The Focus of this Lesson is:

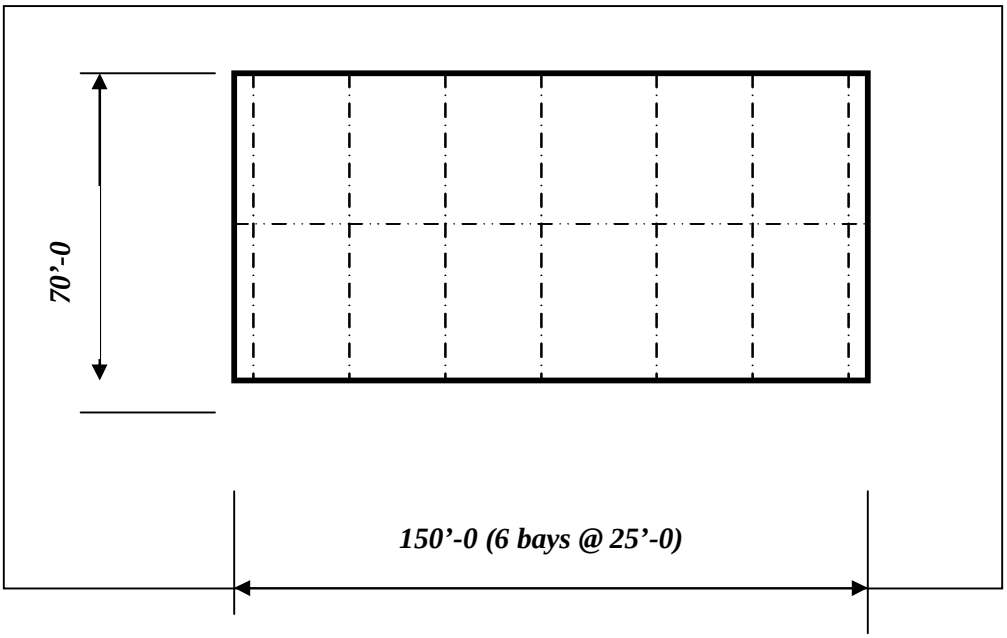
- *Input a Basic Building Shape*
- *Modify Wall and Roof Secondary*
- *Locate Framed Openings*
- *Modify Wall and Roof Covering*
- *Modifying Insulation*
- *Creating Input and Detailing Reports*
- *Plotting Anchor Bolt Plan*

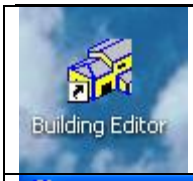
Lesson Comments:

In this lesson you will create a Building Shape using the given parameters in the "Building Description" box. This lesson will have you work in numerous portions of VPCommand to show you how to use certain features. Many of the features you will be using can be default information. For future projects, applying the proper default information in your projects will save you time and make input easier.

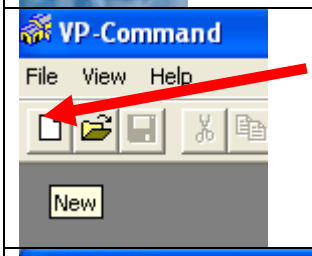
Building Description:

- Width = 70'-0"
- Length = 150'-0"
- Eave Height = 17'-6"
- 6 bays @ 25'-0"
- 1:12 roof pitch
- Rigid Frame interior frames
- Post & Beam Endframes with standard endpost spacing and outset girt condition.
- SSR Roof / VeeRib Walls

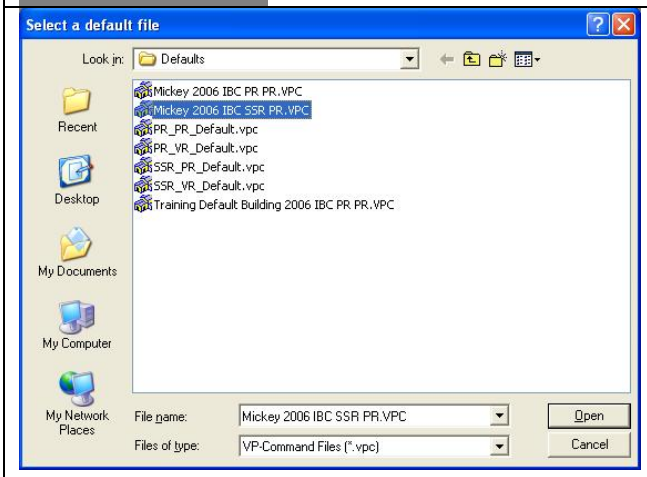




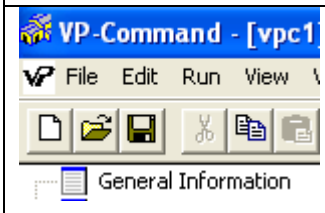
1. Start Building Editor:
2. Click Building Editor Icon on your desk.



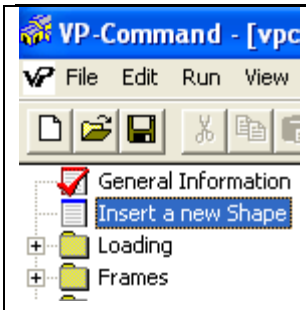
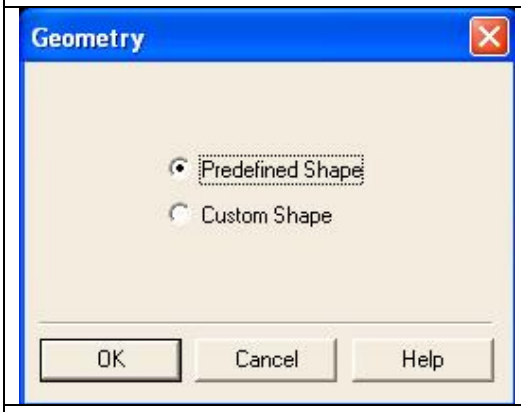
3. Start a New File: This will begin the process of creating a brand new VPCommand file (or project).
- Click once on the New File icon from the toolbar (or click on File / New from the menu)

