A DIY Greenhouse

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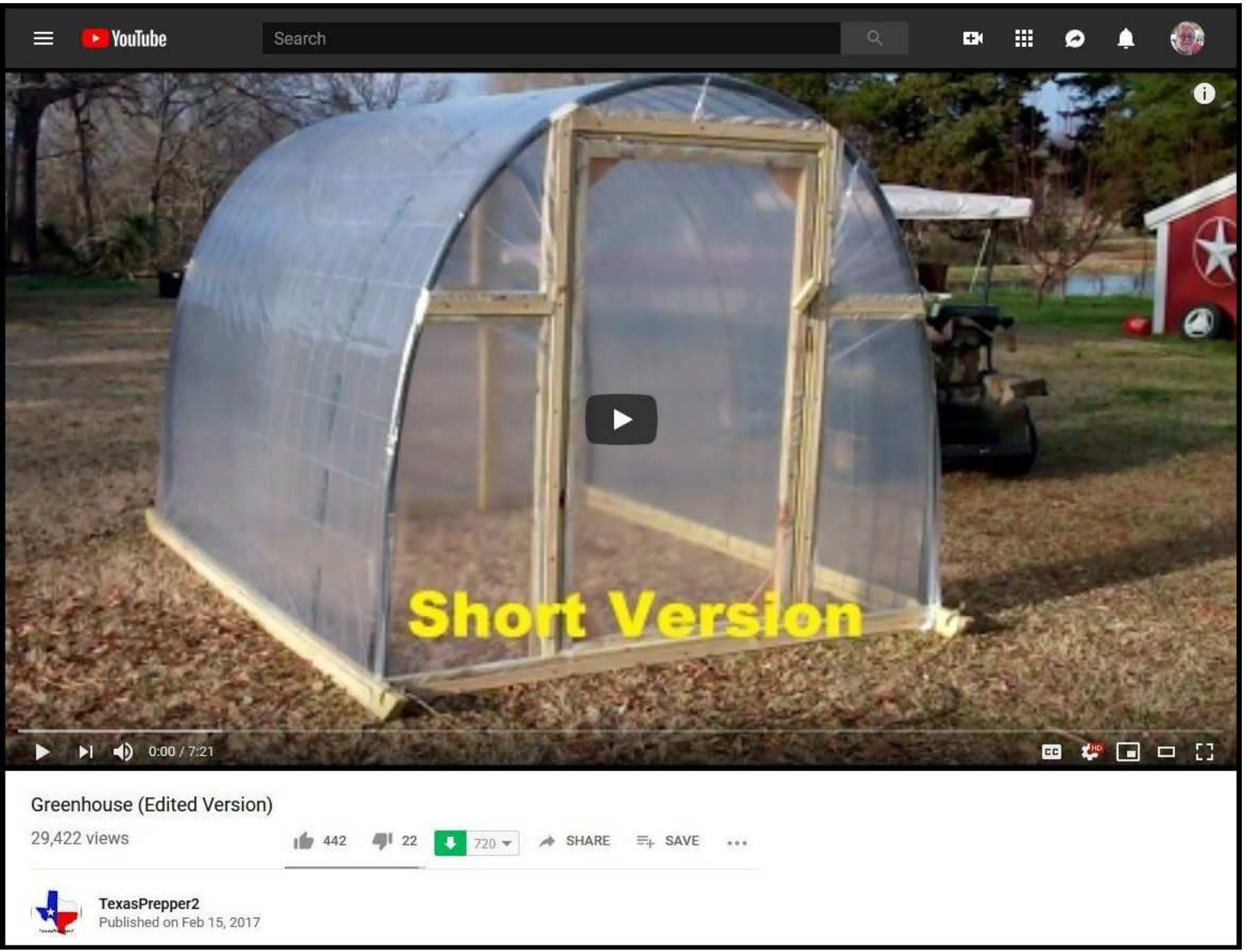
My 2017 first attempt, with ½” PVC and old plastic, did not stand up to the February 2018 winds. I needed to do a lot of researching to find a better DIY Greenhouse.



