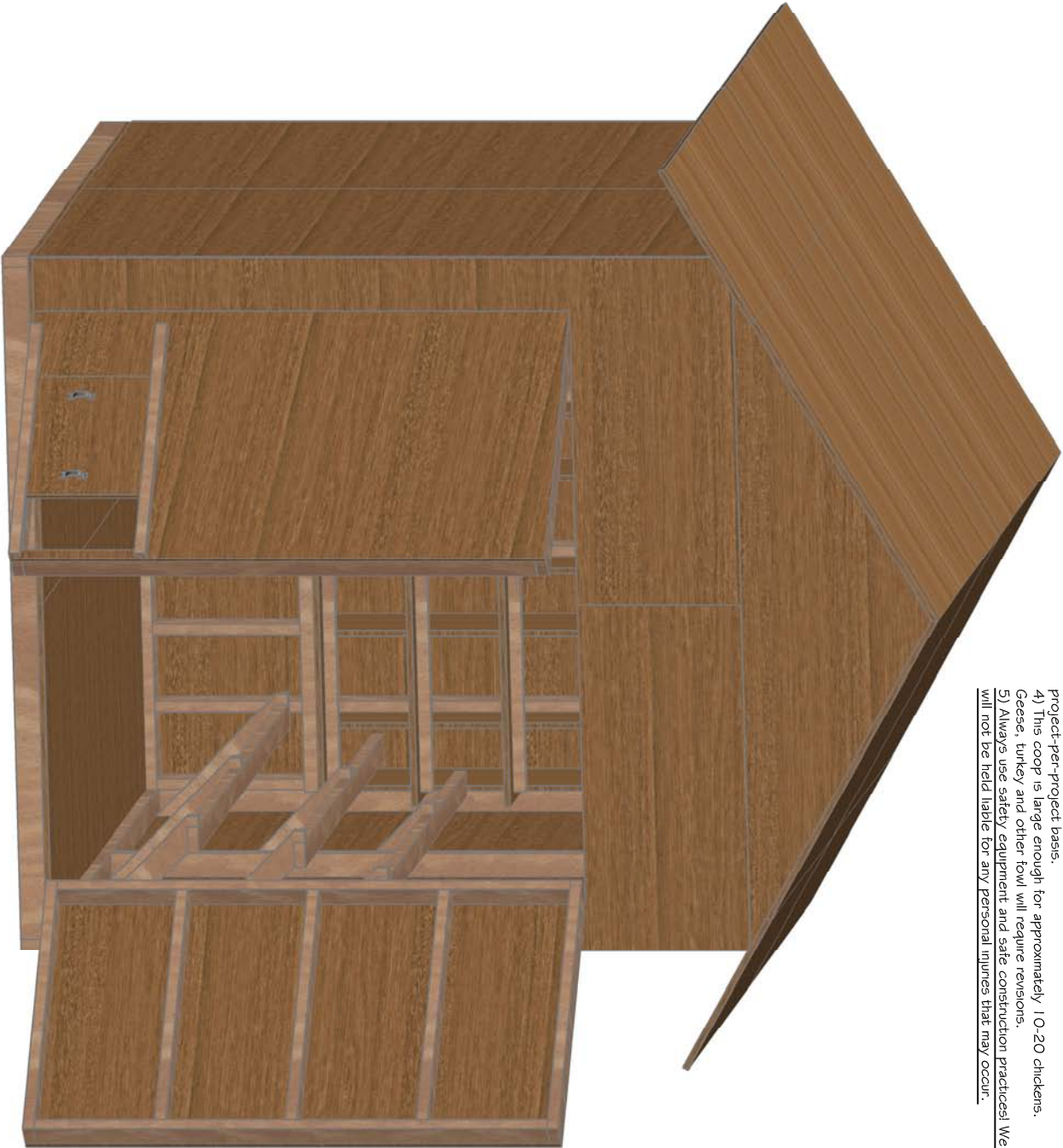


- 1) Image shown without shingles and veneer siding (by builder)  
2) These plans are intended as a guide ONLY! Feel free to make changes, adjustments and revisions to suit your requirements.  
3) We do not assume to know the size and type of fowl being harbored in this coop. Adjustments may be necessary on a project-per-project basis.  
4) This coop is large enough for approximately 10-20 chickens, Geese, turkey and other fowl will require revisions.  
5) Always use safety equipment and safe construction practices! We will not be held liable for any personal injuries that may occur.



