Ministry of Labour

Hiring a Contractor? Consider this...

*Consumers have rights and responsibilities under the **Consumer Protection Act (CPA)**, such as the final price of a home renovation cannot be more than 10% over the original estimate included in the contract.*

5 Precautions to Take Before Signing a Contract

ESTIMATES

1. **Get written estimates for the work.** Generally, three estimates will provide enough information but get as many as you need to feel comfortable making a final decision.
2. **Ensure estimates contain everything you ask for.**

CONTRACTS

3. **Ensure the contract covers all discussed terms.** A "hand shake" promise may not be enforceable if it's not included in the written contract.
4. **Before signing the contract,** ensure you fully understand what you are signing and what is included.

DON'T GET SCAMMED

5. **Avoid 'tax-free' deals.** This can be a sign that a business is avoiding important customer and worker protection responsibilities. A 'tax-free' deal without receipts provides no legal recourse over goods and services purchased.

Visit
Ontario.ca/HomeRenos
to find out more.

Call Consumer Protection Ontario at **1-800-889-9768** if you have a complaint about a contractor not fulfilling a written contract.
Ontario.ca/ConsumerProtection

What Else Should I Consider?

ASK ABOUT THEIR BUSINESS

- List of references
- Contract includes scope of work and terms of payment
- Do they provide warranties
- Are they registered with WSIB
- Work related Insurance coverage

ASK ABOUT HEALTH AND SAFETY

- Does the contract cover assurance they will comply with legislation from MOL?
- Has the contractor trained workers with the hazards associated with the work (i.e. working over 3m)

PROTECT YOURSELF

- Ensure the contractor gives you a written contract before work begins that includes the specific work to be performed, terms of payment and warranties

For additional information from the Ministry of Labour visit **Ontario.ca/beforeyoubuyaroof**. General inquiries about workplace health and safety or reporting health and safety incident call **1-877-202-0008**.

Ontario

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MINISTRY OF LABOUR

Safe At Work Ontario
Enforcement > Compliance > Partnership >

435 James St. South, Suite 222, Thunder Bay ON
807-475-1691 hsthunderbaydistrict@ontario.ca

Health and Safety Law for Construction Projects

Role on a Construction Project

The Occupational Health and Safety Act defines a **constructor** (aka general contractor) as a person who undertakes a construction project for an **owner**. In some cases, the **owner** of the project is the **constructor** as well. When an **owner** undertakes all or part of a project, either by himself or herself, or by contracting work out to more than one **contractor or employer,** the **owner** becomes the **constructor**.
If the **owner** hires only one **contractor** to do all the work, then that contractor may be the **constructor**, depending on the contractual arrangements with the **owner**. The contractor may, in turn, subcontract work to other people, but he or she remains the **constructor** for the project, as long as he or she is the only party the owner had contracted to do the work.

Under the Occupational Health and Safety Act, a "**constructor**" (aka general contractor) is a party (a person or company) who oversees the construction of a project and who is **ultimately responsible for the health and safety of all workers**.

The **constructor** must ensure that all the **employers** (aka subcontractors) and **workers** on the project comply with the Act and Regulations. For further details on the constructor see our Constructor Guideline https://www.labour.gov.on.ca/english/hs/pubs/constructor/index.php

What are the key duties of a constructor?

Constructors have the following key responsibilities, on the projects that they undertake:

- ensure that the measures and procedures prescribed by the Occupational Health and Safety Act and its regulations are carried out on the project,
- ensure that **every employer** and **every worker** performing work on the project complies with the Occupational Health and Safety Act and its regulations,
- ensure that the health and safety of **workers** on the project is protected,
- ensure that a health and safety representative or a joint health and safety committee is selected or established, when and as required,
- ensure that the **Ministry of Labour** is notified of a project, when and as required,
- ensure that the **Ministry of Labour** is notified of an accident or occurrence, when and as required,
- ensure that every **contractor** or **subcontractor** receives a list of all designated substances present at the project before the **prospective contractor or subcontractor** enters into a binding contract for the supply of work on the project,
- ensure that written emergency procedures are established for the project and posted, and
- appoint a **supervisor** for every project at which five or more **workers** will work at the same time.

Notice of Project

Constructors are required to notify the Ministry of Labour **before construction begins** of any project meeting any of the requirements listed in the Construction Regulations. **Not filing a notice when required is a chargeable offence**. This form has nothing to do with the Building permit or Building Department. The purpose of the notice is to identify to everyone who the **Constructor** is, in turn identifying who is in charge of the project and responsible to ensure that all health and safety regulations under The Occupational Health and Safety Act are being followed on the job site. A signed copy of the completed form must be posted in a conspicuous place at the project or be available at the project for review by an Inspector.

Requirements to file a Notice with the Ministry of Labour include:

- all renovations and construction where the materials & labour combined are $50,000 or more, even for **personal residences**
- erection or structural alteration of a building more than two storeys or more than 7.5 meters (25 feet) high
- demolition of a building four meters (13 feet) high and higher with a floor area of 30 sq meters (300 sq feet) and larger
- construction of an ice road for vehicles, machinery or equipment over frozen water, slush or wetlands

The form is FREE and can be found and filed at https://www.labour.gov.on.ca/english/hs/forms/index.php

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Designated substances

Before beginning any work, the **owner** must first determine if there are any designated substances (asbestos, lead, etc.) present at the project site. If there are, the **owner** must prepare a complete list, to complete the list testing may be required for positive identification. This list must be included as part of any tendering information on a project.

Before the **owner** can enter into a binding contract with a **constructor** to work on a site where there are designated substances, the owner must ensure that the constructor has a copy of the list.

An **owner** is liable to a **constructor** and **every contractor and subcontractor** who suffers any loss or damages as a result of the presence of designated substances that were not on the list.

If designated substances are present they need to be handled and abated by qualified workers and disposed of in a proper manner in a designated facility that accepts that type of substance.

Working at heights

The regulatory requirements regarding fall protection on a construction project are set out in Sections 26 to 26.9 of the Regulation for Construction Projects (O. Reg. 213/91).

Some control methods include guardrail systems which must be used to prevent falls, unless it is not reasonably possible to install one. Constructors and employers must install guardrails (or take other protective measures), if workers are at risk of falling:

- more than three metres
- more than 1.2 metres if the work area is used as a path for a wheelbarrow or similar equipment
- into operating machinery
- into water or other liquids
- into or onto a hazardous substance or object
- through an opening on a work surface

A guardrail system must also be used if a worker is exposed to a fall of 2.4 metres or more and has access to the open side of a:

- floor, including a mezzanine or balcony floor
- bridge surface
- roof while formwork is in place
- scaffold platform or other work platform, runway or ramp

Employers must ensure that workers on construction projects who use any of the following methods of fall protection: travel restraint systems, fall restricting systems, fall arrest systems, safety nets and work belts or safety belts, have valid Ontario Working at Heights training.

It is in a homeowner's best interest to make sure workers at their home are safe. This can be as simple as asking contractors if their workers have been trained, and how they plan to keep workers safe on site, before signing a contract. In the case of projects where workers will be at heights, such as repairing a roof, homeowners should ask contractors if their workers have been trained to do the work safely.

Depending on the circumstances, homeowners may be considered constructors and subject to obligations under Occupational Health and Safety Act if they hire multiple contractors to work at the same time.

Health and Safety – Ministry of Labour https://www.ontario.ca/page/ministry-labour

Ministry of Labour Health & Safety Contact Centre 1-877-202-0008

Township of GILLIES
A Growing Community

Residential Building Permit Application Checklist

Customer Name:	Telephone No.	Project Address or Legal Description

IN ORDER TO COMPLETE A REVIEW, THIS FORM AND THE FOLLOWING INFORMATION MUST BE SUBMITTED. PLEASE BE ADVISED THAT UPON ACCEPTANCE, AND DURING THE PERMIT REVIEW PROCESS, THE APPLICANT MAY BE REQUIRED TO PRODUCE ADDITIONAL INFORMATION TO INSURE COMPLIANCE WITH APPLICABLE PROVINCIAL AND MUNICIPAL REGULATIONS.

☐ **Completed Building Permit Application Form, including Schedule 1* where applicable**
** Schedule 1 is completed by the various project designers and must accompany the permit application.*

☐ **Proof of Ownership** (provide either a ☐ **Property Deed,** or an ☐ **Offer to Purchase** (Deed to follow))

☐ **Authorization from Owner** (*if applicant other than owner).*

☐ **Three (3) sets of working drawings,** including:

- ☐ **Site Plan**
- ☐ **Site Drainage Plan**
- ☐ **Foundation Plan - a P.Eng is required if using a slab or other non-standard construction**
- ☐ **Heating Duct Layout (Two Storey Dwellings Only)**
- ☐ **Floor Plan(s)**
- ☐ **Roof Plan**
- ☐ **Building Section(s)**
- ☐ **Elevations**
- ☐ **Hydronic Heating Information (Infloor/Underfloor/Geothermal)**
  - Heat Loss Calculations
  - Loop/Piping Layouts
  - Air Handler / Coil
  - Heat Exchanger
  - Boiler Information
  - Baseboard Radiation locations
  - Type of Hot Water Tank

☐ **Roof Truss Layout and Certificate**

☐ **Floor Truss Layout and Certificate**

☐ **Engineered Beam Details (i.e. Parallam, Micro-lam)**

☐ **Engineered Guard Rail Design Required**

☐ **Fireplace/Woodstove/Chimney Details (provide manufacturer's installation instructions)**

☐ **Mechanical Ventilation Design (HRV and dedicated systems will require a certified designer)**

☐ **Energy Efficiency Design Review Form**

☐ **Completed Plumbing Information Sheet, including Two (2) sets of isometric Plumbing Drawings**

