

APPLICANT: \_\_\_\_\_ EMAIL: \_\_\_\_\_

## REQUIRED INFORMATION FOR BUILDING APPLICATIONS

### APPLICATION CHECKLIST FOR SINGLE FAMILY DWELLING

This Application checklist shall be **completed** and **attached** to your Building Permit application. All of the required information is necessary for the review of the application and for a timely decision to be rendered.

To expedite the evaluation your application must have:

- All submission requirements to be included in the application.
- All application documents must be clear, legible, precise, and be prepared to professional drafting standards.
- Every document must have a title block with the project name, legal and municipal address, and the name and phone number of the designer.

If the information is determined to be insufficient, the application will be considered **incomplete**; and it will not proceed to review until the requirements have been satisfied.

**All boxes shall be "CHECKED" and information indicated attached to the application.**

OFFICE ✓	CLIENT ✓	APPLICATION SUBMISSION REQUIREMENTS	COMMENTS
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>1. Site Plan:</b> Shall be drawn to scale and provide the following information:  <b>Standard Information:</b> Shown on all plans as per the "<a href="#">How to Draw a Site Plan and Floor Plan</a>" document found under <a href="#">Forms and Checklists</a> on rmwb.ca  <b>Information on the Site Plan:</b></p> <p>a. Dimensions from property lines to the proposed building.  b. Dimensions from the property lines to the adjacent existing structures on the property.  c. Existing and finished grade elevations to show lot slope for drainage.</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>2. Energy Efficient Documents:</b></p> <p>a. Complete 9.36 Energy Efficiency Project Summary (Form A – Page 10).  b. Complete 9.36 Energy Efficiency Compliance Calculation (Form B – Page 11&amp;12).</p>	
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>3. Floor/Structural Plans:</b> Shall include sufficient information to show that the proposed work will conform to the Alberta Building Code and shall include the following:</p> <p>a. Floor plans to a scale not less than 1:100  b. Description of the purpose of all rooms with the total floor area.  c. The dimensioned location of all walls, partitions, hallways, stairs and size of doors, windows, and other openings.  d. The location and description of furnace/water heating appliances and other fixed building equipment.  e. Locations of smoke alarms and carbon monoxide alarms.  f. Drawings for engineered roof, floor systems, and components.  g. Location and load values of concentrated loads from the roof or floor system including details for columns, pads and blocking supporting loads. (Drawing and details may be required to be stamped by a structural engineer.)  h. Description, dimensions, location, and size of all structural members in sufficient detail to enable the design to be checked.  i. Building sections and plan details with sufficient detail to determine if the proposed work meets the requirements of Section 9.36 of the Alberta Building Code</p>	



<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/>	<p><b>4. Foundation drawings:</b> Shall indicate:</p> <ul style="list-style-type: none"> <li>a. Footing and wall dimensions and description of materials used.</li> <li>b. Foundation sections showing depth of all footings below finished grade.</li> <li>c. Foundation Compliance Supplementary Form (Page 13).</li> <li>d. Design details of all required reinforcement of walls at laterally unsupported stairwells and windows more than 1.2m (4') in width and all walls exceeding the parameters of Part 9.</li> <li>e. The factored loads applicable and the design loads applied to foundation units (i.e. Loads at column pads).</li> <li>f. Foundation drainage and damp proofing details including materials to be used.</li> <li>g. Pile foundation units and the loads supported by them shall be designed by a structural engineer and stamped drawings submitted.</li> </ul> <p>NOTE: Where Engineering is required, all plans shall be stamped and signed by the registered professional responsible for design.</p>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>5. Radon Gas:</b> Details for the mitigation of soil gas shall include the following:</p> <ul style="list-style-type: none"> <li>a. Under slab air barrier systems. (clean coarse gravel, poly, sealant etc.).</li> <li>b. Roughed-in piping for under slab depressurization system.</li> <li>c. Airtight sump pit cover.</li> </ul>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><b>6. Elevations</b> Elevation drawings shall be provided for each face of the building and shall include:</p> <ul style="list-style-type: none"> <li>a. The type of cladding, flashing details and locations.</li> <li>b. Windows, window wells and doors, (performance labels to be verified).</li> <li>c. Where the setback is less than 5.0 m, the total area of glazed openings on each side and rear elevation.</li> <li>d. Soffits (vented and unvented), total attic ventilation provided, roofing.</li> <li>e. Decks, exterior railings, and stairs.</li> <li>f. Driveways, sidewalks, and exterior grades.</li> </ul> <p>All in sufficient detail and dimensioned to be able to determine if the proposed work meets the requirements of The Alberta Building Code.</p>	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  <input type="checkbox"/>	<p><b>7. Heating, Ventilation and Air Conditioning:</b> HVAC drawings shall include:</p> <ul style="list-style-type: none"> <li>a. Fresh air inlet and exhaust outlet locations and sizes.</li> <li>b. The location, capacity (BTU) and type of all principal HVAC units, locations of principal exhaust fan and labelled principal exhaust switch.</li> <li>c. Details for hydronic heating systems, prepared by a qualified designer which includes equipment schematics, piping layout, under-slab insulation details and heat loss calculations.</li> </ul>	
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>8. New Home Warranty:</b> Registration number for the proposed new or rebuilt home under the New Home Buyer Protection Act. Building permits cannot be issued without Warranty. <a href="https://anhwp.com/homeowners/owning-your-new-home/new-home-warranty/">https://anhwp.com/homeowners/owning-your-new-home/new-home-warranty/</a></p>	
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>9. New Home Builder Registry:</b> A New Home Builder must be registered with Alberta New Home Warranty. Building permits cannot be issued without the contractor being registered. <a href="https://residentialprotection.alberta.ca/public-registry/Builder">https://residentialprotection.alberta.ca/public-registry/Builder</a></p>	