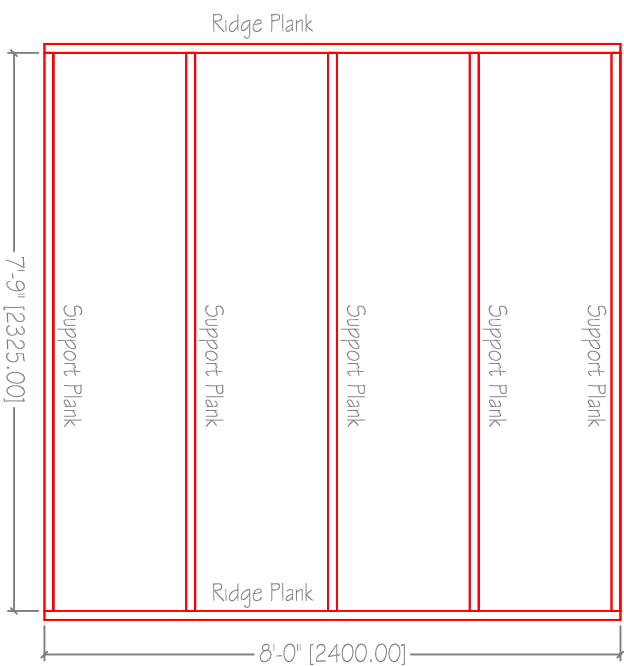
## Material List

Description	Dimensions mm	english	Quantity
Base			
Base Support Plank	45x90x2400	2x4x8'	5
Base Ridge Plank	45x90x2400	2x4x8'	2
Base Flooring	1200x2400x19	4x8"x $\frac{3}{4}$ "	2
Side Walls			
Side Support Plank	45x90x2400	2x4x8'	6
Side Ridge Plank	45x90x2400	2x4x8'	4
Side Sheathing	1200x2400x19	4x8"x $\frac{3}{4}$ "	4
Rear Wall			
Rear Support Plank	45x90x2400	2x4x8'	9
Rear Ridge Plank	45x90x2400	2x4x8'	2
Rear Sheathing	1200x2400x19	4x8"x $\frac{3}{4}$ "	2
Nesting Boxes			
Nesting Box Support	45x90x2400	2x4x8'	1
Nesting Box Base	1200x2400x19	4x8"x $\frac{3}{4}$ "	2
Dividers	1200x2400x19	4x8"x $\frac{3}{4}$ "	1
Angle Braces	45x90x2400	2x4x8'	1
Front Wall & Doors			
Front Wall Support Plank	45x90x2400	2x4x8'	6
Door Planks	45x90x2400	2x4x8'	10
Front Wall and Door Sheath	1200x2400x19	4x8"x $\frac{3}{4}$ "	2
Roost			
Roost Supports	45x90x2400	2x4x8'	2
Roost Planks	45x90x2400	2x4x8'	3
Front Wall and Door Sheath	1200x2400x19	4x8"x $\frac{3}{4}$ "	2
Roof			
Roof Supports	45x90x2400	2x4x8'	10
Roof Rafter's	45x90x1800	2x4x6'	10
Sheathing	1200x2400x19	4x8"x $\frac{3}{4}$ "	6
Girder	45x90x1800	2x4x6'	1
Miscellaneous			
Handles	By Builder	By Builder	4
Hinges	By Builder	By Builder	8
Veneer/Siding	By Builder	By Builder	300 cu. ft.
Wood Sealant	By Builder	By Builder	2 Gallons
Paint	By Builder	By Builder	2 Gallons
Screws	#20-30x60mm	By Builder	150 Min.
Shingles	By Builder	By Builder	1 Box Min.

1) To begin, cut the five (5) base support planks and the two (2) ridge planks as dimensioned below. Remember, these should be treated or sealed to prevent water damage!.

2) Layout ridge planks and support planks as diagrammed below on a smooth, level surface.

Attach with three (3) - #20 #30x1 1/2" (40-50mm) star (torque) head screws each.

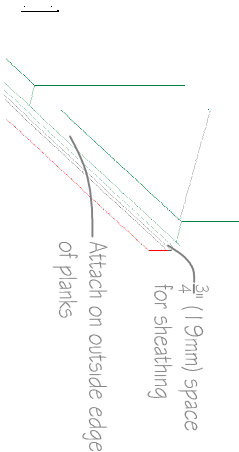
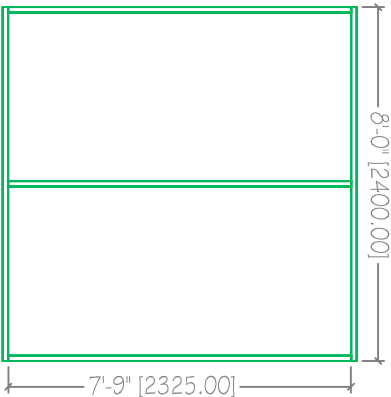


3) Attach two (2) 4x8x3/4" (1200x2400x19mm) plywood sheets across the top of the base. Make sure to square up the ends and make sure sides are flush. The sheets should sit square and flush without any cutting necessary. You should now have a platform to start building the walls as diagrammed below.



4) Start on the side walls and cutting six (6) planks 7'-9" (2325) and 4 planks at 8'-0" (2400). These will be the planks you need to use on the side walls of the coop (see diagram below).

5) Attach side walls to the base with #30x1 1/2" star head screws or nail gun. Measure and run a line at 3/4" (19mm) to allow for wall sheathing! Be sure to attach along the EXTERIOR edge and follow the side planks or else you will attach only to the sheathing and that is not a strong hold!



