DPS Montgomery County Department of Permitting Services
YOUR PROJECT PARTNER

2425 Reedie Drive, 7th floor
Wheaton, MD 20902
240-777-0311
montgomerycountymd.gov/dps

Plan Submittal Energy Requirements for New Single Family Dwellings and Townhouse Units

1. Introduction

Montgomery County has adopted and is currently enforcing the 2021 Edition of the International Energy Conservation Code (IECC). All New Single Family Dwelling permit applications submitted after on or after March 31st, 2025, shall comply with the provisions of the 2021 IECC as amended by Montgomery County Executive Regulation 13-24.

2. Montgomery County Climate Zone

The code establishes many requirements such as wall and roof insulation *R*-values, window and door thermal *U*-factors as well as provisions that affect the mechanical systems based upon the climate where the building is located. Montgomery County is in Climate Zone 4A. The table below represents the thermal criteria for Montgomery County:

Climate Zone	Thermal Criteria	
	IP Units	SI Units
4A	CDD50°F ≤ 6,300 and 3600 < HDD65°F ≤ 5,400	CDD10°C < 3500 and 2000 < HDD18°C ≤ 3000

CDD: Cooling degree day
HDD: Heating degree day
For SI: °C = [°F-32]/1.8

The indoor design temperatures used for heating and cooling load calculations shall be a maximum of 72° F (22° C) for heating 75° F (24° C) for cooling.

3. Plan Submittal Requirements

Energy Compliance Path and the Required Additional Energy Features must be selected using one of the Energy Compliance Worksheets:

1. Energy Compliance Worksheet All Electric Buildings (pages 3 and 4)
2. Energy Compliance Worksheet Mixed-Fuel Buildings (page 5 and 6)

In addition to the worksheet the following requirements for all options must be provided as applicable to the project:

1. The exact location of the building thermal envelope shall be marked out on the plans, details, and cross-sections.

2. Provide all insulation R-values or U-factors, materials, and locations to be installed (walls, ceilings, cantilever floors, floors over garage, crawl space, basement walls, etc.). This information shall be captured on the Residential Energy Compliance Certificate (See sample on page 8).
3. Provide all fenestration U-factors for all glazing for each window and door per Table R402.1.2
4. Area-weighted U-factors and SHGC calculations (If applicable).
5. Mechanical system design criteria form prepared by a licensed mechanical contractor See page 7.
6. Mechanical and service water heating system and equipment types sized and efficiencies.
7. Equipment and system controls
8. Duct sealing, duct and pipe insulation, and location
9. Air sealing details depicted to verify compliance with Table R402.4.1.1
10. Documentation for mechanical ventilation, type of ventilation, CFM, and efficiency R403.6
11. Solar Ready System Details.
12. Electrification details for additional electric infrastructure (conduits, electrical service)
13. Documentation that shows all lighting is high efficacy and show interior and exterior lighting controls

The information required in points 1 and 2 can be summarized on worksheets located on pages 4 or 6. The remaining information can be captured on the drawings in schedules, notes, and other supplementary worksheets or calculations.

4. PRESCRIPTIVE COMPLIANCE (Total UA Alternative or REScheck™)

Provide a copy of REScheck calculations. The submitted RESCheck printout shall show all the following specific information: orientation of each individual wall; insulation types, R-values and whether continuous or cavity; accurate square footage; and accurate window and door sizes and the specific wall in which they are located, along with the U factor.

RESCheck™

Montgomery County accepts RESCheck™ program as a tool for energy code compliance.

https://www.energycodes.gov/rescheck

Before printing the report make sure to choose the 2021 IECC and input specific building information.

5. TOTAL BUILDING PERFORMANCE

Compliance based on total building performance requires that the proposed design meets Section R405.2 of the 2021 IECC. A compliance report on the *proposed design* shall be submitted with the application for the building permit.

6. ENERGY RATING INDEX

Compliance based on the ERI (Energy Rating Index) requires that the rated design meets all of the requirements of the sections indicated within Table R406.2 and Maximum ERI of Table R406.5. as amended by Montgomery County.

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ALL ELECTRIC

2021 IECC Residential Energy Compliance Path for New Construction

All new residential one- and two-family dwellings must comply with the residential provisions of the 2021 IECC unless the building is considered a "Low Energy Building" as defined in Section R402.1

Applicants must select **one** compliance path option from page 1 and applicable additional energy features from tables on Page 2 as required by Section R401.2.5. Additional compliance documentation must be submitted with this form for the Total UA Alternative, Total Building Performance or Energy Rating Index Compliance Alternative path options.

