



Quick Guide to Using Residential Trade-off Worksheets

STEP 1: Find your climate zone based on the county in which your building is to be located (Chapter 3 of ECCC).

STEP 2: Complete the general information at the top of the Trade-off Worksheet.

STEP 3: Complete the PROPOSED section of the Trade-off Worksheet. Provide the area, R-value and U-value of each component. Use **net areas** for walls and roof assemblies that contain windows, doors, or skylights. U-values can be found in Tables 1 thru 10 of the *User's Guide*. R-values in tables are based on cavity insulation plus insulating sheathing (if used).

If more than one type of insulation or glass is used for a building component (i.e. two different R-values in the ceiling) use the additional blank lines for each R or U value provided in each block of the proposed section. (NOTE: Remember that, for heated basements, foundation walls that are 50% and greater above grade are considered Walls, while foundation walls less than 50% above grade are considered Basement Walls).

STEP 4: Compute the total Proposed UA. Multiply all proposed U-values by their corresponding area. Enter the results in the UA column. Sum the proposed UAs for all components and enter this sum in the *Total Proposed UA* box. Also sum the areas for Ceilings and Walls, and enter in the Total Area boxes. Transfer these Total Areas to the respective Required Area boxes.

STEP 5: Complete the REQUIRED section of the Trade-Off Worksheet Table 11 lists building component U-value requirements for each climate zone. Enter the required U-values in the appropriate *Required U-value* column. Copy the total areas to the *Area* column of the *Required* side.

STEP 6: Multiply U-values in the required column by their corresponding area; enter results in the UA column. Sum the UAs on the right side of the worksheet.

STEP 7: If high efficient HVAC is to be taken into account, complete the HVAC Trade-off Worksheet. Replace *Total Required UA* with HVAC adjusted UA (the new required UA will increase) from HVAC Trade-off worksheet.

STEP 8: Check for compliance. If the *Total Proposed UA* is less than or equal to the *Total Required UA* then your building complies with the thermal envelope requirements of ECCC of NYS. If not, you must adjust insulation R-values; areas; and/or HVAC system efficiency in your proposed building.