After watching many YouTube videos, decided to start with the ideas in this TexasPrepper2 video (youtu.be/c1BBX4OxW4U).

His greenhouse is made with two 16ft x 50in cattle panels and a base of 2x4s.

Modifications I decided on were:
3 cattle panels

Base 8’ wide, 12’6” deep

Base made from 2x6s

Instead of door in front and window in back – doors in front and back, each with a venting window.


For the base, I used 2x6 lumber. Before continuing, I made sure it was square (the measured diagonals were equal to each other) and trenched the ground to make sure it was level.
September 5, 2018

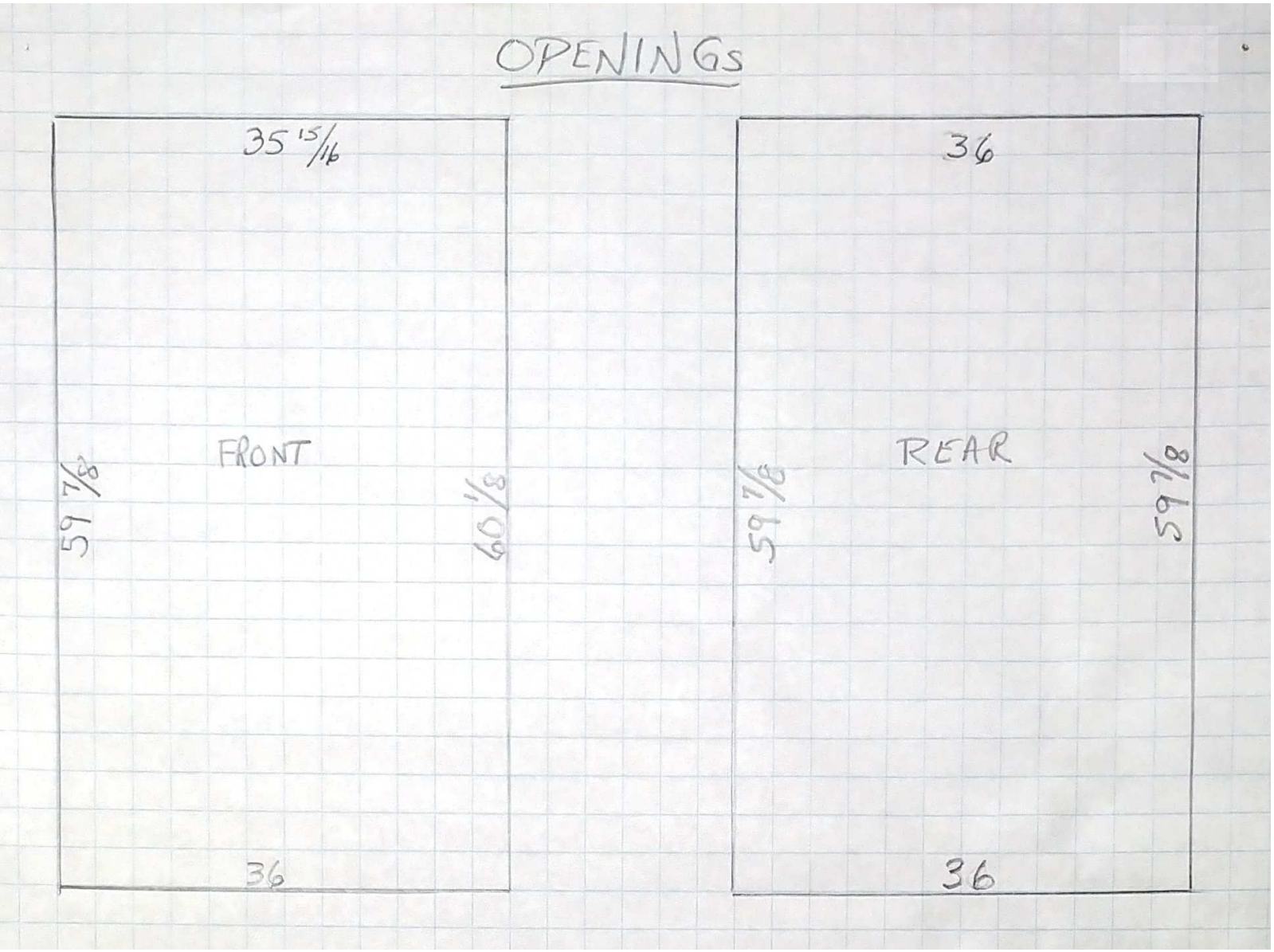