<input type="checkbox"/>	<input type="checkbox"/>	<b>10. Approved Development Permit Drawings:</b> (To obtain a copy contact <a href="mailto:planning.development@rmwb.ca">planning.development@rmwb.ca</a> )	
<input type="checkbox"/>	<input type="checkbox"/>	Provide written confirmation if Development Permit drawings are not required.	
<input type="checkbox"/>	<input type="checkbox"/>	<b>11. Applicable Fees:</b> Building Permit fees (as outlined in the Fees, Rates, and Charges Bylaw, as amended) shall be made payable to the Regional Municipality of Wood Buffalo.	

You will receive email notification upon issuance of Permit. Conditions will be attached to the Permit. The work is required to comply with all the conditions attached to the permit. It is imperative that the applicant carefully read and understand all the Permit conditions.

The personal information collected is authorized under Section 4 (c) of the *Protection of Privacy Act* and is managed in accordance with the Act. It will be used as contact information and to process your application. If you have any questions regarding the collection or use of this information please contact PULSE at 780-743-7000, 1-800-973-9663, or online at [rmwb.ca/pulse](http://rmwb.ca/pulse).



# Building Permit Application



REGIONAL MUNICIPALITY  
OF WOOD BUFFALO

Permit Type:  Owner  Contractor

Development Permit Number: \_\_\_\_\_

Application Date (M/D/Y): \_\_\_\_\_ Estimated Completion Date (M/D/Y): \_\_\_\_\_

Owner Name: \_\_\_\_\_ Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
Alt Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_ Fax: \_\_\_\_\_

Contractor: \_\_\_\_\_ Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
Alt Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_ Fax: \_\_\_\_\_

## REGIONAL MUNICIPALITY OF WOOD BUFFALO

Street Address: \_\_\_\_\_ Hamlet: \_\_\_\_\_

Unit #: \_\_\_\_\_ Lot: \_\_\_\_\_ Block: \_\_\_\_\_ Plan: \_\_\_\_\_

Legal Subdivision: Part of: \_\_\_\_\_ 1/4 Sect: \_\_\_\_\_ Twp: \_\_\_\_\_ Rg: \_\_\_\_\_ W of: \_\_\_\_\_ Subdivision: \_\_\_\_\_

Directions: \_\_\_\_\_

Alberta New Home Warranty (applicable to all new homes) # \_\_\_\_\_

Architect and/or Engineer (if applicable): \_\_\_\_\_ Phone: \_\_\_\_\_

Project Information:  Commercial  Residential  Multi-Family  Industrial  Institutional  Oil & Gas  Agriculture

### Type of Work:

New  Renovation  Addition  Acc Building  Bsmt.Dev  Mobile Home  Demolition  Bsmt. Suite  Other

sq. meters: \_\_\_\_\_ sq. feet: \_\_\_\_\_ No. of Stories: \_\_\_\_\_ Building Classification: \_\_\_\_\_

Main Area: \_\_\_\_\_

2nd Floor Area: \_\_\_\_\_

Basement Area: \_\_\_\_\_

Garage Area: \_\_\_\_\_

Detached Garages must be on a separate permit.

