



# Installation Guide

GRAD™ HIDDEN CLIP-ON SYSTEM



ARBOR  
WOOD CO

THERMALLY MODIFIED WOOD

## **STORAGE & HANDLING (ARBOR WOOD)**

Arbor Wood Co. products should be stored indoors when possible and/or remain covered with a waterproof tarp until ready for installation. Boards must be stacked uniformly and elevated off the ground. Exposure to UV can cause the boards to become lighter in tone. Always remember to handle with care. Arbor Wood has a lower moisture content and the expansion/contraction is much less than standard wood, but it is still a good practice to ensure the wood has properly acclimated to local site conditions. It is recommended to have Arbor Wood Co. Products on site for one week prior to installation to acclimatize to the moisture of the environment.

## **COLOR**

Thermal modification changes the naturally occurring sugars in the wood resulting in beautiful, rich tones which extend through the full thickness of the material. Since Arbor Wood is still a natural product and is subject to variations in weight, density, color, and grain. In an exterior environment, unfinished Arbor Wood products will move to gray. This does not impact the performance characteristics of the wood itself. The speed of this graying process depends on the intensity of exposure to environmental elements like the sun and rain combined with the type of application. To maintain the original color we recommend applying Cutek Extreme® along with a UV Colortone as Cutek Extreme® by itself is not UV resistant. A light sanding or application of Cutek Proclean will remove the surface silvering and restore the original wood tones. Product color and factory applied finishes are not covered under the product warranty.

## **FINISHING**

Pre-finishing all deck boards prior to assembly is the only way to ensure that all 4 sides are coated evenly. It is highly recommended to coat all wood decking with Cutek Extreme® along with a UV Colortone prior to installation on all 6 sides. This process helps the wood acclimate more slowly and minimizes surface checking and wood movement. Even if your goal is to allow the wood to naturally gray or silver out over time, finishing at this point will help protect the wood when it is most vulnerable.

## **GRAIN PATTERN, CHECKS, & HAIRLINE CRACKS**

As Arbor Wood is a natural wood product, there may be a variance in grain from board to board. It is also possible to observe some small surface checking and/or hairline cracks in the wood. These instances are a natural occurrence and are not a reason for a claim. Regular application of Cutek Extreme® can help minimize the occurrence of surface hairline cracks.

## **CARE & MAINTENANCE**

It is important to ensure the surface of your wood remains clean. Black surface stains can be caused by dirt, debris, pollen and other airborne and microscopic elements resting on the surface of the material. Certain environments provide exceptional growing conditions for mold and fungus, conditions that often fall within, but are not limited to shaded decks or siding. This does not impact the integrity of the wood but it does mean you should be clearing the surface of your deck more often and taking additional preventative care considering surrounding conditions. It is important to remember the same occurrence can happen on any surface, such as rocks, glass, PVC, and composite products. This staining is removable with light pressure washing and a renewing/cleaning agent.



## WARRANTY

Arbor Wood Co. products are covered under a limited 20-year Warranty. This Arbor Wood Co. warranty is made to the original purchaser of the Product(s) (the "Purchaser"); the original owner of the structure on which the Product(s) are installed; and to the next owner of that structure (together "Owner"). Arbor Wood Co. express warranties may not be assigned to any subsequent owners of the structure. Arbor Wood Co. warrants that the Product(s) will remain free from fungal degradation, buckling, structural failure, separating, and rupturing for a period of 20 years from the date the installation is completed. When the Product(s) have been stored, handled, applied, finished and maintained in accordance with Arbor Wood Co.'s installation, application, finishing and maintenance instructions in effect at the time of application. Color and applied finishes are not warranted. These warranties apply only to above-ground installations made in accordance with the instructions. Be sure to consult full product warranty for specific questions.