The trenching has been done to level the base. Added flat corner braces to each corner. Used 2x4s when fence stapling the cattle panel, to keep edge of panel in middle of 2x6. First (rear) panel already stapled to base with fencing staples.


All three cattle panels stapled to base now. Black plastic cable-ties used to keep the cattle panels lined up with each other (shown in a later slide).

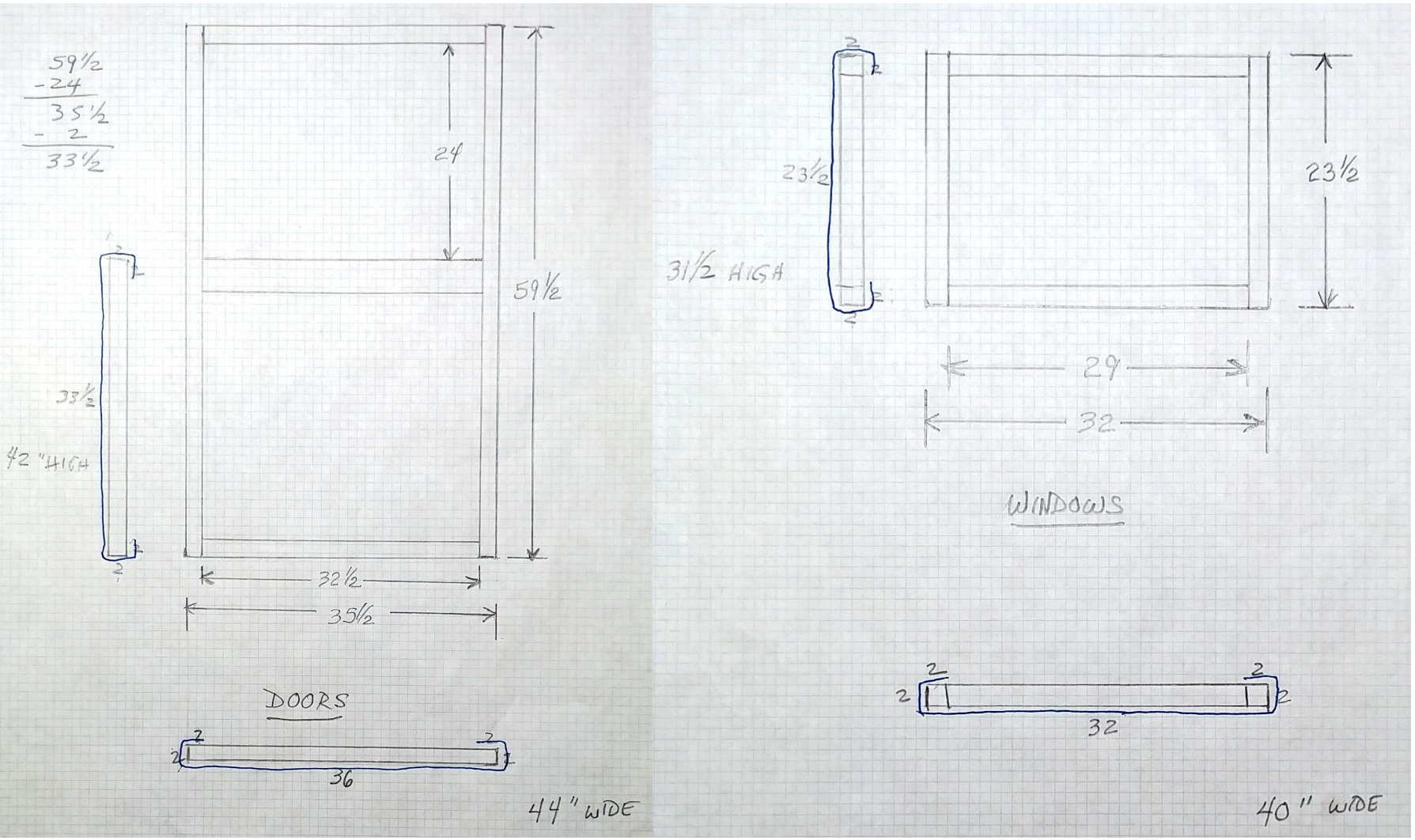
2x4s for the door have been clamped together, in order to mark for the angle cut needed at the top so the cattle panel can be stapled to the top of the door frame uprights.

