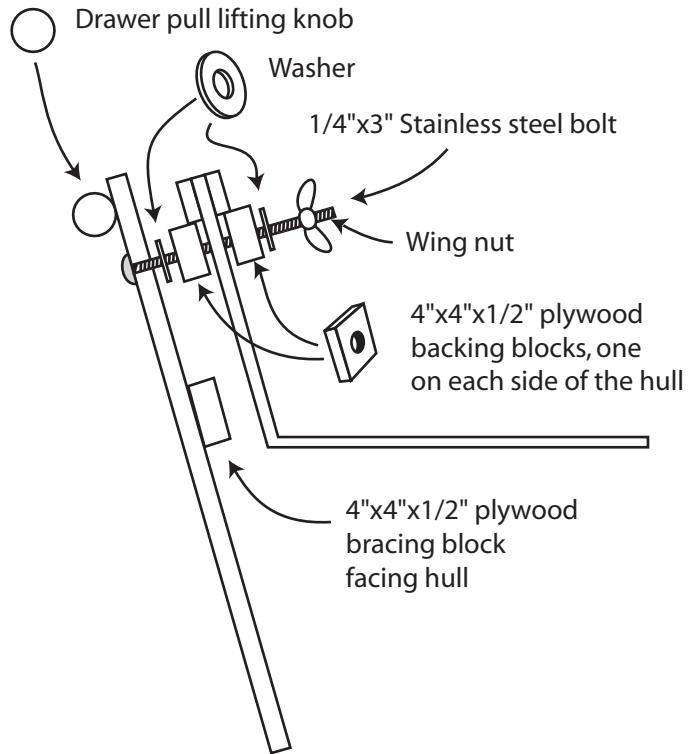
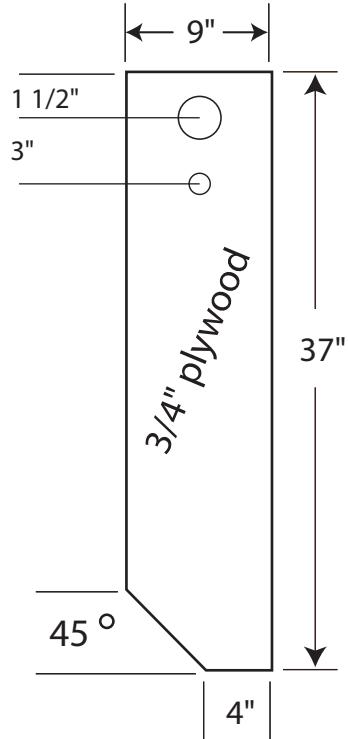


