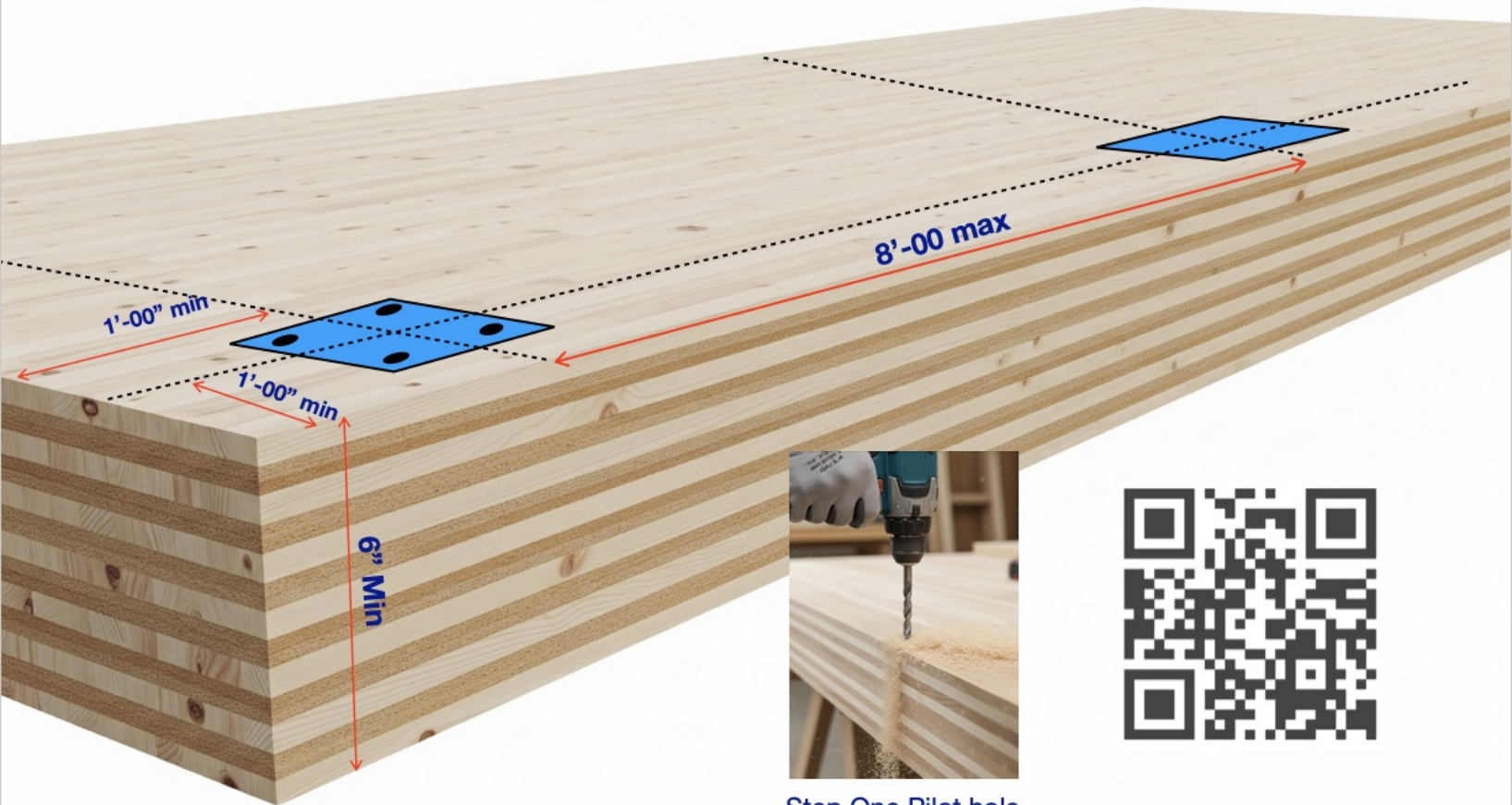


## CLT Wood Panels



Step One Pilot hole

### Is there a pilot hole drill bit recommended for a 3/8" Lag bolt 5.5" on a CLT panel?

For a 3/8" lag bolt going 5.5" deep into a Cross-Laminated Timber (CLT) panel, a **1/4" auger bit** is the most practical and efficient option for creating the pilot hole. ⓘ

#### Pilot hole sizing

The primary purpose of a pilot hole for a lag bolt is to create a path for the unthreaded shank while leaving enough material for the threads to bite and create a strong connection without splitting the wood. For a 3/8" bolt, the rule of thumb is to use a bit that is roughly 75% of the bolt's diameter. ⓘ

For a 3/8" (0.375") lag bolt:

- **1/4" (0.25") drill bit** is ideal. The 1/4" bit is the recommended size for drilling a 3/8" lag bolt into most hardwoods, and it provides a strong grip in softwood. CLT is a composite, but a 1/4" bit is a reliable choice.
- **15/64" (0.234") drill bit** is also an excellent option, as it is slightly smaller and will provide maximum thread engagement for a very secure connection. ⓘ

#### Recommended bit type: Auger bit

An auger bit is the best tool for this job for several reasons:

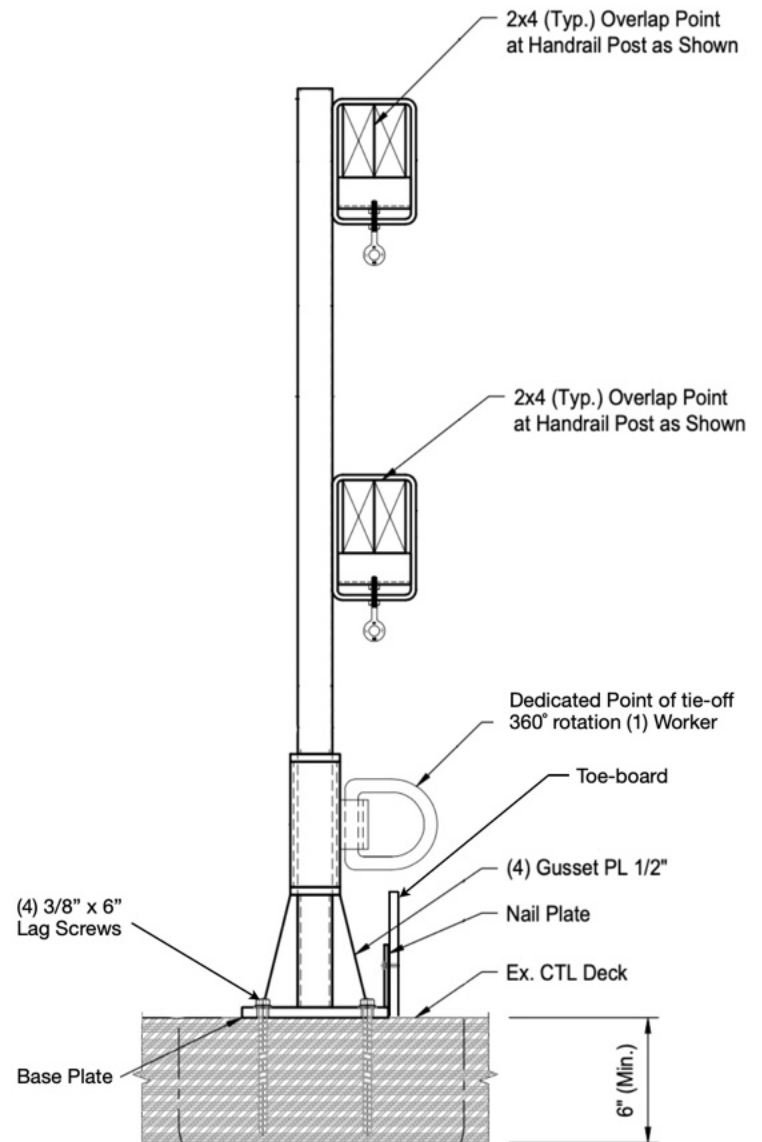
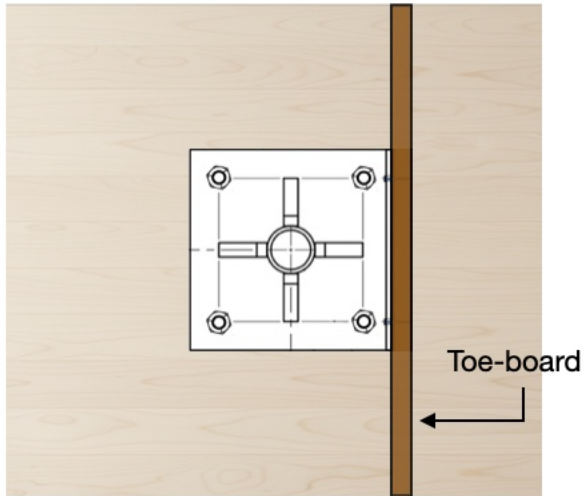
- **Length:** A 6-inch or longer auger bit is necessary to create the 5.5" deep hole and will be readily available at hardware stores.
- **Efficient chip removal:** Auger bits are specifically designed for deep holes in wood. Their wide, helical flutes efficiently clear wood chips, which is critical for drilling a deep hole without clogging or overheating.
- **Self-feeding tip:** Most auger bits have a screw-like tip that pulls the bit into the wood, making drilling faster and less fatiguing. ⓘ

#### Step-by-step process

1. **Mark the depth:** Measure 5.5" from the tip of the auger bit and wrap a piece of tape around the bit as a depth guide.
2. **Drill the pilot hole:** Start the drilling slowly to establish a clean entry point. Then, increase the speed and apply firm, consistent pressure.
3. **Drive the lag bolt:** Use a socket wrench or impact driver with the appropriate socket to drive the lag bolt firmly into the pilot hole. Use a wax lubricant on the bolt threads to minimize friction, which can help prevent splitting and ensure a smoother drive. ⓘ

## CLT Wood Panels

(4) 3/8" x 6" Lag bolts



CLT panels must have a minimum compressive strength of 500 PSI and a minimum specific gravity of 0.5. Minimum panel depth is 6" and lag bolt capacity is based on 6 Plies.



Made