6) Repeat step 5 for opposite side. Remember to layout the space for sheathing and attach along the outside edge of the planks so they attach to planks beneath!

7) Use some scrap wood to brace the side walls. **Once the rear wall is complete, you will take the braces off, so only tack them up!**

8) At this point the structure should look something like the diagram below.



**3D** *imeneial*  
**concepts**

15726 N. Park Dr.  
Frenchtown, WI, USA 59834

Cell: 406-546-6672  
Email: jsagupitil@hotmail.com

Title:

Base & Side Walls

Drawn: JS&G Approved:

Revision: 0

Drawing: 1

Date: 11-June-2009

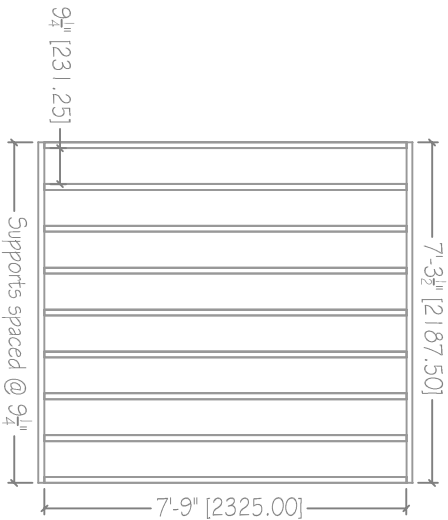
Scale:

Specified

9) Now it is time to begin the rear wall of the coop. The rear wall will also contain the nesting boxes. Since poultry sizes vary and are incomprehensible, this example uses a general size of 12" (300mm) high for all nesting boxes. **Actual box sizes may change depending upon builder circumstances!**

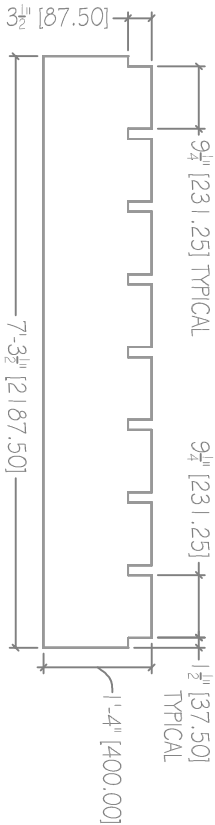
10) Start by cutting the base and roof planks as dimensioned below. **Always measure to double check widths!** If following these instructions carefully, the base board will just barely fit between the base boards of the side walls.

11) Measure and cut your supports. In this guide the supports are placed at 9 $\frac{1}{4}$ " (231.25mm) O.C. (on center). These will support the nesting boxes and supply framework to attach to. **IT IS THE RESPONSIBILITY OF THE BUILDER TO VERIFY FOWL SIZES AND PLACE SUPPORTS ACCORDINGLY!**



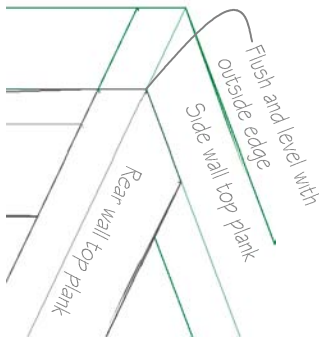
12) Now, use a table saw or circular saw to cut a 4x8x $\frac{3}{4}$ " sheet of plywood in half length-wise and then to the exterior dimensions below. Copy for desired number of nesting boxes. **REMEMBER**, you will need one (1) extra sheet as a cap to the nesting boxes. The sheets should fit just inside the base planks of the side walls.

13) Layout and cut the slots using a jigsaw. Make sure to drill a pilot hole so you don't break the blade of the jigsaw at the corners! Put aside for now.

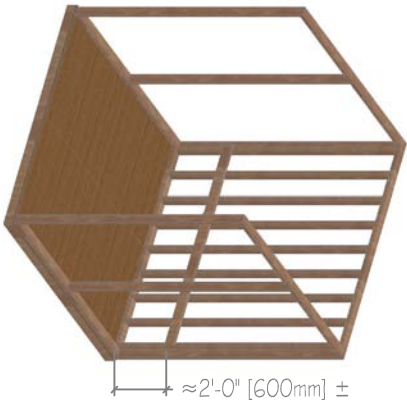


14) OK, now it is time to stand the rear wall up and attach it to the side walls using #30x1 $\frac{1}{2}$ " (40-50mm) star head screws. Make absolutely sure the side walls are square vertically and the rear wall is flush with the OUTSIDE edges of the side walls!

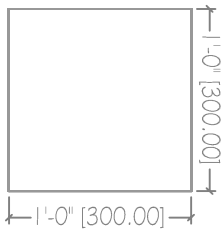
15) The structure should look something like the diagram below.