# Sheet #1 ~ building a fixed lee board

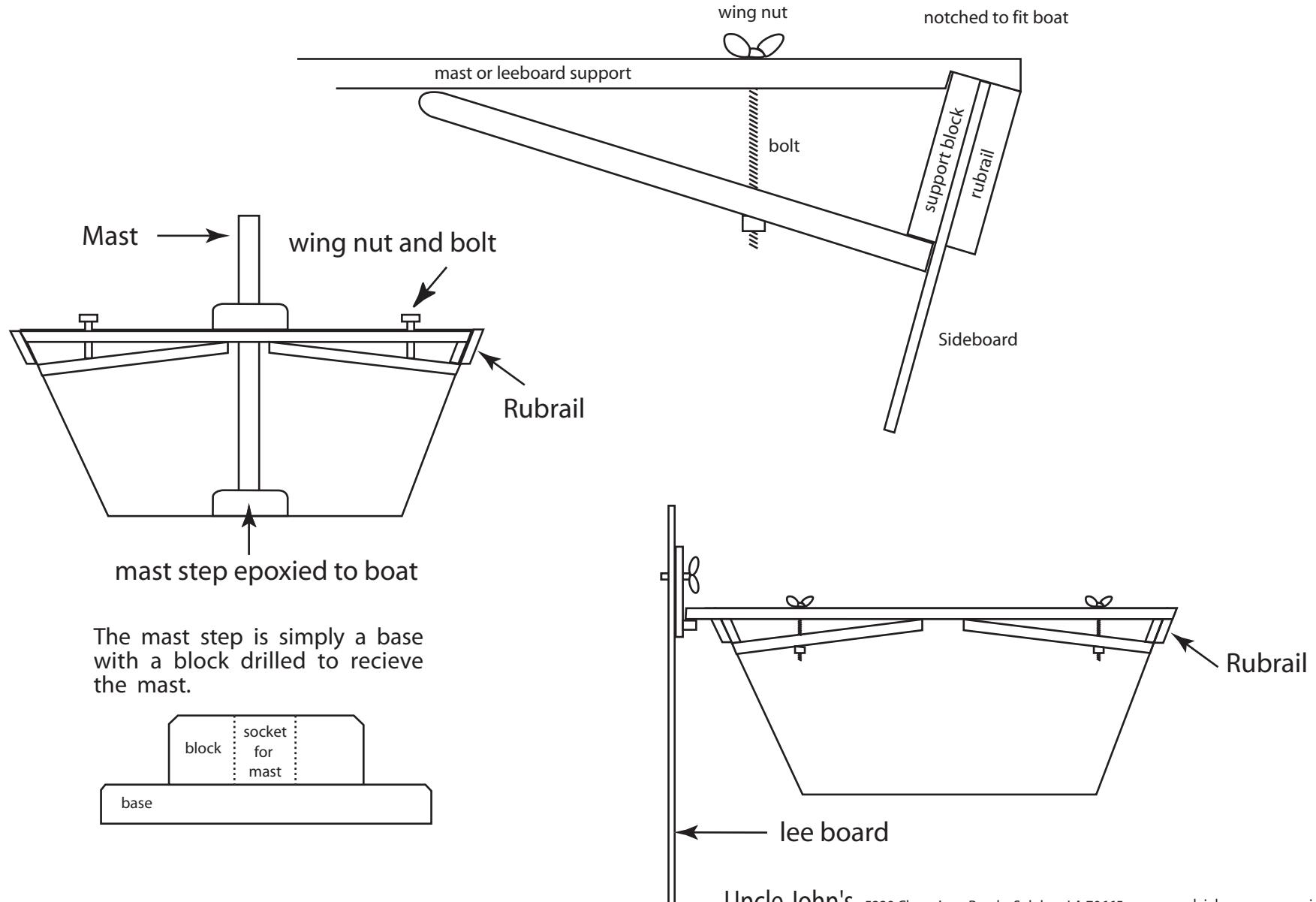
A good alternative to a dagger board is a lee board. The lee board is attached to the outside of the boat and pivots up when it contacts the bottom, making it attractive when beaching the boat.



The positioning of the lee board in general is at the widest beam of the hull and at the middle of the sail area, these two points will be pretty close to one another. You might consider clamping the board in place with C-clamps your first few outings. Move it fore and aft to find the best place. As you move it you will experience a change in the steering characteristics of the boat. When you find the "sweet" place, attach it with the bolt. Which side to place the board is builder's choice. Some individuals use only one board and do not change sides when tacking and some use two boards. Just be sure you have not over-tightened the wing nut so that the board will pivot when it contacts the bottom. How tight you make the bolt is experimental.

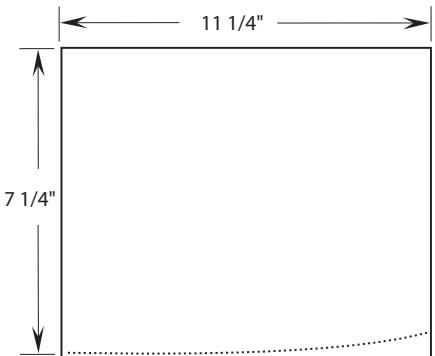
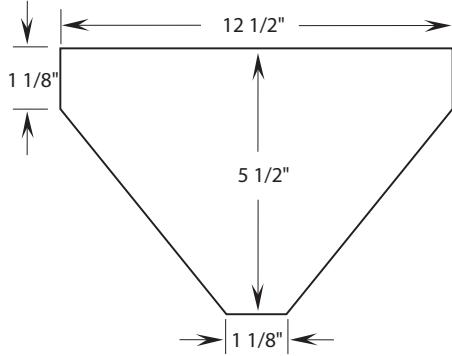
## Sheet #2 ~ building a removable lee board and mast step ...

