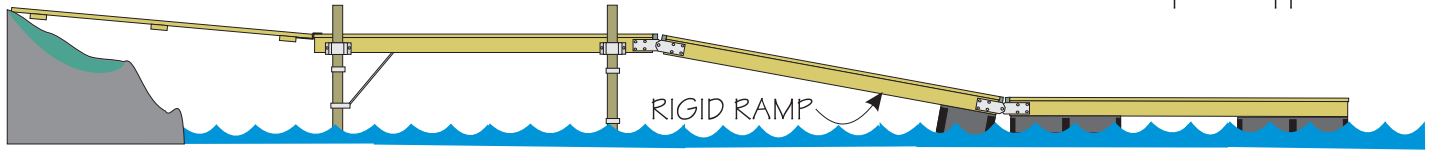


# Great Northern Docks

## 4'x14' Rigid Ramp

For Non-commercial and Non-public Applications



A ramp that is hinged at both ends and is used to transition from a wall or standing dock to a floating dock, may receive an excessive amount of strain, side to side when the wind, current and boats come against it. This is less a concern for small docks located in calm protected waters or when the floating portion of dock is secured and guided by pilings. But, when there is significant size to the floating portion of dock and the exposure to wind is moderate to intense strength, the forces exerted along the far end will travel back to the end close to shore. The ramp in this case that is connected with hinges at both ends could rack or skew even if the floating portion is moored with anchors and chain. Bracing can be added along the bottom of the ramp to resist racking. We call this a Rigid Ramp. If the Rigid Ramp can withstand the forces present, then the forces are passed on to the fixed dock or wall where the ramp is connected. The fixed point must then be secure enough to withstand whatever is passed to it.

### INSTRUCTIONS

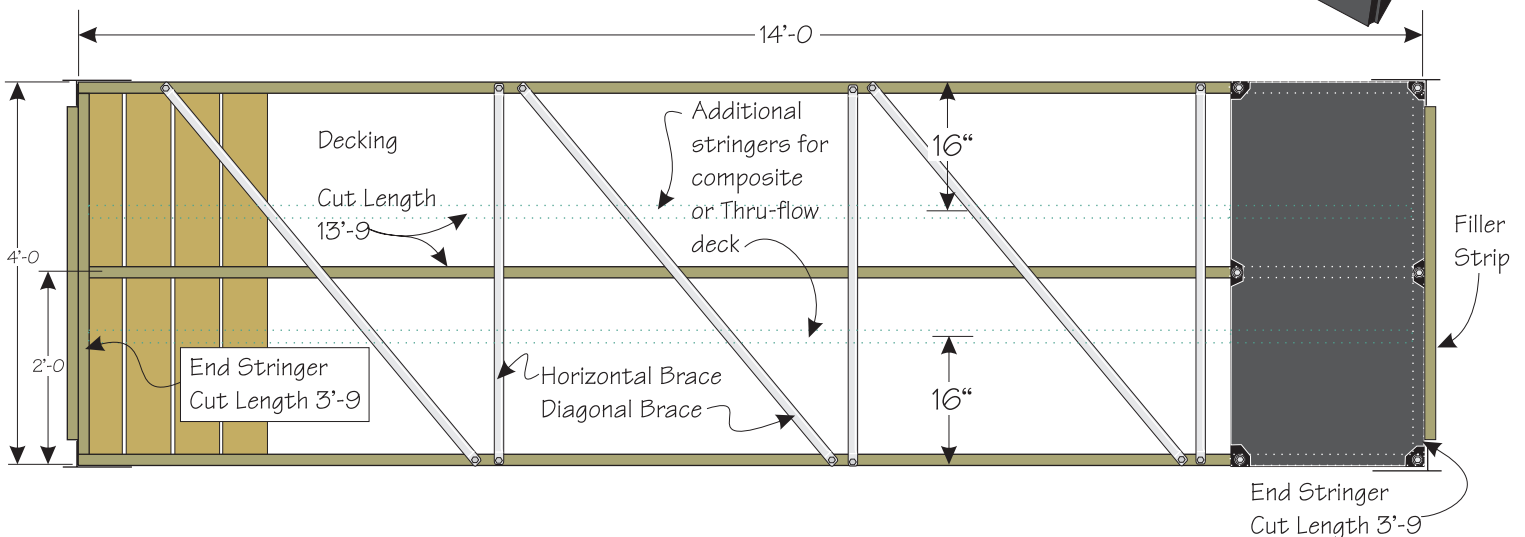
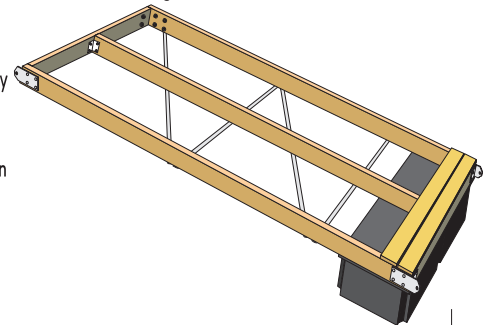
- Typical framing to be of grade #1, P.I. min. with 2x6 for non-commercial, light load portable use.
- Add intermediate framing boards as needed to improve load and duty capacity.
- Typical decking to be 5/4x6 P.I. Or Cedar, materials that span up to 24".
- Use 3" (10 penny) galvanized nails for assembly.
- Decking to be cut 4' flush to frame to prevent snagging with boats and gear.
- Router along the ends of the deck boards with a 3/8" radius to soften edges and reduce splinters.
- Use typical 1/2" spacing between deck boards to avoid leaf and other debris trapping.
- For reinforcing butt joints that could pull apart at the nails, use the Corner Iron (#6027A) with carriage bolts.
- Reinforced Hinge Plates (#6010) on each corner will secure corner butt joints.

### Materials

- 3 - 2x6(min.)x14' PT Framing
- 2 - 2x6(min.)x4' PT Framing
- 28 - 5/4x6x4' PT or Cedar Decking
- 2 - #6027A Corner Irons
- 6 - #9280 Bolt Kits
- 3 - #9279 Lag Bolt Kit for Braces
- 4 - #6010 Reinforced Hinge Plates
- 3 - #6044 Diagonal Braces
- 3 - #6099 Horizontal Braces
- 1 - #2305 Foam Filled Float
- 1 - 9278-6 Lag Kit for Foam Filled Float

## Disclaimer

Great Northern Docks and its proprietors shall not be held liable for the safety and performance of its designs. Before using any design, you are hereby advised to consult with an architect or public engineer licensed to perform services in the community where your dock project will be installed, along with code enforcement in said community. The project owner who uses Great Northern Docks plans and instructions accepts sole responsibility for the safety and overall performance of the designs.



### FILLER STRIPS

Where this ramp joins to another section at the Hinge Plates, the resulting gap must be reduced to avoid tripping hazards. See details for filler strips shown on any of the float section designs. The gap is normally reduced between 3/4" to 1". If the ramp is anticipated to be at a steep slope, the gap should be greater than 1" at the bottom end of the ramp to prevent binding and or pinching at the filler strips.