**R.M. of Pense No. 160**
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Phone: (306)345-2303; Fax: (306)345-2583
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R.M. of Pense No. 160, Saskatchewan

## APPLICATION FOR BUILDING PERMIT

I hereby make application for a permit to _____ construct _____ alter _____ reconstruct a building according to the information below and to the plans and documents attached to this application.

Civic address or location of work _____
Legal description - Lot _____ Block _____ Plan _____
**Owner** _____ **Address** _____
**Telephone** _____ **Fax** _____ **Email** _____
Designer _____ Address _____ Telephone _____
Contractor _____ Address _____ Telephone _____
Nature of work _____
Intended use of building _____
Size of building _____ Length _____ Width _____ Height _____
Number of storeys _____ Fire escapes _____
Number of stairways _____ Width of stairway _____
Number of exits _____ Width of exits _____

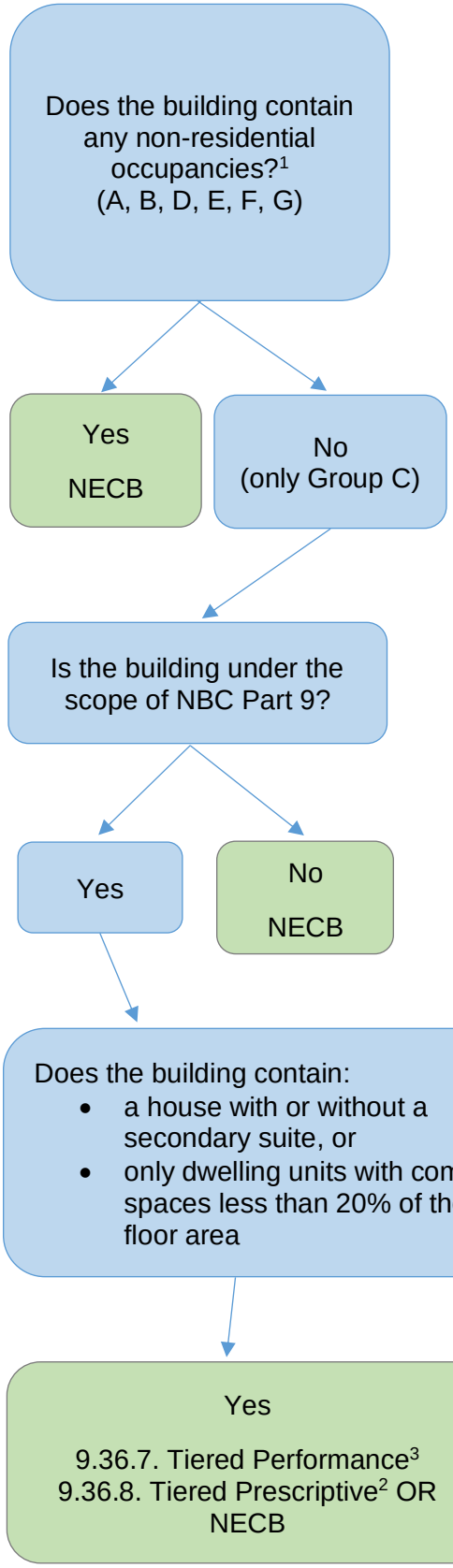
Foundation Soil Classification and Type _____
Footings _____ Material _____ Size _____
Foundations _____ Material _____ Size _____
Exterior Walls _____ Material _____ Size _____
Roof _____ Material _____ Size _____
Studs _____ Material _____ Spacing _____
Floor Joists _____ Material _____ Spacing _____
Girders _____ Material _____ Spacing _____
Rafters _____ Material _____ Spacing _____
Chimneys _____ Number _____ Size _____
Material _____ Thickness _____
Heating _____ Lighting _____ Plumbing _____

Estimated value of construction (excluding site) $_____
Building area (area of largest storey) _____ square metres
Fee for building permit $_____

**I hereby agree to comply with the Building Bylaw of the local authority and acknowledge that it is my responsibility to ensure compliance with the Building Bylaw of the local authority and with any other applicable bylaws, acts and regulations regardless of any plan review or inspections that may or may not be carried out by the local authority or its authorized representative.**

_____ _____

Date Signature of Owner or Owner's Agent




New *buildings* and *additions* where permits are applied for on or after January 1, 2024, are required to demonstrate energy compliance to Section 9.36. of the National Building Code of Canada (NBC) 2020 or the National Energy Code of Canada for Buildings (NECB) 2020, as applicable (see flowchart). These must continue to meet energy requirements on a go-forward basis. This means that future work to those *buildings* or a*dditions* must continue to demonstrate energy compliance.

**New *Building*** means a building for which a building and development permit application was submitted on or after January 1, 2024.

***Addition*** means any *conditioned space* that is added to an existing building and that increases the *building's floor surface area* by more than 10 $m^2$ (NECB 2020 defined term). Additions to buildings that were constructed prior to January 1, 2019, are not required to demonstrate energy compliance (see subsection 3(4) of *The Building Code Regulations* and *The Energy Code Regulations*).