☐ **Permit Fee $**_____

1. **Proof of adequate water supply provided?** ☐ **Yes** ☐ **No**
   - applicable if you are on a well system ☐ **Enclosed** ☐ **N/A**
2. **Septic Field Approval from Ministry of Health provided?** ☐ **Yes** ☐ **No**
   - applicable if you require a private septic system ☐ **Enclosed** ☐ **N/A**
3. **Ministry of Transportation Approval provided** ☐ **Yes** ☐ **No**
   - applicable if within 395m of highway intersections ☐ **Enclosed** ☐ **N/A**
   - applicable within 46 metres from King's highway
   - other MTO approvals may apply
4. **Lakehead Regional Conservation Authority Approval** ☐ **Yes** ☐ **No**
   - is your property in a flood plain or "cut and fill" area? ☐ **Enclosed** ☐ **N/A**
   - is property located in the 'EP' zone or or "EO' (environmental overlay)?
5. **Local Heritage Advisory Committee Approval** ☐ **Yes** ☐ **No**
   - are you in a designated heritage area? **Or** ☐ **Enclosed** ☐ **N/A**
   - is it a designated heritage building?
6. **Noise Exposure Forecast Report (Airport Noise)** ☐ **Yes** ☐ **No**
   - Transport Canada – See Airport Authority ☐ **Enclosed** ☐ **N/A**
   - Close proximity to Airport may require noise evaluation
7. **Demolition Permit Provided?** ☐ **Yes** ☐ **No**
   ☐ **Enclosed** ☐ **N/A**
8. **Driveway Permit Required?** ☐ **Yes** ☐ **No**
   - Driveway applications to be submitted to Engineering for review and approval ☐ **Enclosed** ☐ **N/A**
   - Copy of issued driveway permit is required to be submitted for new and existing driveways before building permit can be issued
9. **Applicable Law Checklist Attached?** ☐ **Yes** ☐ **No**
   - Applicable Law Checklist to be completed by Applicant

A Building Permit is issued based on information you provide and the accuracy of the information provided affects the processing time involved in (and the possibility of) issuing of a Building Permit. By completing this form and signing below, you understand it is your responsibility to provide this information in a timely fashion in order to efficiently and effectively process your application.

As per OBC Div.C, sentence 1.3.1.3, the submission of an incomplete permit application package will void the prescribed time period within which a permit shall be issue or refused.

CUSTOMER'S SIGNATURE: _____

APPLICATION RECEIVED / RETURNED BY: _____ **DATE:** _____

Township of GILLIES
A Growing Community

Applicable Law Checklist

This form is used to confirm approvals from other agencies that are required before a building permit can be issued.

Application No:	Address:	Date:

The Building Code Act prohibits the issuance of a building permit if the proposed construction or demolition will contravene an applicable law as defined by the building code. The questions below will help you to determine if an applicable law applies to your project. No timeframe for building permit review can be established until all required applicable law approvals are completed and the approval documents are submitted to the Building Services Department.

If the answer is YES to any question, the relevant approval documents must be submitted with this permit application. Where any required approval has not been obtained, the agencies listed on the back of this form must be contacted to obtain approval and the declaration on the bottom of this form must state accordingly.

Zoning By-Laws ● Planning Services	Yes	No	Office Use Only
Is/was relief required to permit a minor zoning variance in your proposal?	☐	☐	
Is/was rezoning required to permit the proposed building or land use?	☐	☐	
Is a land division or subdivision required and not yet fully completed?	☐	☐	
Are municipal services required but not yet completed or available?	☐	☐	
Planning Approval ● Planning Services			
Does this development require site plan approval from the Planning Division?	☐	☐	
Heritage ● Planning Services			
Are you demolishing a building that is listed on the Township's heritage	☐	☐	
inventory? Is the building designated or in the process of being designated?	☐	☐	
Is the property located in a heritage district or study area?	☐	☐	
Construction & Fill Permits ● Lakehead Region Conservation Authority			
Does the property abut a ravine, watercourse, wetland or shoreline?	☐	☐	
Building & Land Use Permits ● Ontario Ministry of Transportation			
Is the property within 45m of a highway or 180m from any highway intersection?	☐	☐	
Is the property within 395m of a controlled highway intersection?	☐	☐	
Is this a major traffic generating project located within 800m of a highway?	☐	☐	
Environmental Approvals ● Ontario Ministry of Environment			
Is a Record of Site Condition required to be filed because of a change to more sensitive land use?	☐	☐	
Is the property a former waste disposal site?	☐	☐	
Is this project a major industrial, commercial or government project?	☐	☐	
Is this a renewable energy project?	☐	☐	
Electrical Conductor Clearances ● Electrical Safety Authority			
Are there any overhead electrical conductor wires within 5.5m of the proposed building?	☐	☐	
Clean Water Act ● Lakehead Region Conservation Authority			
Does a water source protection plan restrict the land use you are proposing?	☐	☐	
Agriculture & Farms ● Ontario Ministry of Agriculture and Food			
Is this a farm building that will house animals or manure?	☐	☐	
Is this a milk processing plant?	☐	☐	
Child Care Centres ● Ontario Ministry of Education			
Is a daycare proposed in any part of the building?	☐	☐	
Seniors Centres ● Ontario Ministry of Community and Social Services			
Is this a seniors project where Ontario Government funding is being sought?	☐	☐	
Cemeteries ● Ontario Ministry of Consumer Services			
Is work being carried out within a Cemetery?	☐	☐	
Public Lands Act ● Ontario Ministry of Natural Resources			
Is work being carried out on public land?	☐	☐	
Education Act ● Ontario Ministry of Education			
Is this project being carried out on the property of an educational facility?	☐	☐	
If so, is any or all buildings on the property being fully or partially demolished?	☐	☐	
Fortification of Land ● Licensing and Enforcement			
Does this project include fortification of land, or any structure on the property?	☐	☐	
Easements ● Township of Gillies and Other Utilities			
Does your property contain easements used by or under the control of local utilities? (If unsure, contact the Land Registry Office at (807)343-7436 to confirm)	☐	☐	

DECLARATION

I have considered the list of applicable laws in the Ontario Building Code and as described above, and do hereby declare that:

☐ 1. None of these applicable law approvals apply to this project.
☐ 2. Applicable laws checked with a 'yes' apply to this project, and approval documents are submitted with this application.
☐ 3. Applicable laws check with a 'yes' apply to this project, however all approval documents have not yet been obtained.

The information provided on this form is true to the best of my knowledge. I have authority to act on behalf of the owner, corporation or partnership with respect to this application (if applicable).

Name: **Signature:** **Date:**

Applicable Laws & Building Permits

Approvals from other agencies are required in many instances before a building permit can be processed and issued. These approvals are **not** administered by the Building Services Division. The fastest way to obtain a building permit is to ensure all of these other approvals are completed (or do not apply) before applying for a building permit. The Building Services Division is required by law to prioritize applications that are fully complete in terms of applicable law approvals and document submissions. Building permit documents must be consistent with applicable law approvals.

Zoning, Planning & Heritage

Contact: Township of Gillies, Planning Services at 807-475-3185

Planning Act, s. 34 or 38, 46, 47

Zoning by-laws restrict such things as land use, lot size, building size and setbacks. If your project does not comply with any part of the zoning by-law, a minor variance or rezoning must be obtained before any building permit can be issued. Zoning by-laws also restrict the issuance of permits until any associated land division, subdivision or municipal servicing is complete.

Planning Act, s. 41

Site Plan Control Approval is required for some new buildings and additions other than houses and accessory structures. The site plan agreement must be registered before site plans will be approved.

Ontario Heritage Act, s. 27(3), 30(2), 33, 34, 34.5, 34.7(2), 40.1 &42

Thunder Bay has designated certain heritage buildings and maintains a listing of buildings of heritage interest. Specific areas have also been established as Heritage Conservation Districts. Planning and/or City Council approval for demolition, alteration and construction is required if your property is affected. Contact City Clerk's Office (625-2897) for more information.

Conservation Authority Permits

Contact: Lakehead Region Conservation Authority at 807-344-5857

Conservation Authorities Act, s.28(1)(c)

Development within certain conservation regulated area requires a construction and fill permit from the conservation authority before any building permit can be issued. LRCA will confirm if your property falls within their jurisdiction.

Highway Corridor Building & Land Use Permits

Contact: Ministry of Transportation at 807-473-2000 or 1-800-465-5034

Public Transportation and Highway Improvement Act, s.34 or 38

Ministry authorization is required for construction of all buildings within certain distances of a highway or intersection. The requirement for Ministry authorization extends to 800m from a highway where development will generate major traffic, such as a shopping centre.

Environmental Approvals

Contact: Ministry of Environment and Climate Change at 807-475-1205 or 1-800-875-7772

For **Record of Site Condition** inquiries please contact 1-800-461-6290 or 1-416-314-8001

Environmental Protection Act, s.46,47,168.3,138.6(1)

Ministry of Environment approvals are required when any of the following apply: (A) A property of Industrial, Community or Commercial use is changed to more sensitive Residential, Institutional, Agricultural, or Parkland use; (B) for major government, industrial and commercial projects where defined by regulation; (C) property was formerly used for landfill or waste disposal; and (D) renewable energy projects.

Source Water Protection

Contact: Lakehead Region Conservation Authority at 807-344-5857

Clean Water Act, s.59

Special land use restrictions may apply if a water source protection plan is in effect in the area where the building is located. Uses affected by these restrictions require the approval of the designated risk management official.

Agriculture & Farms

Contact: Ministry of Agriculture, Food and Rural Affairs at 1-877-424-1300

Nutrient Management Act 2002, s.11.1, Milk Act s.14

Buildings or structures that house animals or store manure may trigger a requirement for a nutrient management strategy approved by the Ministry. The Ministry must determine that a milk processing plant is necessary and authorize it before building permit can be issued.

Child Care Centres

Contact: Ministry of Education at 807-474-2890 or 1-800-465-5020

Day Nurseries Act, s.5 of reg 262

Ministry plan approval is required if a new building is proposed to be used as a day nursery, an existing building is proposed to be used, altered or renovated for a day nursery, or if an existing day nursery is altered or renovated.

