

Lumsden Hunicipal Office PO Box 16U 300 James St N Lumsden, SK SOG 3CO Phone: (306) 731-2404 Fax: (306) 731-3572 Email: rm189@sasktel.net Website: www.lumsden.ca

RESIDENTIAL DEVELOPMENT & BUILDING PERMIT PACKAGE

| TABLE OF CONTENTS | 2 |
|-------------------|---|
| TABLE OF CONTENTS | |

DEVELOPMENT PERMIT

| DEVELOPMENT PERMIT INFORMATION. | 3 |
|---|----|
| RESIDENTIAL DEVELOPMENT & BUILDING PERMIT PROCESS | 4 |
| RESIDENTIAL DEVELOPMENT PERMIT CHECKLIST | 5 |
| RESIDENTIAL DEVELOPMENT PERMIT APPLICATION | 8 |
| LETTER OF AUTHORIZATION | 10 |

BUILDING PERMIT

| RESIDENTIAL BUILDING PERMIT APPLICATION | 10 |
|---|-----|
| RESIDENTIAL PLAN REVIEW CHECKLIST | .11 |
| RESIDENTIAL PERMIT INFORMATION FORM | .12 |
| ENERGY EFFICIENCY COMPLIANCE FORM | .13 |
| RESIDENTIAL – SAMPLE SITE PLAN | 18 |



R.M. OF LUMSDEN NO. 189 DEVELOPMENT INFORMATION

Development Permits

Lumsden Hunicipal Office PO Box 160 300 James St N Lumsden, SK SOG 3C0 Phone: (306) 731-2404 Fax: (306) 731-3572 Email: rm189@sasktel.net Website: www.lumsden.ca

A Development Permit is a document issued by the RM of Lumsden No.189 to authorize development.

See Section 3 of the RM of Lumsden Zoning Bylaw for more information.

A Development Permit does not include a Building Permit.

When is a Development Permit required?

A Development Permit is required before starting a principle or accessory use development, any residence (including farm residences), dugouts, and Intensive Livestock Operations (ILOs). No person shall undertake a development or commence a use unless a Development Permit is first obtained.

A Development Permit is not required for:

- Accessory farm buildings and structures with a building floor area less than 50 m² and circular grain storage bins, where accessory to a permitted agriculture use. Any structure used for an intensive livestock operation or a dwelling are excluded from this exemption and require a Development Permit.
- 2. Single storey accessory buildings with a total area less than 9.3 m² in area or 15 m in height and which will be accessory to a lawful use within the applicable. Zoning District.
- 3. Public works/utility
- 4. Signs, subject to sign regulations within the Zoning Bylaw. Please see the sign guide for more information.
- 5. Maintenance and repairs that do not include structural alterations.
- 6. Fences
- 7. Trapping
- 8. Temporary confinement of livestock during the winter months as a part of a farm operation.
- 9. Linear public utilities (e.g. sewers, potable water, cables, etc.)
- 10. Petroleum or natural gas wells or extraction wells.

How do I obtain a Development Permit?

Development Permit applications may be found on the RM of Lumsden No. 189 website or can be picked up from the Lumsden Municipal Office. Completed applications are submitted to the Development Officer at the office. The Development Officer will review and process the application, determining if the application is for a permitted or discretionary use.

If the application is for a permitted use that complies with the relevant provisions and regulations from the Zoning Bylaw and Official Community Plan, a Development Permit may be issued.

If the application is for a discretionary use (i.e. a use only permitted at Council's discretion), the application is submitted to Council by the Development Officer for approval or refusal, after the discretionary use process is undertaken.

What should be included in a Development Permit application submission? For all Applications:

- 1. Development permit application form
- 2. Site plan*
- 3. Applicable development permit application fee



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Please see site plan guide for detailed information on site plan requirements

For some applications, additional information may be required, such as:

- 1. Building Plan showing elevations, floor plans, and perspective drawings
- 2. Landscape Plan showing existing topography, vegetation to be retained or removed, etc.
- 3. Vicinity Map to show location of proposed development in relation to surrounding features such as roadways, physical features, etc.
- 4. Certificate of Title to show ownership
- 5. Valid Interest proof of ownership, agreement for sale, etc.
- 6. Photographic Information to show site in existing state

How much does a Development Permit Cost?

Development Permit application fees vary depending on the type of proposed development:

| Application Type | Cost (\$CAD) |
|--|---|
| Permitted Principal Use ^b | 50.00 |
| Permitted Accessory Use ^c | 50.00 |
| Permitted Ancillary Use | |
| Discretionary Principal Use ^b | 100.00 |
| Discretionary Accessory Use ^c | 100.00 |
| Discretionary Ancillary Use | |
| Development Appeal Fee | up to 50.00, as specified by the Development Appeal Board |

How long does a Development Permit last?