**FOR MORE INFORMATION, INCLUDING FULL ARBOR WOOD CO. WARRANTY,  
HOW-TO VIDEOS & MORE, FOLLOW THE QR CODE BELOW**



# GRAD™ Pre-Installation Information

## TRANSPORTATION & STORAGE (GRAD RAILS)

- When transported, the rails should be secured in their original packaging and should be stored indoors or in a covered environment before installation.
- No heavy objects should be stored on top of the rails to avoid possible damage and/or bending of the rails

## APPLICATIONS

- The rails can be used for horizontal and vertical cladding
- The rails should only be placed onto a flat, even, and hard surface
- For wooden houses and timber homes: the rails should be secured where the studs are located.

## SAFETY GUIDELINES

- Wear protective clothing and safety equipment such as safety glasses, gloves, long sleeves, and a mask, particularly when cutting aluminum
- The installer is responsible for identifying and following all building codes and construction safety practices
- Grad™ nor Arbor Wood Co. accept any liability or responsibility for the improper installation of this product
- The Grad™ System may not be suitable for every application, and it is the sole responsibility of the installer to be sure that rails and cladding are fit for the intended use. Because all installations are unique, it is also the installer's responsibility to determine specific requirements for each cladding application
- Grad™ and Arbor Wood Co. recommend that all applications be reviewed by a licensed architect, engineer or local building official before installation



# GRAD™ Pre-Installation Information (contd)

## CHECKLIST

- The wall should be straight, levelled, and undamaged
- Each rail must be fixed onto a flat and hard surface (stud or wall) using appropriate fasteners. Fasteners shall be selected by the customer to be suitable for the surface onto which the rails are secured
- It is the customer's responsibility to verify they have the right rails to match the boards they want to use and to make sure the rails they intend to use meet all their requirements
- The building design should address the need to protect against water getting behind the wood. For example, roof overhangs, flashing, etc.
- Installers must make sure that there are flashing and weather barriers, that they are installed in compliance with local codes, and that the installation meets manufacturer requirements especially in the following proper locations:
  - Openings (e.g. doors and windows)
  - Wall/ceiling junction
  - Chimneys
  - Transition between another type of surface

## TOOLS NEEDED

- Miter Saw (with blade capable of cutting aluminum)
- Pneumatic Nailer or Drill (with Stainless Steel nails/screws)
- Level
- Mallet
- Hammer
- Pliers
- PPE

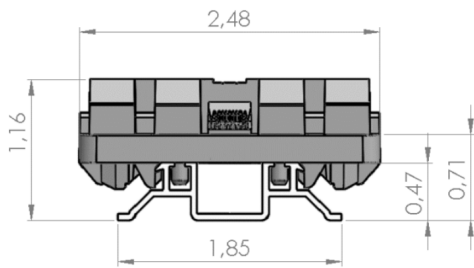
## DISCLAIMER

- Although this guide was designed with as much precision as possible, in accordance with current practices for wood cladding, we are not liable for any errors or omissions that may arise from this guide's use.
- All users of this guide fully assume all risks and responsibilities associated with it. This guide presents the best manufacturer installation practices. It supplements the codes and standards and manufacturer installation guides, but is not a replacement or substitute for these. As such, it is the installer's duty and responsibility to take all available documentation into account prior to completing work to ensure the validity of manufacturer warranties.
- To ensure simplification, the technical drawings in this guide do not show all construction details to meet requirements of codes and standards.
- Finally, do not hesitate to contact us should you have any doubt or should any queries arise regarding specific applications of the Grad rails that would not be covered in this guide.



