6"

X's are nails to temporarily fasten to existing wood. The wood is about 3" x 6" x $\frac{1}{4}$ " thick with a hole in the center. This guides the $\frac{1}{2}$ " hole saw.



Blowup of hole with the core drilled and the two screws. Now take a ¹/₄" hole saw and place it around the screw shank. Get as close to the screw in all directions. Drill as deep as the shank, Remove the rest of the wood with a Dremel and the shank with the vise grips. With the wood removed around the shank, it should come out easily.