A Development Permit is valid for 12 months, unless otherwise stated by a Development Officer.

I've applied for a Development Permit. When should I apply for a Building Permit?

If a Building Permit is required, a Building Permit application may be made after a Development Permit application has been issued.

My Development Permit application was denied. What can I do now?

If a development permit application is denied, the applicant may apply for their application to be considered by the Development Appeals Board. Please see the brochure for the Development Appeals for more information.

Definitions

^aDevelopment: The carrying out of any building, engineering, mining, or operations in, on, or over land, or making of any material change in the use or intensity of use or any building, or land, and shall include, but not be limited to, excavating, filling, grading or drainage of land.

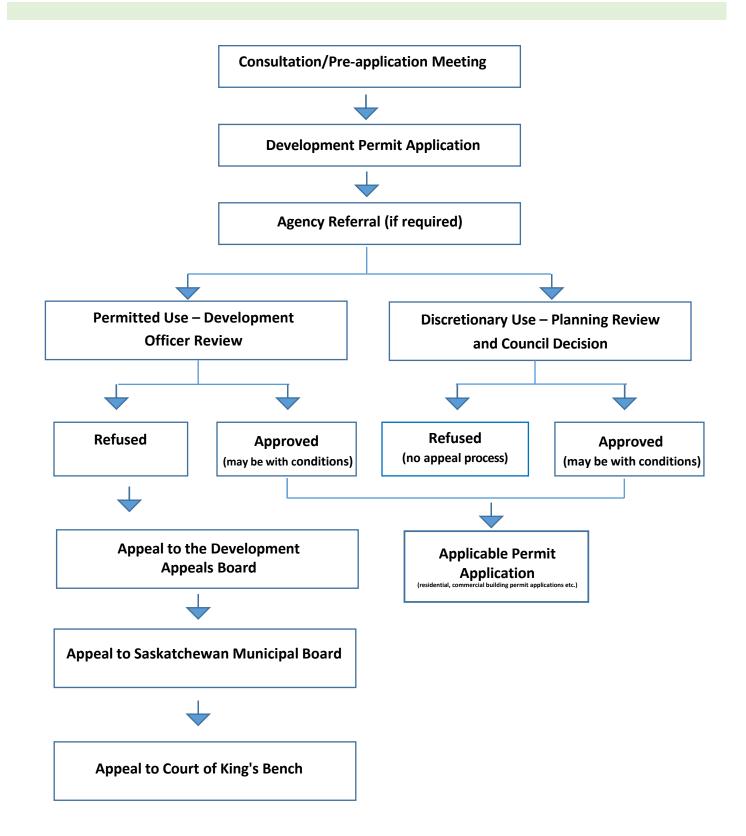
^bPrincipal Use: the main use of a site

^cAccessory Use: A use incidental, subordinate, exclusively devoted to, and located on the same site as a principal use.



Residential Development & Building Permit Process

Lumsden Municipal Office PO Box 160 300 James St N Lumsden, SK SOG 3C0 Phone: (306) 731-2404 Fax: (306) 731-3572 Email: rm189@sasktel.net Website: www.lumsden.ca





Residential Development Permit Checklist

Please use the following checklist to ensure that your development permit application and site plan are complete.

Applications will not be processed unless a satisfactory site plan is submitted.

| Completed by | Office Use | Application Requirements |
|-------------------------|-----------------|--|
| Applicant | Only | |
| | Only | Copy of Certificate of Title (from ISC) |
| | | Completed application form |
| | | Signatures of all registered owners or completed Letter of Authorization from |
| | | Registered Owner on Title |
| | | Application fee |
| Basic site plan - | - Require | d for all permits (see sample site plan) |
| | - | North arrow |
| | | Property lines of entire parcel and all adjacent public rights-of way |
| | | Legal land description and civic address, if assigned |
| | | Lot dimension and total area |
| | ĺ | Name of road(s) providing access to parcel, accesses, driveway and flare locations |
| | | including setbacks to property lines and widths |
| | | Location and dimension of existing buildings (labelled as existing) |
| | | Location and dimensions of proposed building (labelled as proposed) |
| | | Setbacks to property lines and between buildings |
| | | Total building footprint and site coverage |
| | | Location of outdoor storage |
| Hazard Lands | | |
| | | Show location of and label type of hazard (slope, wetland, waterbody) |
| | | Show setbacks from any water body or water course measured from top of bank |
| | | Location of and setbacks from steep embankments measured from the top of bank |
| Easements, Rig | hts-of-W | ay, Utilities and Facilities |
| | | Show location of any known easements, rights-of-way, or public utility lines |
| | | Location of and setbacks from pipelines |
| Building Elevati | ons and | Floor plans |
| | | Label plans with dimensions of building, including height |
| | | Total number of units. |
| Documents tha | t <u>may</u> be | required with a Development Permit Application: |
| | | Site grading plan |
| | | Landscaping plan |
| | | Soil testing/Geotechnical Report |
| | | Environmental Site Assessment |
| | | Transportation/Traffic Study |
| | | Confirmation of Roadside Development Permit from the Ministry of Highways |
| | | Letter of Intent describing the nature of the application and the intended use may accompany all application |
| | | Any other information deemed necessary to make a decision |