Everything is a clamp or pressure fit except for the mast step which is screwed or epoxied to the hull. It is necessary to use an inside support block to provide a clamping surface.

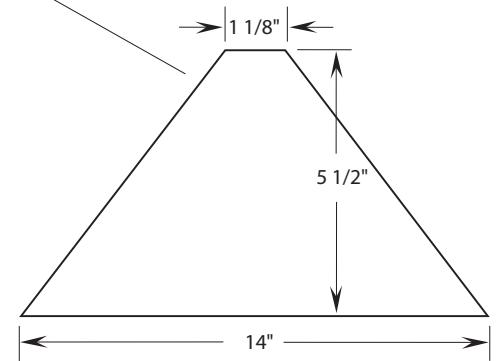
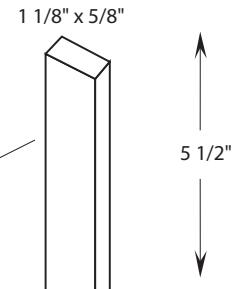
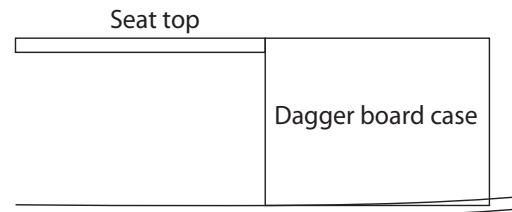


# Sheet #3 ~ building a dagger board trunk

**Build and install the dagger board case**  
Use assembled case to locate slot through hull.  
Extend height of case by 1" for each 100 pounds  
over 400 pounds of load.