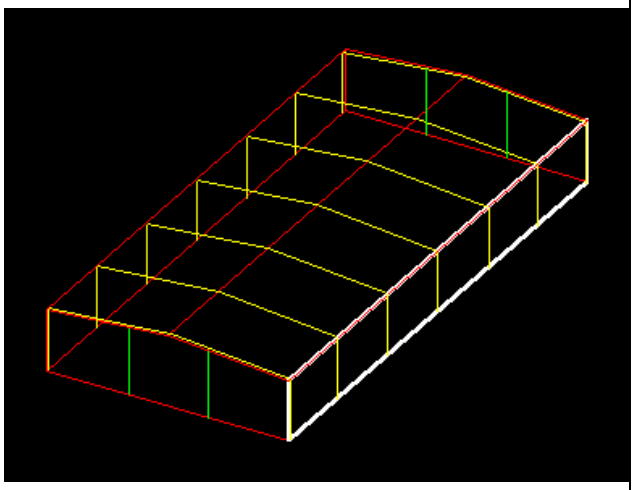


4. From the *Select a default file* window:
- For this lesson, you will be selecting one of the defaults you created in Lesson 2. I chose my 2006 IBC *Standing Seam roof and Panel Rib wall* default from this list, simply *Click "Open".*
- From the Default Folder, select a Project that most closely approximates your desired conditions. Information that can be defaulted is, for example: Loading, Covering conditions, Trim conditions, Insulation conditions, etc. Information that *CANNOT* be defaulted is "dimensional and geometrical". For example, you cannot default a framed opening located at 5'-0 off of a frame line. The framed opening itself can be defaulted into the schedule, but its location cannot.



5. General Information:
- Double-click the General Information file. *Revise General information Screen as Necessary.* Information you have input in your default project will carry over to this new building file; however, you must verify information and revise as necessary for your actual needs.

	6. Insert a new Shape: 7. Double-click Insert a new Shape to access the Geometry window. • Note: A "Shape" is defined as freestanding structure. You can have one shape or numerous shapes as part of your entire project. It is helpful to name the shape(s) something you can relate to. In other words, *"office, warehouse, manufacturing, etc."* will be easier to work with than *"building 1, building 2, shape 1, shape 2, etc."*
	The Predefined Shape button will already be selected. Click on OK. Note: Predefined Shape will allow you to input the building envelope by selecting from over one hundred various geometrical shapes. You will select a footprint to suit your needs.
	Input Geometry for your Shape: Input Floor and Section Geometry as defined on page one.
	8. Saving your Geometry: After you are satisfied that your Floor and Section Geometry is complete, save your Building File. Refer to Lessons 1-3 for further assistance.
	9. Complete "Loading" information as required: Refer to Lesson 2, Input Loading information that is consistent with your area.
	10. Adding Frames: You will be locating frames to define the bay spacing. You may locate them as you have done in Lessons 1 and 3

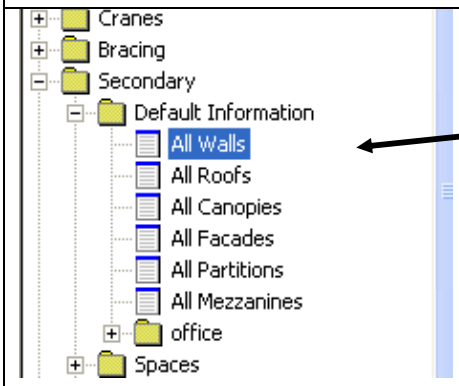


The *Graphics Pane* will display your frames.

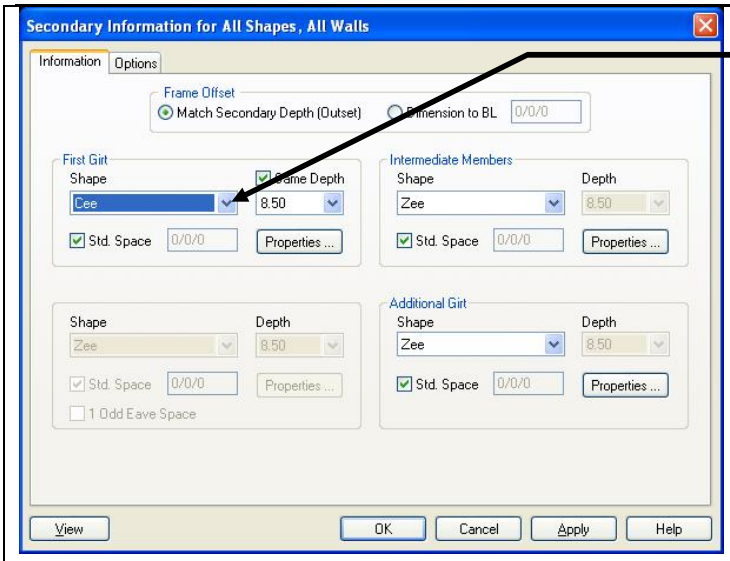
11. Specifying the first girt to be a "Cee" shape in lieu of a standard "Zee" shape: Note that using this lesson will make the first girt of each wall a "Cee" girt. VP's standard girt spacing is as follows:

Wall Panel Type	*Secondary Member Type*	*Standard 1st Girt Elevation*
Panel Rib or VeeRib	Zee	7'-6"
Panel Rib or VeeRib	Cee	7'-6"
Stran Loc	Zee	10-0 ½"

If design requires that there be an additional girt below the standard 7'-6" location, that girt will become whatever is defined at the "*Additional Girt*" field.