Door frame uprights cut to size and door frame top and bottom attached. Cattle panel stapled to door frame uprights.


Front and rear door frames finished
along with cross braces.
All door frame material = 2x4s



After the door frames were completed, I took measurements of the door openings so the doors wouldn't be too tight or too loose.



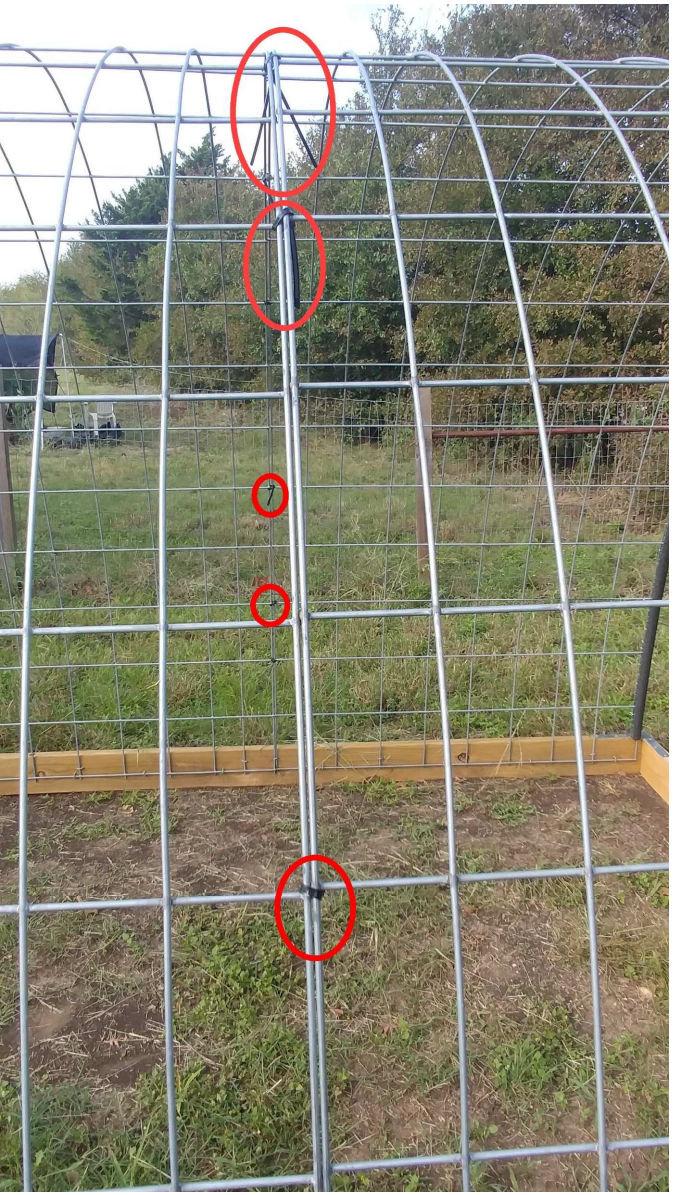
Dimensions for making the doors and windows.