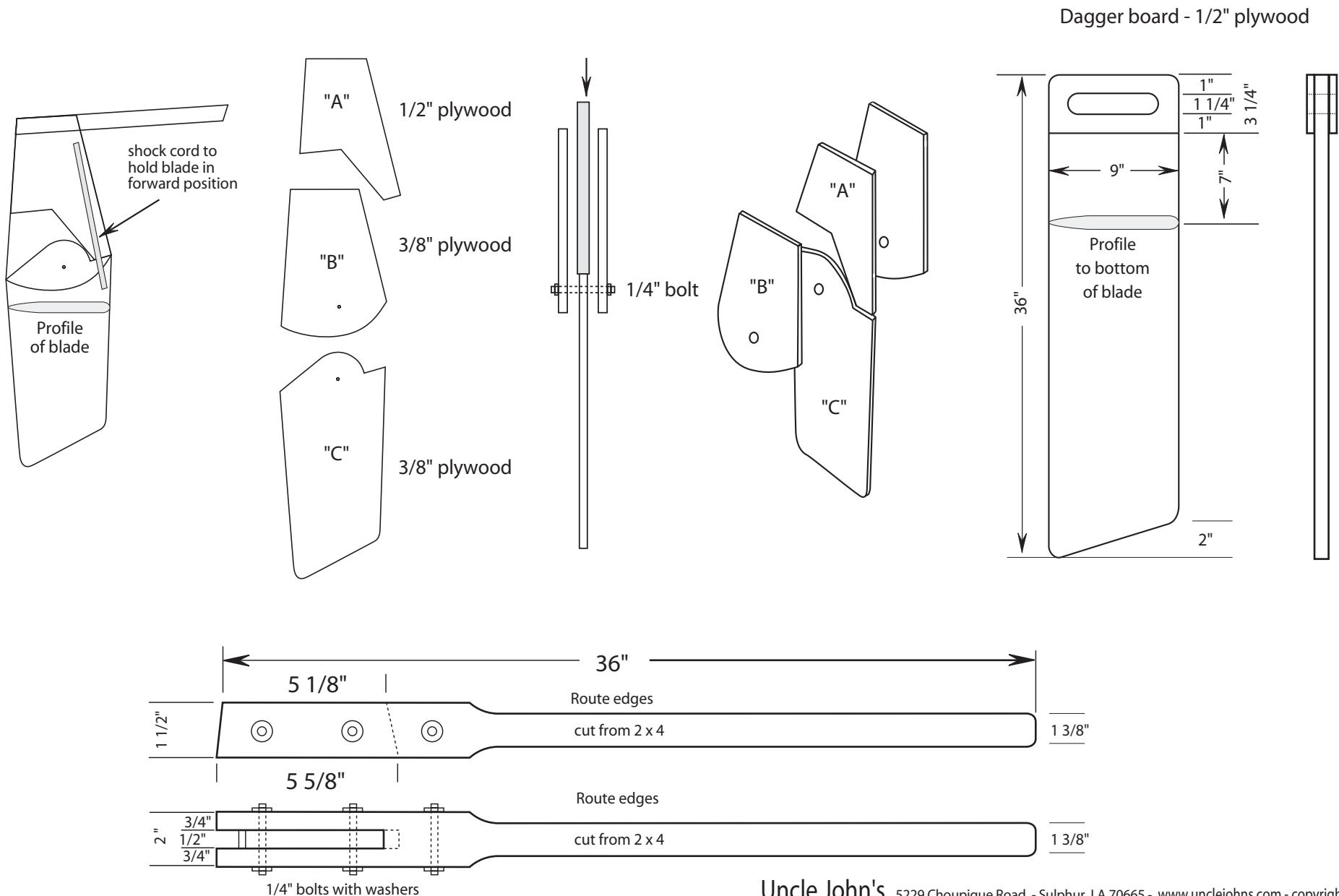


**NOTE:** The dagger board case must be installed perpendicular to the seat top. The bottom of the case must be trimmed to fit.



## Sheet #4 ~ building the rudder and dagger board

If you are building the sail rig we are happy to supply our rudder pattern free of charge. Simply download the rudder pattern at [www.unclejohns.com/bysk14/sail/rudder.pdf](http://www.unclejohns.com/bysk14/sail/rudder.pdf) The rudder is constructed from separate pieces sandwiched together.

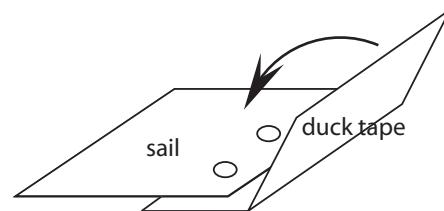


## Sheet #5 ~ building a sail

The easiest and most economical sail to construct is a spirit rig, made using poly-tarp for the sail, 1 1/2" chain-link fence tubing for the mast and 1/2" conduit for the spirit boom. The optimum size sail depends upon the experience of the sailor and the weather conditions. Because of the ease of construction, it is convenient to have more than one size. Start conservative and work up.