☐ **Prescriptive Compliance Option R402.1.2**

Table R402.1.2 Maximum Assembly *U*-Factors and Fenestration Requirements (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	*Glazed Fenestration SHGC*	Ceiling *U-Factor*	Wood Frame Wall *U-Factor*	Mass Wall *U-Factor*	Floor *U-Factor*	Basement Wall *U-Factor*	Crawl Space Wall *U-Factor*
4 Except Marine	0.30	0.55	0.40	0.024	0.045	0.098	0.047	0.059	0.065

Must select at least one feature from Table 1

☐ **Prescriptive R-Value Alternative R402.1.3**

Table R402.1.3 Insulation minimum R-values and Fenestration Requirements by Component (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	Glazed Fenestration SHGC	Ceiling *R-value*	Wood Frame Wall R-value	Mass Wall *R-value*	Floor *R-value*	Basement Wall *R-value*	Slab *R-value & Depth*	Crawl Space Wall *R-value*
4 Except Marine	0.30	0.55	0.40	60	30 or 20 & 5ci or 13 & 10ci or 0 & 20 ci	8/13	19	10 ci or 13	10 ci, 4ft	10ci or 13

Must select at least one feature from Table 1

☐ **Total UA Alternative R402.1.5** | Must select at least one feature from Table 1 | REScheck or similar report

☐ **MD Prescriptive R–Value Alternative R402.1.3.1**

Table R402.1.3 Insulation minimum R-values and Fenestration Requirements by Component (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	Glazed Fenestration SHGC	Ceiling *R-value*	Wood Frame Wall R-value	Mass Wall *R-value*	Floor *R-value*	Basement Wall *R-value*	Slab *R-value & Depth*	Crawl Space Wall *R-value*
4 Except Marine	0.30	0.55	0.40	49	20 or 15 & 3ci	8/13	19	10 ci or 13	10 ci, 4ft	10ci or 13

Must select one feature from Table 1 | Must select features from Table 2

☐ **Total Building Performance R405** | Select one option from Table 3

☐ **Energy Rating Index Compliance Alternative R406** | Energy Rating Index Value must be less than or equal to the appropriate value indicated in Table R406.5 | Additional compliance report required.

Table 1	
☐ Option 1	Enhanced Envelope Performance
☐ Option 2	More Efficient HVAC Equipment Performance. Greater than or equal to 10 HSPF/16 SEER air source heat pump.
☐ Option 3	More Efficient HVAC Equipment Performance. Greater than or equal to 3.5 COP ground source heat pump.
☐ Option 4	Reduced energy use in service water-heating. Greater than or equal to 2.0 EF electric service water-heating system.
☐ Option 5	Reduced energy use in service water-heating. Greater than or equal to 0.4 solar fraction solar water-heating system.
☐ Option 6	More efficient duct thermal distribution system option.100% of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.
☐ Option 7	More efficient duct thermal distribution system option. 100% of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.
☐ Option 8	Improved air sealing and Efficient Ventilation System option.

Table 3 Select Only 1 Option - R405	
☐ Option 1	One of the additional efficiency package options in Table 1 shall be selected without including such measures in the proposed design under Section R405.
☐ Option 2	The proposed design of the building under Section R405.3 shall have an annual energy cost that is less than or equal to 95 percent of the annual energy cost of the standard reference design.

Table 2 MD Alternative Additional Packages Must select one or more options to meet or exceed 6%. R402.1.3.1		
☐ 1	≥ 2.5% reduction in total UA	1%
☐ 2	≥ 5% reduction in total UA	2%
☐ 3	> 7.5% reduction in total UA	2%
☐ 4	0.22 U-factor windows	3%
☐ 5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner)	3%
☐ 6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner)	3%
☐ 7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace)	5%
☐ 8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace)	4%
☐ 9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.)	6%
☐ 10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.)	5%
☐ 11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.)	6%
☐ 12	Fossil fuel service wate heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%
☐ 13	High performance heat pump water heating system option (Greater than or equal to 2.9 UEF electric service water -heating system.)	8%
☐ 14	High performance heat pump water heating system (Greater than or equal to 3.2 UEF electric service water- heating system.)	8%
☐ 15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%
☐ 16	More efficient HVAC distribution system (100 percent of ductless thermal distribution system or hydron- ic thermal distribution system located completely inside the building thermal envelope.)	10%
☐ 17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%
☐ 18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing 2.0 cubic feet per minute per 100 square feet of conditioned floor area. b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.	1%
☐ 19	2 ACH50 air leakage rate with ERV or HRV installed (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.)	10%
☐ 20	2 ACH50 air leakage rate with balanced ventilation (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.)	4%
☐ 21	1.5 ACH50 air leakage rate with ERV or HRV installed (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.)	12%
☐ 22	1 ACH50 air leakage rate with ERV or HRV installed (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.)	14%
☐ 23	Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 for each type with follow efficien- cies. Refrigerator- Energy Star Program Requirements Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher- Energy Star Program Requirements for Residential Dishwashers Version 6.0 (01/29/2016), Clothes Dryer- Energy Star Program Requirements, Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer- Energy Star Program Requirements, Product Specification for Clothes Washers Version 8.1 (02/05/2018)	7%
☐ 24	Renewable Energy Measure	11%