Detailed Description of Work and/or intended use or occupancy of the building:

Project Value (Materials & Labour): \$ \_\_\_\_\_ Total Developed Area: \_\_\_\_\_ Sq. Ft.

Permit Fee: \$ \_\_\_\_\_ \*SCC Levy: \$ \_\_\_\_\_ TOTAL FEE: \$ \_\_\_\_\_

\*SCC Levy is 4% of the permit fee with a minimum of \$4.50 and a maximum of \$560

### Payment Method:

Visa  M/C  Debit  Cheque  Cash  Authorization / Cheque Number \_\_\_\_\_

Credit Card #: \_\_\_\_\_ CVC: \_\_\_\_\_ Expiry Date: \_\_\_\_\_ Date of Authorization: \_\_\_\_\_

Name of Cardholder: \_\_\_\_\_ Signature of Cardholder: \_\_\_\_\_

# Building Permit Application



## Permit Terms and Conditions

1. Inspections are required for all permits; and it is the applicant's responsibility to request the inspection when the work is ready. Contact 780-743-7813 or email [inspections@rmwb.ca](mailto:inspections@rmwb.ca).
2. Permits will be expired if:
  - a. Work does not commence within 90 days of permit issuance, or
  - b. Work is suspended or abandoned for a period of 120 days, or
  - c. Work is not completed within 1 year from issuance. One-time permit extensions may be granted where applicable.
3. This permit is only applicable to the work detailed in the Description of Work and all other work completed, that is not listed on this permit, will not be in non-compliance with the **Alberta Safety Codes Act**.
4. The permit holder is responsible to notify the permit issuer and has the right to cancel the permit. Contact the permit issuer if the following occurs:
  - a. If the permit holder does not intend to complete the undertaking, or
  - b. If there is a change in ownership from the owner as stated on the permit application.
5. The permit issuer has the right to cancel your permit if it is found the permit was issued in error due to incorrect or insufficient information in respect to the permit.
6. There are no refunds on permit fees once the permit has been processed.
7. No person shall deviate or authorize a deviation from a permit, or terms or conditions of a permit, without first obtaining the written permission of the permit issuer.
8. The permit holder will ensure that the construction site is identified.
9. The permitted work requires the approval of a Safety Codes Officer before any part of the building or system is covered or concealed. If required by a Safety Codes Officer, the owner shall uncover and replace at the owner's expense.
10. Permits must be inspected and be compliant prior to the use and/or occupancy.
  - a. Commercial, Industrial and Institutional projects must have all applicable electrical, plumbing, gas and ventilation permits inspected and compliant prior to issuance of the Occupancy Certificate. A final building inspection may be required prior to the issuance of the Occupancy Certificate.
  - b. Residential projects must have all applicable electrical, plumbing, gas, and ventilation permits inspected and compliant prior to the final building Occupancy inspection.
11. Residential properties that intend to develop a secondary suite must install a 125 amp or larger electrical service.
12. The installation of CSST gas piping is required to be completed by a certified installer and proof of certification will be required at the time of inspection.
13. Homeowners that obtain permits must complete the work and will be taking responsibility for ensuring the undertaking complies with the applicable codes and standards. The permit issuer will cancel the Homeowner Private Sewage, Electrical, Plumbing, Ventilation or Gas permit if:
  - a. A contractor is found completing the work.
  - b. You are not the registered owner of the residential premises in which the work is being performed.
  - c. You do not permanently reside 'in' or will reside 'in' the premises.
14. Only the permit applicant, representative of the applicant or owner is permitted to inquire about permit information, receive permit information and request inspections.
15. Re-inspection fees will be applied to the permit record and no further inspections will be permitted until the fees have been paid, if:
  - a. The inspector is unable to complete an inspection due to unsafe access, no entry or unable to locate the site.
  - b. Deficiencies from a previous inspection were not corrected at the time of the re-inspection.

## Permit Declaration

The permit applicant/owner acknowledges that the installation will be completed in accordance with the Alberta Safety Codes Act, Permit Regulations and Regional Municipality of Wood Buffalo Permit Policy. The personal information provided on this form is subject to the provisions of the Protection of Privacy Act. Your personal information will be used to process your application(s). Please be advised that your name, address and details related to your permit may be included on reports that are available to the public as required or allowed by legislation.

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Applicant Name

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Applicant Signature

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Date

## Introduction

Section 9.36 of the National Building Code 2023 - Alberta Edition (NBC 2023-AE) details new energy efficiency requirements for housing and small buildings. It includes three options for compliance; Prescriptive, Trade-Off, and Performance Compliance.

