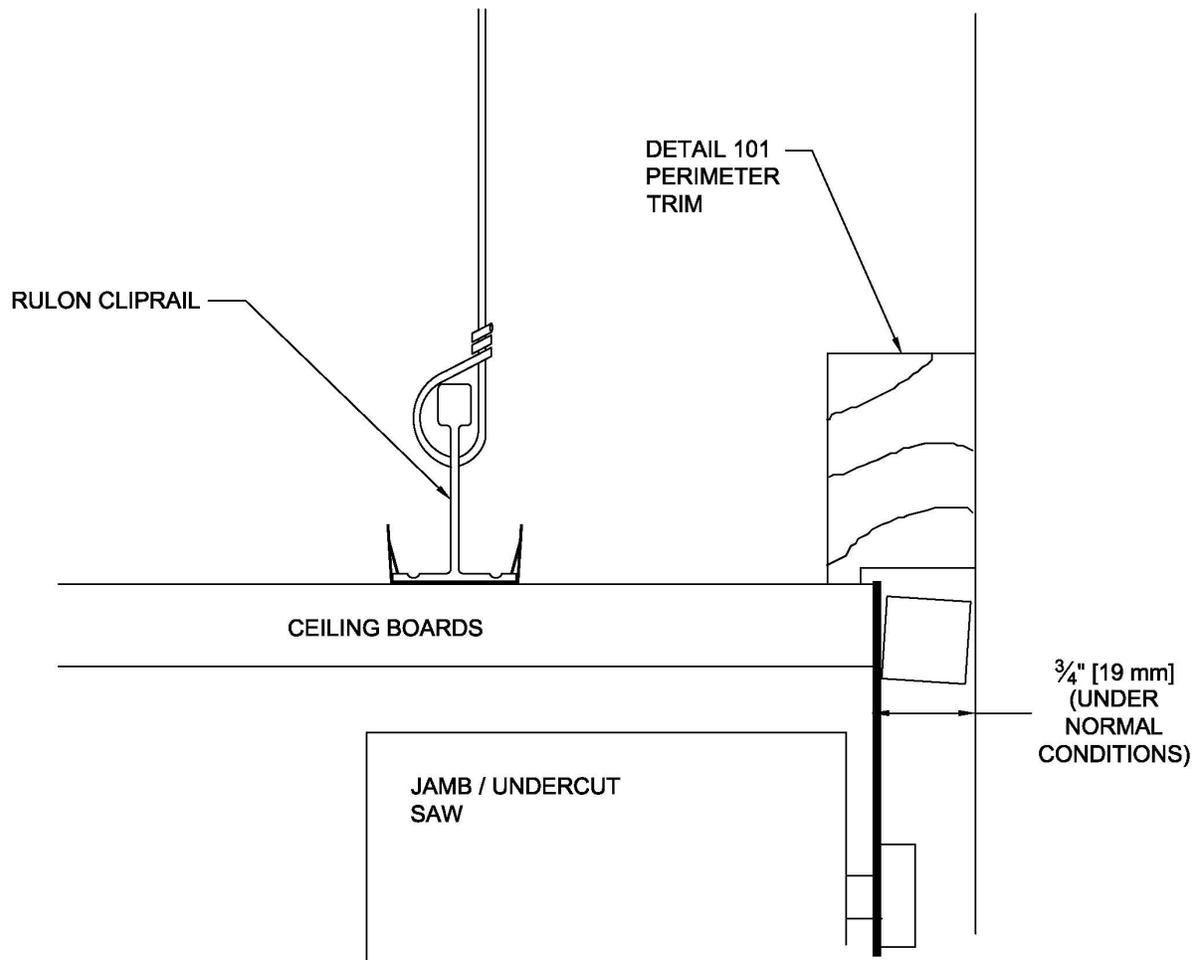
JAMB / UNDERCUT
SAW

Step 9: Trimming Boards at Perimeter

After all wood strips have been installed, the ceiling boards can be trimmed to achieve a uniform reveal width at the perimeter. A small jamb or undercut saw, set to allow cuts within 3/4" [19 mm] of the wall, is needed. **Use provided touch-up finish to seal the cut ends of all boards. For Exterior Applications, cut ends must be touched up thoroughly with Spar Urethane finish to prevent moisture infiltration.**