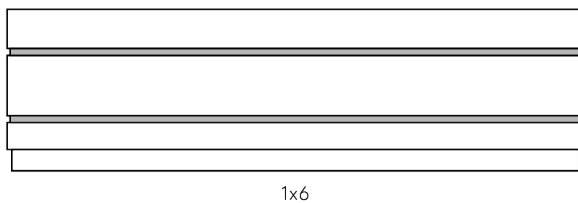
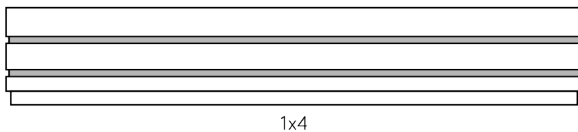
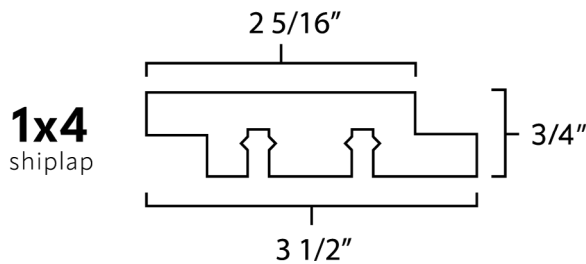
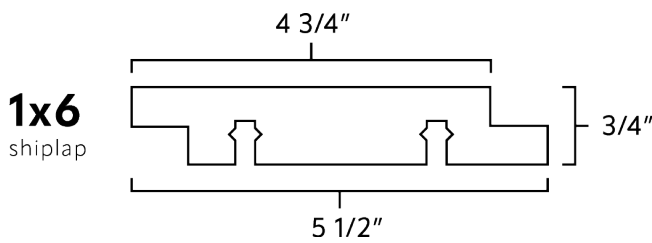
# Products

## GRAD START RAILS



## ARBOR WOOD CO. SIDING

1"x6" Shiplap Siding | 1"x4" Shiplap Siding

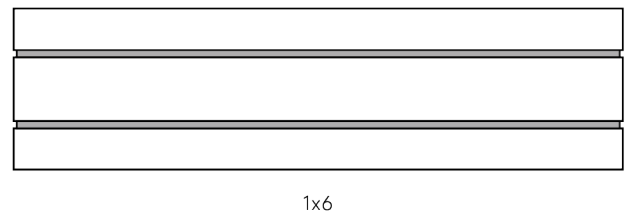
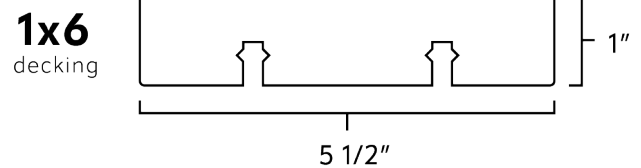


## UNBOXING THE RAILS

Each box contains 24 rails. There is one spacing template supplied per box. The spacing template will be secured to one of the rails. Take care to identify it, remove it and put it aside in a safe place as you will need it for the installation.

## ARBOR WOOD CO. DECKING

5/4x6" Decking



## ACCESSORIES

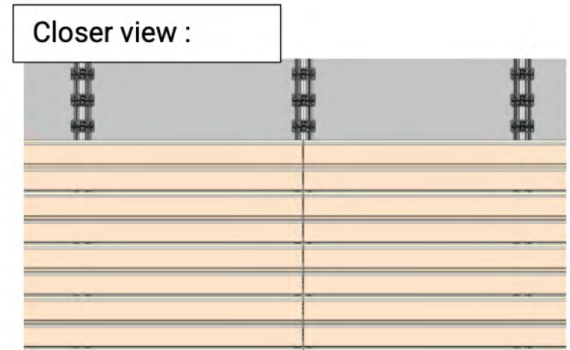
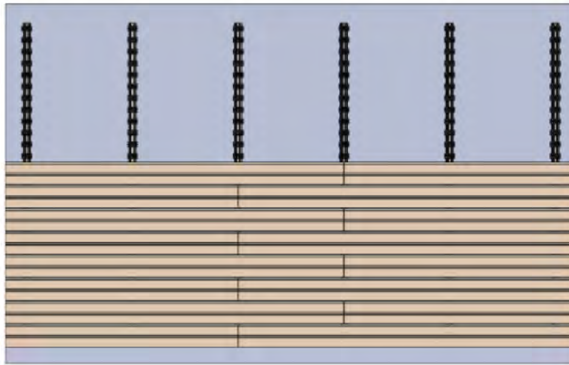
- Spacing Template (Required for installation)
- Riser Support (Sold Separately)