Seniors Centres

Contact: Ontario Ministry of Community and Social Services 1-888-789-4199

Elderly Persons Centres Act, s. 6 of reg 314

Reports must be submitted to the Minister and approval obtained for all seniors centres to which government funding applies.

Cemeteries

Contact: Cemeteries Regulation Unit 1-800-889-9768

Cemeteries Act, S. 2 of R.S.O 1990, Chapter C.4

Approval is required for the establishment, alteration of, or increase of capacity of the cemetery or crematorium.

Public Land

Contact: Ontario Ministry of Natural Resources

Public Lands Act, S.2 Ontario Regulation 453/96

It is illegal to construct or place a building, trail, water crossing or road, fill shore lands, remove aquatic vegetation, or construct or place a structure or combinations of structures on public land without authority and a proper work permit.

Educational Facilities

Contact: Ontario Ministry of Education

Education Act, S. 194

Approval from the Minister is required for a school board to sell, lease or otherwise dispose of a school site, part of a school site or property or demolish a building on a school site.

Fortification of Land

Contact: City of Thunder Bay By-Law Enforcement Division 1-807-625-2710

Municipal Act, 2001 s.133(4)

Excessive fortification of land (barriers to prevent or hinder access to land or buildings) or excessive protective elements (ie. video surveillance or electrical fencing) applied to the land is prohibited.

Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the Building Code Act.

For use by Principal Authority	
Application number:	Permit number (if different):
Date received:	Roll number:

Application submitted to: Township of Gillies

(Name of municipality, upper-tier municipality, board of health or conservation authority)

A. Project information

Building number, street name			Unit number	Lot/con.
Municipality Gillies	Postal code	Plan number/other description		
Project value est. $		Area of work (m^2)		

B. Purpose of application

☐ New construction ☐ Addition to an existing building ☐ Alteration/repair ☐ Demolition ☐ Conditional Permit

Proposed use of building	Current use of building

Description of proposed work

C. Applicant

Applicant is: ☐ Owner or ☐ Authorized agent of owner

Last name	First name	Corporation or partnership		
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ( )	Fax ( )		Cell number ( )	

D. Owner (if different from applicant)

Last name	First name	Corporation or partnership		
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ( )	Fax ( )		Cell number ( )	

E. Builder (optional)

Last name	First name	Corporation or partnership (if applicable)	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )	Cell number ( )	

F. Tarion Warranty Corporation (Ontario New Home Warranty Program)

i. Is proposed construction for a new home as defined in the *Ontario New Home Warranties Plan Act*? If no, go to section G. ☐ Yes ☐ No

ii. Is registration required under the *Ontario New Home Warranties Plan Act*? ☐ Yes ☐ No

iii. If yes to (ii) provide registration number(s): _____

G. Required Schedules

i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.

ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.

H. Completeness and compliance with applicable law

i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted).	☐ Yes ☐ No
Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the *Building Code Act, I992*, to be paid when the application is made.	☐ Yes ☐ No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992.*	☐ Yes ☐ No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992* which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.	☐ Yes ☐ No
iv) The proposed building, construction or demolition will not contravene any applicable law.	☐ Yes ☐ No

I. Declaration of applicant

I _____ declare that:
(print name)

1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

_____ _____
Date Signature of applicant

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name			Unit no.	Lot/con.
Municipality	Postal code	Plan number/ other description		

B. Individual who reviews and takes responsibility for design activities

Name		Firm		
Street address			Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ( )	Fax number ( )		Cell number ( )	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

❑ House	❑ HVAC – House	❑ Building Structural
❑ Small Buildings	❑ Building Services	❑ Plumbing – House
❑ Large Buildings	❑ Detection, Lighting and Power	❑ Plumbing – All Buildings
❑ Complex Buildings	❑ Fire Protection	❑ On-site Sewage Systems

Description of designer's work

D. Declaration of Designer

I _____ declare that (choose one as appropriate):

(print name)

❑ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4.of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: _____

Firm BCIN: _____

❑ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5.of Division C, of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

❑ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification:_____

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

_____ _____

Date Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Schedule 2: Sewage System Installer Information

A. Project Information

Building number, street name			Unit number	Lot/con.
Municipality	Postal code	Plan number/ other description		

B. Sewage system installer

Is the installer of the sewage system engaged in the business of constructing on-site, installing, repairing, servicing, cleaning or emptying sewage systems, in accordance with Building Code Article 3.3.1.1, Division C?

- ❑ Yes (Continue to Section C)
- ❑ No (Continue to Section E)
- ❑ Installer unknown at time of application (Continue to Section E)

C. Registered installer information (where answer to B is "Yes")

Name			BCIN	
Street address			Unit number	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ( )	Fax ( )		Cell number ( )	

D. Qualified supervisor information (where answer to section B is "Yes")

Name of qualified supervisor(s)	Building Code Identification Number (BCIN)

E. Declaration of Applicant:

I _____declare that:
(print name)

- ❑ I am the applicant for the permit to construct the sewage system. If the installer is unknown at time of application, I shall submit a new Schedule 2 prior to construction when the installer is known;

OR

- ❑ I am the holder of the permit to construct the sewage system, and am submitting a new Schedule 2, now that the installer is known.

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

_____ _____

Date Signature of applicant

Township of GILLIES
A Growing Community

Application for a Permit to Construct Detached Garage / Shed

For use by Principal Authority

Permit number:	Roll number:

A. Project Location

Building number, street name	Legal Description

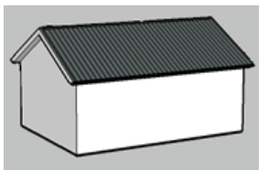
B. Applicant

Applicant is: ❑ Owner or ❑ Authorized agent of owner

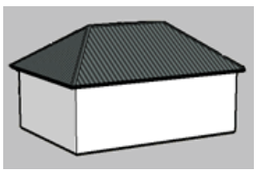
Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code / Province	E-mail	
Telephone number ( )	Fax ( )	Cell number ( )	

C. Building Information

❑ Gable Roof



❑ Hip Roof



Width:	Length:
Height:	Roof Pitch: /12

D. Construction Information

Walls:	**2"x**	"	@	" Centres
Engineered Trusses:			@	" Centres
Rafters:	**2"x**	"	@	" Centres
Joists:	**2"x**	"	@	" Centres
Roof Sheeting:	" Plywood			" O.S.B.
Roofing:	❑ Shingles	❑ Roll Roofing		❑ Metal
Wall Sheeting:	" Plywood			" O.S.B.
Wall Strapping:	**2"x**	"	@	" Centres
Exterior Finish:				

E. Foundation Information

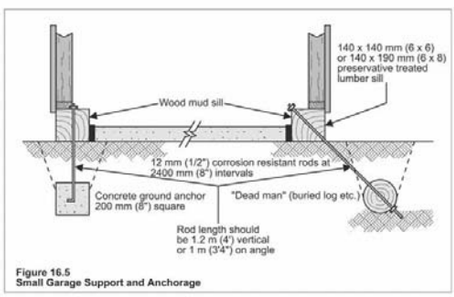
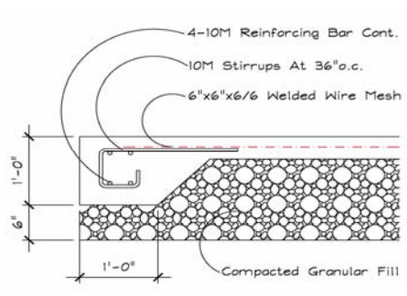


Figure 16.5
Small Garage Support and Anchorage

❑ Pressured Treated Mud Sill



❑ Reinforced Concrete Slab-on-Grade

F. Lintel Sizes

Overhead Doors:

❑ Engineered Lintel
❑ Structural Gable End Truss
❑ _____ - ( ) – 2" x _____"

Man Doors:

❑ _____ - ( ) – 2" x _____"

Windows:

❑ _____ - ( ) – 2" x _____"
❑ _____ - ( ) – 2" x _____"

Garage / Shed Plan

Recommended Scale – One Square = 2'-0" – Show Door & Window Sizes and Locations

A review of this application information did not include a review of minimum separation clearances from overhead electrical distribution wires (conductors) and transformers or other matters for which specific information was not provided. The owner / applicant are required to seek and obtain such other approvals as may be necessary. In all cases, the most restrictive condition applies. Where other restrictions cause any change to the location or construction of this project, such changes must be reviewed and approved by the Building Division prior to construction. Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Township of GILLIES
A Growing Community

Application #_____

Application for Permission to Construct a Driveway

Owner Name:	Phone No:
Address of Owner:	Postal Code:
Applicant (if different than owner):	Phone No:
Address of Applicant:	Postal Code:

The personal information on this form is collected under the authority of the Municipal Act, as amended, and will be used solely to administer and process the driveway permit. Questions about the collection of this information should be directed to the Clerk.

Address of the subject property that the proposed driveway will service:

Address:
Legal Description (if municipal address not yet assigned)

Land use of property to be accessed:

◯ Dwelling Current # of driveways servicing this lot: _____

◯ Uses other than Dwelling

Type of installation:

◯ New ◯ Existing (with construction)

◯ Existing (resurface only) ◯ Existing (no construction)

Specifications of driveway: Applicants must submit a detailed plan drawing the proposed driveway.

Dimensions and orientation:	Location: Distance measured along the road (lot line)
A) Width at road edge or curb:	C) Nearest other driveway on subject property (min 6m):
B) Width at road line (lot line):	D) Nearest side of lot line (confirm whether it is the left or right lot line if you are facing the lot) Dimension: Side:
Is this a corner lot?	
Is the angle of the driveway perpendicular to the road?	

The driveway has:

◯ Curb ◯ Ditches ◯ Gravel surface ◯ Other (sidewalk, etc)_____

Are any of the following located at or near the location of the driveway?