Front door assembled and tested for fit in frame. Door made from 2x2s ripped from 2x4s. Cross brace is 2x4.
September 30, 2018

Venting window assembled and hinged at top. Doors are hinged so they open outward.
Window made from 2x2s ripped from 2x4s.

View of the front door open. Automatic vent opener attached.
From Amazon: Univent Automatic Vent Opener Standard - Lifts 15 Lbs.


Both front and back doors
and windows completed.

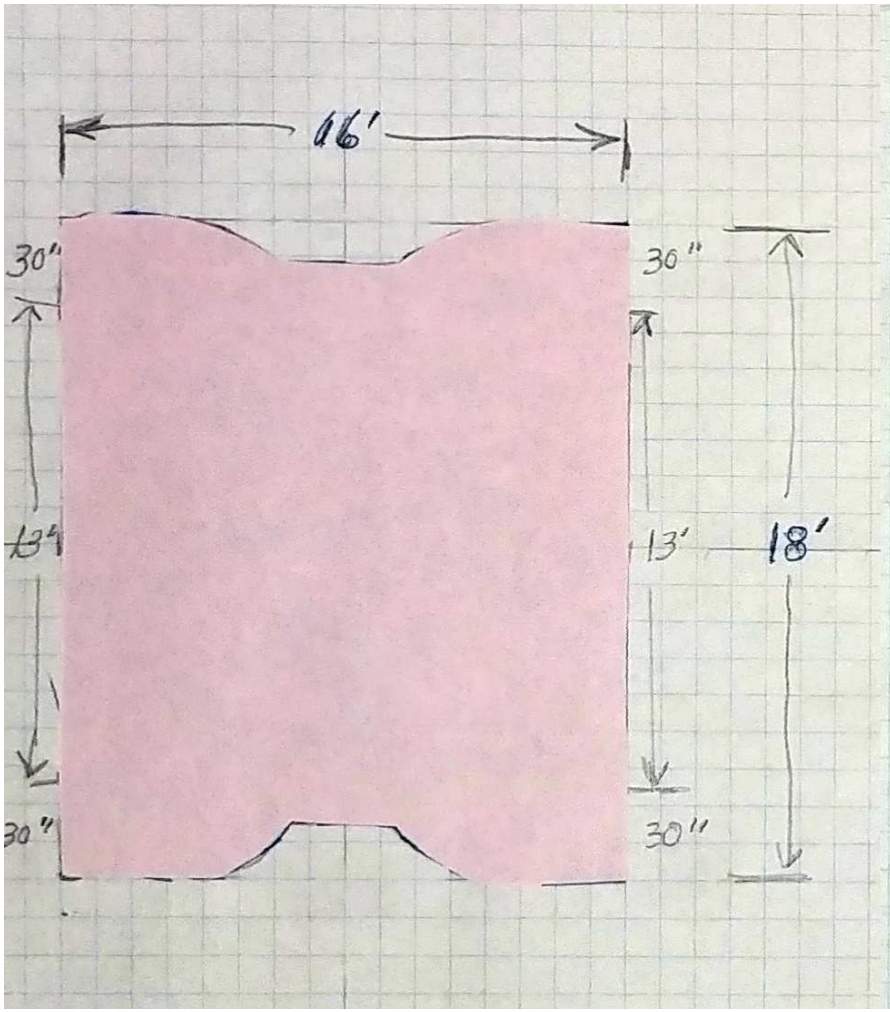


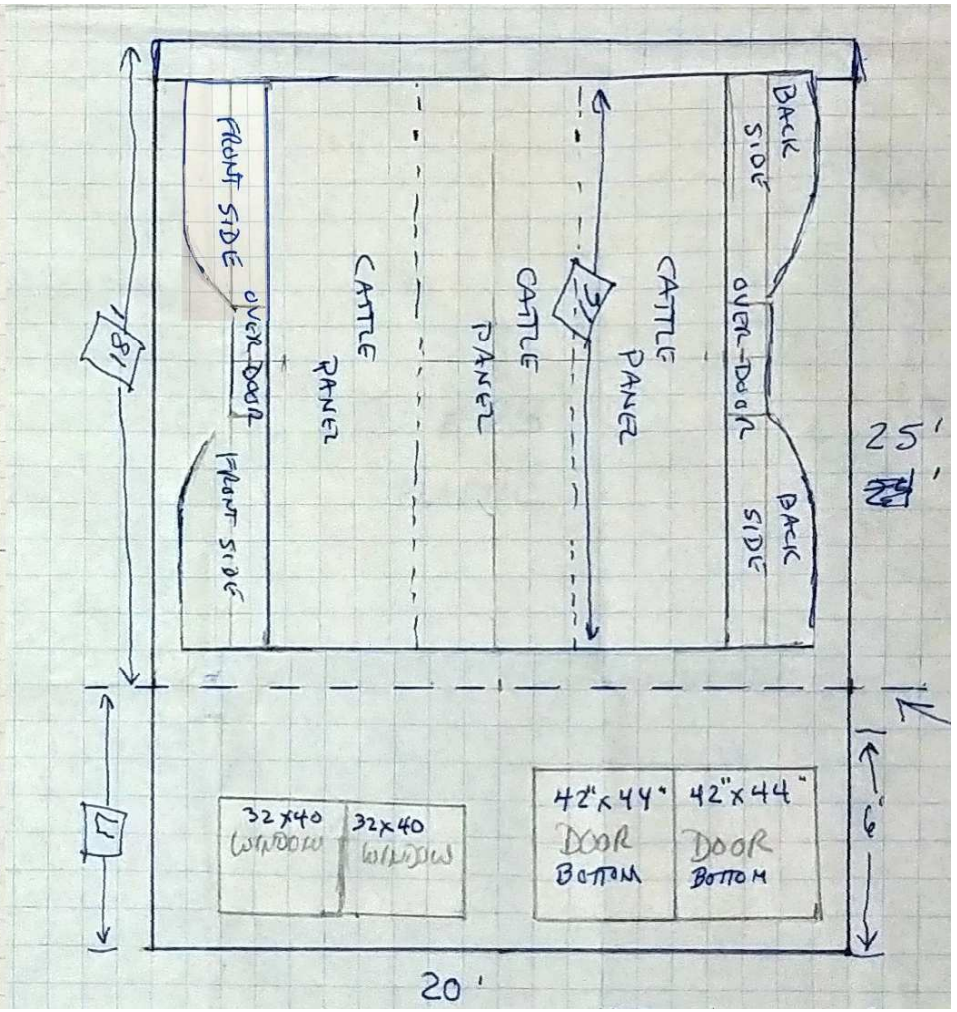
This view shows the black plastic cable-ties keeping the cattle panels lined up. While researching videos regarding cattle panels for trellises, I heard comments that the black cable-ties held up better outdoors than the white ones.


Added foam pipe insulation at front and back to protect the greenhouse plastic covering from sharp edges on the end of the cattle panels.


See the black plastic I put down for weed control? It was a mistake.
Fire ants loved it under there. Before continuing, I pulled back the plastic and treated with Orthene. The fire ants were all gone in a couple days.
Also, the black plastic held puddles when watering plants in the greenhouse.
This year, I will pull up the black plastic, and replace it with cardboard underneath decomposed crushed granite.