# Mounting the Rails

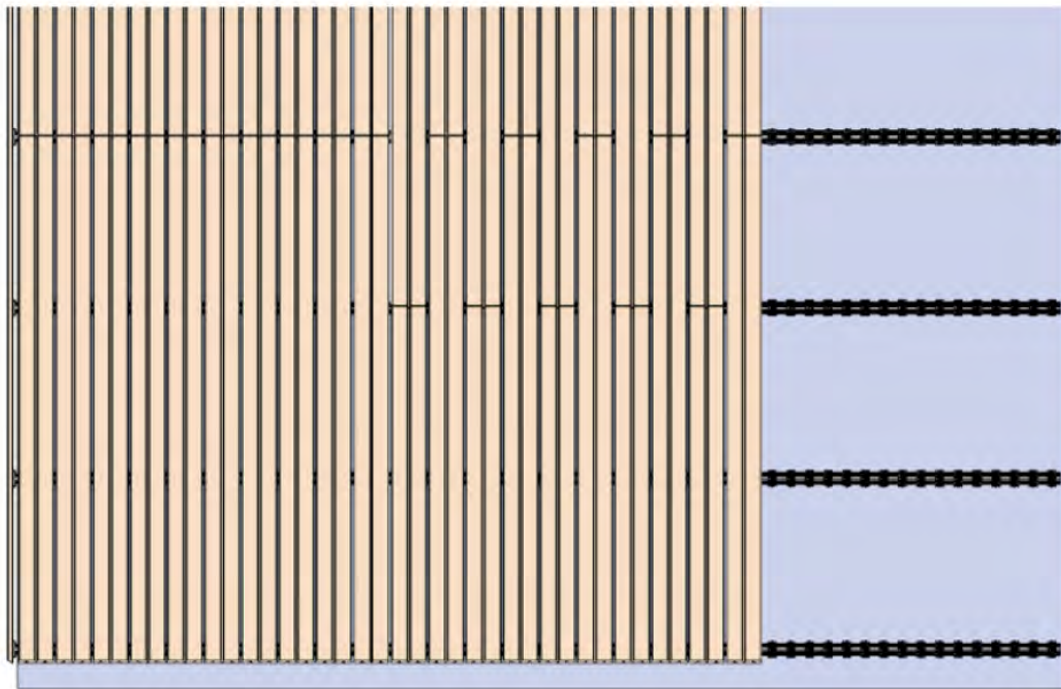
## HORIZONTAL

For horizontal installations, the rails must be placed vertically.



## VERTICAL

For vertical installations, the rails must be placed horizontally.



## SPACING

Rails can be spaced at 16" or 24" on center.