16) Cut a plank to the width diagrammed below. This will be the base support and hold the weight of the nesting boxes. Again, it should fit just between the side walls. Anchor about 2" (600mm) up the rear wall supports. The actual height will vary depending on the comfort of the builder. **BE SURE TO USE A LEVEL OR THE NESTING BOXES WILL BE SKEWED!**



17) Now, we are going to begin the nesting boxes. You should already have the bases cut from previously. Now you need to cut some divider sheets to separate the boxes. How many will depend upon the builder and how many and how high the nesting boxes will go. In this example, you will need to cut at least 27 dividers as diagrammed below. Again, the size and space may vary depending on builder requirements.

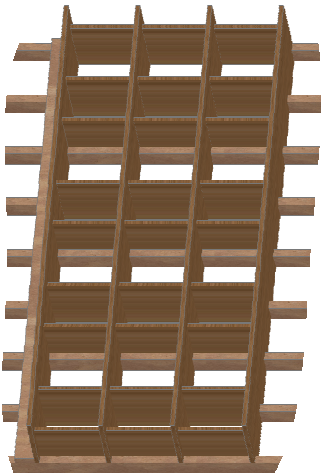
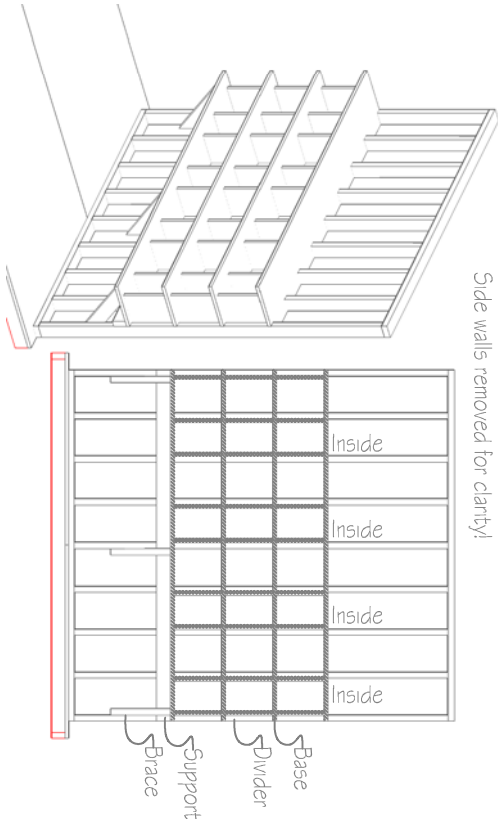


18) Once you have all of the dividers cut, we can begin assembling the nesting boxes. Place one of the base sheets on the support that you attached to the rear wall (see diagram), **TIP\* Use simple angle braces to keep the nesting boxes level.**

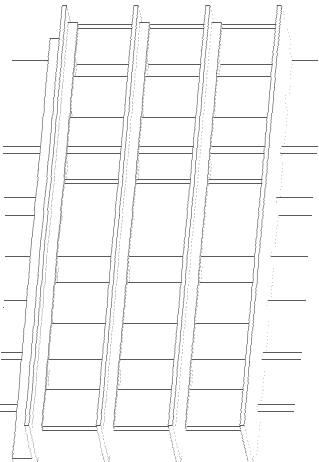
19) Alternate placing dividers between the wall supports as shown in the diagram below. Attach the dividers to the supports with screws or nail gun.

20) Stack remaining dividers and bases as desired. (More than shown will require more materials).

We recommend alternating dividers between the supports to save time and material. If you wish, for a more professional look, attach one (1) divider to each side of the supports, but you must take into consideration additional material and less space per row.



21) Now attach a 1x2 (19x25mm) plank along the front of each row of nesting boxes. These can be purchased or the builder can rip a 2x4 (45x90mm) lengthwise. These will hold bedding for the chickens (or applicable fowl) in the nesting boxes (see diagram).



22) At this point, the nesting boxes are finished, three of four walls are up and the base is enclosed. The structure should look something like this:



**3D** *dimensional*  
**concepts**

15726 N. Park Dr.  
Frenchtown, MT, USA 59834

Cell: 406-546-6672  
Email: jsagupitil@hotmail.com

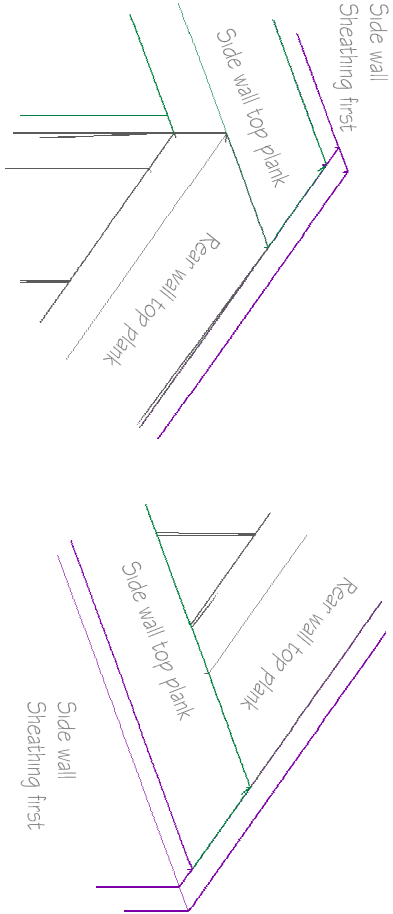
Title: Nesting Boxes		Drawn: JSg	Approved:
Date: 11-June-2009		Revision: 0	Drawing: 3
Scale: 11-June-2009		Specified	