Calculating the amount of "Greenhouse Clear Plastic Film" and how to cut pieces to cover greenhouse, doors, and windows.
Ordered from Amazon: Greenhouse Clear Plastic Film Polyethylene Covering Gt4 Year 6 Mil 20ft. X 25ft. By Grower's Solution





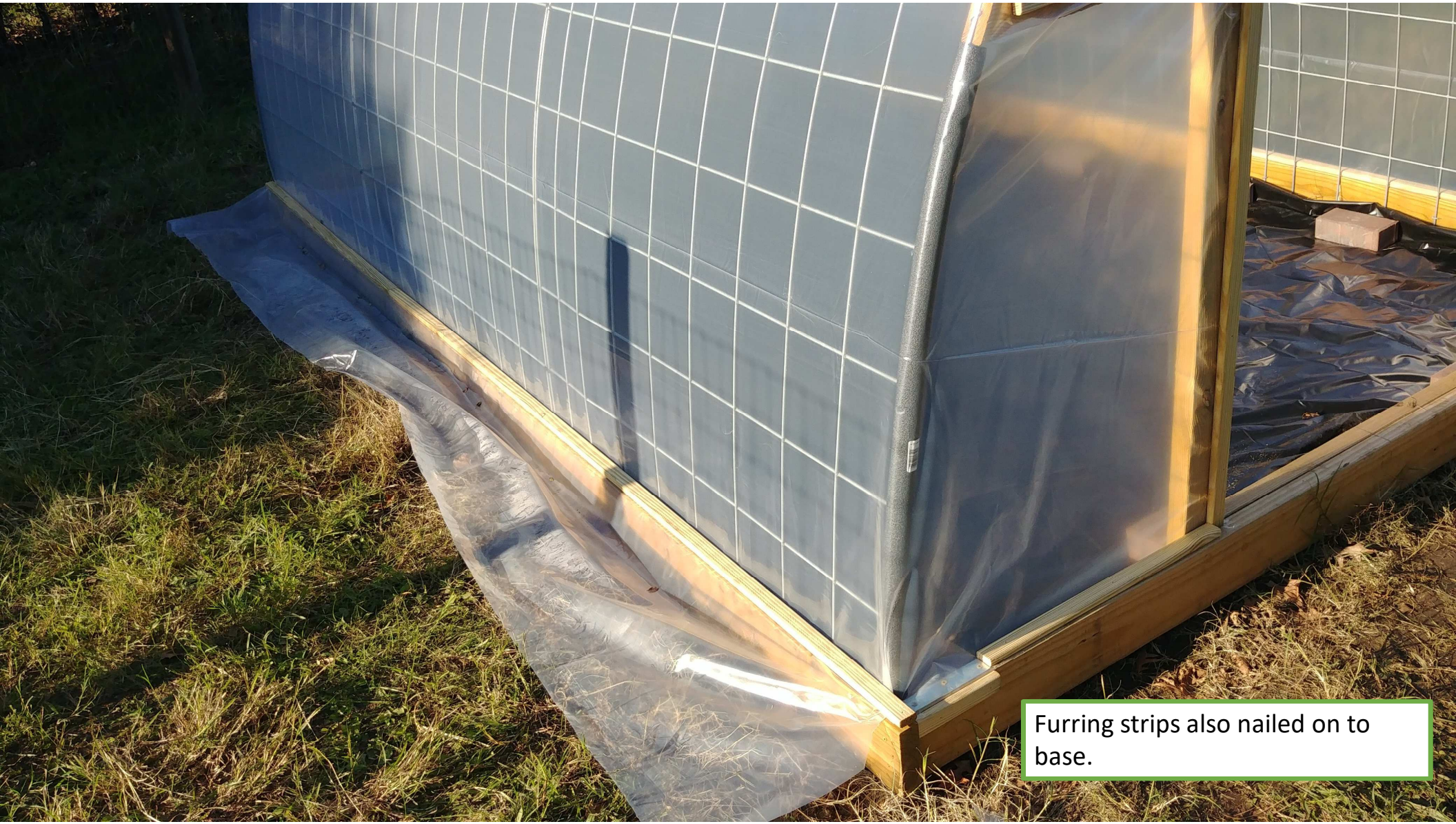

Greenhouse plastic placed over greenhouse.
October 26, 2018

Greenhouse plastic pleated and stapled at front.