◯ Hydro poles ◯ Light poles ◯ Other poles ◯ Telecommunications box ◯ Other:_____

Construction to be done by:

◯ Municipality ◯ Contractor ◯ Part of Eng. Contract # _____

Contractor information	
Contractor:	Address: Phone No:
Engineer/Architect:	Address: Phone No:

Application #_____

Submission checklist:

◯ Plan drawing attached

◯ Insurance attached (if entrance not installed by municipality)

◯Applicant will mark the location with visible markers by: _____

In consideration of being granted approval for the work set forth in this application, I hereby agree:

a) That no work will commence until the application and plans are approved by the Chief Building Official and an approved permit has been issued;
b) To construct and maintain the driveway in accordance with all municipal By-laws and permit conditions and/or instructions;
c) To accept all costs associated with the construction and the maintenance of the driveway;
d) To pay for all fees associated with the municipality installing a driveway;
e) To acknowledge that the privilege conferred by the granting of this application for a driveway and/or driveway carries with it all legal liability, including but not limited to third party liability (i.e. for damages or injured other persons);
f) To adhere to all other By-laws of the Township of Gillies pertaining to this application, including the Zoning By-law. The undersigned acknowledges that the issuance of a permit under this application is not confirmation that the proposed driveway conforms with the Zoning By-law and that the Township of Gillies reserves its right tot enforce the Zoning By-law notwithstanding the issuance of a permit under this application. It shall be the sole responsibility of the undersigned to ensure compliance with the Zoning By-law and the Township of Gillies shall have no liability in respect of or arising out of any violation thereof or any steps taken with respect to the permit issued under this application.

Declaration:

I, the undersigned _____ am the authorized owner of the subject property noted in this application and agree to items (a) through (f) outlined above.

_____ _____

Owners Signature Date

_____ _____

Witness Signature Date

◯ Mail out permit
◯ Call for pickup

Applying for a Sewage Treatment System Permit

Please complete the following steps. More details on each step can be found in the attached package:

1. Design the sewage treatment system.
2. Complete the application form.
3. Dig the test pits.
4. Submit the completed application form and applicable fees.
5. Receive the initial inspection.
6. Receive the permit.
7. Start work on the system.
8. Request the final inspection.
9. Submit the Completion Notice.
10. Receive authorization to use the system.

999 Balmoral Street, Thunder Bay ON P7B 6E7
Phone: (807) 625-5900 | Toll-free: 1-888-294-6630
TBDHU.COM

Thunder Bay District Health Unit

Applying for a Sewage Treatment System Permit

Please read the following information carefully. This should help you to complete the permit application required by the Ontario Building Code (OBC) and the Thunder Bay District Health Unit.

This information package is provided for guidance only.

You should always refer to the current requirements of the Ontario Building Code (OBC) and the Building Code Act (BCA).

The OBC and the BCA are available online; links to both can be found on page 30.

CONTENTS:

Reviewed: June, 2016

999 Balmoral Street, Thunder Bay ON P7B 6E7
Phone: (807) 625-5900 | Toll-free: 1-888-294-6630
TBDHU.COM

Thunder Bay District Health Unit

PART I—GENERAL INFORMATION

Design the Sewage Treatment System

The Ontario Building Code (OBC) Regulations outline the minimum legal requirements for the design, construction, operation and maintenance of sewage treatment systems. However, there are many factors that may affect the sewage treatment system (i.e. water use, soils, location. topography, etc.).

Anyone unable to design a sewage treatment system meeting the requirements of the OBC and BCA should hire the services of a licensed sewage treatment system contractor or qualified consultant.

> The Health Unit is **not permitted to design sewage treatment systems.** It is the responsibility of the property owner to design a system that meets the requirements of the Ontario Building Code (OBC) and the Building Code Act (BCA).

When a sewage treatment system is installed, this area must be remain as green space. No other buildings are allowed in the area. To protect the sewage treatment system, pick an area where there will be no vehicle traffic, storage, buildings, gardening or winter traffic. If you have problems finding a suitable area for your sewage treatment system, contact a licensed contractor or qualified consultant.

Complete the Application Form

Information needed to complete the permit application includes, but is not limited to:

- size of the home/building
- number of bedrooms/rooms/employees
- total number of fixtures (including future rough-ins)
- exact location of proposed sewage treatment system in relation to the building
- exact location of proposed sewage treatment system in relation to the well, either existing or proposed
- exact location of proposed sewage treatment system in relation to the well of any other property if less than 46 meters (150 feet) away

Dig Test Pits

At least two test pits must be dug to a minimum depth of 1.67 meters (66 inches) and a minimum width of 1 meter (36 inches) wide in the designated area of the leaching bed. These pits are needed to determine if the soil can accept and provide treatment of the wastewater.

If the excavation shows any of the above at a depth of less than 1.67 meters (66 inches) below original grade, you must record the depth in Section L(2) on the application. Test
pits must remain open so the Land Development Officer can confirm your observations during the initial inspection. Clean sand will need to be imported for the construction or installation of a partial or fully raised leaching bed.

The test pits should be dug with a backhoe so the Health Unit's land development officer can see the soil profile. Digging should stop if any of the following are seen:

- bedrock or large boulders
- clay or hardpan soil
- the groundwater table

Submit the Completed Application Form and Applicable Fees

Submit the completed permit application form and all applicable fees to the Health Unit. See Appendix A—Fee Schedule.

Some supporting documentation may be needed if you are submitting a permit application form for a sewage treatment system serving a business or restaurant.

If you have any questions, contact a licensed contractor or qualified consultant to help you interpret the requirements as listed in the OBC and BCA.

Receive the Initial Inspection

When the completed permit application and fees have been forward to the Health Unit, an initial inspection will be completed. This inspection will determine if the proposal complies with the minimum requirements of the OBC. During this first inspection, the land development officer may observe other factors that may affect the ability of the sewage treatment system to perform as required. This may result in an increase to the final size of the sewage treatment system or in relocation of the system.

Test pits must be excavated and accessible for inspection. If the home/building is not yet built, the location must be clearly marked. The location of the proposed septic tank and sewage treatment system must also be staked. This will allow the land development officer from the Health Unit to confirm all measurements.

Receive the Sewage Treatment System Permit

Once the completed application form is delivered to the Health Unit and the applicable fees are paid, the Health Unit has 10 working days to complete the permit.

The sewage treatment system permit is the legal authorization approving the construction and/or installation of the system.

If someone other than the specified registered owner of the property requests a copy of the permit (i.e. agent or installer,) the Health Unit must receive authorization or permission from the owner to release their permit.

Start Work on a Sewage Treatment System

No work can start on a sewage treatment system until a sewage treatment system permit has been issued.

If a sewage treatment system is constructed by anyone other than the owner, that person must be a licensed sewage treatment system contractor or qualified consultant under the OBC. The owner and contractor/consultant share the responsibility for making sure that all work is done as outlined on the permit and according to the OBC and BCA.

According to the OBC the work done on a sewage treatment system must be done as outlined on the application form. If changes to the approved permit are needed, then the Health Unit must review the changes. An additional fee may be applied.

Request the Final Inspection

Once the sewage treatment system has been constructed/installed, it cannot be backfilled until it is inspected to ensure it was constructed according to the approved design and the requirements of the OBC and BCA.

Submit the Completion Notice

When the sewage treatment system is approved for backfilling, measurements for the as-built diagram on the Completion Notice must be taken by the homeowner or contractor/consultant.

These measurements and diagram of the sewage treatment system are placed on the Completion Notice. Once the as-built diagram and applicable information are filled in on the Completion Notice, it must be forwarded to the Health Unit.

Receive Authorization to Use the Sewage Treatment System

When the Completion Notice is forwarded to the Health Unit, the Certification of Readiness to Use will be issued by the Health Unit's land development officer. This is the legal authorization for use of the sewage treatment system.

PART II — GUIDELINES FOR COMPLETING THE APPLICATION

SECTION A: Personal Information

Include the name of the registered owner(s) of the property.

SECTION B: Agent/Installer

Anyone who is in the business of constructing, installing or repairing sewage treatment systems must hold a valid license issued by the Ontario Ministry of Municipal Affairs and Housing. The installer's name and Building Code Identification Number (BCIN) must be included on the permit application form. If you don't know the name of the installer when you submit your permit application form, you must advise the Health Unit before the system is constructed/installed.

If you are constructing/installing the system yourself, please list yourself as the installer.

SECTION C: Intended Use and Class of Sewage Treatment System

Describe the intended use of the structure (i.e. single family dwelling). For commercial use (i.e. restaurant, motel or large systems), the services of a consulting engineer is likely required to design the sewage treatment system. Full knowledge of Part 8 of the Ontario Building Code (OBC) is essential for designing and installing sewage treatment systems.

Identify the right class for the intended purpose of the sewage treatment system.

- Class 1 System —a chemical toilet, an incinerating toilet, a recirculating toilet, a self-contained *portable toilet* and all forms of privy including a *portable privy*, an *earth privy*, a *pail privy*, a *privy vault* and a *composting toilet system*
- Class 2 System – A leaching pit is used for the treatment and dispersal of greywater only.
- Class 3 System – A cesspool is used for the treatment and dispersal of certain Class 1 systems.
- Class 4 System – A septic tank and leaching bed/tertiary treatment unit; used for the treatment and dispersal of all wastewater.
- Class 5 System – A holding tank is permitted only by exemption under the OBC.

SECTION D: Property Information

Provide the legal description of the property the sewage treatment system is to be constructed/installed on. Include the area in meters and or feet. For larger parcels of land, use hectares and/or acres.

SECTION E: Building

This section refers to the building that will be served by the proposed sewage treatment system. Include the total proposed finished floor area in square meters and/or in feet for residential dwellings. You do not have to include the basement and/or garage.

SECTION F: Water Supply

Indicate water source (i.e. dug/drilled well, municipal water, lake, other). Make sure you note whether the water supply is proposed or existing.