Residential Development Permit Application

| Lumsden Municipal Office | | |
|--------------------------|-------------------|--|
| PO Box 160 | | |
| 300 James St N | | |
| Lumsden, | SK SOG 3CO | |
| Phone: | (306) 731-2404 | |
| Fax: | (306) 731-3572 | |
| Email: | rm189@sasktel.net | |
| Website: | www.lumsden.ca | |

CONTACT INFORMATION

| Applicant | | | | |
|-------------------------|-------------------------|-------------------|-----------|--------------|
| Name: | | Phone Number: | | |
| Email Address: | | Mailing Aslahussa | | |
| | | Municipality: | Province: | Postal Code: |
| Property Owner | Same as Applicant | | | |
| Name: | | Phone Number: | | |
| | | | | |
| | | Municipality: | | |
| Contractor/Designer | | | | |
| | | | | |
| Email Address: | | Mailing Address: | | |
| | | Municipality: | Province: | Postal Code: |
| LEGAL LAND LOCATION | N FOR PROPOSED DEVE | LOPMENT | | |
| Quarter: | Section: | Township: | R | ange: |
| Lot: | Block: | Plan: | E | xtension: |
| Civic Address: | | | | |
| PROPOSAL | | | | |
| | | | | |
| | | | | |
| Description of Existing | Structures and Features | 5: | | |
| | | | | |
| | | | | |
| | | | | |
| Proposed Land Use: | | | | |
| Estimated Value of Car | a atmustic au Ć | | | |
| Esumated value of Cor | istruction: \$ | | | |
| Proposed Developmen | t Description: | | | |
| | | | | |
| | | | | |
| | | | | |

Please check all associated work that applies:

| □ Land clearing | Description: |
|-------------------------|--------------|
| Excavation and/or fill | Description: |
| Leveling and/or grading | Description: |
| Landscaping | Description: |
| Drainage concerns | Description: |
| □ Other | Description: |

SERVICES

| Water Supply | Sewage Disposal |
|-------------------------------|-------------------------------|
| Existing Proposed | Existing Proposed |
| Туре: | Туре: |
| Communal system | Private on-site Mound |
| Lake/Waterbody | Chamber Holding Tank |
| Other: | Communal Absorption Field |
| | Lagoon 🛛 Septic Tank |
| | □ Other: |
| Distance from dwelling: | Distance from dwelling: |
| Distance from other features: | Distance from other features: |
| | Distance from water supply: |

ATTACHMENTS:

| ATTACHMENTS: | | |
|---|---|--|
| Development Application Fee (non-refundable)Site Plan | Development Application Fees: \$50.00 for a permitted use \$100.00 for a discretionary use | |
| Land Title (If not provided, I give permission to the additional \$20.00 ISC title fee) | \$20.00 for ISC Title | |

DECLARATION BY APPLICANT

I_____

_____ in the Province of Saskatchewan, solemnly declare that

all the above statements in this application are true, and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtue of The Canada Evidence Act.

Please note, the information on this form is being collected under the authority of section 28(a) of the Freedom of Information and Protection of Privacy Act to be used only for the purpose of this application.

Applicant's Signature

Date

of

Property Owner's Signature

Date

SUBMISSION

Please submit the completed application form and site plan by email to <u>rm189@sasktel.net</u>, by mail to the RM of Lumsden (address is on the top right corner of the first page), or by drop-off at the Lumsden Municipal Office.

| TUMSDEN NCORPORATED | Letter of Au | uthorization | Lumsden Municipal Office PO Box 160 300 James St N Lumsden, SK SOG 3C0 Phone: (306) 731-2404 Fax: (306) 731-3572 Email: rm189@sasktel.net Website: www.lumsden.ca |
|----------------------------------|----------------------|----------------------|--|
| | | | |
| l, (We) | | | being the owner(s) of |
| Lot Block | Plan | Ext | |
| Legal: | | | |
| NW/NE/SE/SW Section | Township | Range | W2 Meridian give |
| | | | permission to |
| act on by (our) behalf in applyi | ng for a Development | Permit for the above | subject property. |
| | | | |
| Signature | | _ | |
| | | | |