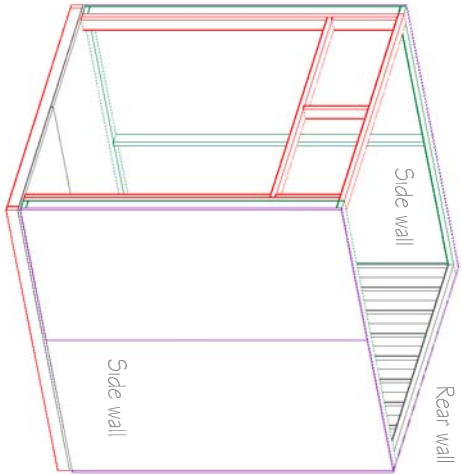
17) Before you start with the doors, you need to give the structure some rigidity. Now would be the time to add exterior sheathing (plywood sheets) to the outside of the structure.

REMEMBER to level the walls vertically and square the ends of the plywood sheets with the framing. There should be no need to cut any plywood if you follow the diagram below.

18) Set the side wall sheathing first since they do not require the added thickness of the plywood to square. Follow up with the rear wall sheathing and square with the outer edges.



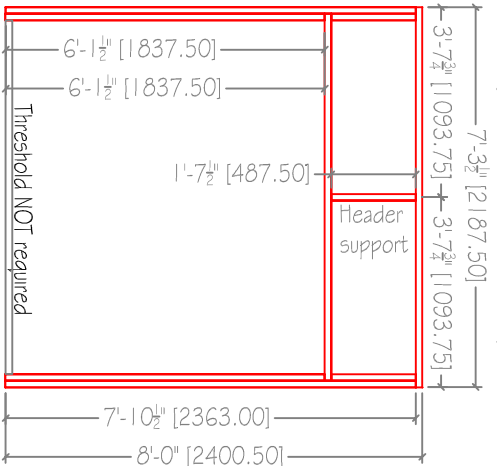
22) Take the completed frame and attach to the side walls with screws or nail gun. Make sure frame is flush with outside edges and that frame is square. If the frame is not square, you will need to use shims. **Failure to square here will cause the doors to fail to open or close!**



19) The structure should now be strong and rigid. In the next steps we are going to guide you through construction of the doors. But first, the doors are really dependent on what the builder prefers. These instructions are meant as a guide only, feel free to tweak them as necessary to your personal requirements.

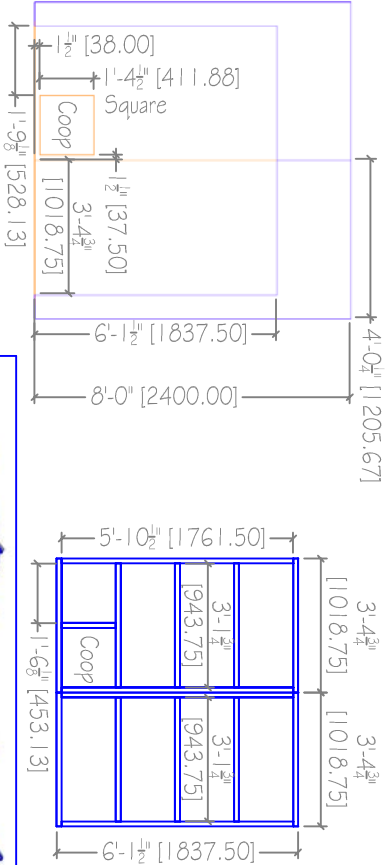
20) Having personally helped build (and clean) previous coops, I would recommend a double hinge door so both sides open. We will NOT be using a threshold in this example, the base should lift the coop off the ground as high as to keep most dirt and other undesirables out of the coop. If you desire a threshold, simply add a bottom plate to the plans. The double hinge design will allow the user of the coop to clean straight out of the coop while avoiding any unnecessary corners.

21) OK, On with the construction. Measure and cut the planks for the door frame as detailed below. Be sure you include the header as it will support the weight of the doors! **NOTE\*** If a threshold is desired, be sure to adjust measurements accordingly!



23) Use a table saw to cut two (2) sheets of plywood as detailed below. **KEEP BOTH SIDES!** The outside edges will be the sheathing around the door frame and the interior can be used as a guide to the door construction! **\*NOTE** - A table saw is recommended for a very straight cut. If skills with a circular saw are adequate, a circular saw may be used, but **ALWAYS** measure and layout the cuts in pencil. It is **VERY** important to get the straightest cut possible!

