



**weiland**<sup>®</sup>  
Sliding Doors and Windows, Inc.

# **Bifold & Beefy Bifold Site Preparation Guide**

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# Introduction

## General Information

There are numerous variations to the following instructions as site conditions, local building codes and exposure will dictate how the unit(s) you have purchased is ultimately installed. These techniques have been used successfully by numerous customers over the years and are a good starting point for installing your new Beefy Bifold (or Bifold) system. The manufacturer or dealer does not endorse a particular technique. Site preparation and exposure conditions will dictate how your particular system should be installed.

## Your Configuration

Your particular configuration may be different than the example used, but this manual and your shop drawings will provide you with all of the information you will need to install your door.

You should have your approved shop drawings on hand at the jobsite starting from the concrete blocking phase through the final installation of the floor. The drawings contain information that will be required when reading this manual. If you do not have a copy of the drawings please contact your local dealer directly to obtain a copy of the approved shop drawings for your particular project.

## Installation Checklist

We recommend that you use this portion of the guide as a checklist and carefully follow all of the points to make the installation of your Weiland Door System<sup>(R)</sup> a much easier and quicker process.

Before you begin this checklist make sure you have the most current approved shop drawings. This is critical because many times the systems change during the order and design phase.

- Is the rough opening the correct size, plumb and square? This is critical as once the installer is on site, you will not want to pay him to adjust the rough framing prior to the installation or stand around while you adjust the framing.
- No Sagging header. Make sure to take into account if the roof has been loaded or not. The maximum deflection over entire length of opening should not exceed 1/8" max. The Header must be designed to support the entire weight of the Beefy Bifold (or Bifold) system. As a minimum, engineered lumber should be used and in some cases steel beams are required to span large openings with minimal sagging. The decisions about the header framing design should be made by qualified personnel, familiar with structural design.
- No bumps or arches on the sub floor. Insure the correct recess from finished floor location to bottom of slot. What is listed on the shop drawings is a minimum. More is always better as you can adjust the track up and down easier than chip out concrete or reframe the slot.
- The level of the finish floor needs to be determined ahead of time and noted somewhere near the opening. This should be done before the installation process begins. If the track will be embedded into concrete, the slot for the track needs to be set in the concrete (according to the drawing). If the system will be over a framed truss structure, a method of containing the track system to accommodate

the dry pack of concrete that will surround the track after installation should be determined.