## COVERAGE

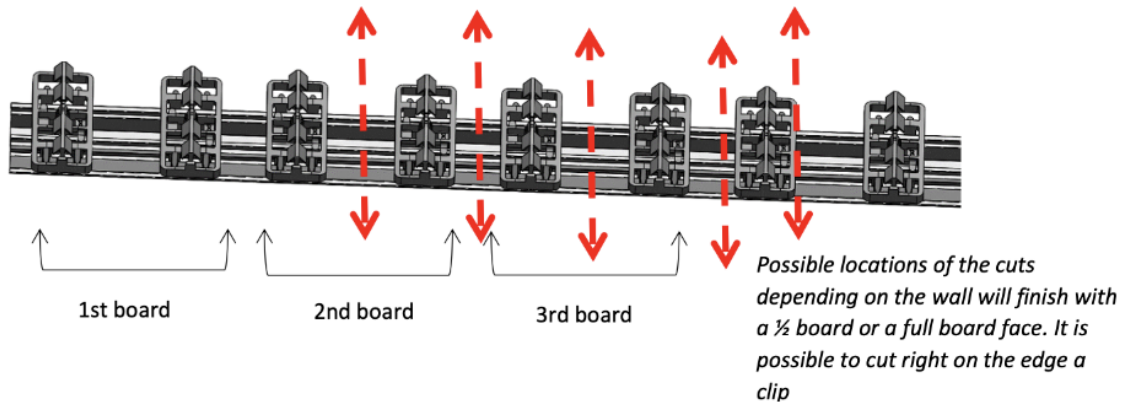
8 sqft/rail - 16" O/C

12 sqft/rail - 24" O/C



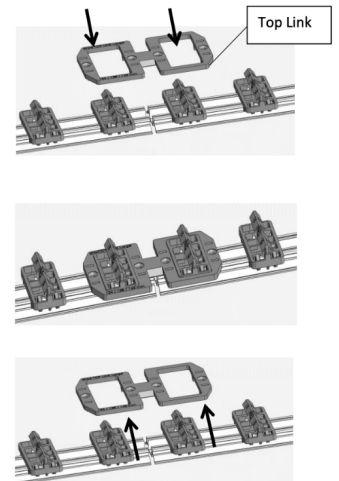
## How to Cut Rails

- The rails may be cut to length.
- Cut the rails to match the required length using an appropriate saw blade.
- Always cut the rails in between two pairs of clips, making sure there are enough clips to attach the boards properly.
- If there is a clip where the cut needs to be, remove the clip with pliers. DO NOT CUT THROUGH THE CLIPS.



## How to Position Rails

- Position one rail after another with the Spacing Template. Because of the natural expansion of aluminum, it is important to leave a gap between two inline rails.
- The Spacing Template helps to quickly align the rails, and ensures that the correct distance is maintained between the clips.
- The Spacing Template should not be fixed with screws or other fasteners. Simply use the Spacing Template as a temporary guide to position the rails properly. Once the rail location is secured in place, remove the Spacing Template and move onto the next pair of rails and align them with the same Spacing Template.



## How to Secure Rails

- In order to facilitate the positioning of the rails:
- Make sure the rail is levelled
- Use 2 fasteners to initially secure the rail into its position. We suggest that these initial fasteners be placed far apart
- Complete rail installation with additional fasteners at 10-16 inch intervals
- With screws: There is no need to pre-drill the rails provided that you use stainless steel (304 or 316) self-tapping screws suitable for aluminum
- With Nail Gun: Use stainless steel (304 or 316) ring-shanked nails.





# Rail Installation

## HORIZONTAL SIDING

1. All rails are symmetrical and it does not matter which end you start with.
2. The rails do not need to be pre-drilled if using a pneumatic nail gun or stainless steel self-tapping screws.
3. Measure the wall height: Use full-length rails whenever possible and only cut the rails to length when necessary using the appropriate tools.
4. Always cut the rails between two clips when possible. Do not cut through the clips. Remove the clip(s) with pliers and then cut the aluminum rail.
5. With a laser level or a string, set a reference line along the wall to ensure the clip are aligned.
6. Make sure initial boards are placed 12" or more above grade.
7. Starting at one end of the wall, position the first rail at a maximum of 4" away from the end of the wall.
8. Install rails directly onto studs.
9. Use a manual level to ensure the rail is positioned straight onto the wall.
10. Secure the first rail.
11. Do not exceed a 24" rail span.
12. Install the other rails, ensuring that the clips are aligned. They should be perpendicular to the reference line and parallel with the other rails.



# Rail Installation

## VERTICAL SIDING

1. All rails are symmetrical and it does not matter which end you start with
2. The rails do not need to be pre-drilled if using a pneumatic nail gun or stainless steel self-tapping screws.
3. Measure the wall width: Use full-length rails whenever possible and only cut the rails to length when necessary using the appropriate tools.
4. Always cut the rails between two clips when possible. Do not cut through the clips. Remove the clip(s) with pliers and then cut the aluminum rail.
5. With a laser level or a string, set a reference line along the wall to ensure the clips are aligned.
6. Starting at one edge of the wall, position the first rail such that the edge of the board will end up positioned where you want it relative to the end of the wall.
7. Start at the edge of the wall and make your way across, ensuring that you secure the rails into the studs and also every 10-16 inches.
8. Do not exceed 24" on center spans.
9. Position the first rail at a maximum of 4" away from the wall bottom of the wall.
10. Use a manual level to ensure the rail is positioned correctly onto the wall.
11. Secure the first rail with appropriate fasteners.
12. Install the other rails, ensuring that you use the Spacing Template. The rails should be perpendicular to the reference line and parallel with the other rails, with the distance between rails not exceeding 24".
13. Ensure initial boards should be placed 12" or more above grade.