- Open the "*Secondary*" folder.
- Open the "*Default Information*" folder. Note that at this level of the tree you will be specifying data for All Walls of All Shapes. If changes are to be made to a specific shape, you need to go to that level.
- Double-Click the "*All*



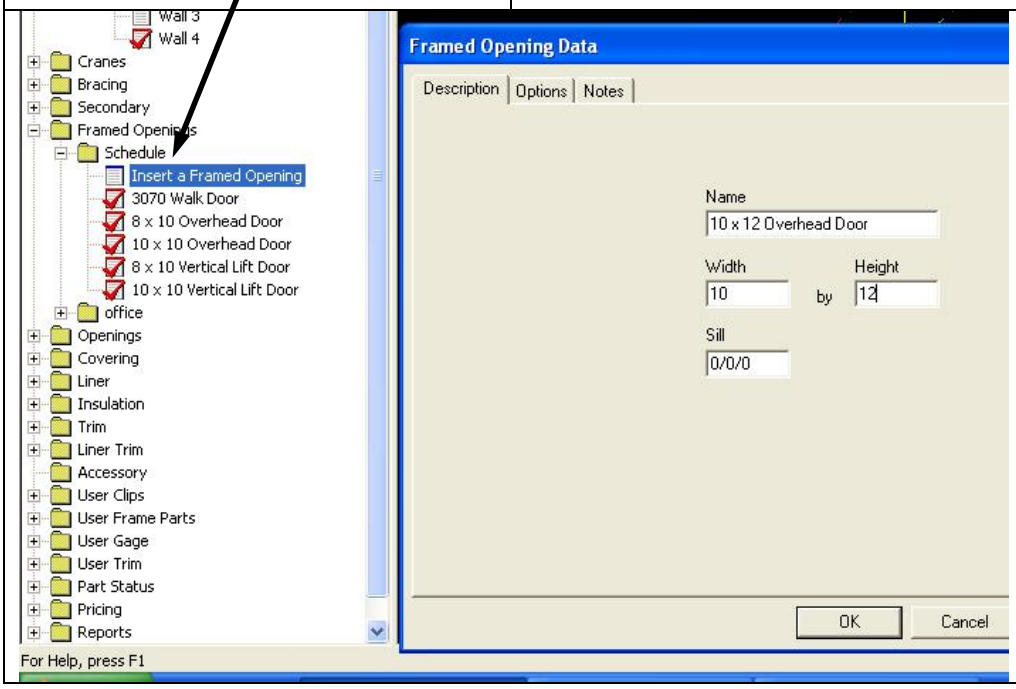
- At the *Information* tab, Click on the pull down button at the "*Shape*" field at the *"First Girt or Ridge Purlin"* section and select "Cee".
- Click on OK to accept your changes and close this window.

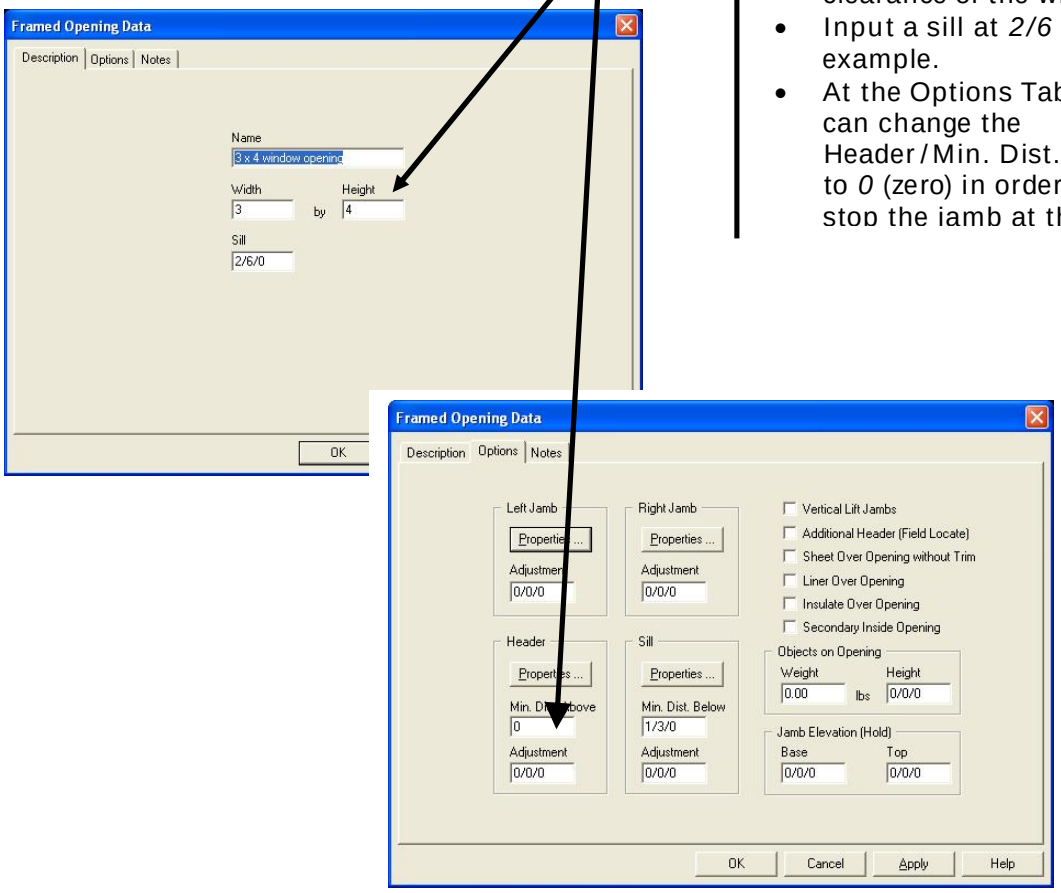
12. *Framed Openings*: When adding Framed Openings there are a few item you must be aware of as follows:

- The Framed Opening must exist in the *Framed Openings Schedule* before it can be located on your shape. Note that if you use common sizes such as 10 x 10, 10 x 12, 12, x 14, etc. you can add these to your default project(s) to save time.
- For this example you will add the following framed openings:
    - a *10 x 12 Overhead Door* opening to *Wall 4*
    - Openings for a *3 x 4 Window* and a *3070 Walk door* to *Wall 1*

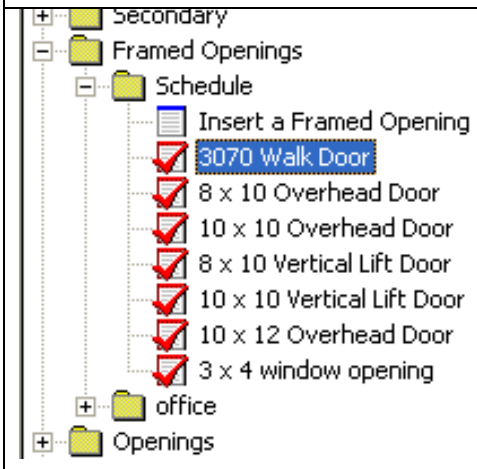
- From the Tree, Open the *Framed Openings* Folder.
- Open the *Schedule* folder.
- *Double-click* the *Insert a Framed Opening File* to access the Framed Opening Data window.
- At the *Name* field give your opening a name such as shown.
- Define the *Width* (10) and *Height* (12) as required. These dimensions are to the inside face of the secondary members (jambs, headers, and/or sills).
- Click *OK* to close the window.

Note that the when you add a framed





- Note that you need to put in dimensions for your Framed Opening that will be suitable to your actual window to allow for clearance of the window.
- Input a sill at *2/6* for this example.
- At the Options Tab, you can change the Header/Min. Dist. Above to *0* (zero) in order to stop the jamb at the 7'6"