**Notes:**

1. The Government of Saskatchewan has amended portions of Section 9.36. of the NBC 2020 Section 9.36 within *The Building Code Regulations.* Portions of NECB 2020 have also been amended within *The Energy Code Regulations.* This flowchart has been developed to align with those amendments.
2. Airtightness testing (blower door) required when Tiered Prescriptive achieves points through Table 9.36.8.8.
3. Airtightness testing (blower door) required when

# COMPLIANCE HANDOUT
# NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS

As of January 1, 2024, the National Energy Code for Buildings (NECB) 2020 Edition is enforced within Saskatchewan.

## Application to Buildings

The Government of Saskatchewan has made amendments within *The Building Code Regulations* and *The Energy Code Regulations*. Therefore, NECB 2020 applies to the following:

- Buildings classified under Part 3 of the National Building Code (NBC)
- Part 9 buildings containing any non-residential occupancies
- Part 9 residential buildings that exceed the limitations of Section 9.36., as amended in *The Building Code Regulations* (Note: houses with or without secondary suites, as well as buildings containing only dwelling units with common space less than 20% of the total floor area are permitted to use NBC Section 9.36)
- Any building to which Section 9.36. of the NBC applies but the owner/applicant proposes to design and construct to the NECB.

NECB also applies to subsequent alterations and additions to buildings that were constructed under the requirements of the NECB.

The NECB does not apply to the following as the NECB had not been adopted prior to that date in Saskatchewan:

- buildings that were applied for prior to January 1, 2019
- *Additions* to buildings that were applied for prior to January 1, 2019.

***New Building*** means a building for which a building and development permit was submitted on or after January 1, 2024.

***Addition*** means any conditioned space that is added to an existing building and that increases the building's *floor surface area* by more than 10 $m^2$. (NECB defined term). See note above regarding NECB compliance for additions.
Examples:

- A horizontal addition made to a building (increasing the *floor surface area* and building footprint)
- A vertical addition made to a building, such as an additional floor (increasing the *floor surface area* even though the building footprint may remain unchanged).

## Application to Existing Buildings

Buildings and *additions* that were applied for prior to January 1, 2019 are not required to address NECB compliance. However, new buildings and *additions* to buildings that were applied for on or after January 1, 2019 must continue to meet current NECB energy requirements on a go-forward basis.

## Design Professional Involvement and Submission Requirements for NECB Compliance

* Existing Design Professional requirements remain for NBC

A building designed to the NECB shall have a design professional, an architect or engineer licensed to practice in the province of Saskatchewan, complete the design or design review of the building and building systems, as well as perform inspections of construction to ensure compliance with the design. Drawings indicating NECB energy compliance information are required to be signed, sealed and dated by a licensed design professional.

A building within the scope of Part 9 of the NBC designed under the NECB requires a design professional to complete the design or design review specific to NECB requirements.

| Compliance Path[1, 2] | Design Professional Involvement | Documents to be sealed | Submission Requirements |
|---|---|---|---|
| Prescriptive | Design professional can either seal for entire compliance or Parts of compliance.<br>Example: Project may have single design professional sealing for entire NECB or project may have architect seal for Part 3, and mechanical engineer seal for Part 5 & 6, and electrical engineer seal for Part 4 & 7.<br><br>Design professionals shall perform site inspections as required by *The Energy Code Regulations.* | Drawings that detail NECB compliance. | <u>Permit Stage</u><br>• Project Summary<br>• Prescriptive Report(s)<br>• Commitment Letter for Field Review (Parts 3-7)<br><br><u>For Project Completion</u><br>• Letters Confirming Inspections were Performed (Parts 3-7) |
| Trade-off | Design professional can either seal for entire compliance or Parts of compliance (similar to prescriptive). Any Parts that do not use trade-off will have to comply with prescriptive.<br>Note: Parts 5, 6 & 7 does not permit trade-off.<br><br>Design professionals shall perform site inspections as required by *The Energy Code Regulations.* | Trade-off calculations and drawings that detail NECB compliance. | <u>Permit Stage</u><br>• Project Summary<br>• Trade-off Report(s)<br>• Prescriptive Report(s)<br>• Sealed trade-off calculations<br>• Commitment Letter for Field Review (Parts 3-7)<br><br><u>For Project Completion</u><br>• Letters Confirming Inspections were Performed (Parts 3-7) |
| Tiered Performance | A single design professional has to take responsibility for the model and compliance with NECB. Design professional can seal for parts of compliance (similar to prescriptive).<br><br>Design professionals shall perform site inspections as required by *The Energy Code Regulations.* | Performance modelling report and drawings that details NECB compliance for construction. | <u>Permit Stage</u><br>• Project Summary<br>• Performance Report<br>• Sealed Energy Model Report<br>• Commitment Letter for Field Review (Parts 3-7)<br><br><u>For Project Completion</u><br>• Letters Confirming Inspections were Performed (Parts 3-7) |