I hereby certify that the building design represented in the attached construction documents has been designed to meet or exceed the requirements of 2021 Edition International Energy Conservation Code (IECC)

Project Address:_____

Applicant Signature:_____ Date:_____

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MIXED-FUEL

2021 IECC Residential Energy Compliance Path for New Construction

All new residential one- and two-family dwellings must comply with the residential provisions of the 2021 IECC unless the building is considered a "Low Energy Building" as defined in Section R402.1

Applicants must select **one** compliance path option from page 1 and applicable additional energy features from tables on Page 2 as required by Section R401.2.5. Additional compliance documentation must be submitted with this form for the Total UA Alternative, Total Building Performance or Energy Rating Index Compliance Alternative path options

☐ **Prescriptive Compliance Option R402.1.2**

Table R402.1.2 Maximum Assembly *U*-Factors and Fenestration Requirements (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	*Glazed Fenestration SHGC*	Ceiling *U-Factor*	Wood Frame Wall *U-Factor*	Mass Wall *U-Factor*	Floor *U-Factor*	Basement Wall *U-Factor*	Crawl Space Wall *U-Factor*
4 Except Marine	0.30	0.55	0.40	0.024	0.045	0.098	0.047	0.059	0.065

Must select Additional Energy Features of Table 1

☐ **Prescriptive R-Value Alternative R402.1.3**

Table R402.1.3 Insulation minimum R-values and Fenestration Requirements by Component (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	Glazed Fenestration SHGC	Ceiling *R-value*	Wood Frame Wall R-value	Mass Wall *R-value*	Floor *R-value*	Basement Wall *R-value*	Slab *R-value & Depth*	Crawl Space Wall *R-value*
4 Except Marine	0.30	0.55	0.40	60	30 or 20 & 5ci or 13 & 10ci or 0 & 20 ci	8/13	19	10 ci or 13	10 ci, 4ft	10ci or 13

Must select Additional Energy Features of Table 1

☐ **Total UA Alternative R402.1.5**

Must select Additional Energy Feature(s) of Table 1

Additional compliance report required.

☐ **MD Prescriptive R–Value Alternative R402.1.3.1**

Table R402.1.3 Insulation minimum R-values and Fenestration Requirements by Component (2021 IECC)

Climate Zone	Fenestration *U-Factor*	Skylight *U-Factor*	Glazed Fenestration SHGC	Ceiling *R-value*	Wood Frame Wall R-value	Mass Wall *R-value*	Floor *R-value*	Basement Wall *R-value*	Slab *R-value & Depth*	Crawl Space Wall *R-value*
4 Except Marine	0.30	0.55	0.40	49	20 or 15 & 3ci	8/13	19	10 ci or 13	10 ci, 4ft	10ci or 13

Must elect Additional Energy Features from Table 1 | **Must select Additional Energy Features from Table 2**

☐ **Total Building Performance R405**

Mixed-Fuel must select option from Table 3

☐ **Energy Rating Index Compliance Alternative R406**

Energy Rating Index Value must be less than or equal to the appropriate value indicated in Table R406.5

Additional compliance report required.