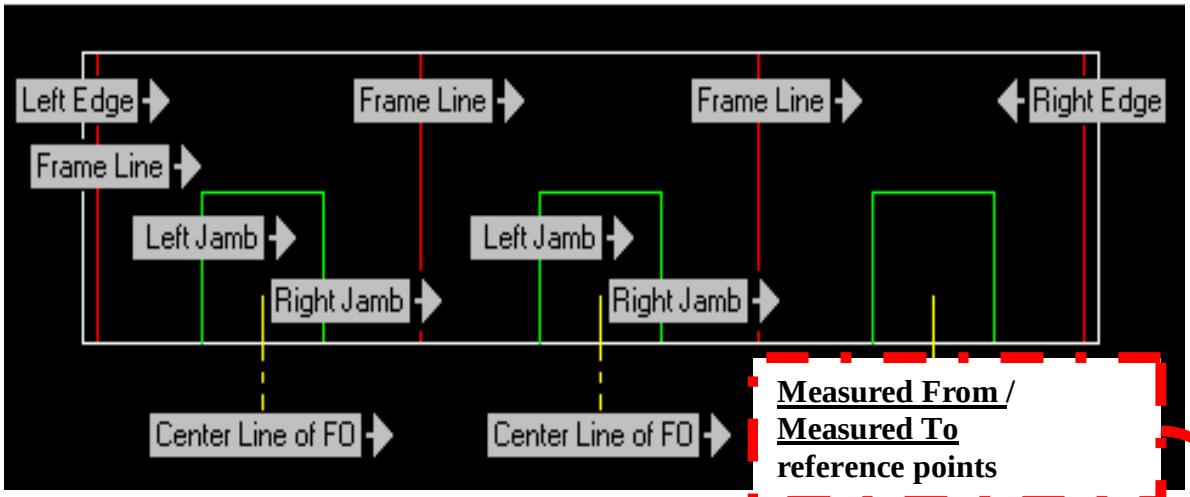


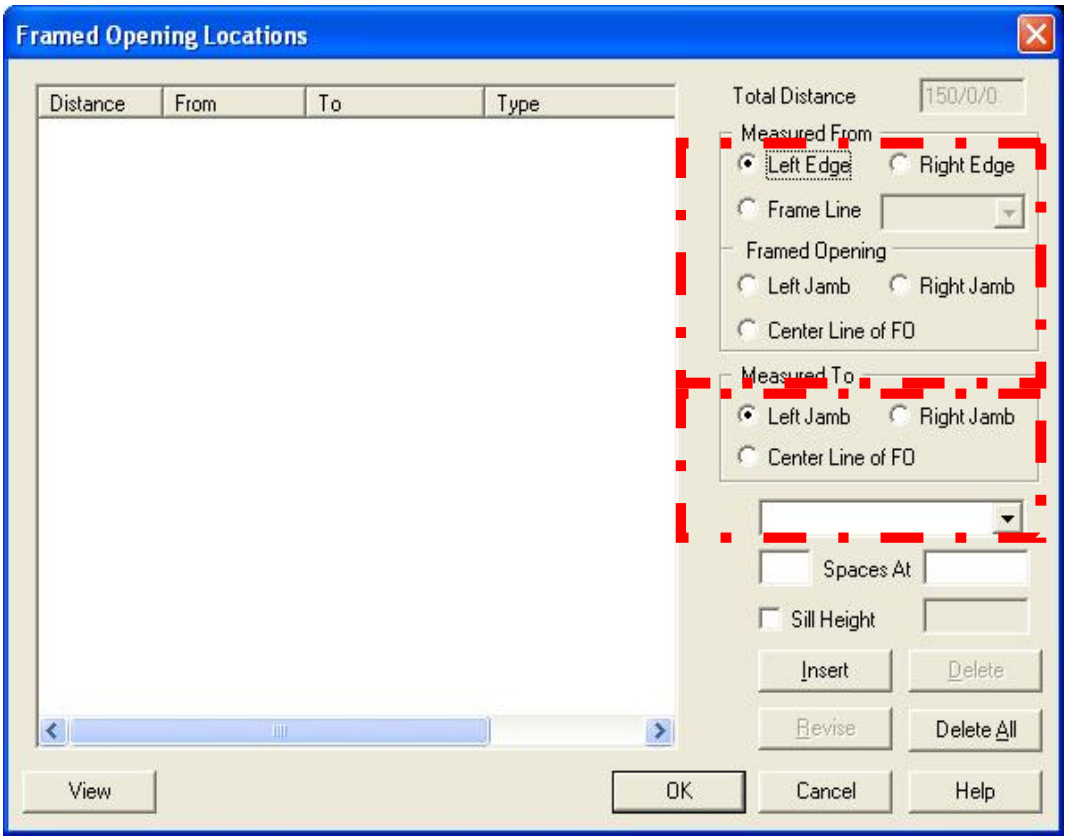
Adding 3070 Walk door opening

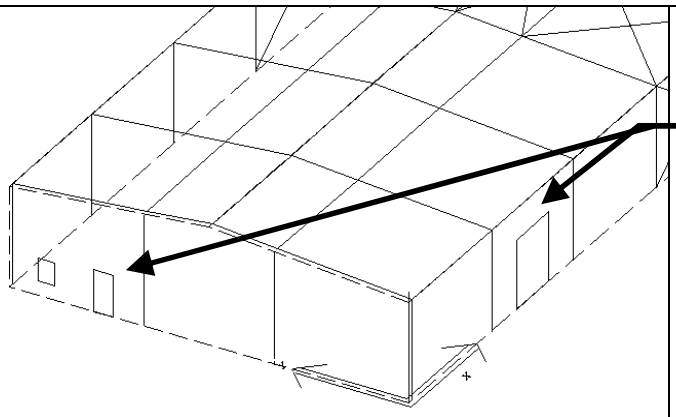
The 3070 Walk door opening already exists in the Default file. You can modify this if required as you did for the above openings.

Locating Framed Openings: Now that the Framed Openings are in the schedule they may be located on your building. The below picture shows the reference points for locating framed openings. You will be locating wall framed openings as you stand outside your shape facing that wall. The sill is dimensioned from the floor up.

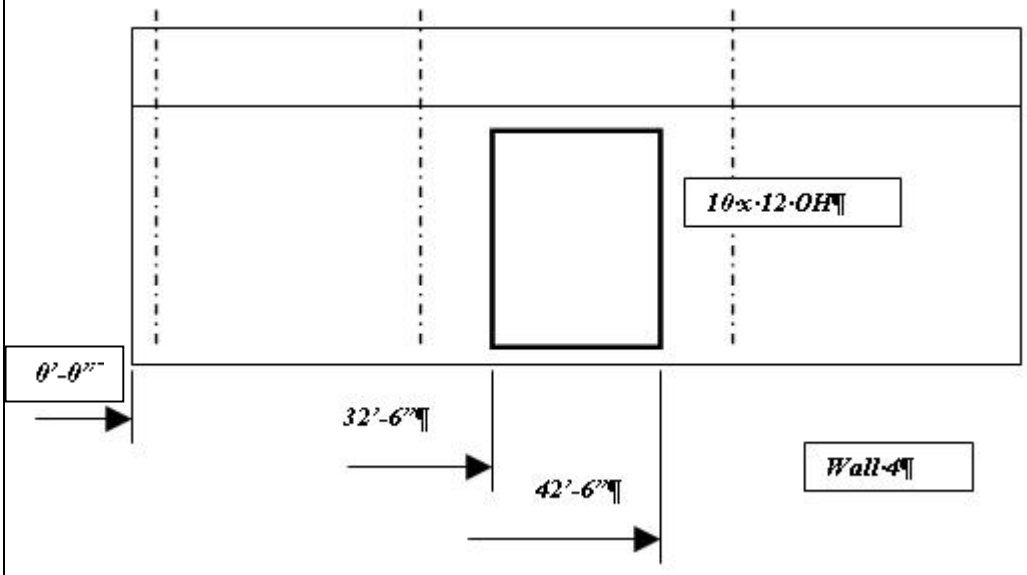
Roof framed openings are referenced as the left edge being on your left as you are looking upslope from the low side to the high side of the roof surface. The *sill* on a *roof* is dimensioned down from the *ridge* or *high side* of a single slope.