**Notes:**

1. *The Energy Code Regulations* specifies the Energy Performance Tier from NECB Part 10 that must be met as the minimum level of performance. While 'Tier 1' is in force, Prescriptive and Trade-Off compliance paths continue to be accepted by *Muni*Code Services Ltd. without the need for a formal 'Alternative Solution' (Tier 1 from Part 10 is equal to the prescriptive requirements of NECB).
2. Alterations and renovations shall demonstrate continued compliance to NECB for buildings to which NECB applies.

| Phased Permit Application Submission Requirements for NECB Energy Compliance | | | |
|---|---|---|---|
| | **Foundation** | **Shell/Above Grade** | **Final/Full** |
| **Tiered Performance**[1] | • Project Summary<br>• Letter of Commitment (Part 3)[2] | • Project Summary<br>• Performance Report<br>• Sealed Model Report[4]<br>• Letter of Commitment (Part 3)[2] | • Project Summary<br>• Performance Report[5]<br>• Sealed Model Report[5]<br>• Prescriptive and/or Trade-Off Reports (as needed)[5]<br>• Letters of Commitment (Parts 3-7) |
| **Prescriptive and/or Trade-off**[1] | • Project Summary<br>• Prescriptive Report (Part 3)<br>**and/or**<br>Trade-off Report (Part 3)[3]<br>• Letter of Commitment (Part 3)[2] | • Project Summary<br>• Prescriptive Report(s)<br>**and/or**<br>Trade-off Report(s)[3]<br>• Sealed Trade-off Calculations (if used)<br>• Letter(s) of Commitment[2] | • Project Summary<br>• Prescriptive Reports (Parts 3-7)<br>**and/or**<br>Trade-off Reports (Parts 3-4)<br>• Sealed Trade-off Calculations (if used)<br>• Letters of Commitment (Parts 3-7) |

Notes:

1. *The Energy Code Regulations* specifies the Energy Performance Tier from NECB Part 10 that must be met as the minimum level of performance. While 'Tier 1' is in force, prescriptive and trade-off compliance paths continue to be accepted by the *Muni*Code Services Ltd. without the need for a formal 'Alternative Solution' (Tier 1 from Part 10 is equal to the prescriptive requirements of NECB). However, when higher Tiers are in force, prescriptive and/or trade-off may only be used in order to demonstrate continued compliance for NECB Parts that had been previously modeled on prescriptive assumptions (see NECB Sentence 10.1.1.2.(2)). For example, if tenant fit-up information was unknown during the 'Shell/Above Grade' phase (so NECB Parts, such as interior lighting, were modeled prescriptively), then during the 'Final/Full' phase those Part(s) may be shown to meet the prescriptive requirements that were previously used in the modeling.
2. Letter of Commitment to only be submitted for the scope of work included in the specific phase.
3. Trade-off is only available for above-ground assemblies and to allowable fenestration and door areas. Trade-off is not available for additions or semi-heated buildings (see NECB Article 3.3.1.1.)
4. If a specific design is unknown, NECB Sentence 10.1.1.2.(2) provides guidance for modeling using prescriptive requirements.
5. If the energy model requires updates to account for changes since the 'Shell/Above Grade Phase', an updated Performance Report and an updated sealed energy model report shall be provided. If the energy model does not require updates, the Performance Report and sealed energy model report are not required to be resubmitted. Prescriptive Reports and/or Trade-Off Reports (along with sealed trade-off calculations) for any NECB Parts that were previously modeled based on prescriptive assumptions shall be submitted during the 'Final' phase to demonstrate continued compliance to the sealed energy model report.

# PROJECT SUMMARY
# NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS

This document outlines project compliance with National Energy Code for Building (NECB). The project summary, including NECB contact information, and the compliance report for the chosen path are to be submitted as part of the building and development permit application for new buildings and additions that require NECB compliance.

## Project Information

**Project Address/Land Location:** _____

**Municipality:** _____

**Coordinating NECB Design Professional Information** (The coordinating NECB design professional will be responsible for coordinating the design work associated with energy compliance and the building and development permit process.)

Name: _____

Registered Business Name: _____

Address: _____
Unit Number Street City Province Postal Code

Email: _____ Phone/Cell # : _____

## Basic Building Information

Building use: _____

Type of construction: ☐ New Construction ☐ Addition ☐ Tenant Fit – Out

If addition, NECB compliance for: ☐ Addition only ☐ Addition & existing

Building information: ☐ Heated ☐ Semi – heated

**Climate Zone for municipality: 7A** (HDD below 18ºC ):
(HDD below 15ºC ):

## Compliance Path Summary

Please indicate the compliance path for each Part below. The chosen compliance path requires the associated reports to be completed and submitted.