To facilitate compliance, The Regional Municipality of Wood Buffalo (RMWB) has created the 9.36 Project Summary form outlining the requirements and compliance options for NBC 2023-AE 9.36. This guide provides information and direction on how to complete this form. A completed 9.36 Project Summary form is required for all relevant Building Permit applications starting November 01, 2016.

## Completing the 9.36 Project Summary Form

### Basic Building Information

Regardless of the compliance path chosen, certain information is required for all buildings seeking compliance with NBC 2023-AE 9.36. This information must be completed for all projects and be consistent with the accompanying drawings. Basic information includes:

**Climate Zone** Fort McMurray has 6250 HDD (climate zone 7B). If you have suitable climate data that shows otherwise please supply it with your application.

**Building Area** This is as defined in 1.4.1.2 of NBC 2023-AE

### Selecting a Compliance Path

Select only one compliance path; multiple compliance paths are not permitted on a single building.

Specific requirements associated with the individual compliance paths are found on the form, and explained in greater detail below

### Prescriptive Compliance Path

This section describes the minimum information that must be included for prescriptive compliance. It may take the form of notes or additional drawings. If the proposed assemblies and components meet the required values of 9.36.2 – 9.36.4 you will have demonstrated compliance.

A list of drawing details to illustrate how air barrier and insulation continuity at joints, transitions and changes in assemblies is also included. These details will be specific to the chosen air barrier/insulation system.

### Trade-off Path

A second compliance path allows applicants to 'trade-off' building envelope requirements, subject to limitations found in NBC 2023-AE 9.36.2.11. These include;

- Total areas must be the same for both parts of the calculation
- You may only trade off between assemblies from the building envelope, not HVAC or Hot Water.
- You may only trade opaque for opaque assemblies or transparent for transparent assemblies.
- If you trade windows for windows, then they must be on the same elevation.

Demonstrating compliance under the trade off path requires all the information for prescriptive compliance, with the additional requirements of

- Trade off calculations must be submitted (calculator available at Safety Codes document library)
- Using a hatch, shading, or other mean, the trade-off areas must be indicated on the accompanying drawing submission.

### Performance Compliance Path

Performance Compliance path employs a computer simulation software or calculations to compare a proposed design with a hypothetical reference building to show that the proposed design will use less energy over the course of an operational year. NBC 2023-AE 9.36.5 outlines the procedures for performing this comparison.

The 9.36 Project Summary requires a number of values to be provided in order to allow verification of the model inputs. A brief outline of some of these inputs and their requirements follows:

#### Reference Model

The reference model must be constructed according to 9.36.5.13. – 9.36.5.16 In the Reference building **Airtightness, SHGC, Thermal Mass** and **Solar Absorbance** must use values specified in 9.36.5.14.

**FDWR** for the Reference building is based on the FDWR of the proposed building, according the to the following table;

Buildings Containing 1 or 2 Dwelling Units	
Actual FDWR	FDWR for Reference Model
<17	17
17-22	Match actual FDWR
>22	22
Buildings containing More Than 2 Dwelling units	
Actual FDWR	FDWR for Reference Model
0-40	Match actual FDWR
>40	40
<p><b>NOTE:</b> For the purposes of the reference building, the area of glazing arrived at above shall be divided equally among the elevations of the building in the model. The following boxes on the form allow you to indicate the areas entered in the model for each elevation.</p>	

**HVAC System efficiency** is to be indicated based on the required efficiency rating from Table 9.36.3.10 for the type and size of equipment specified in the proposed design. If the proposed design equipment is not included in the table then the reference house should be based on a gas fired warm air furnace with an efficiency of 92%.

**Space Cooling Efficiency** if installed shall meet the efficiency value for the relevant type of equipment as found in Table 9.36.3.10

**Service Water Heater Efficiency** shall be indicated as the value shown in Table 9.36.4.2 or if appropriate 9.36.5.16 and shall be the same type, size and fuel type as the proposed house.

**Ventilation Rate** shall be set at the value derived from Table 9.32.3.3 based on the number of bedrooms.

## Proposed Model

**Airtightness** for the proposed house is a choice to be made by the designer.

Chosen Airtightness level	Construction Requirements
3.2	Install an Air Barrier system in accordance with 9.25.3
2.5	Install an Air Barrier system in accordance with 9.36.2.10
<2.5	Conduct a blower door test to verify that the specified air leakage rate has been achieved.

**NOTE:** The results of this test must be supplied to the Building Inspector prior to occupancy. Should the blower door test indicate that the air leakage rate is greater than that specified at permit stage then along with the blower door results, a revised model report using the actual test value will need to be submitted to the Building Inspector prior to occupancy.