Table 1

Select one from Group A and two from Group B

Group A	☐ Option 1	Enhanced Envelope Performance
	☐ Option 2	Improved air sealing and Efficient Ventilation System option.
Group B	☐ Option 1	More Efficient HVAC Equipment Performance Greater than or equal to 95 AFUE natural gas furnace and 16 SEER air conditioner.
	☐ Option 2	More Efficient HVAC Equipment Performance. Greater than or equal to 10 HSPF/16 SEER air source heat pump.
	☐ Option 3	More Efficient HVAC Equipment Performance. Greater than or equal to 3.5 COP ground source heat pump.
	☐ Option 4	Reduced energy use in service water-heating. Greater than or equal to 0.82 EF fossil fuel service water-heating system.
	☐ Option 5	Reduced energy use in service water-heating. Greater than or equal to 2.0 EF electric service water-heating system.
	☐ Option 6	Reduced energy use in service water- heating. Greater than or equal to 0.4 solar fraction solar water-heating system.
	☐ Option 7	More efficient duct thermal distribution system option. 100% of ducts and air handlers located entirely within the building thermal envelope.
	☐ Option 8	More efficient duct thermal distribution system option. 100% of ductless thermal distribution system or hydronic thermal distribution system located completely inside the building thermal envelope.
	☐ Option 9	More efficient duct thermal distribution system option. 100% of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.

Table 3

Select Only 1 Option R405

☐ Option 1	One of the additional efficiency package options in Group A of Table 1 & Any two from Group B of Table 1 shall be selected without including such measures in the proposed design under Section R405
☐ Option 2	The proposed design of the Mixed-fuel building under Section R405.2 shall have an annual energy cost that is less than or equal to 85 percent of the annual energy cost of the standard reference design.

Table 2

MD Alternative Additional Packages

Must select one or more options to meet or exceed 6%. R402.1.3.1

☐ 1	≥ 2.5% reduction in total UA	1%
☐ 2	≥ 5% reduction in total UA	2%
☐ 3	> 7.5% reduction in total UA	2%
☐ 4	0.22 U-factor windows	3%
☐ 5	High performance cooling system (Greater than or equal to 18 SEER and 14 EER air conditioner)	3%
☐ 6	High performance cooling system (Greater than or equal to 16 SEER and 12 EER air conditioner)	3%
☐ 7	High performance gas furnace (Greater than or equal to 96 AFUE natural gas furnace)	5%
☐ 8	High performance gas furnace (Greater than or equal to 92 AFUE natural gas furnace)	4%
☐ 9	High performance heat pump system (Greater than or equal to 10 HSPF/18 SEER air source heat pump.)	6%
☐ 10	High performance heat pump system (Greater than or equal to 9 HSPF/16 SEER air source heat pump.)	5%
☐ 11	Ground source heat pump (Greater than or equal to 3.5 COP ground source heat pump.)	6%
☐ 12	Fossil fuel service wate heating system (Greater than or equal to 82 EF fossil fuel service water-heating system.)	3%
☐ 13	High performance heat pump water heating syste option (Greater than or equal to 2.9 UEF electric service water -heating system.)	8%
☐ 14	High performance heat pump water heating system (Greater than or equal to 3.2 UEF electric service water- heating system.)	8%
☐ 15	Solar hot water heating system (Greater than or equal to 0.4 solar fraction solar water-heating system.)	6%
☐ 16	More efficient HVAC distribution system (100 percent of ductless thermal distribution system or hydron- ic thermal distribution system located completely inside the building thermal envelope.)	10%
☐ 17	100% of ducts in conditioned space. (100 percent of duct thermal distribution system located in conditioned space as defined by Section R403.3.2.)	12%
☐ 18	Reduced total duct leakage. (When ducts are located outside conditioned space, the total leakage of the ducts, measured in accordance with R403.3.5, shall be in accordance with one of the following: a. Where air handler is installed at the time of testing 2.0 cubic feet per minute per 100 square feet of conditioned floor area. b. Where air handler is not installed at the time of testing, 1.75 cubic feet per minute per 100 square feet of conditioned floor area.	1%
☐ 19	2 ACH50 air leakage rate with ERV or HRV installed (Less than or equal to 2.0 ACH50, with either an Energy Recovery Ventilator (ERV) or Heat Recovery Ventilator (HRV) installed.)	10%
☐ 20	2 ACH50 air leakage rate with balanced ventilation (Less than or equal to 2.0 ACH50, with balanced ventilation as defined in Section 202 of the 2021 International Mechanical Code.)	4%
☐ 21	1.5 ACH50 air leakage rate with ERV or HRV installed (Less than or equal to 1.5 ACH50, with either an ERV or HRV installed.)	12%
☐ 22	1 ACH50 air leakage rate with ERV or HRV installed (Less than equal to 1.0 ACH50, with either an ERV or HRV installed.)	14%
☐ 23	Energy Efficient Appliances (Minimum 3 appliances not to exceed 1 for each type with follow efficien- cies. Refrigerator- Energy Star Program Requirements Product Specification for Consumer Refrigeration Products, Version 5.1 (08/05/2021), Dishwasher- Energy Star Program Requirements for Residential Dishwashers Version 6.0 (01/29/2016), Clothes Dryer- Energy Star Program Requirements Product Specification for Clothes Dryers, Version 1.1 (05/05/2017) and Clothes Washer- Energy Star Program Requirements Product Specification for Clothes Washers Version 8.1 (02/05/2018)	7%
☐ 24	Renewable Energy Measure	11%