WALL, BEAM
OR SOFFIT

RULON PERIMETER
TRIM #101 - FASTEN
TO WALL

NAIL OR STAPLE

SIDE INSTALLATION

END INSTALLATION
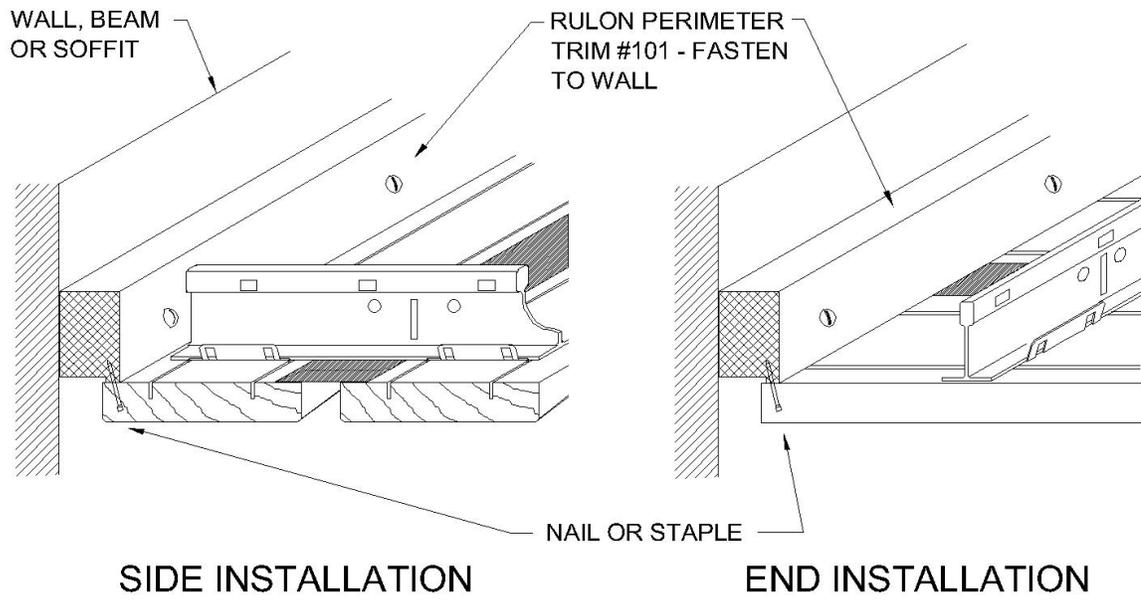
Step 10: Attachment at Perimeter

For additional rigidity, nail the ends of the boards to the perimeter trim with light finishing nails. Countersink and putty nail holes with matching finish provided.

Step 11: Cleanup

a. Make final adjustments to level or contours.
b. Clean all wood strips and borders free of dirt, dust, grease, oils, and fingerprints. Refer to the Rulon Care and Maintenance document for further instructions.
c. Remove and replace all work that cannot be successfully cleaned or repaired.

#12-GAUGE WIRE HANGERS 4' [1219 mm] ON CENTER ALONG CLIPRAIL

STRUT (NOT BY RULON)

#12-GAUGE WIRE HANGER IN HOLE NEAREST STRUT

HARDBOARD SPACER

RULON CLIPRAIL 2' [610 mm] O.C.