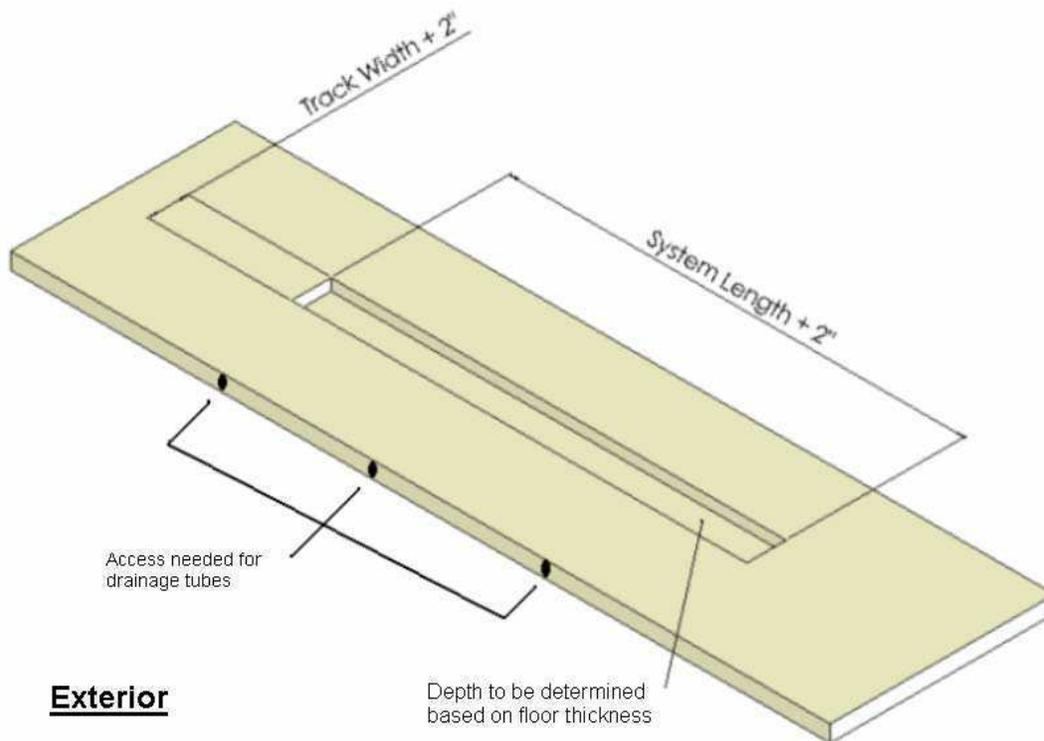
- The Beefy Bifold (or Bifold) Door System comes standard with a drainage system; Please note that you should have the drain locations identified so that the drain tubing can be run prior to the filling of the track.
- Once your Weiland Door System® arrives on site you should unpack all of the components, check them against the packing slip and lay all of it near the appropriate opening, in a location that does not interfere with the install.
- It will save you time to finish the entire wood surfaces prior to installation. As the warranty states, the doors should be sealed within 48 hours of delivery. This serves two purposes:
  - Sealing protects the wood from swelling and contracting, which can damage the wood and affect the performance of the panels.
  - Doors that are supplied open (op glass) are easy to remove for sealing until the glass goes in and then they become a real logistical consideration. Due to the weight of each panel, it normally requires 2 to 3 people to remove and reinstall the panels.
- You should make several story poles, which will be used to locate the top guide at the correct height over the bottom track. To determine the length of the story pole, measure the height of the panel and subtract 7/16". (Panel height is noted on your shop drawings.). It is recommended that wood framing or a continuous plane of plywood is in place to anchor the head and/or side jamb. The location of the mounting holes, which are pre-drilled, is dependent on system length and as such the complete sheathing makes the installation easier. This will allow mounting hardware (not supplied) to be placed where necessary.
- Please provide a copy to your contractor and note that due to the varied installation techniques Weiland Sliding Doors does not provide the actual installation hardware. It is important that your Framer knows the finished floor thickness to determine the header height. Tools that are necessary for the install are normally on site and are standard tools for a framing contractor or a finish carpenter. Some specific tools that must be on site include the following:
  - Laser level (or a water level – long and short)
  - Open end wrenches for the adjustments of the studs
  - 8 mm allen wrench for escapement blocks
  - 6 mm allen wrench for hinges and jacking screws
  - Concrete drill (3/4" to 1 1/2" diameter)
  - Several tubes of quick set epoxy (Simpson works well)
  - Plumb bob (several to place along length of head track)
  - Several ladders to install head track
  - All fasteners that might be necessary for the install. These should be on site prior to the beginning of the install. These may include: #10 stainless steel Screw at least 3 1/2" – 4" long and lag bolts 3 1/2" long.

# Foundation Prep/Drainage Considerations

## Bottom Track Slot Design

The Beefy Bifold (or Bifold) system uses a stainless steel bottom track design. The bottom track includes a drainage system that allows for any water that might drain into the track to be weeped to an outside drain. This system has been developed with an easy installation in mind but the system requires some pre-installation planning.

In order for the Weiland track system to create such a minimal impact on the finished floor a slot needs to be prepared in the rough flooring. The dimensions of the slot are affected by the flooring material thickness. The shop drawings should be referenced when determining slot dimensions for both length and width of the track.



### Determining the Slot Depth

Use the dimensions in your approved shop drawings to determine the depth of the slot for the bottom track. It is important to leave at least a  $\frac{1}{2}$ " of shim space beneath the bottom track to allow for leveling the track with shims. A typical block out for the bottom track with weep drains is a channel 1-5/8" deep and 2-1/2" wide. In some interior applications the Beefy Bifold (or Bifold) may be ordered without any bottom drains and in those cases the block out can be reduced to 7/8" deep and 1-1/2" wide. In all cases the  $\frac{1}{2}$ " shim space is important to allow for precise leveling.

Note how the bottom track flanges are designed to mate with the finished floor. It is critical to get the bottom track height and the finished floor height to meet at this point. Determining the finished floor material and thickness are important factors in determining how the track will rest in the slot. Figure 2 shows a typical bottom track ready for installation in a stepped concrete pad.

**Figure 2 Typical Bottom track and Jamb Installation**



### **Drainage**

Your Beefy Bifold (or Bifold) Stainless Steel bottom track will have at least two plastic drain blocks with drainage tubes as seen in Figure 3. It is critical that these drains be connected to an appropriate drainage system that slopes down to the outside of the structure. Your slot should have some provisions for getting these drain hoses routed to the outside of the structure. The drain hoses should have a continuous downward slope to aid in drainage. Many people connect the hoses to a 3/4" PVC pipe which slopes to an outside drain. It is also desirable for the exterior side of the flooring to have a slope to aid in drainage.