Date



Residential Building Permit Application

| umsden Municipal Office | | | |
|-------------------------|-------------------|--|--|
| PO Box 160 | | | |
| 300 James | s St N | | |
| umsden, | SK SOG 3CO | | |
| hone: | (306) 731-2404 | | |
| ax: | (306) 731-3572 | | |
| mail: | rm189@sasktel.net | | |
| Nebsite: | www.lumsden.ca | | |

| Legal Land Description: LotBlockP | lan | OFFICE USE ONLY Permit Number: |
|-----------------------------------|--------------|-----------------------------------|
| Quarter SectionTownshipRange | | |
| Civic Address: | Subdivision: | |

| Owner: | | | Telephone: |
|----------------------|-----------|-------------|------------|
| | Address: | | |
| | | | Cell: |
| | City/Town | Postal Code | |
| Building Contractor: | | | Telephone: |
| | Address: | | |
| | | | Cell: |
| | City/Town | Postal Code | |

Floor Area:

| Ground Floor: | Second Floor: | Basement: | Accessory/Other: |
|---------------|---------------|--------------|------------------|
| ft² or m² | ft² or m² | ft² or m² | ft² or m² |
| (circle one) | (circle one) | (circle one) | (circle one) |

Building:

| Estimated Value of Construction: | Length: | Width: | Height: |
|----------------------------------|---------|---------|---------|
| | ft or m | ft or m | ft or m |
| | | | |

Read Through and Initial After Each Statement:

I have submitted a site plan indicating the location of all property lines, all existing and proposed buildings, the distances between all property lines and the closest wall of the nearest building, the location of all existing and proposed roads and a north arrow to establish the orientation of the site plan.

I hereby agree to comply with the Building Bylaw of the municipality and acknowledge that is my responsibility to ensure compliance with the municipal building bylaw, provincial legislation, and the National Building Code of Canada, regardless of any review of drawings or inspections that may or may not be carried out by the inspector.____

It is expressly understood that the municipality requires building inspections to be called for at various stages of construction, as outlined in the building bylaw, and that it is my responsibility to contact the municipal building inspector at the required intervals of construction will result in deductions from the occupancy deposit, in part or in whole, additional inspection fees, the issuance of stop work order, and/ or other action outlined in the municipal building bylaw.

I understand that this permit expires six months from the date of issue if work is not commenced within that period, or two years from the date on which the permit was issued; and any deviation, omission or revision to the approved application requires approval of Council, or its authorized representatives._____

I understand that additional inspection fees may be charged for extra inspections, non-scheduled inspections and re-inspections._____

Date of Application

Owner of Authorized Agent (print)

Owner/Agent (sign)

Please plan on applying for a building permit 4 to 6 weeks before construction is set to begin to allow time for our Building Official to review the application.

Project Information

PBI Number:

Project Type:

Cell Phone:

23-

Residential

Plan Review Checklist

Box 517 Stn. Main White City, SK S4L5B1 Ph: 306-536-1799 Fax: 306-781-2112 office@pro-inspections.ca

Municipality: Job Site Address:

Owner's Name:

| | Residential Project Type | | | | | | | | | | | | | |
|--|-----------------------------|---------------------------|----------------------------|--------------------------------------|-----------------------------------|----------------------|--------------------------------|------------------------------|--------------------------------------|----------------------------|--|------------------------|--------------------------------|---|
| REQUIRED for a Plan Review Provide <u>designs and required documents in PDF format</u> as indicated by the unshaded boxes for the project (shaded box means not required). A plan review must be completed by PBI <u>before</u> a building permit is issued. E-mail plans and documents in PDF format to the <u>municipal office</u> . Requirements may vary for unique or larger projects. Please consult with PBI. | New Dwelling / Housing Unit | RTM / Modular / Post-Move | Mobile (Manufactured) Home | Addition / Living Space / Sec. Suite | Renovation (structural or egress) | Basement Development | Deck (not covered or enclosed) | * Attached Garage (unheated) | * Det Garage / Acc. Bldg. (unheated) | * Pole Building (unheated) | Retaining Wall (if collapse affects a structure) | Foundation Replacement | Solar Panels (PV or Hot Water) | Storage only - no living space & unheated |
| Site Plan (e.g. lot size & shape; indicate North; project size on lot, distance to all property lines, indicate what borders each property line, label streets, etc.) | | | | | | | Γ | | | | | | | |
| Building Plans (e.g. floor plans, exterior elevations, cross sections, structural details, window & door types, sizes & locations, stair configurations, material lists, specs, etc.) | | | | | | | | | | | | | | |
| Energy Code Forms (applicable to compliance option, code edition & climate zone) | | | | | | | | | | | | | | |
| Building Designs stamped by an engineer (project specific for intended use*) | | | | | | | | | | | | | | |
| Foundation Designs stamped by a structural engineer (site specific) | Γ | | | Γ | | | | | | | | | | |
| Geotechnical Report (if required by zoning bylaws or engineer recommendation) | | | | | | | | | | | | | | |
| PBI Specifications sheet (plus all information requested in the sheets) | | | | | | | | | | | | | | |
| Information Below is Required BEFORE THE FRA | MIN | IG II | NSP | EC | | 1 | | | | | | | | |
| Engineer-stamped roof truss designs & layouts (NBC compliant) | | | | | | | | | | | | | | |
| Engineer-stamped floor truss and/or LVL designs & layouts | | | | | | | | | | | | | | |
| Fireplace or Wood Stove Manufacturer Specifications | | | | | | | | | | | | | | |
| Residential Mechanical Ventilation Design Summary | | | | | | | | | | | | | | |
| * Pole Building (Please detail intended use. Note if vehicles will be repaired in the building, if building is for personal or business use, etc.) | | | | | | | | | | | | | | |