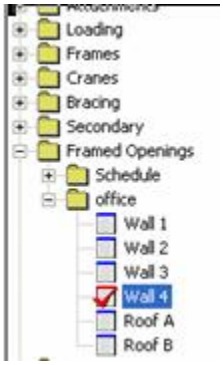




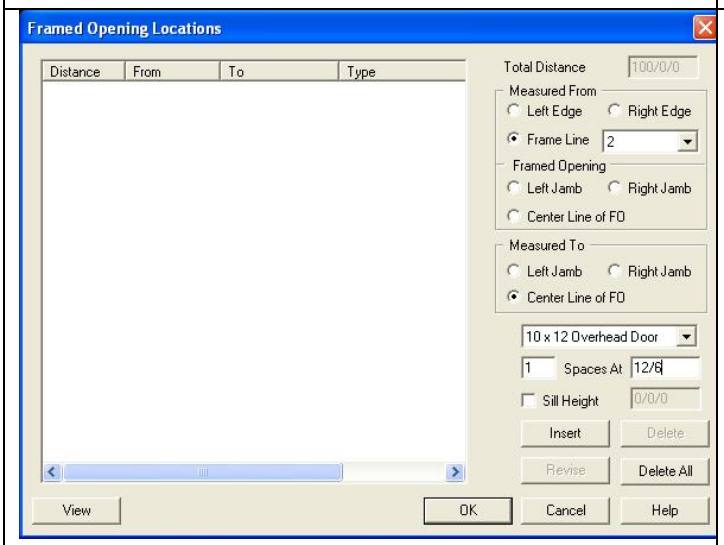


View showing where you will be locating Framed Openings



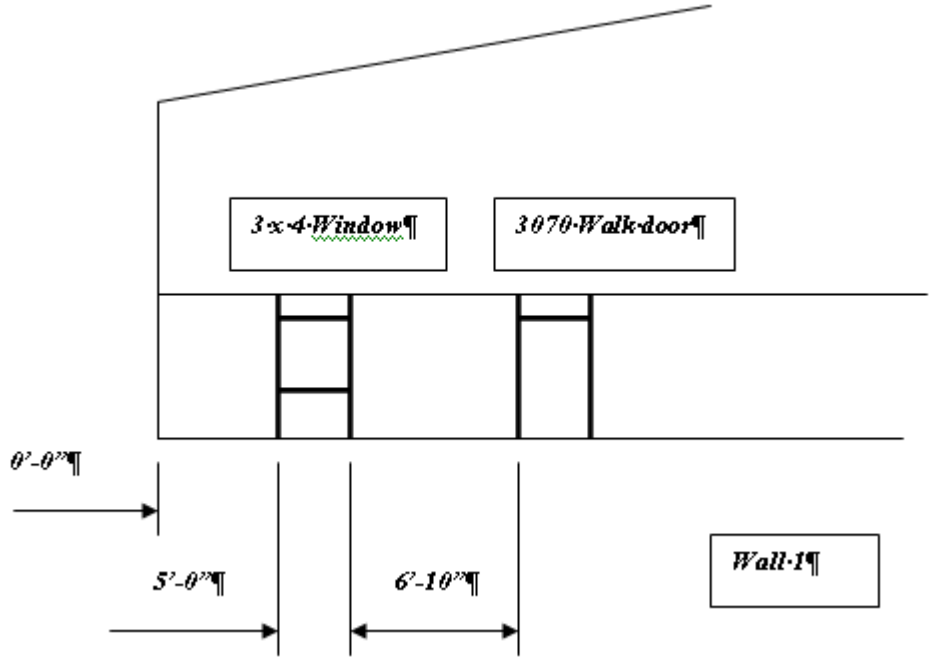


- From the *Tree*, go to *Framed Openings / Shape /* and *double-click* the *Wall* you wish to locate the opening on.

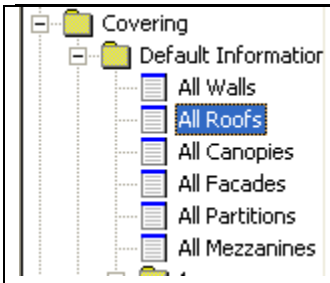
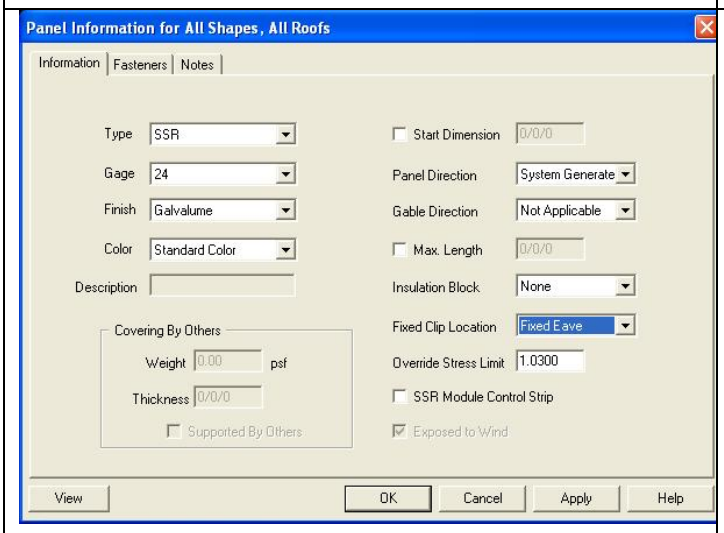


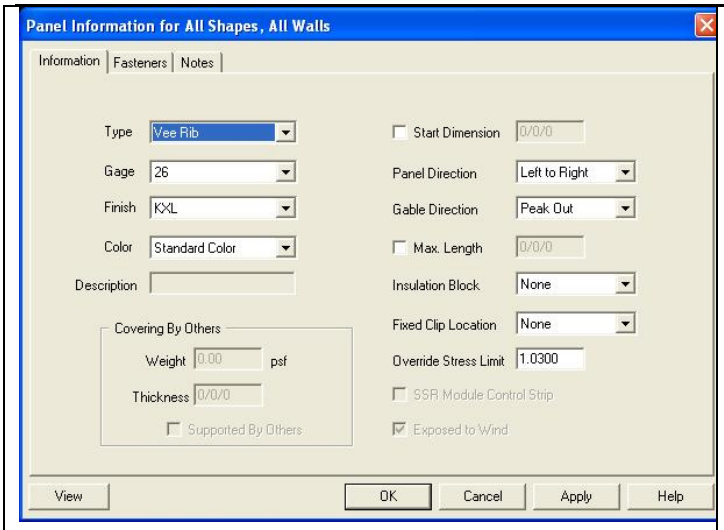
- This example shows the opening "*Measured From*" *Frame Line 2*, and "*Measure To*" the *Center Line* of the opening I select (10 x 12 Overhead Door).
- Location 1 space at 12/6
- Click on *Insert* to add the opening to the list.
- Click on *OK* after all desired openings have been added to the w

- Locate the remaining framed openings as shown on the following page. Remember to look closely at your Measured From point of the opening and at the Measured To point on the opening. You have more than one option.

