INTERIOR TRUSS CALCULATIONS

Carefully follow these steps for finding the correct INTERIOR TRUSS:

Step 1 - Determine DEAD LOAD by describing the materials that make up the roof and find their weights:

ROOFING _____ Weight/sq.ft. _____ lbs.

INSULATION _____ Weight/sq.ft. _____ lbs.

METAL DECKING _____ Weight/sq.ft. _____ lbs.

EQUIPMENT _____ Weight/sq.ft. _____ lbs.

TOTAL DEAD LOAD _____ lbs.

Step 2 - Determine LIVE LOAD by describing the item that set on the roof and find their weights:

PEOPLE _____ Weight/sq.ft. _____ lbs.

SNOW _____ Weight/sq.ft. _____ lbs.

RAIN _____ Weight/sq.ft. _____ lbs.

EQUIPMENT _____ Weight/sq.ft. _____ lbs.

TOTAL LIVE LOAD _____ lbs.

Step 3 - Determine the TOTAL ROOF LOAD:

(Total Dead Load + Total Live Load) x Safety Factor (110%) = _____ lbs/sq.ft.

Step 4 - Determine the following from your “Structural Layout” drawing:

SPAN (Length of truss) _____ feet SPACING (between trusses) _____ feet

Step 5 - Find the proper size of an interior truss:

SPACING x Total Roof Load = TOTAL WEIGHT on one (1) lineal foot of the Truss

Step 6 - Consult the “TRUSS JOIST TABLES” to find the correct size:

Start with the “SPAN of the Truss” and look down the table for the “Load” that is equal to or slightly larger than the TOTAL WEIGHT. There are two figures for each truss size; the upper number is Max. Allow. Wt. including the weight of the truss and the lower number is the SAFE LOAD that can be supported. USE THE LOWER NUMBERS.

Step 7 - Make note of the following:

Truss Model No. _____ Depth of Truss _____ inches

Weight of Truss _____ lbs./lin.ft. Max. Allow. Wt. _____ lbs.

Step 8 - Assign a CODE LETTER to this TRUSS: _____ Examples: B or T2 or IT1

Place this letter next to each of the corresponding trusses on your Structural Plan.