SECTION G: Specific Measurements Required — See Appendix B

Identify separation distances between the water supply and proposed location of septic tank and leaching bed/dispersal bed. Include distance to neighbor's well if less than 46 meters (150 feet) away from proposed sewage treatment system. Measurements will be verified during the initial and final inspection. **Failure to provide accurate measurements may result in permit revocation.**

SECTION H: Directions to Lot

Include simple directions (i.e. street address or fire number). Where these are not available the Lot Identification Card, included in the Application Information Package, must be visible (i.e. tree, fence post, end of driveway).

SECTION I: Plumbing

In this section, record the plumbing fixtures. Include all fixture units in basement, accessory buildings and future "rough-in" fixtures.

SECTION J: Residential Occupancy — See Appendix C

Daily Sewage Flow "Q":

1. For residential occupancies, the daily sewage flow (Q) is determined by using the volume (Litres) from page 2 of the application.
2. If there are several items in the additional flow list, (found in Appendix C) which apply, add the one item that adds the greatest flow.

SECTION K: Other Occupancies — See Appendix D

1. The daily sewage flow (Q) is determined by the number of rooms, staff, seats, etc. multiplied by the applicable litres/day.
2. Where a building contains more than one establishment, the total daily sewage flow (Q) is the sum of the daily sewage flow (Q) for each establishment.
3. When an occupancy is not listed in OBC Table 8.2.1.3.B – Other Occupancies (see Appendix D), the highest of the metered flow data from at least 3 similar establishments will be acceptable for determining the daily sewage flow (Q). This will likely require the design from a certified engineer.

SECTION L: Site Evaluation and Percolation Rates (T-Time)

Please make note of the following:

1. Describe existing soil type in sewage treatment system area
Test pits will allow you to see the subsoil profile and groundwater conditions below grade at the proposed location of the leaching bed.

The test pits should be dug within the proposed location of the leaching bed and be 1 meter (36 inches) wide and 1.67 meters (66 inches) deep. The test pits allow the Land Development Officer to verify soil conditions. Ensure the test pit(s) is covered for safety reasons.

2. Determine depth to bedrock, hardpan and/or groundwater table (if applicable)
Please indicate the depth at which you observed bedrock, hardpan and/or the high groundwater table if applicable. If you do not observe any of the three items previously listed in the 1.67 meter deep test pits, indicate by completing this section with "1.67 meters (66 inches) PLUS". This will inform us that you can excavate greater than 1.67 meters (66 inches) before bedrock, hardpan and/or groundwater is encountered.

3. Describe soils to be used for sewage treatment system
Indicate whether you are proposing to construct/install the sewage treatment system in the existing/native soil or if the leaching bed/dispersal bed will be constructed/installed in imported sand. While there are exceptions to the rule, generally, your lot either possesses 1.67 meters (66 inches) of native sand or you will be importing 1.67 meters (66 inches) of clean sand.

4. *Mantle* - contact area beyond the leaching bed/area bed

The 15 meter (50 feet) mantle is the extended area beyond a sewage treatment system that absorbs excess effluent (e.g. wastewater) if there are peak flows on the system, or if there are poor soil conditions on your property. Without it, the water would lay on the surface of the ground, potentially creating a health and/or safety hazard.

If imported sand is needed for the construction of the leaching bed/dispersal bed, you will also need to import clean sand to establish the sand mantle.

The sand mantle must extended a minimum of 15 meters (50 feet) beyond the leaching bed/dispersal bed in the direction in which effluent (e.g. wastewater) will move across the soil. If your lot is level, the mantle must extend a minimum of 15 meters (50 feet) in all directions. If this is the case at your site, speak to a licensed contractor or qualified consultant.

5. Determine percolation time of proposed soils — Appendix E

Percolation time (T-time) means the average time in minutes that is required for water to drop one centimeter into the soil as determined by a soil evaluation or analysis. If you are proposing to construct/install the system in the existing/native soil, a "bucket" size sample, taken at two locations from a depth of 0.76-0.9 meters (30-36 inches), must be submitted to an accredited soils agency for testing. See consultants listed in Appendix E.

If there is a significant range in the percolation time (T-time), the high end of the range will be used in conjunction with the daily sewage flow to calculate the size of leaching bed or area bed.

If you are constructing a "raised leaching bed" with imported clean sands,

confirmation of the T-time of the imported fill must be forwarded to the Health Unit.

SECTION M: System Construction Details

Class 2 Sewage Treatment System — Leaching Pit — See Appendix F
Leaching pits are used to treat and disperse grey water sewage only. They are NOT to be used for the disposal of toilet waste. Since leaching pits treat and disperse sewage, they must be inspected and approved under the OBC by the Health Unit.

This type of system can only be used to treat and disperse water wastes which come from plumbing fixtures such as sinks, showers and saunas. The maximum daily sewage flow into a leaching pit must not exceed 1000 litres per day. See Appendix F for sizing information.

Class 4 Sewage Treatment System — See Appendix G
The most common class of an on-site sewage treatment system is the Class 4 system. This class is commonly referred to as a "septic" or "leaching bed" system. Tertiary treatment units are growing in popularity; see page 10 for more information.

There are two main components of a Class 4 sewage treatment system: septic tank and leaching bed/dispersal bed.

Septic Tank
The septic tank is a buried, watertight container, which receives wastewater from a home/business. Septic tanks are made from concrete, polyethylene or fiberglass. The current minimum size of septic tank allowed in Ontario is 3600L (800 gallons).

The purpose of the septic tank is to separate liquids from solids and to provide some breakdown of organic matter in the wastewater. Solids settle to the bottom of the tank forming a sludge layer, and fats, oils and grease float to the top forming a scum layer. The tank should be pumped out every three to five years or when one-third (1/3) of the tank volume is filled with solids, as measured by a service provider such as a pumper. Naturally occurring bacteria from body waste, flushed into the septic tank, work to break down the sewage over time.

For residential occupancies, the size of a septic tank is determined in part by the size of the home, including the number of bedrooms and bathrooms. For non-residential occupancies, the number of employees is used in part to determine the tank size.

Additives such as "starters" which promote "cleanliness" of the septic tank are not recommended by the Health Unit.

Leaching Bed

The effluent (e.g. wastewater) exits from the second chamber of the septic tank and enters a series of distribution pipes below surface level. There, the wastewater is evenly distributed to the chambers, referred to as the leaching bed. Soils beneath the trench and/or chambers provide most of the aerobic treatment of the wastewater. Sand is ideal for treatment while clay soils are not. Poor draining soils may result in groundwater ponding. This has the potential to saturate soils in and around the leaching bed. Treatment will not occur in saturated soils as caused by a high or perched water table.

There are three types of treatment that occur in the soil: physical, chemical and biological. Physical treatment is the filtration of bacteria out of the percolating wastewater by the soil. Cation exchange capacity (CEC) is an example of a chemical treatment process that can bind nutrients such as phosphorous in the wastewater to the soil. Bacteria and other soil microorganisms are responsible for the biological treatment of the wastewater. These "bugs" eat any organic solids that make it from the septic tank to the leaching bed.

The Ontario Building Code (OBC) requires a minimum of 0.9 meters (36 inches) of unsaturated permeable soil separating the trench and/or chamber bottom and the seasonal high groundwater table, bedrock or clay soils. In situations where there is more than 1.67 meters (66 inches) of unsaturated native permeable soil above the groundwater, bedrock and/or clay soils, a *conventional system* may be constructed/installed. In situations where less than 1.67 meters of unsaturated native permeable soil exists above the groundwater, bedrock and/or clay soils, a *partial or fully raised leaching bed* must be constructed/installed. See **Appendix G** for sizing.

Tertiary Treatment Units

A Tertiary Treatment Unit (TTU) is defined as a sewage treatment system that complies with the Effluent Quality Criteria as regulated by the OBC table 8.6.2.2.A. Sewage that has passed through a TTS has been significantly reduced in strength from a normal residential strength waste count of 120-150mg/L BOD5 (organic waste) to roughly 15mg/L.

Wastewater exiting a TTS is reduced to about 1/10 the strength of normal residential strength wastewater. As a result, the leaching bed/dispersal bed is half the size of a conventional leaching bed.

Where additional treatment methods are used to treat the raw sewage, it can be done through aeration (oxygen) processes, filtration or chemical additive. These treatment units are classified by the level of treatment achieved, and manufacturers of approved systems are listed in the Supplementary Guidelines of the Ontario Building Code (OBC).

A TTU must be designed and installed by the authorized agents or employees. In addition, an agreement must be contracted for maintenance and service of this alternative method of sewage treatment and dispersal.

Class 5 Sewage System — Holding Tanks — See Appendix H

Holding tanks may be installed ONLY in the following circumstances:

1. When the proposed use of the sewage system is for a temporary operation, excluding seasonal recreation use, not exceeding 12 months in duration.
2. To permit the extension of an existing single-family dwelling provided that the extension will not increase the wastewater load and the building is already served by a holding tank.
3. To remedy an unsafe sewage system where the remediation of the unsafe condition by the installation of a Class 4 sewage system is impractical.
4. To upgrade a sewage system on a existing lot or parcel of land, where upgrading through the use of a Class 4 sewage system is not possible due to lot size or clearance limitations.

If approval is granted to install a holding tank, the following conditions must be completed to ensure compliance with the Ontario Building Code (OBC):

1. A written agreement for the disposal of the sanitary sewage from the sewage system shall be entered into with a hauled sewage system operator. This letter must be enclosed with the application at the time of the submission.
2. All holding tanks must be equipped with a device that produces an audible (e.g. sound) and visual warning alarm located in such a way as to warn that the sewage system is nearing capacity.

The final inspection will not be performed until the Health Unit is notified that the audible and visual alarm mechanisms are installed and operational.

For any of the above systems, is a pump required?

If the total length of distribution pipe is greater than 150 meters, an effluent (wastewater) pump must distribute effluent throughout the leaching bed/dispersal bed. The pump must be designed to discharge a dose of at least 75% of the internal volume of the distribution pipe and/or chamber within a time period of fifteen minutes.

Indicate the elevation that the effluent (wastewater) must be pumped (head) and the distance between the pump chamber and the leaching bed/dispersal bed (run).