**SHGC** will be based on the specification of the actual windows proposed for the house and calculated in accordance with 9.36.2.2.

**Thermal Mass** can be calculated for the proposed house in accordance with 9.36.5.10 or the default value of 0.06 may be used.

**Solar Absorbance** is held constant between the proposed and reference models and therefore should be 0.4.

**FDWR** will be entered as the actual value calculated, distributed in the model per the design. The following boxes on the form allow you to indicate the areas for each elevation and should reflect the drawings.

**HVAC System Efficiency** will be the efficiency of the actual specified equipment.

**Space Cooling Efficiency** shall be the efficiency of the actual proposed equipment if installed.

**Service Water Heater Efficiency** will be the efficiency of the actual specified equipment.

**Ventilation Rate** may be set at a proposed value but may not be less than that derived from Table 9.32.3.3 based on the number of bedrooms.

## Performance Data Summary

Enter the energy use values generated by the reference and proposed models. Compliance is demonstrated when the Calculated Energy use is equal to or less than the Target Energy Use.

## Software

The software used to perform the energy simulation will be detailed here. No specific software package is mandated however whichever software is chosen must have been tested to ANSI/ASHRAE 140 and have any changes or variations made to/within the software listed.

## Declaration

Code requires a declaration be made that the calculations have been completed in compliance with all the rules outlined in 9.36.5. In order that the Safety Codes officer can discuss anything arising from the calculations contact information shall be provided for the person who prepared them.

Should the project be particularly complex, or the calculations have significant deficiencies the Safety Codes Officer may request a professional stamp and signature accompany the calculations.

## 9.36 Energy Efficiency Project Summary (Form A)

Materials and Assemblies for all Compliance Paths			
Project Name:		Compliance Path	
Project Address:		Prescriptive	
Applicant:		Trade off	
Applicant Address:		Performance	

In order to confirm compliance with Section 9.36 of the NBC 2023-AE, the checklist below is to be completed and submitted as part of any application for a Single Family. Trade off and Performance paths will also require a complete set of calculations to process. Incomplete information will delay the application processing.

<b>BUILDING ENVELOPE 9.36.2</b>						
WALLS	Member size, spacing O.C.	Interior Insulation	Exterior Sheathing	Exterior Insulation	Cladding	Effective R value
Above Grade Assemblies						
Below Grade Wall						
Basement slab above Frost line						
Heated slab						
Rim-boards						
FLOORS / ROOF		Insulation Type		Insulation Depth		Effective R Value
Insulated floor above garage						
Cantilever						
Roof						
Air Barrier Type / Manufacturer		Interior - Impermeable		Exterior - Permeable		
FENESTRATIONS		Manufacturer		Energy Rating		U Value
Windows						
Doors						
OH Doors						R Value
<b>HVAC REQUIREMENTS 9.36.3</b>						
Heating System	Manufacturer	Model	Capacity BTU	% Efficiency		
Forced air.						
Boiler						
Cooling System						
Electric- radiant						
HRV			CFM	% @ -25C		
<b>SERVICE WATER HEATER 9.36.4</b>						
	Manufacturer	Model	BTU	% Efficiency		
Storage Water						
Tank-less Heater						



**Regional Municipality of Wood Buffalo  
Requirements for NBC 2023-AE Division B Section 9.36 Compliance**

Project Name:		Building Permit Number (completed internally)
Project Address:		
Applicant:		
Applicant Address:		

**Basic Building Information**

Information provided below sets the buildings geometry to establish compliance with the NBC 2023-AE Division B Section 9.36

Climate Zone (HDD):		Building Area (m <sup>2</sup> ):	
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Please check the appropriate box to indicate your chosen compliance path  
(select only one)

PRESCRIPTIVE

TRADE-OFF

PERFORMANCE

**SUBMIT THE FOLLOWING INFORMATION WITH YOUR APPLICATION BASED ON THE COMPLIANCE PATH CHOSEN**

**All Compliance Paths**

- Identify on the plans any/all assemblies containing heating pipes, cables, or membranes.
- Indicate if a Heat Recovery Ventilator is proposed and, if it is proposed, note the type and efficiency.
- Indicate **effective** Rsi values for all assemblies of the building envelope, both above and below ground (e.g. walls, floors, roofs, windows and doors).
- Provide the calculations used to determine the Rsi values (hand calculations or from a software program).
- Indicate the air barrier system being proposed.
- Indicate the type and equipment efficiency of the HVAC system components. Include dampers on intakes and outlets where required.
- Note the type and equipment efficiency of the Service Hot Water system components.
- Note if Hot Water recirculation is proposed, and the thickness and extent of pipe insulation in the Service Hot Water system.