I hereby certify that the building design represented in the attached construction documents has been designed to meet or exceed the requirements of 2021 Edition International Energy Conservation Code (IECC)

Project Address: _____

Applicant Signature: _____ Date: _____

Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

2425 Reedie Drive, 7th Floor, Wheaton, MD 20902
Phone: 311 in Montgomery County or (240)777-0311
http://www.montgomerycountymd.gov/permittingservices

Contractor _____

Mechanical License # _____

Building Plan # _____

Home Address (Street or Lot#, Block, Subdivision) _____

REQUIRED ATTACHMENTS	ATTACHED
Manual J1 Form (and supporting worksheets):	Yes ☐
or MJ1AE Form (and supporting worksheets):	Yes ☐
OEM performance data (heating, cooling, blower):	Yes ☐
Manual D Friction Rate Worksheet:	Yes ☐
Manual S Equipment Selection form:	Yes ☐
Duct distribution system sketch:	Yes ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature 19 °F

Indoor temperature 72 °F

Total heat loss _____ Btu

Summer Design Conditions

Outdoor temperature 89 °F

Indoor temperature 75 °F

Grains difference _____ Δ Gr @ _____ % Rh

Sensible heat gain _____ Btu

Latent heat gain _____ Btu

Total heat gain _____ Btu

Building Construction Information

Building

Orientation (Front door faces) _____
North, East, West, South, Northeast, Northwest, Southeast, Southwest

Number of bedrooms _____

Conditioned floor area _____ Sq Ft

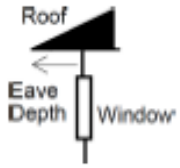
Number of occupants _____

Windows

Eave overhang depth _____ Ft

Internal shade _____
Blinds, drapes, etc

Number of skylights _____



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type _____
Furnace, Heat pump, Boiler, etc.

Model _____

Heating output capacity _____ Btu
Heat pumps - capacity at winter design outdoor conditions

Auxiliary heat output capacity _____ Btu

Cooling Equipment Data

Equipment type _____
Air Conditioner, Heat pump, etc

Model _____

Sensible cooling capacity _____ Btu

Latent cooling capacity _____ Btu

Total cooling capacity _____ Btu

Blower Data

Heating CFM _____ CFM

Cooling CFM _____ CFM

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow _____ CFM

External Static Pressure (ESP) _____ IWC

Component Pressure Losses (CPL) _____ IWC

Available Static Pressure (ASP) _____ IWC
ASP = ESP - CPL

Longest supply duct: _____ Ft

Longest return duct: _____ Ft

Total Effective Length (TEL) _____ Ft

Friction Rate: _____ IWC
Friction Rate = (ASP × 100) ÷ TEL

Duct Materials Used (circle)

Trunk Duct: Duct board, Flex, Sheet metal, Lined sheet metal, Other (specify)

_____

Branch Duct: Duct board, Flex, Sheet metal, Lined sheet metal, Other (specify)