**Figure 3**



## **Framing Considerations**

Framing a large opening for a top hung door system has particular requirements that need to be understood in order to make sure there are no problems with the door system in the future. Over the years several framing requirements for the header and the side jambs have evolved that insure that the doors will operate as designed.

### **Header**

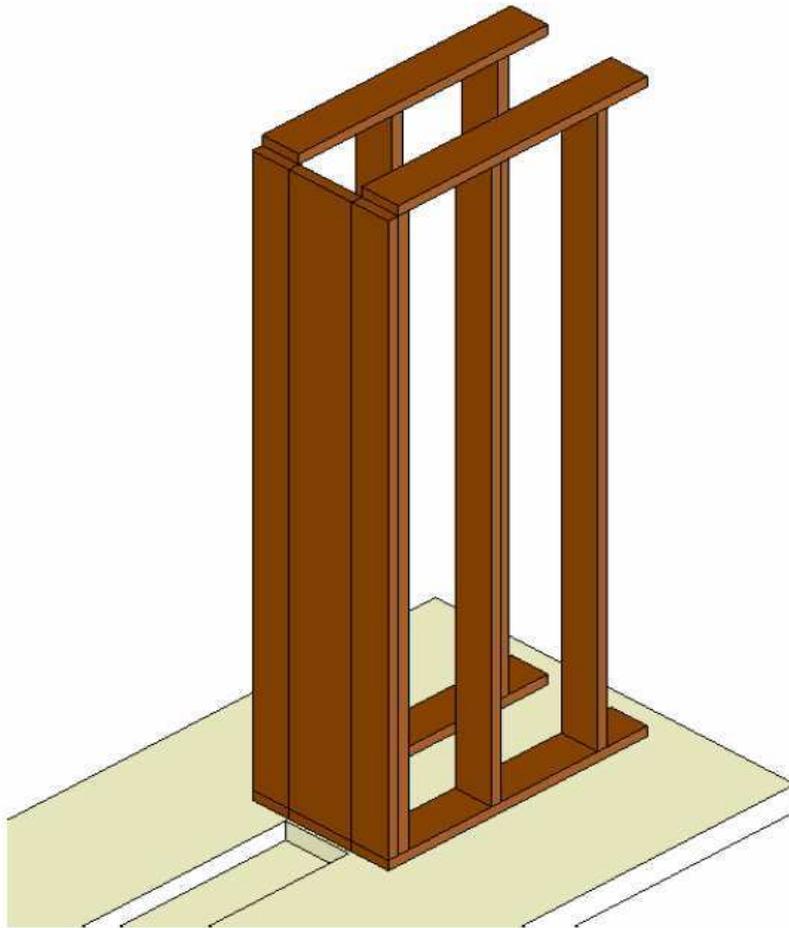
The Beefy Bifold (or Bifold) system has the following specific requirements for framing in order to operate as designed. One of the most critical requirements of the system is to have minimal deflection at the rough opening header. The deflection over the entire span should be no greater than 1/8" once the header beam is fully loaded. The head track supplied with your Beefy Bifold (or Bifold) supports the entire system.

The design of the header whether in engineered lumber or steel should allow for a stable mounting surface for the head track fasteners. One option is to cover the entire header opening with plywood ( $\frac{3}{4}$ " minimum) as a mounting surface for the head track mounting lag screws that will be installed to the framing. This plywood-mounting surface should be a minimum of 5" wide. The final rough opening (from the bottom of the track slot to the bottom of the plywood sheathed header) must be in agreement with the "system height plus shim space" called out in your shop drawings.

The bottom of the track slot to the bottom of the finished header is a critical dimension that must be maintained within  $\frac{1}{8}$ " over the entire system length.

## Jambs

The side jamb rough framing should be at least as wide as the door jamb in order to create a secure mounting surface. Please refer to the shop drawings for the side jamb width on Beefy Bifold (or Bifold) systems. It is recommended that a solid jamb of at least 1 stud thickness be framed for the jambs. Depending upon the header design, the jambs may have to be engineered lumber or steel if the rough jambs are supporting the header. The final rough jamb material needs to be flat, smooth and capable of accommodating the jacking screws and attaching screws.



**Figure 4**, Typical rough framed jamb and bottom track trough

## General Framing Information

Be sure you have a copy of your shop drawings to know what your particular requirements are. In review:

## Notes:

- Check height and width of rough opening against the shop drawings.
- Check mounting surface of header for satisfactory support and to make sure no sagging has occurred or will occur once header is fully loaded.
- Check mounting surface for side jamb(s) for adequate attachment of supplied materials.
- Check opening to insure all surfaces are level and square.
- Check slot dimensions and slot floor flatness.