**Provide the following architectural details indicating continuity of insulation and air barrier:**

Attic hatch, eaves/top of wall, upper floor rim joist, top of basement wall/main floor junction, slab/footing junction, cantilever, bonus room floor over attached garage including ducts, typical outlet box detail, typical window/door jamb.

**And, if applicable:**

Party wall meeting outside wall, electric meter/vent pipe/duct in insulated wall, skylight shaft walls, slab edges in walkouts & heated slabs, masonry chimneys and fireplaces.

**Trade Off Compliance Path**

In addition to the information required above, a trade-off calculation, completed in accordance with 9.36.2.11, must be submitted for any trade-off carried out for above ground assemblies.

The areas of assemblies used in the calculation shall be clearly identified on the drawings.

Performance Compliance Path (residential occupancies)			
Information provided below sets the input parameters for the energy simulation used to demonstrate compliance with NBC 2023-AE Division B Section 9.36 via the performance compliance path.			
Reference Model		Proposed Model	
Which direction does the front of the house face as modelled (N, NE, E, SE, S, SW, W, NW):			
Airtightness (ACH @ 50Pa)	2.5 <input type="checkbox"/>	Airtightness (ACH @ 50Pa)	3.2 <input type="checkbox"/> 2.5 <input type="checkbox"/> other: <input type="text"/>
Solar Heat Gain Co-efficient Glazing (SHGC)	0.26 <input type="checkbox"/>	Solar Heat Gain Co-efficient Glazing (SHGC):	<input type="text"/>
Thermal Mass (MJ/m <sup>2</sup> °C)	0.06 <input type="checkbox"/>	Thermal Mass (MJ/m <sup>2</sup> °C):	<input type="text"/>
Solar Absorbance	0.4 <input type="checkbox"/>	Solar Absorbance:	<input type="text"/>
FDWR (%)	17 <input type="checkbox"/> 22 <input type="checkbox"/> other: <input type="text"/>	FDWR (%):	<input type="text"/>
Area of Fenestration North Elevation (m <sup>2</sup> ):	<input type="text"/>	Area of Fenestration North Elevation (m <sup>2</sup> ):	<input type="text"/>
Area of Fenestration South Elevation (m <sup>2</sup> ):	<input type="text"/>	Area of Fenestration South Elevation (m <sup>2</sup> ):	<input type="text"/>
Area of Fenestration East Elevation (m <sup>2</sup> ):	<input type="text"/>	Area of Fenestration East Elevation (m <sup>2</sup> ):	<input type="text"/>
Area of Fenestration West Elevation (m <sup>2</sup> ):	<input type="text"/>	Area of Fenestration West Elevation (m <sup>2</sup> ):	<input type="text"/>
HVAC System Efficiency (%):	<input type="text"/>	HVAC System Efficiency (%):	<input type="text"/>
HVAC System Efficiency (%):	<input type="text"/>	HVAC System Efficiency (%):	<input type="text"/>
Space Cooling Equipment Efficiency (%):	<input type="text"/>	Space Cooling Equipment Efficiency (%):	<input type="text"/>
Service Water Heater Efficiency (%):	<input type="text"/>	Service Water Heater Efficiency (%):	<input type="text"/>
Service Water Heater Efficiency (%):	<input type="text"/>	Service Water Heater Efficiency (%):	<input type="text"/>
Ventilation Rate (l/s):	<input type="text"/>	Ventilation Rate (l/s):	<input type="text"/>
<b>NOTE:</b> If the ACH rate entered above for the proposed house is less than 2.5ACH a blower door test will be required prior to occupancy. A note to this effect shall be placed on the drawings.			
Performance Data Summary			
Target Energy Use (reference)		Calculated Energy Use (proposed)	
<input type="text"/>		<input type="text"/>	
Software			
Software Title:		Version:	
<input type="text"/>		<input type="text"/>	
Software Adaptations Made:			
<input type="text"/>			
Please attach the full modelling report generated by an ANSI/ASHRAE 140 compliant software package to this form. Failure to submit the complete report will result in your application being placed on hold.			
Declaration			
Please indicate the person responsible for preparing the calculations used to show compliance with NBC 2023-AE Division B Section 9.36			
Name:	<input type="text"/>		
Representing Firm:	<input type="text"/>		
Contact Information:	email: <input type="text"/>	tel: <input type="text"/>	<input type="text"/>
Address:	<input type="text"/>		
I hereby certify that the calculations submitted were prepared in full accordance with NBC 2026-AE Division B Section 9.36 and the operating procedures of the software		Signature	
<input type="text"/>		<input type="text"/>	
<b>Nothing in this form, or the attached calculations, shall preclude the Safety Codes Officer reviewing this file and requesting an appropriate professional to stamp and sign the submission.</b>			