_____

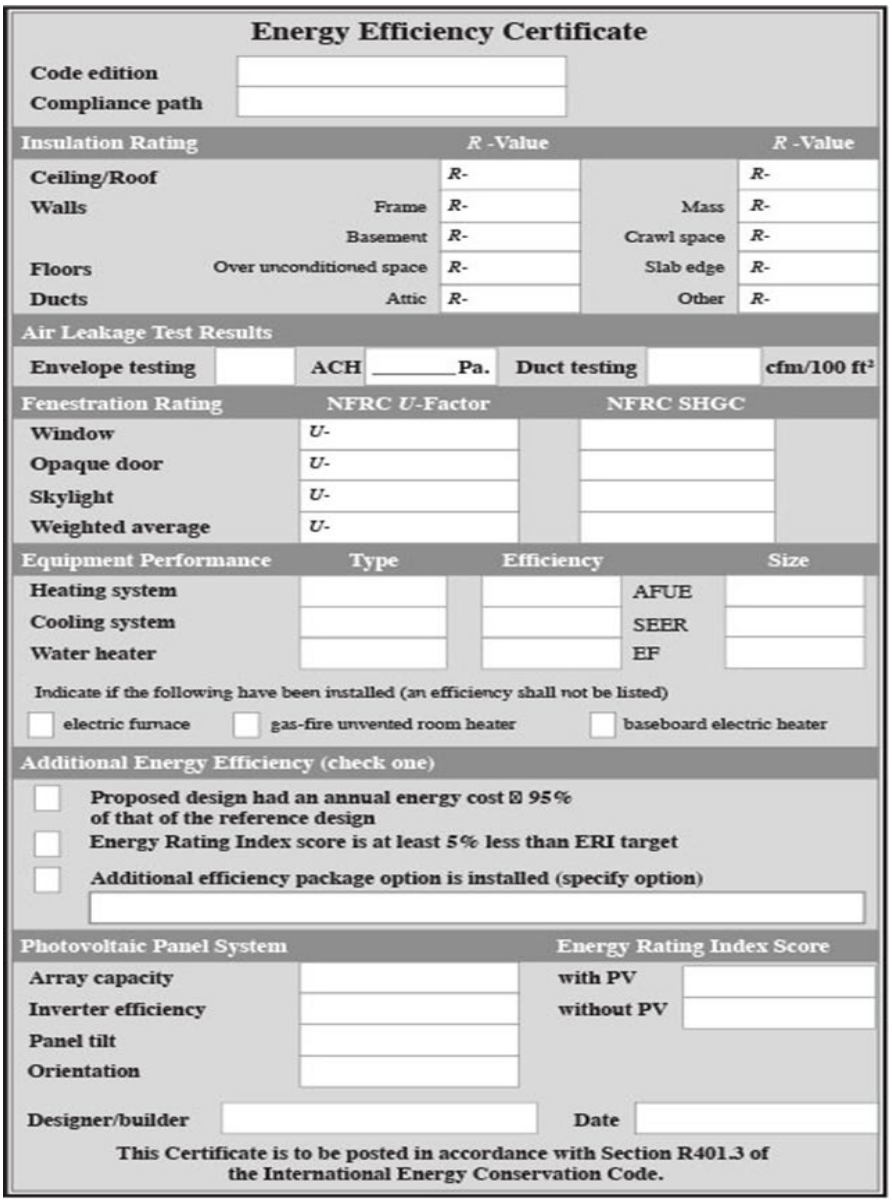
I declare the load calculation, equipment selection, and duct system design were rigorously performed based on the building plan listed above, I understand the claims made on these forms will be subject to review and verification.

Contractor's Printed Name _____ Date _____

Contractor's Signature _____

Reserved for use by County, Town, Municipality, or Authority having jurisdiction.

401.3 Certificate A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory.



Energy Efficiency Certificate

Code edition	
Compliance path	

Insulation Rating		*R*-Value		*R*-Value
Ceiling/Roof		*R*-		*R*-
Walls	Frame	*R*-	Mass	*R*-
	Basement	*R*-	Crawl space	*R*-
Floors	Over unconditioned space	*R*-	Slab edge	*R*-
Ducts	Attic	*R*-	Other	*R*-

Air Leakage Test Results

Envelope testing ____ ACH _____Pa. Duct testing ____ cfm/100 ft²

Fenestration Rating	NFRC *U*-Factor	NFRC SHGC
Window	*U*-	
Opaque door	*U*-	
Skylight	*U*-	
Weighted average	*U*-	

Equipment Performance	Type	Efficiency		Size
Heating system			AFUE	
Cooling system			SEER	
Water heater			EF	

Indicate if the following have been installed (an efficiency shall not be listed)

☐ electric furnace ☐ gas-fire unvented room heater ☐ baseboard electric heater

Additional Energy Efficiency (check one)

☐ Proposed design had an annual energy cost ⊠ 95% of that of the reference design

☐ Energy Rating Index score is at least 5% less than ERI target

☐ Additional efficiency package option is installed (specify option)

Photovoltaic Panel System		Energy Rating Index Score	
Array capacity		with PV	
Inverter efficiency		without PV	
Panel tilt			
Orientation			

Designer/builder _____ Date _____

This Certificate is to be posted in accordance with Section R401.3 of the International Energy Conservation Code.

For the purpose of this Certificate, permanent shall mean: A type printed sticker, or a laminated printed paper; laminated certificates must be glued. The in-fill information is permitted to be handwritten under the categories of the printed certificate. Fully handwritten certificates shall not be allowed or deemed acceptable.