# Siding Installation

1. Install the first row of cladding by pressing the first board gently onto the rail clips at the bottom of the wall – the cut edge should be at the right place on the wall extremity. You can also use a rubber mallet, but hand pressure is typically adequate.
  - If your cladding has a more delicate finish such as Shou Sugi Ban, we recommend using hand pressure.

Note: Boards with a double groove need to be snapped onto two clips. Narrow boards that only have a single groove need to be snapped onto one clip only.
2. Complete the row with the other boards as needed.
3. Move your way across the wall until reaching the other wall extremity.
4. Start the second row above the first one using the next set of clips.
5. Two board ends must meet each other halfway across one clip. Typically a scarf joint is used for such applications.
6. If the board ends do not end on a stud, you will have to take a small section of rail (often a piece of fall-off and locate it at the junction of the two board ends. As mentioned above, it is critical that the two ends meet each other halfway across the clip.
7. The boards at the scarf joint should be snugly butted up against each other with no gap required.

## DEALING WITH GABLED ENDS

When installed in gabled areas, there will be sections where a rail with standard clips will not fit. In such a situation, a Riser Support must be used. Simply snap a Riser Support onto the rail. (Note: you may need to first remove the standard clips(s) with pliers). Once installed and the board is put in place, you will need to secure the board to the Riser Support through the face of the board with a screw. If you encounter a situation where there is no rail but yet you need a Riser Support in that location, please do the following;

Take a small section of rail (often found in your fall-off pile) and cut it to size. Clip your Riser Support in place. Then locate that small section of rail where it needs to be for proper support of the board and secure the rail to the wall. Install the board and secure the Riser Support through the face of the board as stated above.

## ANGLE TOP RAFTER

Where full lengths of rails cannot be used, cut pieces of the rails and place them in different locations where they need to offer support for the boards being placed vertically.



# Siding Installation (continued)

## RIPPED BOARDS

1. When the wall cannot be finished with a full-face board, such as is common with top boards, they need to be ripped to fit. In such a case there may be none or only one usable groove left.
2. To secure this board properly, remove the full clip from the rail where there is no longer a groove. Then clip one Riser Support onto the rail.
3. Snap the board on top of the clip as described if there is one groove. In the case of no grooves, use only the Riser Support.
4. Secure the board by fixing it with a screw through the face of the board and the slot in the Riser Support. Repeat as needed on every rail.

## REMOVING A BOARD

Use a circular saw set to 5/16" depth (no more than that). Run the saw lengthwise along the board on top of the clips. There are two lines of clips per board (two grooves). Once the board has these two lengthwise cuts in it, the board can easily be snapped/broken by hand and then the pieces removed.



# Decking Installation

## JOISTS

1. When using perimeter board, install before using Grad system. Refer to trim board manufacturing guidelines.
2. Make sure the joist/substrate is plumb and square, Grad™ recommends using a laser level or chalk.
3. Start with the outer most joist, then begin to move towards the building structure.
4. Place grad rail against the substrate, joist, concrete, or any solid flat surface.
5. Place the first rail at a maximum of four inches from the edge of the substrate.
6. Rails should be parallel, clips must be aligned properly to attach to the parallel clip.
7. Always cut the rails between two clips, do not cut through the clips. If needed use pliers to remove clip, then cut through the aluminum.
8. Rail span maximum is twenty-four inches. Please refer to the guidelines of the wood manufacturer to know which span to adopt with their material.
9. Fasten rails with stainless steel screws.
10. Once all rails are placed you can start installing decking.
11. Place deck board on the rails and use hands or body weight to clip board into place.
12. Two boards are required to meet on one clip, board ends must rest on a clip.
13. When board ends do not end on a joist, use a section of a rail, this is critical as mentioned above.
14. Repeat until deck is complete.
15. For fascia and risers please refer to siding installation instructions above.

Note: When the last board cannot use both grooves due to structure requirements, Grad provides “cushion” clips to ensure equal support underneath deck boards members.





Arbor Wood. **For Good.**

Arbor Wood Co.  
1025 London Road  
Duluth, MN 55802  
855-414-2727

[arborwoodco.com](http://arborwoodco.com)



**MADE IN  
THE USA**