24) Measure and cut the door framing as detailed in bottom right. Use the plywood sheathing as a guide around the perimeter. You do NOT want your door frame bigger than the sheathing! There is only the width of the saw blade on all sides for play, so cut accurately! **Remember to keep the access panel you cut out of one side for later!**



3D

concepts

15726 N. Park Dr.  
Frenchtown, WI, USA 53934

Cell: 406-546-6672  
Email: jsgupitil@hotmail.com

Door Details

Drawn: JSG  
Revision: 0

11-June-2009

Scale: Specified

Approved: 4

Drawing: 4

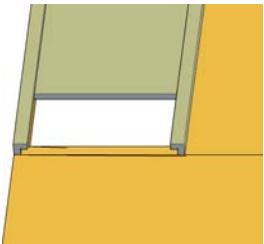
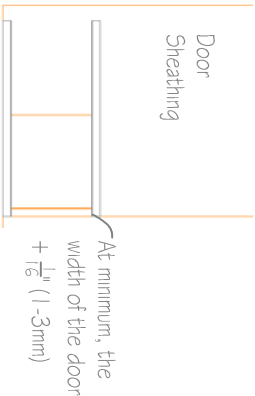
- 25) Attach the sheathing to the door frames with screws or a nail gun.
- 26) With assistance, place one door in the open door way and use just one or two shims to lift it off of the base sheathing so it will swing freely later.
- 27) Before attaching hinges, make sure the door is level vertically. Use assistance and shims to support the weight of the door and get it as centered in the frame (vertically) as possible.
- 28) Attach at least three (3) hinges to the outside edge of the door so the door will swing outward towards the builder.
- 29) CAREFULLY align the hinges on the exterior wall and attach with screws. Make sure the door runs level vertically and that it does NOT pass the center of the doorway. Check to make sure the door swings freely.
- 30) With assistance, place opposing door in the doorway and check to make sure there is enough room. You may have to adjust the second door slightly to get it to fit if measurements and cuts were not taken carefully.
- 31) Once the second door fits freely, repeat steps 26-29 for opposing door. Check to make sure BOTH doors swing freely on their hinges and open entirely.
- 32) Up to this point, the structure should look like the diagram below.



- 33) For the coop access, first use a table saw to rip a 4' (1200mm) - 2x4 (25x90) in half lengthwise. These will form the panel runners.
- 34) Use a router or a table saw to gouge at least  $\frac{3}{4}$ " (19mm) out of each of the 4' (1200mm) pieces of timber as shown below.



- 35) Attach one of the runners (groove up and in) to the very bottom of the door. The lip of the groove should be flush with the bottom of the access hole. Remember to drill a pilot hole so you don't break the runner and level the runner horizontally!
- 36) **Remember that piece you cut out of the sheathing for the door?** This would be a great place to use it. Slide the panel into the groove in the bottom runner and mark the top edge of the panel on the door.
- 37) Align the groove of the top runner just above ( $+\frac{1}{16}$ " ,  $+1-2$ mm) the mark for the access panel. This will ensure that the panel will slide freely. Use a level and tack both ends with a screw. Make sure the panel slides easily and anchor the runner fully to the door. Remember to drill pilot holes as to not crack the runner!

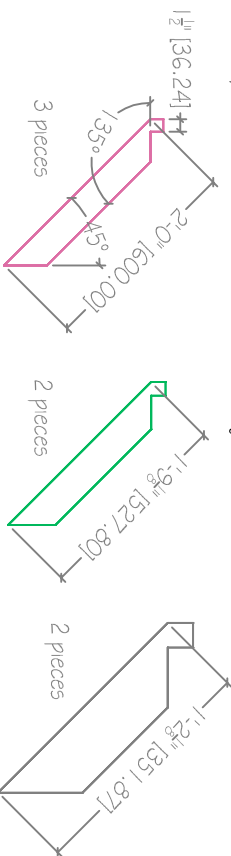


- 38) Attach handles to the panel and the doors for ease of opening. We recommend a hook-and-eye-pin across the two doors to keep them shut. **TIP\*** The builder may want to install a slide bolt in the top and bottom off the solid door to keep it shut until needed (not required).
- 39) The assembly should look something like this:

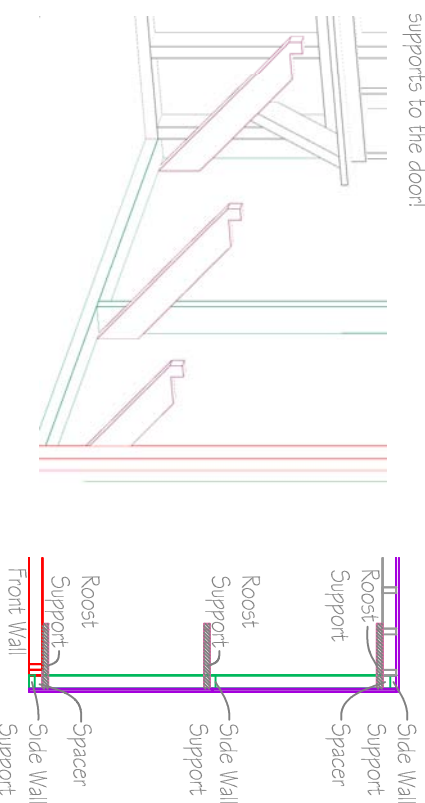


<div> <div>3D</div> <div>concepts</div> </div>			
15726 N. Park Dr. Frenchtown, WI, USA 59834			
Title: <b>Doors Cont.</b>		Drawn: <b>JSG</b>	Approved:
Date: <b>11-June-2009</b>		Revision: <b>0</b>	Drawing: <b>5</b>
Scale: <b>Specified</b>		Cell: 406-546-6672 Email: jsagutell@hotmail.com	

