

# **Hyde Park Gate - Assembly Instructions**

#### Frame Assembly:

- 1. We recommend you pre-drill all screw holes to prevent the lumber from splitting and that you use weather proof 3.5" x #10 screws to fasten with.
- 2. The diagonal brace should extend for the bottom of the hinge side to the top of the latch side. This will help prevent the gate from sagging over time by transferring the weight or load of the latch side to the bottom hinge. This is important to note here because the diagonal brace orientation might change depending on which side you plan to hinge the gate on.(in our plan the hinges would install on the left hand side of the gate)
- 3. When you begin to fasten the frame together, remember you would like the front trim boards (red in the plan) to come out flush on the front of the gate with the perimeter frame. Doing this will allow you to install the strap hinges without any additional blocking required underneath them. Set the framing (blue on the plan) back from the front edge of the perimeter framing a distance that will accommodate your trim boards (red on the plan) and the center boards (green on the plan. In our plan that would be 2 x ¾" for a total set back of 1.5". You may be using slightly different lumber and need to adjust that dimension.

#### **Center Boards Assembly:**

- We recommend you pre-drill all screw holes to prevent the lumber from splitting. Fasten all of these boards using 1.5" weather proof screws to the structural frame behind. These screws should be positioned so the final trim boards (red on the plan) cover them up in the finished product.
- 2. When laying out the positioning of the center boards, do it so you have equal sections or cuts on the outside boards. On our plan the center boards are shown as 6 equal sizes but this may not be true in your case depending on the lumber you have.

### **Trim Board Assembly:**

- 1. Originally when making the structural frame, we laid the framing out so these trim boards (red on the plan) would come out flush with the front of the gate. This should be true now.
- 2. When we built our gate we cut a 15 degree bevel on these boards so they would better shed water and add a nice bit of detail.
- 3. Once complete, install the trim boards using 2" weather proof finishing nails through the gate and into the framing behind. Using finishing nails here will allow you to set the nails, fill the holes with exterior grade wood filler, sand and paint so you don't see the fasteners in the finished product.

# **Hyde Park Gate - Assembly Instructions (continued)**

#### **Trellis/Lattice Assembly:**

- 1. Fasten the lattice or picket top together using appropriate sized weather proof fasteners. We used nails so we could set them and fill the holes so we can't see the fasteners in the finished product.
- 2. When installing the lattice and picket top to the gate frame it is a good idea to leave a ¼" space between the bottom of the lattice or picket section and the gates structural frame. Doing this allows the area to dry out faster and prevent it from rotting prematurely.

#### Tips for a better finished product:

1. Before assembling anything we rough cut all of our pieces and finished them with two coats of solid color stain. We also applied stain to each cut as we made them before assembly. This process takes a little bit more time but make it less likely for water to be wicked into the lumber and cause the paint/stain to peel prematurely.

# **Installing Gates and Posts Tips and Pointers**

When one installs a gate we hope that the gate will not sag and that the gate post will not move so that our work will not only look great but function properly. However, this can be difficult to achieve as the wood that the gate and post is made of is a dynamic medium that is expanding and contracting as well as twisting and warping with changes in temperature and humidity. Furthermore, in northern areas there is frost heavy which tends to move posts in the ground. While we cannot eliminate these problems we can do certain things to prevent gates sagging and posts moving. Therefore, we suggest first of all to use hardware that is adjustable so that small adjustments can be made to correct movement of the posts and gates construction techniques that will prevent the gate from sagging.

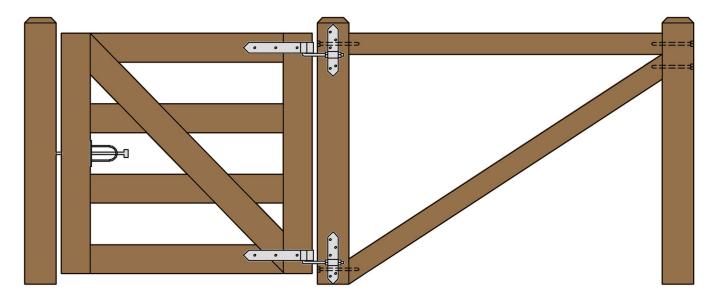
In addition, below are some recommendations that will reduce the chance of posts moving.

#### The Post Hole

- 1. Ensure that the depth of the hole extends well below the frost line.
- 2. The diameter of the hole permits 2" of clearance between the post and the edge of the hole.
- 3. Ensure that tree roots are not close to the post as when the root grows in diameter it will move the post.
- 4. Remove all stones and boulders that may push against the post.

#### The Hinge Post

- 1. The hinge post must be of sufficient size to support the weight of the gate. A 4 x 4 is not sufficient for a drive gate for example.
- 2. Brace the gate hinge post to the first line post.



We strongly suggest that the bracing between the hinge post and first line post for larger and heavier rail or driveway gates should be done as shown above. The top horizontal brace (4 x 4) fit tightly between the two posts and that lag screws are placed through the post and extend at least 3" into the horizontal brace (if the horizontal brace is not fixed securely to the posts then it is totally ineffective). The diagonal brace (4 x 4) should fit snuggly under the horizontal brace at the line post end and slope downwards to fit snuggly against the gate post just above ground level. Lag screws are placed through the post and extend at least 3" into the diagonal brace.

If a wire brace is used it should extend from the high side of the hinge post to around the line post at just above ground level.

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## Should hinge posts be cemented?

While it is common practice to pour cement around hinge posts it may not be the best practice. If the hole is irregular in shape (which most are) the cement will assume the shape of the hole. The irregular surface of the cement will in fact increase potential for frost heave because the cement and post will now have no choice but to move with the ground when it heaves. Water is trapped between the post and cement and the post will never dry out, therefore dramatically increasing wood rot.

While it is more work if done properly we suggest that once the post is set in the hole that it be back filled with gravel that is tamped firmly as the hole is filled. This will allow for better water drainage with less wood rot and the post will not be united with upper soil levels as they heave in winter.