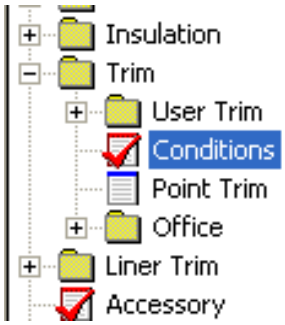


13. Modifying Covering: In this procedure you will be modifying the roof and wall covering for ALL surfaces. Modifying covering can also be done per shape or per surface on a shape by going to that level. Keep in mind that this process is to demonstrate how to change covering when needed. Selecting proper default information will save time!

	From the tree open covering /Default Information/All Roofs.
	Change roof to 24 ga. SSR, Galvalume, Fixed Eave, If you did not pick a Default with SSR.

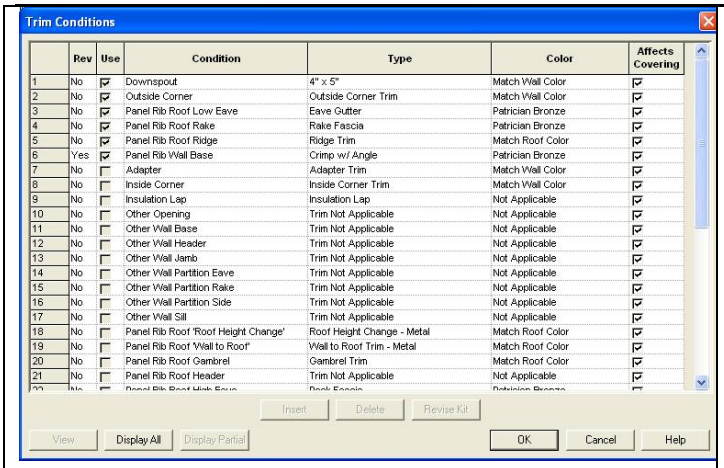


Change all walls to VeeRib, KXL finish



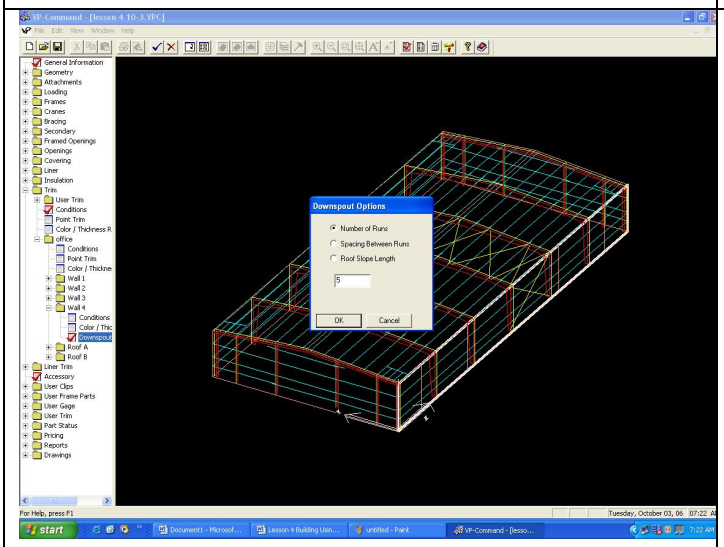
14. Modifying Trim: In this procedure you will be modifying the trim for ALL like portions of the shape. Modifying trim can also be done per shape or per surface on a shape by going to that level, or all the way down to per condition. Keep in mind that this process is to demonstrate how to change trim when needed. Selecting proper default information will save time!

- From the Tree, Open the "*Trim*" folder.
- Double-click the "*Conditions*" file to access the "*Trim Conditions*" window.

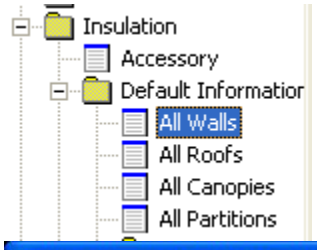


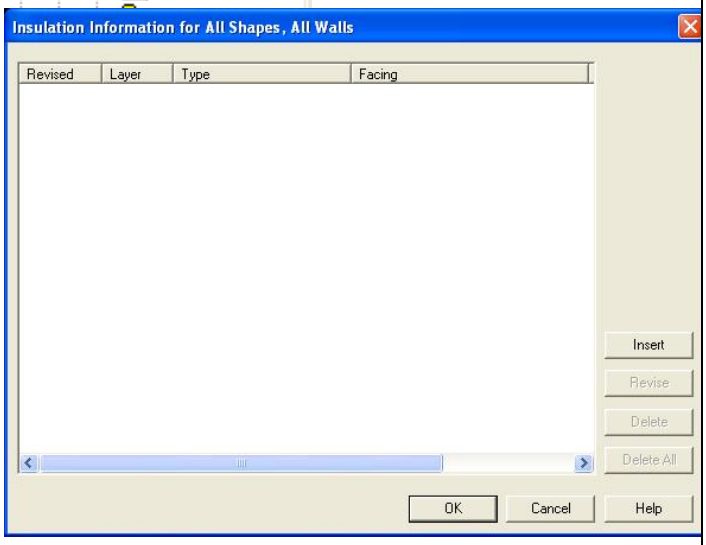
	Rev	Use	Condition	Type	Color	Affects Covering
1	No	☑	Downspout	4" x 5"	Match Wall Color	☑
2	No	☑	Outside Corner	Outside Corner Trim	Match Wall Color	☑
3	No	☑	Panel Rib Roof Low Eave	Eave Gutter	Patrician Bronze	☑
4	No	☑	Panel Rib Roof Rake	Rake Fascia	Patrician Bronze	☑
5	No	☑	Panel Rib Roof Ridge	Ridge Trim	Match Roof Color	☑
6	Yes	☑	Panel Rib Wall Base	Crimp w/ Angle	Patrician Bronze	☑
7	No	☐	Adapter	Adapter Trim	Match Wall Color	☑
8	No	☐	Inside Corner	Inside Corner Trim	Match Wall Color	☑
9	No	☐	Insulation Lap	Insulation Lap	Not Applicable	☑
10	No	☐	Other Opening	Trim Not Applicable	Not Applicable	☑
11	No	☐	Other Wall Base	Trim Not Applicable	Not Applicable	☑
12	No	☐	Other Wall Header	Trim Not Applicable	Not Applicable	☑
13	No	☐	Other Wall Jamb	Trim Not Applicable	Not Applicable	☑
14	No	☐	Other Wall Partition Eave	Trim Not Applicable	Not Applicable	☑
15	No	☐	Other Wall Partition Rake	Trim Not Applicable	Not Applicable	☑
16	No	☐	Other Wall Partition Side	Trim Not Applicable	Not Applicable	☑
17	No	☐	Other Wall Sill	Trim Not Applicable	Not Applicable	☑
18	No	☐	Panel Rib Roof 'Roof Height Change'	Roof Height Change - Metal	Match Roof Color	☑
19	No	☐	Panel Rib Roof 'Wall to Roof'	Wall to Roof Trim - Metal	Match Roof Color	☑
20	No	☐	Panel Rib Roof Gambrel	Gambrel Trim	Match Roof Color	☑
21	No	☐	Panel Rib Roof Header	Trim Not Applicable	Not Applicable	☑