**Note:** *The Energy Code Regulations* specifies the Energy Performance Tier from NECB Part 10 that must be met as the minimum level of performance. While 'Tier 1' is in force, Prescriptive and Trade-Off compliance paths continue to be accepted by *Muni*Code Services Ltd. without the need for a formal 'Alternative Solution' (Tier 1 from Part 10 is equal to the prescriptive requirements of NECB).

| | | | | | |
|---|---|---|---|---|---|
| Part 3: Building Envelope: | ☐ **Prescriptive** | or | ☐ **Trade-Off** | or | ☐ **Energy Model** |
| Part 4: Lighting: | ☐ **Prescriptive** | or | ☐ **Trade-Off** | or | ☐ **Energy Model** |
| Part 5: Heating, Ventilation and Air Conditioning: | ☐ **Prescriptive** | or | | | ☐ **Energy Model** |
| Part 6: Service Water Heating Systems: | ☐ **Prescriptive** | or | | | ☐ **Energy Model** |
| Part 7: Electrical Power Systems and Motors: | ☐ **Prescriptive** | or | | | ☐ **Energy Model** |

Part 10*: Tiered Performance Energy Model: ☐ **Tier 1** ☐ **Tier 2** ☐ **Tier 3** ☐ **Tier 4**

* Modeling to be in conformance with Part 8, but meeting the Energy Performance Tier from Part 10, as specified in *The Energy Code Regulations*

## Declaration

Signature of Coordinating NECB Design Professional who has completed this form:

_____ _____
Signature Date

MUNICODE SERVICES LTD

# PRESCRIPTIVE REPORT
# NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS

## Project Information

| | |
|---|---|
| Project Address/Land Location | Municipality |
| Owner Name/Project Name | Coordinating NECB Design Professional Name |

**Note:** *The Energy Code Regulations* specifies the Energy Performance Tier from NECB Part 10 that must be met as the minimum level of performance. While 'Tier 1' is in force, the Prescriptive compliance path continues to be accepted by *Muni*Code Services Ltd. without the need for a formal 'Alternative Solution' (Tier 1 from Part 10 is equal to the prescriptive requirements of NECB). However, when higher Tiers are in force, this Prescriptive Report may only be used for alteration applications in order to demonstrate continued compliance for NECB Parts that had been previously modeled on prescriptive assumptions (see NECB Sentence 10.1.1.2.(2)).

## Part 3 – Building Envelope

For Additions: fenestration is being calculated for (select one): ☐ **Addition only** ☐ **Addition & existing combined**

| General | | Proposed | NECB Limit | |
|---|---|---|---|---|
| | Gross wall area ($m^2$) | | N/A | |
| | Total window area ($m^2$) | | N/A | |
| | Total exterior door area ($m^2$) | | N/A | |
| | Gross roof area ($m^2$) | | N/A | |
| | Total skylight area ($m^2$) | | < 0.02 x (gross roof area) | |
| | Exposed floor areas ($m^2$) | | N/A | |
| | | | **HDD @ 18°** | **HDD @ 15°** |
| Overall Thermal Transmittance – U ($W/(m^2 \cdot K)$) | FDWR (%) | | ≤ | ≤ |
| | Opaque walls (above ground) | | ≤ 0.215 | ≤ 0.240 |
| | Opaque walls (in contact with ground) | | ≤ 0.284 | ≤ 0.284 |
| | Roofs (above ground) | | ≤ 0.121 | ≤ 0.138 |
| | Roofs (in contact with ground) | | ≤ 0.284 | ≤ 0.284 |
| | Floors (above ground) | | ≤ 0.138 | ≤ 0.156 |
| Air Leakage ($L/(s \cdot m^2)$) | Floors (in contact with ground) | | ≤ 0.757 for 1.2m | ≤ 0.757 for 1.2m |
| | Fixed fenestration and curtain walls | | ≤ 0.20 | |
| | Operable windows, skylights, and doors | | ≤ 0.5 | |
| | Overhead doors | | ≤ 2 | |
| | Operable revolving and auto sliding doors | | ≤ 5 | |

## Part 4 – Lighting

| | |
|---|---|
| Proposed building IILP (Installed Interior Lighting Power) (kW) (not to exceed the ILPA below) | |
| **Interior Lighting Power Method: (Select One Below)** | |
| ☐ ILPA (Interior Lighting Power Allowance - building area method) | |
| Lighting power density ($W/m^2$) | |
| **OR** Gross lighted Area ($m^2$) | |
| Proposed ILPA building area method (kW) | |
| ☐ ILPA (Interior Lighting Power Allowance – space-by-space method)** **Provide a detailed line-by-line breakdown of spaces, their floor area ($m^2$), the associated lighting power densities ($W/m^2$) and the resulting lighting power allowances (kW) & controls | |
| Proposed ILPA space-by-space method (kW) | |