Signature:

Date:

* I declare that I am the owner of this property, and I will notify PBI of any email changes if applicable.

Please note that failure to receive an emailed report or related documents does not release the property owner (s) from their responsibility to comply in all regards with the building standards (Saskatchewan Construction Code Act, Municipal Building Bylaws, and National Building Code of Canada).

| | Professional |
|-----|---|
| PBI | Professional Building Inspections, Inc. |
| | inspections, inc. |

| Professional Building Pe Inspections, Inc. | Residentia ermit Information F | | Box 517 Stn. Mair White City, SK S4L5B1 Ph: 306-536-1799 Fax: 306-781-2112 office@pro-inspections.ca | | | | | |
|--|-----------------------------------|---------------------|--|--|--|--|--|--|
| | Municipal Office Us | e Only | | | | | | |
| Municipality: | | Date: | | | | | | |
| Development Approved: Yes | □ No | PBI Number: | 23- | | | | | |
| Geotech Required: | □ No | Permit Expiry Date: | | | | | | |
| Municipal Official: | | Signature: | | | | | | |
| Information Below To Be Completed By The Applicant | | | | | | | | |
| | Contact & Email Consent | | | | | | | |
| Building Owner: | | Home Phone: | | | | | | |

| Mailing Address: | Cell Phone: | |
|---|---|--|
| Email Address Owner: | | |
| Contractor: | Business: | |
| Contact Person: | Cell Phone: | |
| Email Address Contractor: | | |
| Signature: | Date: | |
| I declare that I am the owner of this property, and I will notify | v PBI of any email changes if applicable. | |

* By signing above, I consent to email delivery to all named above of PBI reports and related documents pertaining to this building permit.
 * Please note that failure to receive an emailed report or related documents does not release the property owner (s) from their responsibility to comply in all regards with the building standards (Saskatchewan Construction Code Act, Municipal Building Bylaws, and National Building Code of Canada).

* Note that owners should always include themselves on this form.

Jobsite Location

| Civic Address: | | | | |
|-------------------------|-----------------|----------|----------|----------|
| Legal Land Location: | | | | |
| | Lot(s) | Block | Plane No | |
| or: | | | | |
| | Quarter Section | Township | Range | Meridian |
| Description: | | | | |
| Subdivision / Landmark: | | | | |

| Project | Details |
|---------|---------|
|---------|---------|

| * Pleas | * Please fill in Sections 1a) plus 1b), or just Section 2) | | | | | | | | | |
|---------|---|----------------------------|--------------------------|--------------------|------------------------------------|--|--|--|--|--|
| 1a) | Single Family Dwelling (Se | lect One Permit Type That | Best Describes the | Dwelling) | | | | | | |
| | □ New Home □ | RTM 🗆 P | Post-Move Modular Home | | □ Duplex Unit | | | | | |
| 1b) | Select Below ALL that Pert | ain to this Permit AND are | e included with the | plans submitted to | PBI for Review: | | | | | |
| | Basement Development | □ Deck | □ Attached (Insulate | • | Attached Garage (Not Insulated) | | | | | |
| 2) | 2) Residential Building Project (Separate Permit is Required for Each Project type) | | | | | | | | | |
| | □ Addition | □ Attached Garage | □ Deck | | Basement Development | | | | | |
| | □ Renovation | □ Roof Extension | □ Sunroom | | Secondary Suite | | | | | |
| | □ Detached Garage | □ Accessory Building | □ Accessor w/Living | y Building | Pole Building | | | | | |
| | □ Boat House | □ New Foundation | □ Retaining | Wall | Demolition | | | | | |
| | | | | | | | | | | |

This document must be submitted to PBI by the municipal office



ENERGY EFFICIENCY COMPLIANCE FORM

Section 9.36. of the National Building Code of Canada (NBC)

Submit the design option section(s) for a new building, addition or major alteration to comply to NBC 9.36.