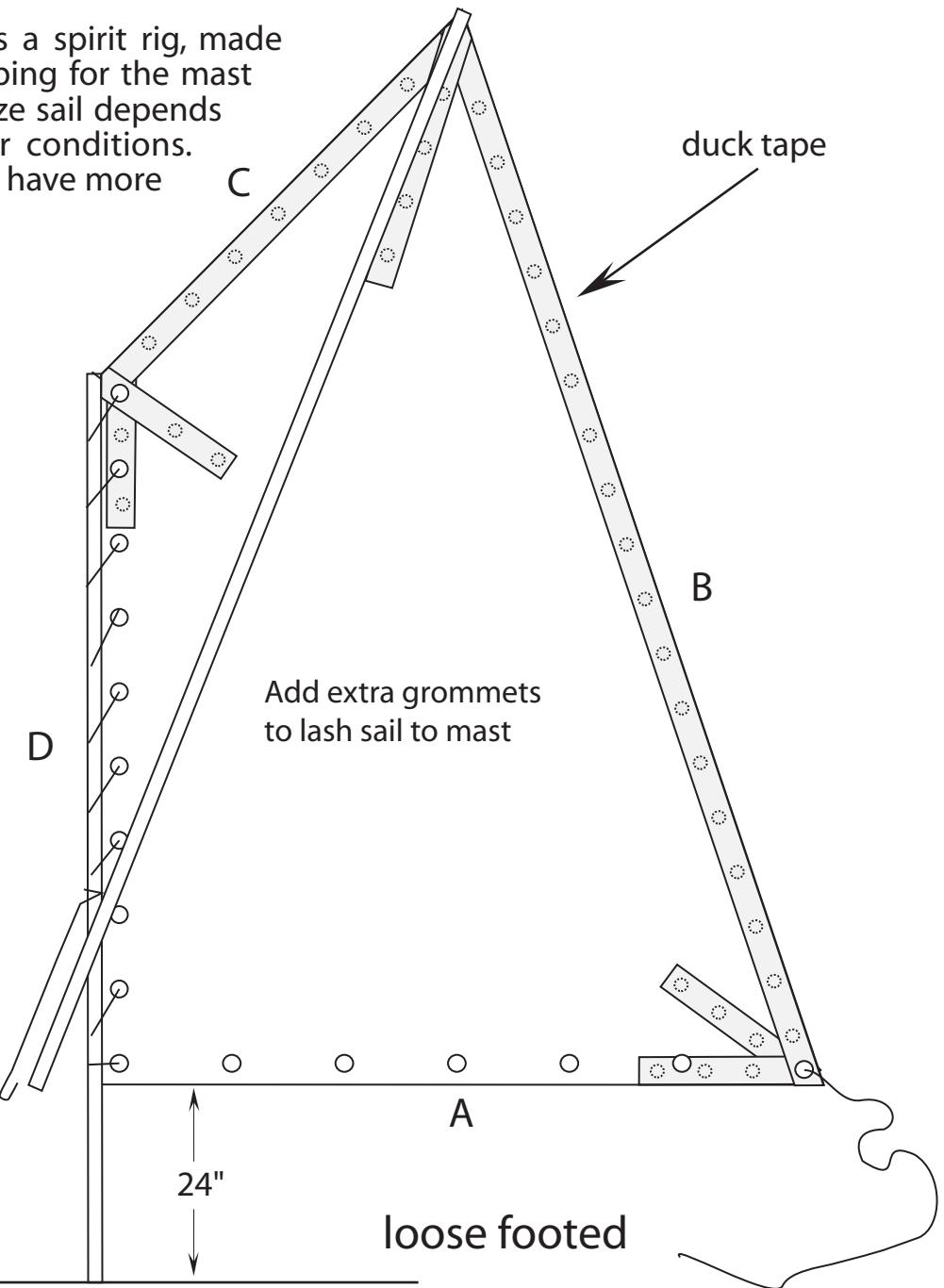
| A   | B   | C   | D   | Sail Area |
|-----|-----|-----|-----|-----------|
| 48" | 62" | 34" | 48" | 16 sq.ft. |
| 60" | 78" | 42" | 72" | 25 sq.ft. |
| 72" | 93" | 50" | 72" | 36 sq.ft. |

Layout sail then cut mast and spirit boom to fit.



Reinforce cut edges with duct tape. punch 1/2" holes 4" apart on cut edge of sail and trim with folded duck tape. When the adhesive of the tape contacts through the hole, the tape will permanently stick. After applying tape, rub tape briskly to assure contact.