| **Exterior Lighting Power:** (all values below to be in **Watts**) | | | |
|---|---|---|---|
| Specific Lighting Allowance _____ + Portion of Basic Site Allowance _____ = {Table 4.2.3.1-C} (If multiple specific applications used in design, provide a table showing all} | | Specific Total Exterior Allowance _____ ≥ | Specific Installed Lighting _____ |
| Sum of General Lighting Allowances _____ + Remaining Basic Allowance _____ = {Table 4.2.3.1-D} | | General Total Exterior Allowance _____ ≥ | General Installed Lighting _____ |
| Other Exterior Lighting Allowance _____ + Remaining Basic Allowance _____ = {Table 4.2.3.1-E} | | Other Exterior Allowance _____ ≥ | Other Installed Lighting _____ |
| | Basic Site Allowance _____ {Table 4.2.3.1-B} (Sum of the portions of basic site allowance above are not to exceed this amount) | | **Total Exterior Lighting Installed** _____ |
| Interior lighting controls are designed in accordance with Subsection 4.2.2. | | | ☐ Yes ☐ No |
| Exterior lighting controls are designed in accordance with Subsection 4.2.4. | | | ☐ Yes ☐ No |
| Interior and exterior installed Lighting Power displayed in table format on the drawings | | | ☐ Yes ☐ No |
| Interior and exterior lighting controls provided in a table format on the drawings | | | ☐ Yes ☐ No |

## Part 5 – Heating, Ventilating and Air-Conditioning Systems

| | **Proposed** | | **NECB Limit** | |
|---|---|---|---|---|
| | **Constant Volume** | **Variable Air Volume** | **Constant Volume** | **Variable Air Volume** |
| Fan system power demand (W/L/s)) | | | ≤ 1.6 | ≤ 2.65 |
| Commercial kitchen design ventilation rate (L/s) | | | ☐< 1410 L/s ☐ Demand control provided | |
| Ducts sealed, insulated, and protected in conformance with Subsection 5.2.2. Intakes and outlets conform with Subsection 5.2.4. | ☐ Yes ☐ No | | | |
| Economizer system required in conformance with Articles 5.2.2.7. | ☐ Yes ☐ No | | | |
| Air economizer has been designed to Article 5.2.2.8.☐ or Article 5.2.2.9.☐ (pick one) | ☐ Yes ☐ No | | | |
| Insulation and protection of piping systems for HVAC systems in conformance with Subsection 5.2.5. | ☐ Yes ☐ No | | | |
| Temperature controls been designed in conformance with Subsection 5.2.8. | ☐ Yes ☐ No | | | |
| Type of ventilation system operation | ☐ Continuous ☐ Non-continuous | | | |
| Percentage of outdoor air at design airflow conditions (%) | _____ | | | |
| Energy recovery system required | ☐ Yes ☐ No | | | |
| Energy recovery system efficiency (%) | _____ | | | |

Please provide details of proposed HVAC equipment and component specifications for the building, using the table below:
(Please note if more space is needed, please submit a separate list using the same format) Table 5.2.12.1

| **Component or Equipment** | **Cooling or Heating Capacity, kW** | **Standard** | **Rating Conditions** | **Performance Rating** |
|---|---|---|---|---|
| | | | | |
| | | | | |

## Part 6 – Service Water Systems

| | **Proposed** | **NECB Limit** |
|---|---|---|
| Shower heads (L/min) | | ≤ 7.6 L/min |
| Lavatories (L/min) | | ≤ Private 5.7 L/min ≤ Public 1.9 L/min |
| Service water piping insulated in conformance with Subsection 6.2.3 | ☐ Yes ☐ No | |

Please provide details of the proposed service water heating equipment specifications for the building, using the table below:
(Please note if more space is needed, please submit a separate list using the same format) Table 6.2.2.1.

| **Component or Equipment** | **Input** | **Capacity (L)** | **$V_t$ (L)** | **Input/$V_t$ (W/L)** | **Standard** | **Rating Conditions** | **Rated Performance** |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

## Part 7 – Power Systems

| | Proposed | NECB Limit |
|---|---|---|
| Load carrying capacity (kVA) | | ☐< 250 kVA<br>☐ Monitoring system provided |

## Compliance Confirmation

| | | |
|---|---|---|
| Effective thermal transmittance including the effects of thermal bridging has been calculated as per Article 3.1.1.7 | ☐ Yes | ☐ No |
| The building envelope meets air leakage requirements from Article 3.2.4.1 | ☐ Yes | ☐ No |
| Building energy prescriptive compliance meets NECB 2020 | ☐ Yes | ☐ No |

## Declaration

Signature of Coordinating NECB Design Professional who has completed this form:

_____ _____

Signature Date

# TIERED PERFORMANCE REPORT (NECB PART 10)
# NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS

## Project Information

Project Address/Land Location _____ Municipality _____

Owner Name/Project Name _____ Coordinating NECB Design Professional Name _____

**Compliance Requirements**

*The Energy Code Regulations* specifies the Tier from NECB Part 10 that must be met as the minimum level of performance. A performance model report is to be submitted as part of the building and development permit application (BPA). If construction on site differs significantly from the approved set of plans and model, a revised performance report and model report are required to be submitted for review.