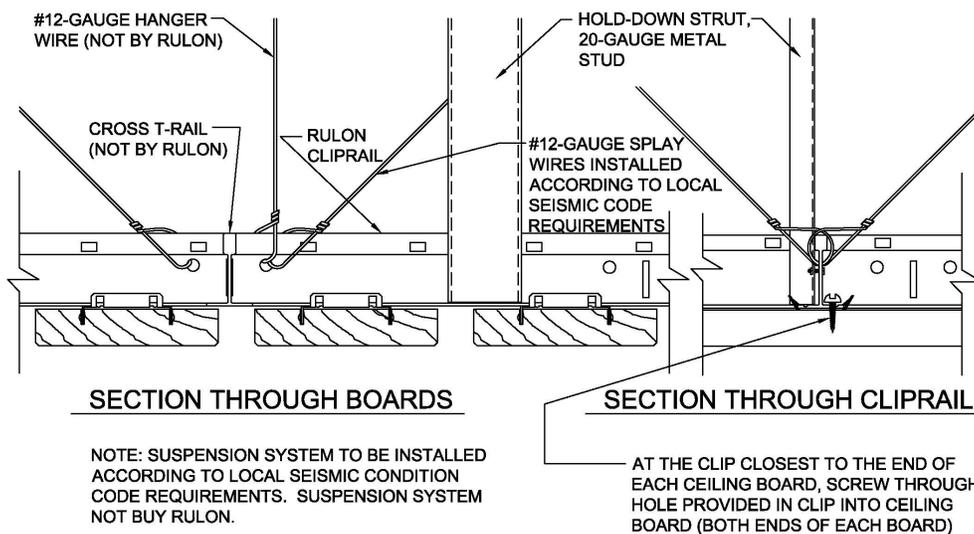2" [51 mm] TO 4" [102 mm] OVERLAP FOR EXPANSION JOINT TYP.
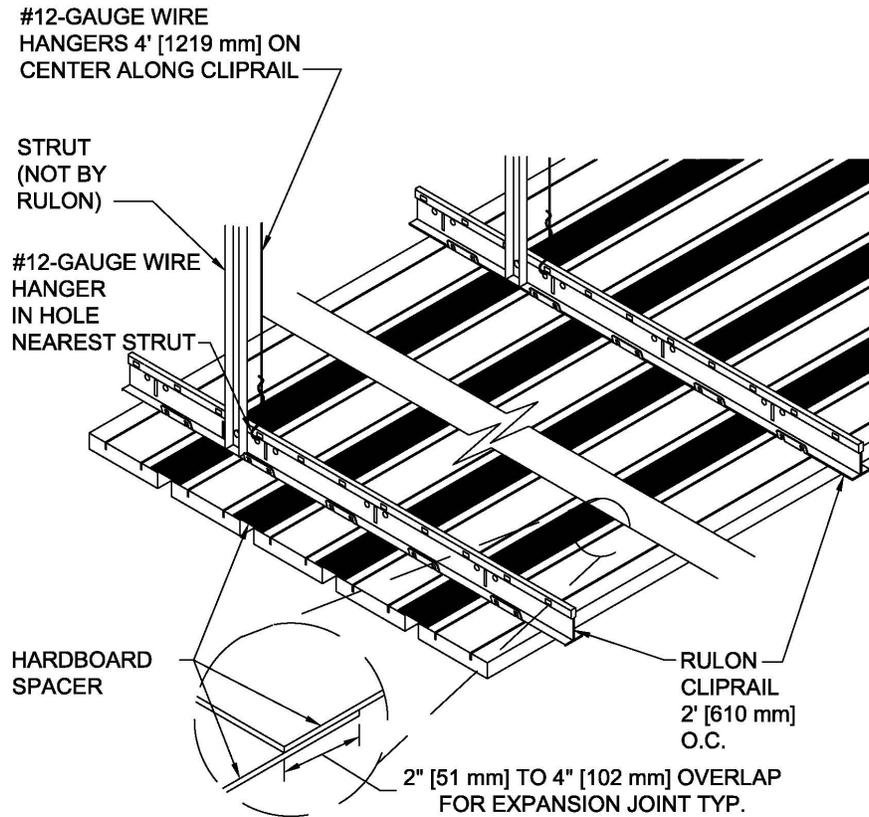
Additional Suspension Requirements:

a. Exterior installations require expansion joint and may require wind-load struts
b. Local code may require seismic suspension

#12-GAUGE HANGER WIRE (NOT BY RULON)

HOLD-DOWN STRUT, 20-GAUGE METAL STUD

CROSS T-RAIL (NOT BY RULON)

RULON CLIPRAIL

#12-GAUGE SPLAY WIRES INSTALLED ACCORDING TO LOCAL SEISMIC CODE REQUIREMENTS

SECTION THROUGH BOARDS

SECTION THROUGH CLIPRAIL

NOTE: SUSPENSION SYSTEM TO BE INSTALLED ACCORDING TO LOCAL SEISMIC CONDITION CODE REQUIREMENTS. SUSPENSION SYSTEM NOT BUY RULON.

AT THE CLIP CLOSEST TO THE END OF EACH CEILING BOARD, SCREW THROUGH HOLE PROVIDED IN CLIP INTO CEILING BOARD (BOTH ENDS OF EACH BOARD)

Optional Access Panel:

ACCESS PANEL SECTION

REMOVE BARBS FROM END CLIPS LEAVING TABS PARTIALLY INTACT FOR SEATING INTO CORRESPONDING GROOVES

ACCESS PANEL REMOVED

3) DIRECT SCREW BOARDS ADJACENT TO ACCESS PANEL

1) CUT BOARDS FOR ACCESS PANEL

2) ATTACH CUT BOARDS TO SHORT PIECES OF CLIPRAIL THAT WILL BRIDGE TO UNCUT CEILING AREA.