Please include the make, model and horsepower of the pump. Please indicate the volume of the effluent to be dosed to the distribution system in **Section M**.

See **Appendix I** for sizing.

SECTION N: Lot Diagram and Site Plan — See Appendix J

This section can be found on page 3 of the Application Form. In this section, you will illustrate all proposed development on the property.

Accurately measure and record all distances from the proposed sewage treatment system to:

- buildings,
- your well and/or neighbor's well (proposed or existing) if less than 46 meters (150 feet) from sewage treatment system

A detailed site plan showing location of septic tank and pump chamber is required. All dimensions of leaching bed/dispersal bed, including the SAND MANTLE, must be clearly marked on page 3 of the application.

Land marks such as property lines, water courses, bare rock and topography of the lot are just a few of the features that could affect the orientation/layout of the system. Any deviation from “normal” construction practices requires a fully detailed proposal in writing accompanied by an accurate diagram in this section.

SECTION O: Sewage System Cross Section/Side Profile — See Appendix J

This section can be found on page 3 of the Application Form.

The side profile of the house, tank and sewage system must be illustrated showing the proposed construction method.

If there is sufficient slope on the property to allow for a "bench/wedge system", a fully detailed diagram illustrating maximum excavation (0.9metres/36 inches) relative to original grade and all applicable horizontal measurements must be shown.

Appendix A: Fee Schedule

Class	Description	Fee (HST exempt)
Class 1	Pit Privies	No charge
Class 2	Leaching Pit (Greywater)	$225.00
Class 3	Cesspool (waste from Class 1 only)	$225.00
Class 4	Residential septic tank and field	$850.00
Class 4	Commercial septic tank and field	$1000.00
Class 4	Residential tank (only) replacement	$450.00
Class 4	Commercial tank (only) replacement	$500.00
Class 4	Residential field (only) replacement	$750.00
Class 4	Commercial field (only) replacement	$900.00
Class 5	Residential holding tank (if approved)	$750.00
Class 5	Commercial holding tank (if approved)	$900.00

Other Fees:

Service	Fee (HST Exempt)
Changes to application AFTER permit has been issued – letter only	$75.00
Permit renewal	$75.00
File search – 4 day notice	$150.00
File search – less than 4 day notice	$175.00

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Service	Fee	With HST
Severance; per lot	$225.00	Not applicable
Minor variance	$225.00	Not applicable
Zoning by-law amendment	$225.00	Not applicable
Sub-division	$225.00	$254.25
Lot inspections/ compliance; inspection and letter	$225.00	$254.25
Sewage Renovation Permit (extend, alter, repair, change of use, inspection required)	$350.00	$395.50
Performance level review; inspection and letter	$225.00	$254.25
Performance level review; letter only	$75.00	$84.75
Changes to application	$75.00	$84.74

NOTE:

- Cash, cheque, VISA, MASTERCARD and Interact accepted.
- Please make cheque payable to “Thunder Bay District Health Unit”.
- There is a $25.00 per cheque fee for non-sufficient funds.

The tables below list the required clearance distances for components of sewage systems. The clearance distances are listed in meters (m).

If the leaching bed is raised, add 2 meters for every 1 meter rise.

Class 2 Leaching Pit

Wells with 6 m casing	Wells without 6 m casing	Potable springs	Non-potable springs	Surface water (lakes, rivers, etc.)	Property lines	Structures
10m	30m	30m	15m	15m	3m	1.5m

Class 4 Distribution Pipe

LEGEND: C= Conventional leaching bed; R=Raised leaching bed

Wells with 6 m casing	Wells without 6 m casing	Potable springs	Non-potable springs	Surface water (lakes, rivers, etc.)	Property lines	Structures
C = 15m R = 18m	C = 30m R = 33m	C = 15m R = 18m	C = 15m R = 18m	C = 15m R = 18m	C = 3m R = 6m	C = 5m R = 8m

Class 4 Septic Tank

Wells with 6 m casing	Wells without 6 m casing	Potable springs	Non-potable springs	Surface water (lakes, rivers, etc.)	Property lines	Structures
15m	15m	15m	15m	15m	3m	1.5m

… continued on next page

Class 5 Holding Tank

Wells with 6 m casing	Wells without 6 m casing	Potable springs	Non-potable springs	Surface water (lakes, rivers, etc.)	Property lines	Structures
15m	15m	15m	15m	15m	3m	1.5m

Appendix C: OBC Section 8.2.1.2.A – Residential Occupancy

Dwelling	Daily Sewage Flow: Volume (litres)
1 bedroom dwelling 2 bedroom dwelling 3 bedroom dwelling 4 bedroom dwelling 5 bedroom dwelling Additional flow for: each bedroom over 5 bedrooms each $10m^2$ (or part thereof) over 200 m^2 ** each fixture unit over 20 fixture units **for buildings over $200m^2$, refer to Building Code	750 1100 1600 2000 2500 add 500 add 100 add 50
Apartments (per person)	275
Condominiums (per person)	275
Other multi-family dwellings	275

Appendix D: OBC Section 8.2.1.3.B – Other Occupancies

Occupancy	Daily Sewage Flow: Volume (litres)
Airports, Bus Terminals, Train Stations, Dock/Pot Facilities (food services excluded): Per passenger	20
Assembly Hall per seat: No food service	8
Barber shop or Beauty Salon, per service chair:	650
Bowling Alley (food services not included), per lane	400
Churches per seat: No kitchen facilities	8
Country Club (excluding Food Services): Per Resident Per Employee per 8 hour shift	375 50
Day Care Facility, per person (staff and children)	75
Dentist Office: Per wet service chair	275
Factory (excluding process or cleaning waters), per employee per 8 hour shift: No showers	75
Flea Markets (open 3 days or less per week): Per non-food service vendor space Per food service establishments/9.25 m of floor space	60 190

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Occupancy	Daily Sewage Flow: Volume (litres)
Food Service Operations:	
a) Restaurant (not 24 hour), per seat	125
b) Restaurant (24 hour), per seat	200
c) Restaurant on controlled access highway, per seat	400
d) Paper service restaurant, per seat	60
e) Donut shop, per seat	400
f) Bar and cocktail lounge, per seat	125
g) Drive-in restaurant, per parking space	60
h) Take-out restaurant (no seating space):	
i) Per 9.25m of floor area	190
ii) Per employee per 8 hour shift	75
i) Cafeteria, per meal	12
j) Food outlet:	
i) excluding delicatessen, bakery and meat department, per 9.25m of floor space	40 190
ii) Per 9.25m of delicatessen floor space	190
iii) Per 9.25m of bakery floor space	380
iv) Per 9.25m of meat department floor space	950
v) Per water closet (washroom)	

Appendix E : Soils Types and Estimated T-times

Soil Type	Description	"T-time" (Percolation time)
Sand	Loose, single grains, can see individual grains. When squeezed in the hand, the soils mass falls apart when touched.	5-10 minutes/cm
Sandy Loam	Faint velvety feeling but with continued rubbing the gritty feeling of the sand dominates.	10-12 minutes/cm
Loam	Feels velvety that becomes slightly gritty with continued rubbing. Holds a cast easily.	12-15 minutes/cm
Silty Loam	Holds a cast easily. Slight tendency to ribbon between thumb and forefinger. Rubbed surface has a broken or rippled look.	15-20 minutes/cm
Clay Loam	Holds a cast easily. Pinched between thumb and forefinger, it forms a ribbon. Soil is sticky and puddles easily.	20-50 minutes/cm
Clay	Casts can bear considerable handling without breaking. Forms a flexible ribbon with thumb and forefinger. Rubbed surface has smooth, satin feeling. Sticky when wet. Shiny surface when cut with a knife.	Greater than 50 minutes/cm; unacceptable, needs imported soil

The following consultants provide testing services for determining "T-time":

TBT Engineering Ltd.
711 Harold Street
624-5160

DST Consulting Engineers Inc.
605 Hewitson Street
623-2929

exp Services Inc.
1142 Roland Street
623-9495

True Grit Consulting Ltd.
1263 Innovation Drive
626-5640

Appendix F:
Class 2 — Leaching Pit Requirements

To determine the construction requirements for the leaching pit, follow these steps:

A. To begin, determine the estimated time (T-Time) value of the soil to used from Appendix E of the application to determine how fast the greywater will drain into the surrounding soil.

B. Next you will use the T-time to determine the soil's acceptance of the greywater; this is called the loading rate. To calculate the loading rate (LR), divide the T-time into 400.

$$LR = \frac{400}{\text{T-time}}$$

C. Next, you will need to determine the number of fixture units by referring to Section I (Plumbing).

D. Next, determine how much greywater will drain into the system
When there is pressurized water, the volume is 200 litres per fixture unit
When there is no pressurized water, the volume is 125 litres per fixture

E. Next, take the number of fixture units and multiply it by the how much greywater will drain into the system to determine the total quantity of greywater.

For example, if you have two fixture units and there is no pressurized water:
Total quantity of greywater = 2 fixtures x 125L = 250 litres.

F. Next, to size the system, divide the total quantity of greywater by the loading rate to determine the value in meters squared.

F. Finally, determine the size of the side walls by dividing the size of the system by 4 as there are four side walls.

See the next page (page 23) for an example.

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Example:

The percolation time (T-time) is 4-12 minutes/cm; the higher number of 12 is used.

The loading rate is $LR = \frac{400}{\text{T-time}} \longrightarrow LR = \frac{400}{12} \longrightarrow LR = 33$

The number of fixture units is 2.

There is no pressurized water so volume of greywater per fixture unit is 125 litres.

The total quantity of greywater is determined by multiplying the number of fixture units X volume per fixture; in this example, 2 x 125 = 250 litres.

To size this system, divide the total quantity of greywater by the loading rate (LR); in this example, 250/33 = 7.5 meters square

To determine the size of each side wall, divide the size of the system by 4; in this example, 7.5/4 = 1.875 meters square

So, each side wall must be 1.875 meters square (20 square feet). The pit could be dug 1.3 meters (4 feet) deep and 1.5 meters (5 feet) wide.