The Project Summary and Tiered Performance Report shall be accompanied by:

- Sealed energy model report that includes all relevant information as required by **NECB Division C – Article 2.2.2.8**

## Software and Model Information

Software used _____

Confirmation that software is ANSI/ASHRAE 140 compliant ☐ **Yes** ☐ **No**

Weather file _____

Climate zone **7A**

| **Part 3 Modeled as:** | **Part 4 Modeled as:** | **Part 5 Modeled as:** | **Part 6 Modeled as:** | **Part 7 Modeled as:** |
|---|---|---|---|---|
| ☐ **Per design or** | ☐ **Per design or** | ☐ **Per design or** | ☐ **Per design or** | ☐ **Per design or** |
| ☐ **Part 3 Prescriptive** | ☐ **Part 4 Prescriptive** | ☐ **Part 5 Prescriptive** | ☐ **Part 6 Prescriptive** | ☐ **Part 7 Prescriptive** |

## Building Energy Summary

| | **Proposed** | **Reference** |
|---|---|---|
| Annual Energy Consumption (MJ) | | |
| Energy Performance Tier Achieved: | ☐ Tier 1 ☐ Tier 2 | ☐ Tier 3 ☐ Tier 4 |

## Compliance Confirmation

| | |
|---|---|
| Reference building in model has been updated to NECB 2020 | ☐ Yes ☐ No |
| Building energy performance model is in compliance with Articles 8.4.1.2. & 10.1.2.1 | ☐ Yes ☐ No |
| Building energy performance model corresponds to permit application drawing set | ☐ Yes ☐ No |
| Back-up HVAC and SWH systems have been designed to Section 5.2. and 6.2. | ☐ Yes ☐ No<br>☐ N/A – no back-up |
| Protection of insulation materials is in compliance with Article 3.2.1.1. | ☐ Yes ☐ No |
| Air leakage is in compliance with Subsection 3.2.4. | ☐ Yes ☐ No |
| Modeling of air leakage is in compliance with Articles 8.4.2.9, 8.4.3.3 and Sentence 8.4.4.3.(6) | ☐ Yes ☐ No |
| Effective Thermal Transmittance (including thermal bridging calculations) are in compliance with Article 3.1.1.5 and 3.1.1.7 | ☐ Yes ☐ No |

## Thermal Bridging - Design Professional to provide brief description of how thermal bridging was evaluated:

## Declaration

Signature of Coordinating NECB Design Professional who has completed this form:

Signature _____ Date _____

# TRADE-OFF REPORT
# NATIONAL ENERGY CODE OF CANADA FOR BUILDINGS

| **Project Information** | |
|---|---|
| Project Address/Land Location | Municipality |
| Owner Name/Project Name | Coordinating NECB Design Professional Name |

**Note:** *The Energy Code Regulations* specifies the Energy Performance Tier from NECB Part 10 that must be met as the minimum level of performance. While 'Tier 1' is in force, the Trade-Off compliance path continues to be accepted by *Muni*Code Services Ltd. without the need for a formal 'Alternative Solution' (Tier 1 from Part 10 is equal to the prescriptive/trade-off requirements of NECB). However, when higher Tiers are in force, this Trade-Off Report may only be used for alteration applications in order to demonstrate continued compliance for NECB Parts that had been previously modeled on prescriptive assumptions (see NECB Sentence 10.1.1.2.(2)).

| **Part 3 – Building Envelope** *Not applicable to additions or semi-heated buildings as per Sentence 3.3.1.1.(2) | | | |
|---|---|---|---|
| General | **Proposed** | **NECB Limit** | |
| Gross wall area ($m^2$) | | N/A | |
| Total window area ($m^2$) | | N/A | |
| Total exterior door area ($m^2$) | | N/A | |
| Gross roof area ($m^2$) | | N/A | |
| Total skylight area ($m^2$) | | N/A | |
| Exposed floor areas ($m^2$) | | N/A | |
| | | **HDD @ 18°** | **HDD @ 15°** |
| Overall Thermal Transmittance – U ($W/(m^2 \cdot K)$) FDWR (%) | | N/A | N/A |
| Opaque walls (above ground) | | N/A | N/A |
| Opaque walls (in contact with ground) | | ≤ 0.284 | ≤ 0.284 |
| Roofs (above ground) | | N/A | N/A |
| Roofs (in contact with ground) | | ≤ 0.284 | ≤ 0.284 |
| Floors (above ground) | | N/A | N/A |
| Air Leakage ($L/(s \cdot m^2)$) Floors (in contact with ground) | | ≤ 0.757 for 1.2m | ≤ 0.757 for 1.2m |
| Fixed fenestration and curtain walls | | ≤ 0.20 | |
| Operable windows, skylights, and doors | | ≤ 0.5 | |
| Overhead doors | | ≤ 2 | |
| Operable revolving and auto sliding doors | | ≤ 5 | |
| | **Proposed** ($U_{ip}*A_{ip}$) | **Reference** ($U_{ir}*A_{ir}$) | |
| Vertical (above ground portions) | | | |
| Horizontal (above ground portions) | | | |

| **Compliance Confirmation** | |
|---|---|
| $U_{ip}A_{ip}$ is less than or equal to $U_{ir}A_{ir}$ in conformance with NECB Article 3.3.1.2 | ☐ Yes ☐ No |
| Effective thermal transmittance including the effects of thermal bridging has been calculated as per Article 3.1.1.7 | ☐ Yes ☐ No |
| Have you supplied the sealed calculations determining the above values | ☐ Yes ☐ No |