# FOUNDATION COMPLIANCE FORM



PERMIT # \_\_\_\_\_

The checklist below is to be completed and submitted to confirm compliance with Section 9.15 of the NBC 2023-AE. Reinforcing for foundation walls is required where backfill heights exceed Table 9.15.4.2, if an opening for a stairwell or window is more than 1.2 m (4') wide, or the total width of the openings in the foundation wall constitutes more than 25% of the length of the wall. Professional engineering involvement may be required if the prescriptive requirements of National Building Code 2023-AE are not met. If manufacturer specific engineering is being used, provide a copy and provide specific reference to page and table numbers in the details below, in addition to details provided on the building plans.

APPLICANT \_\_\_\_\_ DATE \_\_\_\_\_  
 PROPERTY \_\_\_\_\_  
 ADDRESS \_\_\_\_\_

TYPE:	Concrete	ICF	PWF	MGO	PILES USED? DETAILS IF YES	YES	NO	CONCRETE STRENGTH	MPa	
	(PWF & MGO Foundations Required Engineer's Stamp)							CONCRETE REQUIREMENTS		
CONCRETE WALL THICKNESS		6 in.		8 in.	COLUMN PAD USED DETAILS IF YES	YES	NO	SPECIAL BACKFILL REQUIREMENTS		
WALL HEIGHT		ft.			WING WALL DETAILS IF YES	YES	NO	ADMIXTURES	YES	NO
FOOTING	WIDTH		DEPTH		CONCRETE STEPS DETAILS IF YES	YES	NO	ADMIX DETAILS		
HOUSE		in.		in.				RETAINING WALL	YES	NO
GARAGE		in.		in.	NUMBER OF RISERS			IF YES ATTACHED TO HOUSE?	YES	NO
WALKOUT		in.		in.				RETAINING WALL HEIGHT		
FOUNDATION HEAT 9.12.3.3 (typically Oct 15 – Apr 15)			YES	NO	SUPPORTING LOAD?	YES	NO			

WALL	WALL GENERAL REINFORCEMENT Vert. and Horiz.		MAX BACKFILL HEIGHT ft. in.
	OPENING SIZE AND % OF WALL		
	ADDITIONAL REINFORCING. DUE TO OPENINGS		
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS		
WALL	WALL GENERAL REINFORCEMENT Vert. and Horiz.		MAX BACKFILL HEIGHT ft. in.
	OPENING SIZE AND % OF WALL		
	ADDITIONAL REINFORCING. DUE TO OPENINGS		
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS		
WALL	WALL GENERAL REINFORCEMENT Vert. and Horiz.		MAX BACKFILL HEIGHT ft. in.
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WALL	WALL GENERAL REINFORCEMENT Vert. and Horiz.		MAX BACKFILL HEIGHT ft. in.
	OPENING SIZE AND % OF WALL		
	ADDITIONAL REINFORCING. DUE TO OPENINGS		
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS		

**SIGNATURES OF CONFIRMATION** I CONFIRM THAT FOUNDATION REINFORCEMENT HAS BEEN INSTALLED AS INDICATED ON DETAILS ABOVE AND ON SUBMITTED PLANS, IS IN COMPLIANCE WITH THE SITE SPECIFIC GEOTECHNICAL REPORT AND IS IN COMPLIANCE WITH NATIONAL BUILDING CODE 2023-AE. SIGNED BELOW

**TO BE SIGNED AFTER WITNESSING THE INSTALLATION OF THE REINFORCEMENT**

BUILDER REPRESENTATIVE NAME \_\_\_\_\_ PHONE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

SIGN \_\_\_\_\_

FOUNDATION CONTRACTOR NAME \_\_\_\_\_ PHONE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

SIGN \_\_\_\_\_

**FOR REGIONAL MUNICIPALITY OF WOOD BUFFALO OFFICE USE ONLY**

REINFORCEMENT INSPECTION REQUIRED	<input type="checkbox"/> YES <input type="checkbox"/> NO	ENGINEERING REQUIRED FOR FOUNDATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO
PICTURES REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO	ENGINEERING SUBMITTED WITH APPLICATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO
		ENGINEERING FIELD REVIEW REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO

# FOUNDATION COMPLIANCE FORM



PERMIT # \_\_\_\_\_

The checklist below is to be completed and submitted to confirm compliance with Section 9.15 of the NBC 2023-AE. Reinforcing for foundation walls is required where backfill heights exceed Table 9.15.4.2, if an opening for a stairwell or window is more than 1.2 m (4') wide, or the total width of the openings in the foundation wall constitutes more than 25% of the length of the wall. Professional engineering involvement may be required if the prescriptive requirements of National Building Code 2023-AE are not met. If manufacturer specific engineering is being used, provide a copy and provide specific reference to page and table numbers in the details below, in addition to details provided on the building plans.

APPLICANT **Art Vandelay** DATE **September 2, 2017**  
 PROPERTY ADDRESS **405 East 42nd Street, Fort McMurray AB T9K 2W6**

TYPE: <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> ICF <input type="checkbox"/> PWF <input type="checkbox"/> MGO (PWF & MGO Foundations Require Engineer's Stamp)	PILES USED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DETAILS IF YES screw piles, front veranda - eng. attached	CONCRETE STRENGTH 20 MPa
CONCRETE WALL THICKNESS <input type="checkbox"/> 6 in. <input checked="" type="checkbox"/> 8 in.	COLUMN PAD USED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO DETAILS IF YES	CONCRETE REQUIREMENTS
WALL HEIGHT 9 ft.	WING WALL <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DETAILS IF YES 2.0m	SPECIAL BACKFILL REQUIREMENTS
FOOTING WIDTH DEPTH HOUSE 20 in. 8 in. GARAGE 20 in. 8 in. WALKOUT 20 in. 8 in.	CONCRETE STEPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DETAILS IF YES precast	ADMIXTURES <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ADMIX DETAILS
FOUNDATION HEAT 9.12.3.3 (typically Oct 15 - Apr 15) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NUMBER OF RISERS 5	RETAINING WALL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES ATTACHED TO HOUSE? <input type="checkbox"/> YES <input type="checkbox"/> NO
DETAILS IF YES	SUPPORTING LOAD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	RETAINING WALL HEIGHT

WALL	WALL GENERAL REINFORCEMENT Vert. and Horiz.	MAX BACKFILL HEIGHT
front	10m every 2', horiz and vertical, located 30mm from inside face	7 ft. in.
	OPENING SIZE AND % OF WALL	
	ADDITIONAL REINFORCING. DUE TO OPENINGS	
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS	
rear	10m every 2', horiz and vertical, located 30mm from inside face	6 ft. in.
	OPENING SIZE AND % OF WALL	
	ADDITIONAL REINFORCING. DUE TO OPENINGS	
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS	
left	10m every 2', horiz and vertical, located 30mm from inside face	7 ft. in.
	OPENING SIZE AND % OF WALL	
	ADDITIONAL REINFORCING. DUE TO OPENINGS	
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS	
right	10m every 2', horiz and vertical, located 30mm from inside face	7 ft. in.
	OPENING SIZE AND % OF WALL	
	ADDITIONAL REINFORCING. DUE TO OPENINGS	
	LATERAL SUPPORT CONNECTION TO FLOOR DETAILS	

**SIGNATURES OF CONFIRMATION** I CONFIRM THAT FOUNDATION REINFORCEMENT HAS BEEN INSTALLED AS INDICATED ON DETAILS ABOVE AND ON SUBMITTED PLANS, IS IN COMPLIANCE WITH THE SITE SPECIFIC GEOTECHNICAL REPORT AND IS IN COMPLIANCE WITH NATIONAL BUILDING CODE 2023-AE. SIGNED BELOW

**Sample**

BUILDER REPRESENTATIVE NAME \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGN \_\_\_\_\_  
 FOUNDATION CONTRACTOR NAME \_\_\_\_\_ PHONE \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGN \_\_\_\_\_

FOR REGIONAL MUNICIPALITY OF WOOD BUFFALO OFFICE USE ONLY

REINFORCEMENT INSPECTION REQUIRED	<input type="checkbox"/> YES <input type="checkbox"/> NO	ENGINEERING REQUIRED FOR FOUNDATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO
PICTURES REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO	ENGINEERING SUBMITTED WITH APPLICATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO
		ENGINEERING FIELD REVIEW REQUIRED?	<input type="checkbox"/> YES <input type="checkbox"/> NO