Appendix G:
Class 4 Sewage Treatment System Requirements

Class 4 – Septic Tank Size Requirements

For a Class 4 septic tank, 3600 litres is the minimum tank size allowed under the OBC.

For residential occupancies, the septic tank must be twice the daily design sanitary sewage flow or Q X 2. Q is calculated on page 2 of your application.

For non-residential occupancies, the septic tank must be three times the daily design sanitary sewage flow or Q X 3.

If you are planning to install a garbage disposal unit, it is highly recommended to increase the septic tank capacity by 50%.

Class 4 – Leaching Bed Requirements

Once you have the daily sewage flow (Q) and the percolation rate (T-time), you can calculate the field-size (L) by using the following formula:

$$L = \frac{Q \times T\text{-time}}{200} = \text{minimum length of required distribution pipe}$$

Example:

If Q is 1600 for a 3 bedroom home and the T-time is 10/cm for clean sand:

$$L = \frac{1600 \times 10 \text{ minutes/cm}}{200} = 80 \text{ metres}$$

The field-size (L) is 80 metres OR 262 feet. For design purposes, 262 feet is rounded up to 275 feet as 275 can be divided evenly into 5 runs (or lengths) of distribution pipes, each 55 feet long

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Ontario Building Code — Reference 8.7.3 — Leaching Bed Requirements

The Ontario Building Code also stipulates that absorption trenches must be installed:

- At approximately the same length, and not more than 30 m (100 feet) lengths.
- At least 500 mm (20 inches) and not more than 900 mm (36 inches) in depth from final grade; refer to code.
- Centered at least 1.6m (6 feet) apart
- At least 900 mm (3 feet) at all points on the bottom of trench, above groundwater table, rock, or soil ; percolation rate greater than 50 minutes/cm
- With a distribution pipe that is sloped at 30 to 50 mm per 10 meter length, or ¼ to ½ inch per 10 feet With stone that is 19mm, clear, washed aggregate or between 19 and 53 mm screened aggregate.

Prior to backfilling, the stone covering the distribution pipe shall be covered with either geotextile fabric or untreated building paper.

Backfill, after the installation of the distribution pipe with leaching bed fill, in such a way as to ensure that after the leaching bed fill settles, the surface of the leaching bed will not form any depression.

The surface of the leaching pit shall be shaped to shed water and together with the side slopes of any raised portion, must be protected against erosion in such a manner as to not inhibit the evaporation and transpiration of waters from the soil or leaching bed fill, and to not cause plugging of the distribution pipe.

No part of the leaching bed can be sloped steeper than 25%, one units vertical to 4 units horizontal.

The leaching bed shall be designed and protected from compaction or stress or pressure that may;

a) result in the impairment or destruction of any pipe in the leaching bed, OR
b) may result in the smearing of soil or leaching bed fill.

EXAMPLE: An example of installation and construction practices in typical conditions is as follows:

1. Level the designated leaching bed area.
2. Dig in 0.76 meters (30 inches) to establish trenches. Place the system into the trench as follows: 150 mm (6 inches) crushed rock, the 100 mm (4 inches) pipe, an additional 50 mm (2 inches) rock over the pipe and a layer of untreated building paper or geotech cloth covering all the rock.
3. It is recommended to interconnect the ends of the distribution pipe with a solid pipe to ensure there is even distribution of effluent (e.g. wastewater).
4. A grass layer should be planted as soon as possible after the final inspection, to ensure that water is diverted from the septic filed and to lessen erosion.

Appendix H: Class 5 Sewage System Requirements

Holding Tank Sizing Requirements

The size of a holding tank is based on a holding capacity of 7 times the total daily sewage flow (Q), but not less than 9000 litres.

Q (from page 2 on application) _____ X 7 = _____ litres

Holding Tank Construction Requirements

Where a holding tank is approved, a written agreement for the disposal of the sanitary sewage from the sewage system must be entered into with a hauled sewage system operator.

All class 5 sewage systems shall be equipped with a devise that shall produce an audible and visual warning alarm that will notify when the holding tank is nearing capacity and requires pumping.

This alarm should provide sufficient warning to allow for the unpredictable response time of the hauled sewage system contractor.

Holding tanks must also be vented either by installing a vent pipe on the tank or connecting into the venting system of the building.

Appendix I: Pump

To determine the amount of effluent pumped per cycle in litres to the pump (e.g. volume), use the following:

3 inch diameter pipe:
V= 3.3 X L

4 inch diameter pipe:
V = 5.9 X L

Where:
L = total length of distribution pipe in the leaching bed

Appendix J: Completing Sections N & O of the Application

APPLICATION FOR SEWAGE SYSTEM PERMIT- PAGE 3

APPLICATION NO. 126-2013

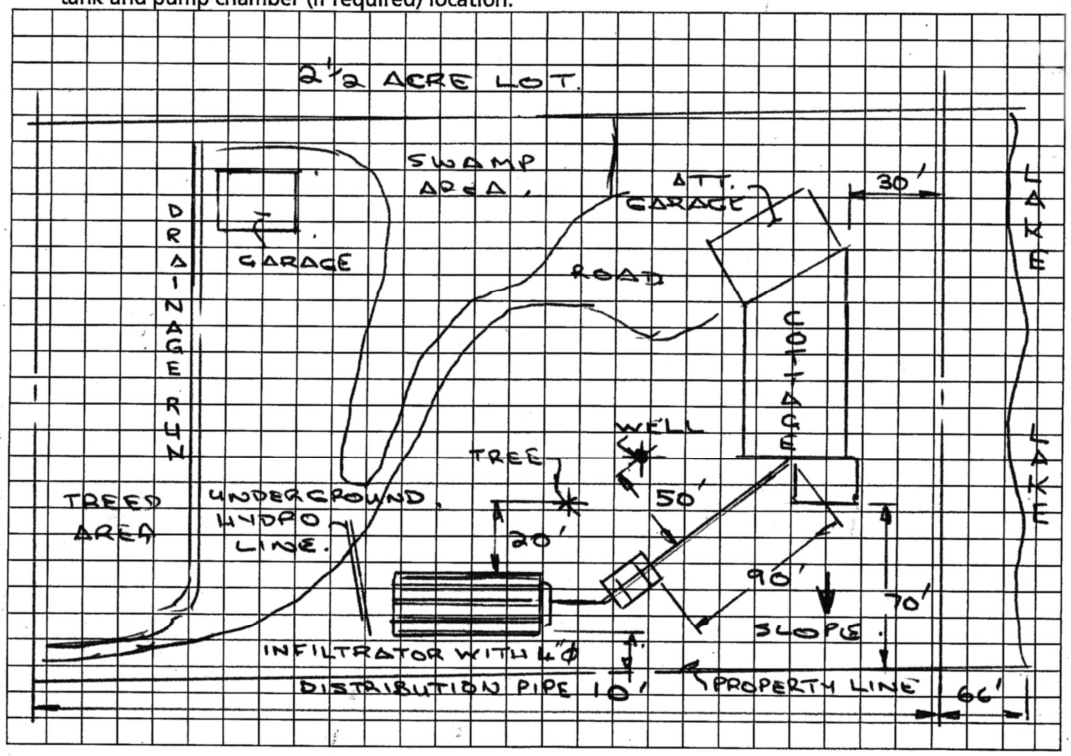
SECTION N **LOT DIAGRAM AND SITE PLAN**

Include the following on the site plan:

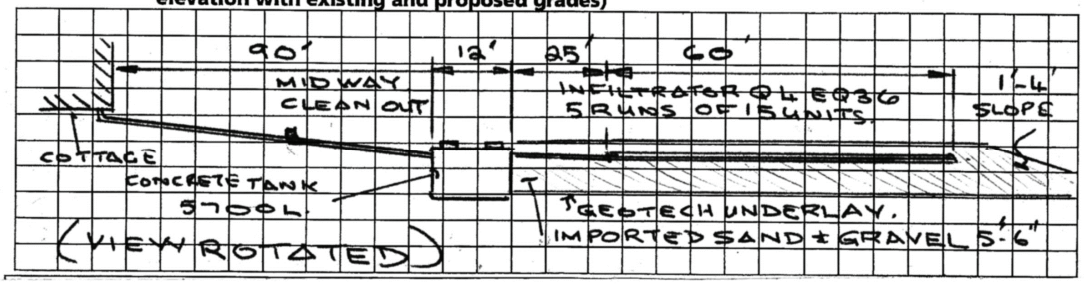
a) All buildings-proposed and/or existing, **wells [include neighbours' if less than 46 m (150 ft.)] away,** driveways, utility easements, etc.

b) Property lines, water courses, swamps, cliffs, bare rock, slope, etc.

c) Provide detailed sewage system diagram, including dimensions of leaching bed, sand mantle, septic tank and pump chamber (if required) location.