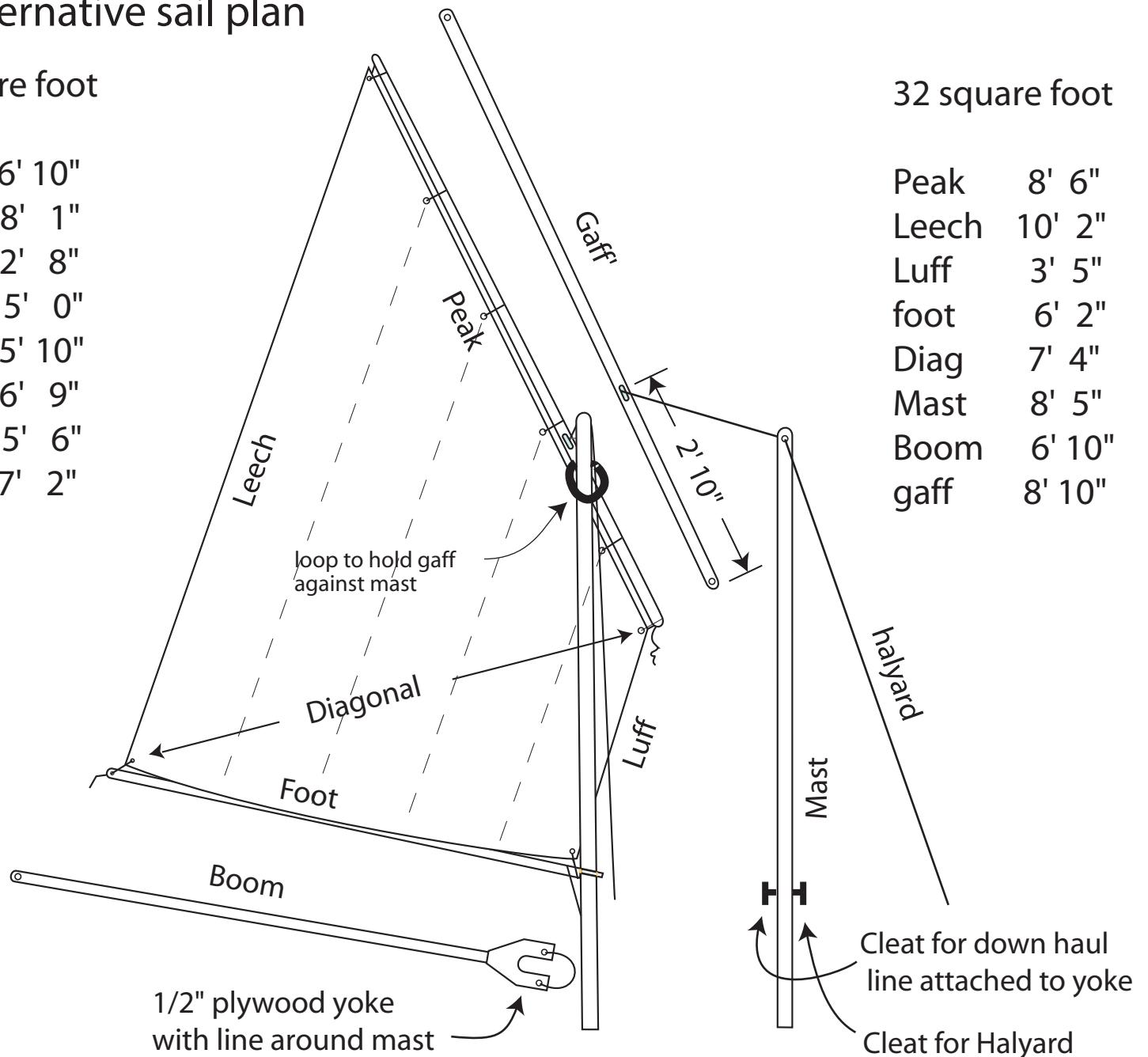
Hook on end of line  
to hold spirit boom



## Sheet #6 ~ an alternative sail plan

26 square foot

|       |        |
|-------|--------|
| Peak  | 6' 10" |
| Leech | 8' 1"  |
| Luff  | 2' 8"  |
| foot  | 5' 0"  |
| Diag  | 5' 10" |
| Mast  | 6' 9"  |
| Boom  | 5' 6"  |
| gaff  | 7' 2"  |



There are many materials from which the spars can be made, including full round closet rod, available at lumber yards.