- The trim conditions that are actually used on building will be grouped at the top of the grid and marked as used. Trim type can be revised on the grid.
- Scroll down the "*Trim Conditions*" window to the Location of *SSR Low Eave*. Select in TYPE column Eave gutter and revise from pull down list if needed.



15. After RUN/RUN ALL you can increase the number of downspout per sidewall.
16. From the tree select Trim/Shape Name/Wall/Downspout.
17. Insert the number of runs you would like and rerun Run All.

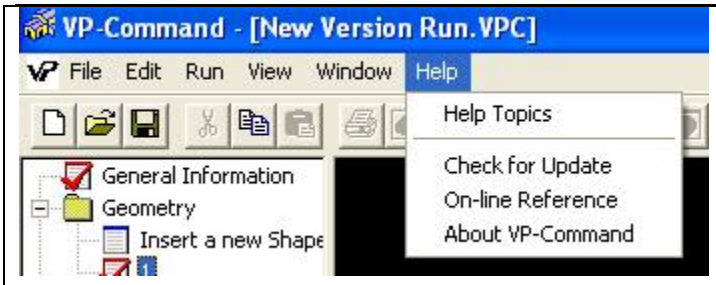
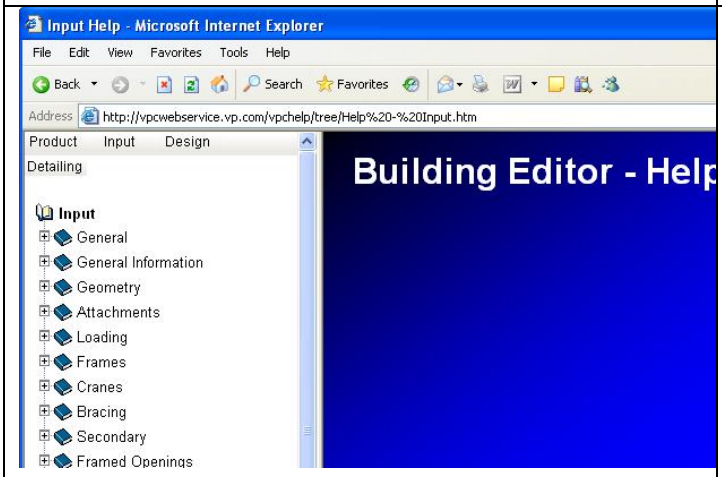


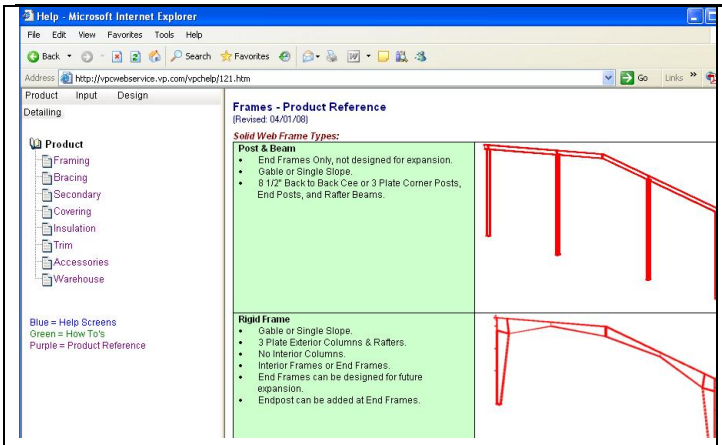


18. Modifying Insulation: In this procedure you will be modifying the insulation for ALL like portions of the shape. Modifying insulation can also be done per shape, or per surface on a shape by going to that level. Keep in mind that this process is to demonstrate how to change insulation when needed. Selecting proper default information will save time!

- From the Tree, click the "*Insulation*" folder.
- Select the "Default Information"
- Double-click the "*All Walls*" file to access the "*Default Insulation Information*" window.
- Verify your insulation information for the Walls and Roof. Remember that if you have good defaults built, you may not have to modify this information.

- Save your Project
- Reports: Refer to Lesson 1 if needed to run Reports.
- Design / Detail your Building File: Refer to Lessons 1 and 2 to use the Run function. You must design and detail your Building file before you can access pricing and drawing information.

	• Additional Help screen Information • Select Help/Help Topics
	• Select Input • You will see a list of different help topic for VPCommand Input.



- Select Product
- You will see a list of different help topic for VP Product.