All calculations must be completed by a <u>competent person</u>* and be attached to this form to be considered complete and accepted for review.

* <u>Competent Person</u> means a person, firm or corporation who is knowledgeable and experienced in the application of NBC Section 9.36. for the design of buildings and/or building systems.

| Owner Name: | | Permit Number (Office Use): |
|------------------|-----------------|-----------------------------|
| Project Address: | | |
| Occupancy Type: | Floor Area (m²) | Climate Zone 7A |

| Design Option: Prescriptive Complete Section 'A' | Comple | Trade-Off te Sections 'A & B' | Performance Complete Section 'C' | |
|---|-------------------------------------|--|---|--|
| Section A (Part 1): Prescriptive HRV: Yes No | □ Window 8 | nformation that must & door schedule mbly calculations | t be submitted for review : □ Air tightness drawings □ CSA F280 calculations | |
| Effective Thermal Resistance of Ab | ove Ground Opaq | ue Building Assem | blies (RSI) | |
| Assembly | w/ HRV | w/o HRV | Proposed | |
| Ceilings below attics | 8.67 | 10.43 | | |
| Cathedral / Flat roofs | 5.02 | 5.02 | | |
| Wall joists | 2.97 | 3.08 | | |
| Rim joists | 2.97 | 3.08 | | |
| Floors over unheated spaces | 5.02 | | | |
| Floors within garage | 4.86 | | | |
| Thermal Characteristics of Fenestra | ation, Doors and S | skylights (U) | | |
| Assembly | | iency | Proposed | |
| Windows & Doors (provide window & door schedule) | Maximum U-Value | | | |
| One door exception | Minimum Energy F Maximum U-Value | | | |
| Attic hatch | Minimum RSI _{eff} | 2.60 | | |
| Skylights | Maximum U-Value 2.70 | | | |
| Effective Thermal Resistance of Be | | | | |
| Building Assemblies (RSI) | | one 7A is 2.4 m (8 ft.)] | | |
| Assembly | w/ HRV | w/o HRV | Proposed | |
| Foundation Walls | 2.98 | 3.46 | | |
| Slab-On-Grade with Integral Footing | 2.84 | 3.72 | | |
| Unheated Floor Below Frost Line | uninsulated | uninsulated | | |
| Unheated Floor Above Frost Line | 1.96 | 1.96 | | |
| Heated Floors | 2.84 | 2.84 | | |
| Contact information for person who completed Section A (Part 1 of 2): | | | | |

| Contact information for person who completed Section A (Part 1 of 2): | | | | | |
|---|--------------------|-------|--|--|--|
| Firm Name: | rm Name: Ph: Date: | | | | |
| Person Name: | Er | mail: | | | |