39) Before we get to the roof, let's take a quick look at assembly of the roost. To start, open the solid door and cut the pieces of timber as shown below. **Tip\*** Notice the notch in the end? It is not required, but for the purposes of a professional finish, we threw it into these plans. A 2x4 (25x90mm) will sit in the groove.



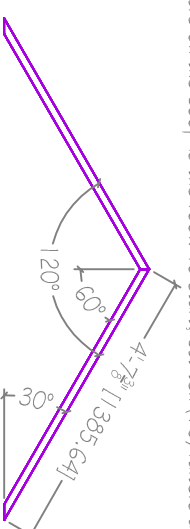
40) Once the pieces are cut, use the three longest pieces and attach them to the inside of the side wall supports as shown. **Tip\*** Use a scrap piece as a spacer in the front and back corners. Attach the spacer(s) first and attach the roost support to that AND the first and second rear wall supports. **DO NOT** attach the front roost supports to the door!



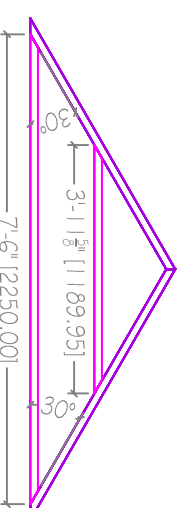
41) Use the two (2) middle length supports and attach in the same manner to the front and middle side wall supports. Locate these so the roost will sit roughly in between the first and second nesting box bases. There will be NO support for the rear (it's a 2x4 (25x90)) it will hold the weight with only 2 supports, just fine.  
42) Repeat for the third (smallest) roost supports. Locate these so the roost will be located roughly between the second and third nesting box bases (see diagram)  
43) Measure and cut 2x4 (25x90mm) planks to fit.  
44) Set the roost in the seats (if cut) and attach with screws (see diagram).



45) The only remaining structure on the coop is the roof. To start, cut ten (10) rafters and assemble as diagrammed.



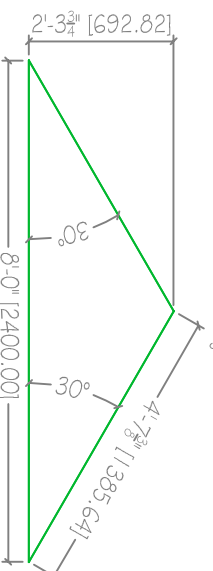
45) Measure and cut five (5) each of the middle and horizontal supports as shown and attach. Slide the middle support up until it is snug and attach to roof rafters.



46) Cut two (2) nailers as drawn below. These will provide a nailing surface should the builder want to sheath the interior ceiling.



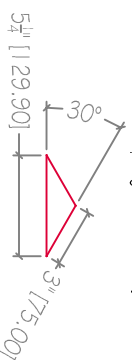
47) Use a sheet of plywood and cut two (2) end sheets as diagrammed below.




48) Attach the sheathing to 2 of the rafter assemblies (1 sheet each). You should have three (3) rafter assemblies and two (2) exterior rafter assemblies.



49) Rip a 8'-0" 2x6 (150x2400mm) plank as shown below. This will be a girder to stabilize the roof rafters. In areas of low snow loads, this step is not required. The girder will keep the rafters from warping under heavy loads.



			
15726 N. Park Dr. Frenchtown, WI, USA 59834			
Title: Roof Details		Drawn: JSG	
Date: 11-June-2009		Revision: 0	
Scale: Specified		Approved: 6	
		Cell: 406-546-6672 Email: jsgupit@hotmail.com	

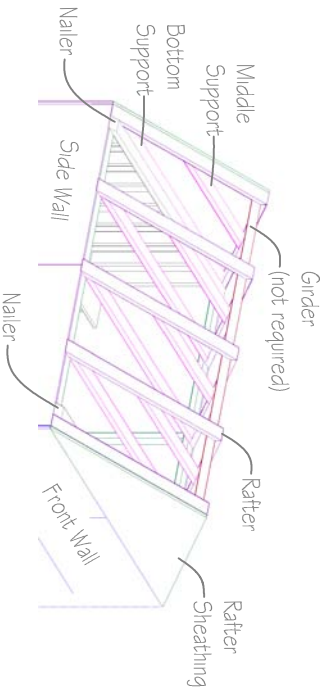


49) The rafters are now ready to go up onto the roof. Start at one side and align the end rafter flush with the exterior sheathing of the wall below it as shown. Place the rafters as shown.