| **Part 4 – Lighting** (Note: Trade-off applies to interior lighting and controls only. Exterior lighting fields provided to avoid filling out on Prescriptive Form) | | | |
|---|---|---|---|
| **Prescriptive Exterior Lighting Power:** (all values below to be in **Watts**) | | | |
| Specific Lighting Allowance _____ + Portion of Basic Site Allowance _____ = {Table 4.2.3.1-C} (If multiple specific applications used in design, provide a table showing all} | | Specific Total Exterior ≥ Allowance _____ | Specific Installed Lighting _____ |
| Sum of General Lighting Allowances _____ + Remaining Basic Allowance _____ = {Table 4.2.3.1-D} | | General Total Exterior ≥ Allowance _____ | General Installed Lighting _____ |
| Other Exterior Lighting Allowance _____ + Remaining Basic Allowance _____ = {Table 4.2.3.1-E} | | Other Exterior ≥ Allowance _____ | Other Installed Lighting _____ |
| | Basic Site Allowance _____ {Table 4.2.3.1-B} (Sum of the portions of basic site allowance above are not to exceed this amount) | | **Total Exterior Lighting Installed** _____ |
| | | Exterior lighting controls are designed in accordance with Subsection 4.2.4. | ☐ Yes ☐ No |
| | | Exterior installed Lighting Power displayed in table format on the drawings | ☐ Yes ☐ No |
| | | Exterior lighting controls provided in a table format on the drawings | ☐ Yes ☐ No |
| | | | |
| **Trade-Off Interior Lighting Power:** (Proposed) | | IILE - Installed Interior Light Energy (kW·h/a) | |
| | | ILEA -Interior Lighting Energy Allowance (kW·h/a) (Reference) | |
| | | IILE is less than or equal to ILEA in conformance with NECB Article 4.3.1.3. | ☐ Yes ☐ No |
| | | Have you supplied the sealed calculations determining the above values | ☐ Yes ☐ No |

| **Compliance Confirmation** | | |
|---|---|---|
| The building envelope meets air leakage requirements from Article 3.2.4.1 | ☐ Yes | ☐ No |
| Building energy trade-off compliance meets NECB 2020 | ☐ Yes | ☐ No |

**Declaration**

Signature of Coordinating NECB Design Professional who has completed this form:

_____ _____

Signature Date

MUNICODE SERVICES LTD

# COMMITMENT & FIELD REVIEW

File Number

Date (YY MM DD)

**To:**

Municipality Name

**Re:**

Name of Project

Description of Project

Civic Address or Land Location of Project Site

## Section A: Letter of Commitment

The undersigned hereby undertakes to be responsible for design and field reviews of the following components by confirming, through documentation, that any registered professionals delegated design and field reviews are competent to perform their responsibilities.
**(initial items listed below that apply to this registered professional)**

National Building Code of Canada & National Plumbing Code of Canada

☐ Architecture ☐ Structural Engineering ☐ Mechanical Engineering

☐ Electrical Engineering ☐ Geotechnical Engineering ☐ Alternative solution

National Energy Code of Canada for Buildings

☐ Part 3 ☐ Part 4 ☐ Part 5

☐ Part 6 ☐ Part 7 ☐ Part 8

Other (specify)

☐

The undersigned also undertakes to notify the authority having jurisdiction in writing as soon as possible if the undersigned's contract for field review is terminated at any time during construction.

I certify that I am an architect or engineer, as defined in *The Construction Codes Act*, and am licensed to practice in Saskatchewan.

(Affix Professional Seal Below)

Professional's Name & Discipline (Print)

Company Name (If the registered professional is a member of a firm)

Address (Mail, City/Town, Province, Postal Code)

Phone

Email

Signature of Registered Professional

Date

## Section B: Field Review

I hereby give assurance that:

a) I have fulfilled my obligations for field review as initialed in Section A:
   i. Subsection 15(1) of *The Building Code Regulations*, and/or
   ii. Section 6 of *The Energy Code Regulations*,

b) Those components initialed in Section A substantially comply with the plans and supporting documents submitted in support of the application for the building permit; and as modified by subsequent site instruction and/or change orders; and

c) I certify that I am an architect or engineer, as defined in *The Construction Codes Act*, and am licensed to practice in Saskatchewan.

(Affix Professional Seal Below)

Professional's Name & Discipline (Print)

Company Name (If the registered professional is a member of a firm)

Signature of Registered Professional

Date

Comments or Occupancy limitations

Note: The above letters must be signed by a registered professional. An Architect or Engineer is defined as:

a) a person who is registered or licensed to practice as a professional engineer under *The Engineering and Geoscience Professions Act*, or
b) a person who is registered or licensed to practice as an architect under *The Architects Act*.