Section A (Part 2): Prescriptive

| Equipment | Capacity K | N Standard | Min. Efficiency | Proposed | | |
|--|--|--|--|----------|--|--|
| Gas Fired Furnace | <u><</u> 65.9 | CSA P.2 | AFUE <u>></u> 92% | | | |
| (w or w/o A/C) | > 65.9 & <u><</u> 117 | .23 CAN/CSA-P.8 | B Et ≥78.5% | | | |
| Electric Boiler | <u><</u> 88 | | (1) | | | |
| | <u><</u> 88 | CSA P.2 | AFUE ≥ 90% | | | |
| Gas Fired Boiler | > 88 & <u><</u> 117.2 | 23 AHRI BTS | Et ≥ 83% | | | |
| Other | | | | | | |
| Heat Loss Calculations (BTU) | Calculations w | ere prepared in conforman | ce with CSA F280 standards | | | |
| Heat Gain Calculations (BTU) | Calculations w | ere prepared in conforman | ce with CSA F280 standards | | | |
| Nomenclature | AFUE= annual fuel | utilization efficiency, E_t = th | ermal efficiency | | | |
| Water Heater Perfo | ormance Require | ments | | | | |
| Equipment | Capacity KW | Standard | Min. Efficiency | Proposed | | |
| | <u><</u> 12 kW | | SL <u><</u> 35 + 0.20V (top inlet) | | | |
| | (50 L to 270 L capacity) | | $SL \le 40 + 0.20V$ (bottom inlet) | | | |
| Tank Storage | <u><</u> 12 kW | CAN/CSA-C191 | SL ≤ (0.472V) - 38.5 (top inlet) | | | |
| (Electric) | (>270 L and < 454 L capacity) | | SL <u><</u> (0.472V) - 33.5 (bottom inlet) | | | |
| | >12 kW (>75 L capacity) | ANSI Z21.10.3/CSA 4.3 & DOE 10 CFR, Part 431, Subpart G | S = 0.30 + 27 / V _m | | | |
| Tank Storage | < 22 kW | CAN/CSA-P.3 | EF ≥ 0.67 — 0.0005V | | | |
| (Gas Fired) | <u>></u> 22 kW | ANSI Z21.10.3/CSA 4.3 | E _t ≥ 80% and standby loss <u><</u> rated Input/(800 + 16.57)(√V) | | | |
| - | <u><</u> 73.2 kW | CAN/CSA-P.7 | EF <u>></u> 0.8 | | | |
| Tankless (Gas Fired) | > 73.2 kW | ANSI Z21.10.3/CSA 4.3 and DOE 10CFR, Part 43I, Subpart G | E ≥ 80% | | | |
| Tankless (Electric) | No standard addresses the performance efficiency; however, their efficiency typically approaches 100% | | | | | |
| Other | | | | | | |
| Nomenclature | $ \begin{array}{lll} \textbf{EF} = energy \mbox{ factor in \%/h}, & \textbf{E}_t = thermal \mbox{ efficiency} \\ \textbf{S} = standby \mbox{ loss in \%h}, \\ \textbf{V} = volume & \textbf{V}_m = measured \mbox{ storage volume in US gallons} \end{array} $ | | | | | |

(1) Must be equipped with automatic water temperature control. No standard addresses the performance efficiency; however, their efficiency typically approaches 100%.

| Contact information for person who completed Section A (Part 2 of 2): | | | | | |
|---|--|--------|--|--|--|
| Firm Name: Ph: Date: | | | | | |
| Person Name: | | Email: | | | |



Section B: Trade Off

All calculations must be completed by a <u>competent person</u> and attached to this form in order to be considered complete and accepted for review. The location and extent of assemblies used in the calculation shall be clearly identified on the drawings by hatch or note.

Additional information that must be submitted for review:

□ Section A (Parts 1 & 2) completed in their entirety.

□ RSI assembly calculations indicating trade-off calculations.

- □ **Opaque to Opaque** One or more above-ground opaque building envelope assemblies are permitted to be less than required, provided one or more above-ground opaque building envelope assemblies are increased to more than required.
 - Walls and joist type roofs must maintain minimum 55% of the required RSI_{eff}
 - All other assemblies must maintain minimum 60% of the required RSI_{eff}
 - The sum of the areas of all traded assemblies divided by their RSI_{eff} must be less than or equal to what it would have been if all assemblies had met NBC 9.36.2.6.
- □ **Transparent to Transparent** One or more windows are permitted to be less than required, provided one or more windows are increased to be more than required.
 - The traded windows must have the same orientation.
 - The sum of the areas of all traded windows divided by their RSI_{eff} must be less than or equal to what it would have been if all windows had met NBC 9.36.2.7.
- Opaque to Transparent This option is meant to allow reduced insulation for factory-constructed buildings with a low floor to ceiling height and a fenestration and door area to gross wall area ratio of 15% or less.

| Contact information for person who completed Section B: | | | | | |
|---|-----------|--------|--|--|--|
| Firm Name: | Ph: Date: | | | | |
| Person Name: | | Email: | | | |



Section C: Performance (Page 1 of 2)

This option is available only to houses with or without secondary suites, and buildings that contain only dwelling units with common spaces that are less than 20% of the building's total floor area.

Full modelling summary reports for the reference and proposed house, completed by a competent person and generated from Hot 2000 v15 or an ANSI/ASHRAE 140 compliant software, is required to be submitted with this form to be considered complete and accepted for review.

Additional information that must be submitted for review:

□ Window & door schedule.

Building assembly details (i.e. thoroughly complete "**Proposed House - Building Assembly Details**" section below).

□ If less than 3.2 air exchanges are used in the proposed model, provide vapour barrier installation details.