50) IF REQUIRED, before you place the second exterior rafter assembly, slide the girder up and rest it on top of the middle rafter supports. Have an assistant hold one end and attach the length of the coop at each rafter. Be sure to butt the end against the rafter sheathing!

51) Put the second rafter up to enclose the assembly and attach to the walls and, if required, the girder.

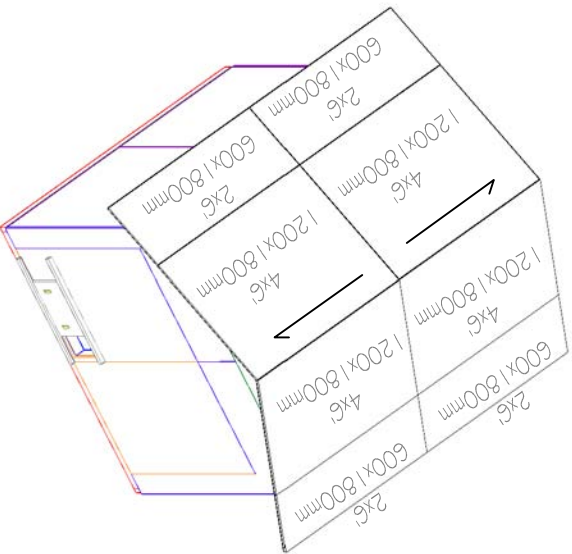
52) Place the nailers snug against the end rafter planks on the interior side. These will be a surface to nail sheathing to from inside (if required).



53) At this point, there is nothing left but the roof sheathing. Start by ripping four (6) - 4x6' (1200x2400mm) plywood sheet to 4x6' (1200x 800mm). TIP\* Use a table saw or circular saw to rip one (1) edge of each of the four (4) sheets @ 60° so the ends will butt together nicely (not required).

54) Take two (2) of the 4x6' (1200x 800mm) sheets and rip them in half lengthwise to make four (4) 2x6' (600x 800mm) sheets.

55) layout the sheets as diagrammed and attach to the rafters. Make sure to start at the MIDDLE rafter and lay each sheet so you have half of the middle rafter as a nailing surface!



56) CONGRATULATIONS! For all intensive purposes you are done with the coop!

\*We recommend covering the roof with shingles, tin, asphalt shingles, builder's choice.

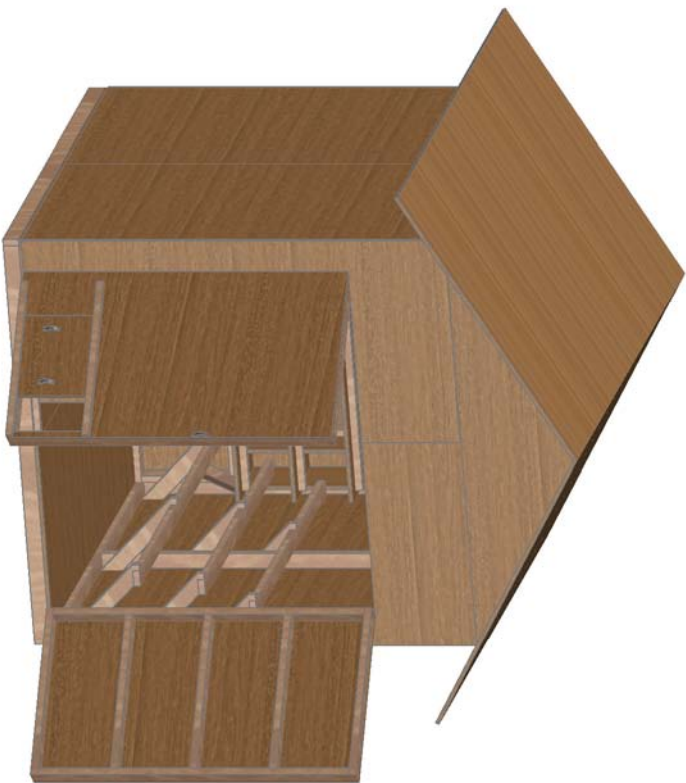
\*The wood will last much longer if you apply a coat of sealant (polyurethane, water seal, etc.) to all exposed surfaces.

\*Apply a veneer to the outside to protect it (shingles will also work well).

\*We recommend enclosing the ceiling to prevent undesirables (wasps, bees, hornets, bats, etc.) from building nests in the rafters. Measure and cut the sheathing as normal and have an assistant hold it up while you attach it to the bottom of the rafters. NOW, that's what those nailers are for!

\*Before enclosing any wall or ceiling, insulation is a great ideal

\*Make it your own!



3D

concepts

15726 N. Park Dr.  
Frenchtown, MT, USA 59834

Cell: 406-546-6672  
Email: jsaguphill@hotmail.com

Title: Roofing Cont.

Drawn: JSG

Revision: 0

Date: 11-June-2009

Approved:

7

Specified