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Website: www.municodeservices.com

| Municipality | ZONE | HDD 18 | HDD 15 | FDWR 18 | FDWR 15 | FDD | Frost Depth (m) | Frost Depth (in) | Meet Fire Response Time? |
|---|---|---|---|---|---|---|---|---|---|
| City of Estevan | 7A | 5380 | 4450 | 30.8 | 37.0 | 1448 | 2.35 | 93 | Yes |
| City of Humboldt | 7B | 6000 | 5080 | 26.7 | 32.8 | 1841 | 2.85 | 112 | Yes |
| City of Melfort | 7B | 6050 | 5130 | 26.3 | 32.5 | 1866 | 2.85 | 112 | Yes |
| City of Melville | 7A | 5880 | 4970 | 27.5 | 33.5 | 1713 | 2.60 | 102 | Yes |
| City of Moose Jaw | 7A | 5270 | 4390 | 31.5 | 37.4 | 1333 | 2.25 | 89 | Yes |
| City of Warman | 7A | 5700 | 4800 | 28.7 | 34.7 | 1525 | 2.35 | 93 | No |
| District of Lakeland | 7B | 6100 | 5180 | 26.0 | 32.1 | 1898 | 2.90 | 114 | No |
| R.M. of Cana No. 214 | 7A | 5840 | 4929 | 27.7 | 33.8 | 1714 | 2.60 | 102 | No |
| R.M. of Corman Park No. 344 | 7A | 5700 | 4800 | 28.7 | 34.7 | 1525 | 2.35 | 93 | No - Some Areas Yes |
| R.M. of Coteau No. 255 | 7A | 5311 | 4432 | 31.3 | 37.1 | 1379 | 2.30 | 91 | No - Some Areas Yes |
| R.M. of Enniskillen No. 3 | 7A | 5431 | 4542 | 30.5 | 36.4 | 1503 | 2.35 | 93 | Yes |
| R.M. of Estevan No. 5 | 7A | 5380 | 4450 | 30.8 | 37.0 | 1448 | 2.35 | 93 | No |
| R.M. of Grassy Creek No. 78 | 6 | 4846 | 3967 | 34.4 | 40.2 | 1065 | 2.35 | 93 | No |
| R.M. of Humboldt No. 370 | 7B | 6000 | 5080 | 26.7 | 32.8 | 1841 | 2.85 | 112 | No |
| R.M. of LeRoy No. 339 | 7A | 5941 | 5025 | 27.1 | 33.2 | 1811 | 2.75 | 108 | No |
| R.M. of Loreburn No. 254 | 7A | 5311 | 4432 | 31.3 | 37.1 | 1379 | 2.30 | 91 | No - Some Areas Yes |
| R.M. of Moose Jaw No. 161 | 7A | 5270 | 4390 | 31.5 | 37.4 | 1333 | 2.25 | 89 | No |
| R.M. of Moosomin No. 121 | 7A | 5690 | 4490 | 28.7 | 36.7 | 1593 | 2.40 | 94 | Yes |
| R.M. of Pense No. 160 | 7A | 5440 | 4550 | 30.4 | 36.3 | 1453 | 2.35 | 93 | No |
| R.M. of Prairie Rose No. 309 | 7A | 5851 | 4941 | 27.7 | 33.7 | 1743 | 2.70 | 106 | No |
| R.M. of Redburn No. 130 | 7A | 5270 | 4390 | 31.5 | 37.4 | 1333 | 2.25 | 89 | Yes |
| R.M. of Rosthern No. 403 | 7A | 5857 | 4943 | 27.6 | 33.7 | 1714 | 2.60 | 102 | No |
| R.M. of St. Andrews No. 287 | 7A | 5620 | 4720 | 29.2 | 35.2 | 1607 | 2.40 | 94 | No |
| R.M. of Swift Current No. 137 | 7A | 5150 | 4270 | 32.3 | 38.2 | 1205 | 2.10 | 83 | No |
| R.M. of Vanscoy No. 345 | 7A | 5710 | 4630 | 28.6 | 35.8 | 1519 | 2.35 | 93 | No |
| R.M. of Webb No. 138 | 6 | 4970 | 3990 | 33.5 | 40.1 | 1026 | 1.88 | 74 | No |
| Town of Aberdeen | 7A | 5700 | 4800 | 28.7 | 34.7 | 1525 | 2.35 | 93 | Yes |
| Town of Arborfield | 7B | 6166 | 5250 | 25.6 | 31.7 | 1993 | 3.05 | 120 | Yes |
| Town of Biggar | 7A | 5720 | 4280 | 28.5 | 38.1 | 1597 | 2.40 | 94 | Yes |
| Town of Bruno | 7A | 5914 | 4997 | 27.2 | 33.4 | 1797 | 2.75 | 108 | Yes |
| Town of Carlyle | 7A | 5570 | 4676 | 29.5 | 35.5 | 1561 | 2.40 | 94 | Yes |
| Town of Central Butte | 7A | 5335 | 4455 | 31.1 | 37.0 | 1390 | 2.30 | 91 | Yes |

*updated 11/15/19*