□ Full modelling summary reports for Reference Model and Proposed Model.

| Input Parameters | | Reference Model | Proposed Model | |
|-------------------------------------|--|------------------------|------------------------|--|
| Airtightness (air exchanges p | per hour @ 50 Pa) | | | |
| Heat Loss / Heat Gain | | | | |
| HRV efficiency | | | | |
| Thermal mass (MJ/m ²⁰ C) | | | | |
| Ventilation rate (l/s) | | | | |
| Fenestration and door to wal | ll ratio (FDWR) – reference (%) | | | |
| Direction of front elevation (h | ighlight or shade one in each column) | N NE E SE S SW W NW | N NE E SE S SW W NW | |
| Area of windows and doors | Front elevation (m ²) | | | |
| | Rear elevation (m ²) | | | |
| | Left elevation (m ²) | | | |
| | Right elevation (m ²) | | | |
| | Total area of windows (m ²) | | | |
| | Total area of opaque doors (m ²) | | | |
| Energy use (GJ) | | | | |

| Proposed House - Building Assembly Details: | | | | | | | | |
|---|--------|---------|--------------|---|------------|---------------------|-------|------|
| | | Framin | g | | Insulation | Furnace Size: | | |
| Ceiling: | " (| 0.C. | | R | - | Furnace Rating: | | |
| Exterior Wall: | 2" x | @ | " o.c. | R | - | Water Heater: | | |
| Tall Wall: | 2" x | @ | " o.c. | R | - | HRV: | □ Yes | □ No |
| Foundation Wall: | 2" x | @ | " o.c. | R | - | Air Conditioner: | | |
| Floor Headers: | | | | R | - | Air Barrier (NBC): | | |
| Cantilever/Bonus Rm: | 2" x | @ | " o.c. | R | - | Attic Hatch: | | |
| Slab: | □ None | □ Int □ | Ext / (1.2m) | | thick - | Doors (U-Values): | | |
| Cladding Type: | | | | | | Windows: | | |
| Comments: | | | | | | (List all U-Values) | | |



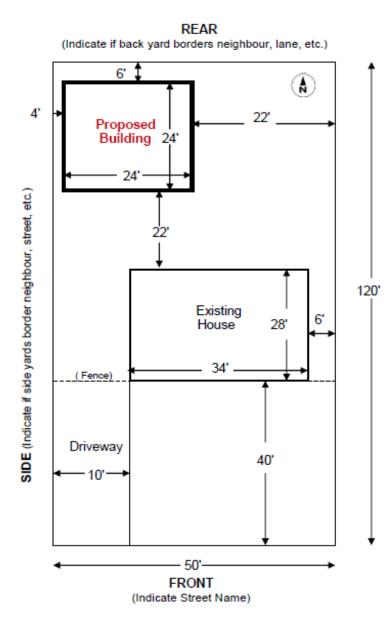
Section C: Performance (Page 2 of 2)

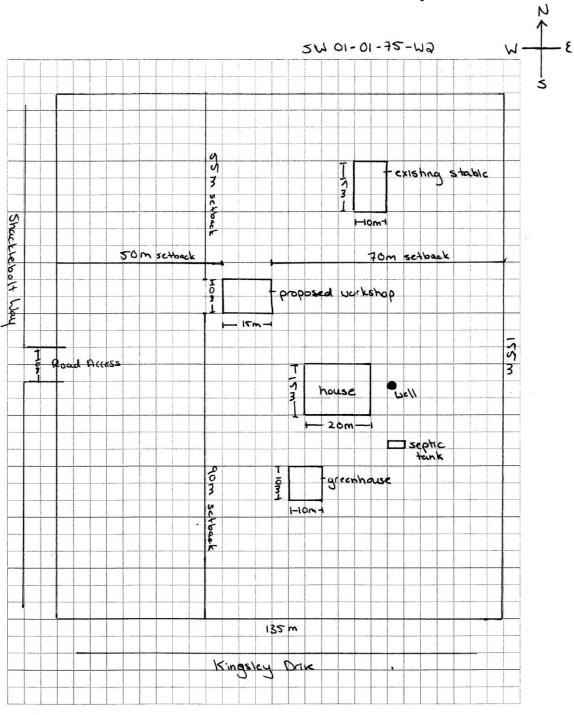
| Software Information | | | | | | |
|----------------------|---------------------------------------|----------|------|--|--|--|
| Software Title: | | Version: | | | | |
| Is software Hot 20 | 000 v15 or ANSI/ASHRAE 140 compliant? | □ Yes | □ No | | | |

| Contact information for person who completed Section C: | | | | | | | |
|--|--|-----------|--|--|--|--|--|
| Firm Name: | | Name: | | | | | |
| Address: | | Phone: | | | | | |
| Address: | | Email: | | | | | |
| I hereby certify that the calculations submitted were prepared in full accordance with the operation procedures of the software and: Subsection 9.36.5. of NBC 2015, EnerGuide Rating System v15 w/ variance greater than or equal to 5% above the Reference Model (attach supporting documents) | | | | | | | |
| (attach supporting documents) | | | | | | | |
| Date | | Signature | | | | | |



Residential – Sample Site Plan





Site Plan for Workshop / Detached Gazage

[1 square = Smetres