Greenhouse plastic pleated and stapled at back.


Furring strips nailed on so
Greenhouse plastic won't rip
through staples.


Back view showing furring strips.


Furring strips also nailed on to base.


View from inside shows cable ties holding cattle panel edges together.

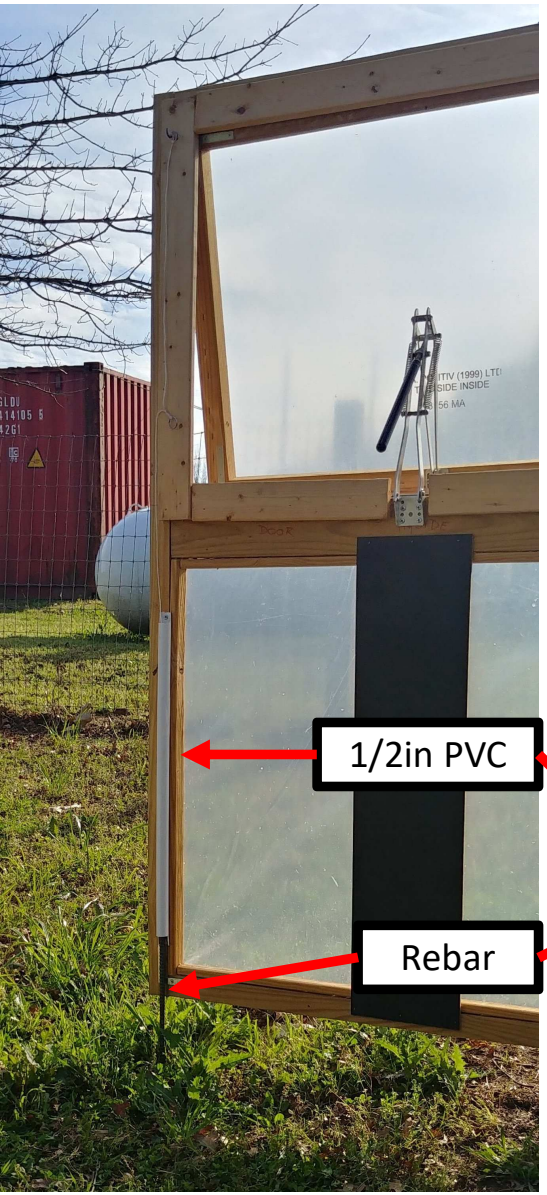
Plastic added to doors and windows and doors reattached to greenhouse.

Wider (1x4) furring strips added to cover air gaps around doors and windows.

A happy gardener with her plants in the greenhouse


Another view inside
the greenhouse


When I don't want the automatic vent opening the window, I can pop the arms out of the pins on the door crossmember.
However, the arms could hang down and poke the plastic in the lower section of the door.
By adding a piece of pressboard to the inside of the door, that won’t happen.



When it got warmer in the spring, I wanted to have the doors held open. A piece of 1/2in PCV attached to the inside of the door allows a piece of rebar to drop down to the ground to hold the door in place. A piece of string attached to the rebar holds it up when not needed.

An inexpensive handle and a latch & screw-eye were the last things added to the doors.

If you are interested, this complete presentation is available as a PDF on the website of the Bastrop County Master Gardener Association at:
https://txmg.org/bastropcounty/files/2019/08/DIY-Greenhouse.pdf