SECTION O - SEWAGE SYSTEM CROSS SECTION/SIDE PROFILE (of house, tank and sewage system elevation with existing and proposed grades)



Thunder Bay District Health Unit

COMPLETION NOTICE

The following form must be completed and returned to the office prior to use of the sewage system (OBC 2.4.3.1. (2)(q))

OWNER'S NAME	MAILING ADDRESS	PERMIT #
CONTRACTOR	**CONTRACTOR LICENCE #**	**PHONE #**

LEGAL DESCRIPTION OF PROPERTY – DISTRICT OF THUNDER BAY

TWP. WARD	LOT #	CONC. #	REFERENCE PLAN #	PLAN #
OTHER:				

TYPE OF SEWAGE SYSTEM

☐ Class 2 ☐ Class 4 (Conventional) ☑ Class 4 (Raised) ☐ Class 4 (Sec./Tertiary) ☐ Class 5 (Holding Tank)

Tank Size: 4500L ☐ Concrete ☑ PVC Effluent Filter: ☑ Yes ☐ No

Total Length of Pipe 100 m constructed in: ☐ Native soil ☑ Imported fill

Type of Pipe: ☐ Conventional ☑ Chamber Type of Treatment Unit & Model _____

Dimensions of Stone Layer _____ Dimensions of Sand Layer (contact area) _____

CHECK WHERE APPLICABLE:

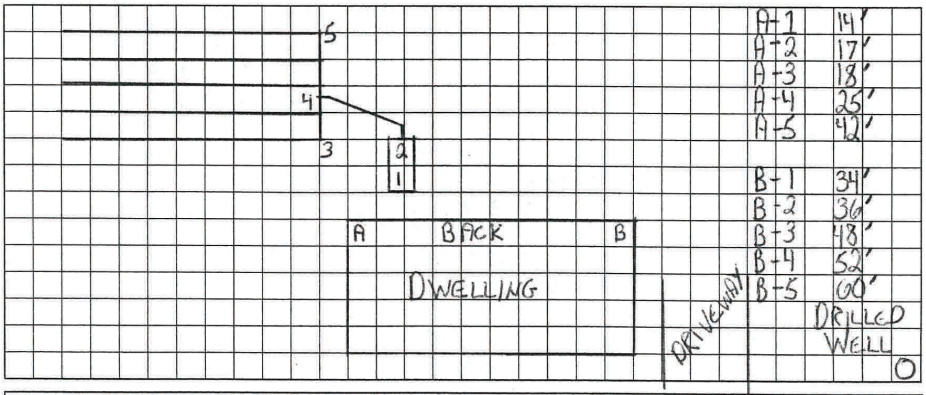
☑ Backfilled with suitable material	Date Completed: OCT 16 - 2012
☑ Sand mantle established, if applicable	Date Completed: OCT 16 - 2012
☑ Sewage System mounded to shed & divert water around leaching bed	Date Completed: OCT 16 - 2012
☑ Stabilize all sloped surfaces (4:1), (Raised leaching bed)	Date Completed: OCT 16 - 2012
☐ Pump installed, operational and float set appropriately, if applicable	Date Completed: N/A
☑ Seed or sod (to prevent erosion)	Expected Date Completed: SPRING/SUMMER 2013
☐ Audio and Visual Warning Alarms	Date Completed: N/A
☐ Installed and Operational (Class 5 only)	Date Completed: N/A

"AS BUILT" DIAGRAM

Please draw all components of sewage system (pump tank, septic tank and distribution area) in relations to building, well etc. for future reference and maintenance purposes. Determine two fixed points of reference and measure distances to each component.

I certify that the above information is correct ensuring full compliance of the Ontario Building Code:

INSTALLER'S SIGNATURE DATE



CERTIFICATION OF READINESS TO USE

(To Be Completed By Inspector)

I, _____ pursuant to the above notice under section 11 of the Building Code Act, AUTHORIZE FOR USE, the above-noted sewage system.

SIGNATURE OF INSPECTOR DATE

TBDHU12(rev03/11) **DISTRIBUTION: WHITE** – Office **BUFF** – Owner's Copy

Maintaining Your Sewage Treatment System

- The septic tank should be pumped every 3 to 5 years depending on use.
- Keep a maintenance record of your septic system.
- Common household habits that can create problems so please do not put these items down your septic system:
    - grease
    - coffee grounds
    - bones
    - cooking fats
    - cigarette butts
    - disposable diapers
    - paper towels
    - tissues
    - condoms
    - feminine hygiene products

Further Information

Thunder Bay District Health Unit
- 625-7990 or toll-free at 1-888-294-6630, ext. 7990

Ministry of Municipal Affairs & Housing—Ontario Building Code
- www.ontario.ca/buildingcode

Ontario Onsite Wastewater Association
- www.oowa.org

Ontario Rural Wastewater Centre
- www.uoguelph.ca/orwc/

Ontario Ministry of the Environment and Climate Change
- www.ontario.ca/ministry-environment-and-climate-change

Energy Efficiency Design Summary: Prescriptive Method

(Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority	
Application No:	Model/Certification Number

A. Project Information

Building number, street name		Unit number	Lot/Con
Municipality: Gillies	Postal code	Reg. Plan number / other description	

B. Prescriptive Compliance [indicate the building code compliance package being employed in this house design]

SB-12 Prescriptive (input design package): Package: _____ Table: _____

C. Project Design Conditions

Climatic Zone (SB-1):	Heating Equipment Efficiency	Space Heating Fuel Source
☐ Zone 1 (< 5000 degree days)	☐ ≥ 92% AFUE	☐ Gas ☐ Propane ☐ Solid Fuel
☐ Zone 2 (≥ 5000 degree days)	☐ ≥ 84% < 92% AFUE	☐ Oil ☐ Electric ☐ Earth Energy

Ratio of Windows, Skylights & Glass (W, S & G) to Wall Area		Other Building Characteristics
Area of walls = _____ m^2 **or** _____ ft^2	W, S & G % = _____	☐ Log/Post&Beam ☐ ICF Above Grade ☐ ICF Basement ☐ Slab-on-ground ☐ Walkout Basement ☐ Air Conditioning ☐ Combo Unit ☐ Air Sourced Heat Pump (ASHP) ☐ Ground Sourced Heat Pump (GSHP)
Area of W, S & G = _____ m^2 **or** _____ ft^2	Utilize window averaging: ☐ Yes ☐ No	

D. Building Specifications [provide values and ratings of the energy efficiency components proposed]

Energy Efficiency Substitutions

☐ ICF (3.1.1.2.(5) & (6) / 3.1.1.3.(5) & (6))

☐ Combined space heating and domestic water heating systems (3.1.1.2.(7) / 3.1.1.3.(7))

☐ Airtightness substitution(s)		
Airtightness test required (Refer to Design Guide Attached)	☐ Table 3.1.1.4.B Required: _____	Permitted Substitution: _____
	☐ Table 3.1.1.4.C Required: _____	Permitted Substitution: _____
	Required: _____	Permitted Substitution: _____

Building Component	Minimum RSI / R values or Maximum U-Value(1)		Building Component	Efficiency Ratings
Thermal Insulation	Nominal	Effective	**Windows & Doors** Provide U-Value(1) or ER rating	
Ceiling with Attic Space			Windows/Sliding Glass Doors	
Ceiling without Attic Space			Skylights/Glazed Roofs	
Exposed Floor			**Mechanicals**	
Walls Above Grade			Heating Equip.(AFUE)	
Basement Walls			HRV Efficiency (SRE% at 0°C)	
Slab (all >600mm below grade)			DHW Heater (EF)	
Slab (edge only ≤600mm below grade)			DWHR (CSA B55.1 (min. 42% efficiency))	# Showers___
Slab (all ≤600mm below grade, or heated)			Combined Heating System	

(1) U value to be provided in either $W/(m^2 \bullet K)$ or $Btu/(h \bullet ft^2 \bullet F)$ but not both.

E. Designer(s) [name(s) & BCIN(s), if applicable, of person(s) providing information herein to substantiate that design meets the buildingcode]

Qualified Designer Declaration of designer to have reviewed and take responsibility for the design work.		
Name	BCIN	Signature

F. Applicant [name of person applying for the building permit

Applicant Declaration of applicant that they will follow the above design provided by the BCIN designer.		
Name	BCIN	Signature

Guide to the Prescriptive Energy Efficiency Design Summary Form

This form must accurately reflect the information contained on the drawings and specifications being submitted. Refer to Supplementary Standard SB-12 for details about building code compliance requirements. Further information about energy efficiency requirements for new buildings is available from the provincial building code website or the municipal building department.

The building code permits a house designer to use one of four energy efficiency compliance options:

1. Comply with the *SB-12 Prescriptive* design tables (this form is for this option (Option 1)),
2. Use the *SB-12 Performance* compliance method, and model the design against the prescriptive standards,
3. Design to *Energy Star, or*
4. Design to *R2000* standards.

COMPLETING THE FORM

B. Compliance Options

Indicate the compliance option being used.

- *SB-12 Prescriptive* requires that the building conforms to a package of thermal insulation, window and mechanical system efficiency requirements set out in Subsection 3.1.1. of SB-12. Energy efficiency design modeling and testing of the building is not required under this option. Certain substitutions are permitted. In which case, the applicable airtightness targets in Table 3.1.1.4.A must be met.

C. Project Design Conditions

Climatic Zone: The number of degree days for Ontario cities is contained in Supplementary Standard SB-1
Windows, Skylights and Glass Doors: If the ratio of the total gross area of windows, sidelights, skylights, glazing in doors and sliding glass doors to the total gross area of walls is more than 17%, higher efficiency glazing is required. If the ratio is more than 22%, the *SB-12 Prescriptive* option may not be used. The total area is the sum of all the structural rough openings. Some exceptions apply. Refer to 3.1.1.1. of SB-12 for further details.
Fuel Source and Heating Equipment Efficiency: The fuel source and efficiency of the proposed heating equipment must be specified in order to determine which *SB-12 Prescriptive* compliance package table applies.
Other Building Conditions: These construction conditions affect *SB-12 Prescriptive* compliance requirements.

D. Building Specifications

Thermal Insulation: Indicate the RSI or R-value being proposed where they apply to the house design. Under the *SB-12 Prescriptive* option, alternative ICF wall insulation is permitted in certain conditions where other design elements meet higher standards. Refer to SB-12 for further details. Where effective insulation values are being used, the Authority Having Jurisdiction may require supporting documentation.

BUILDING CODE REQUIREMENTS FOR AIRTIGHTNESS IN NEW HOUSES

All houses must comply with increased air barrier requirements in the building code. Notice of air barrier completion must be provided and an inspection conducted prior to it being covered.

The air leakage rates in Table 3.1.1.4.A are not requirements. This provision is a voluntary provision for when credits for airtightness are claimed. Credit for air tightness allows the designer to substitute the requirements of compliance packages as set out in Table 3.1.1.4.B or 3.1.1.4.C. Neither the air leakage test nor compliance with airtightness targets given in Table 3.1.1.4.A are required, unless credit for airtightness is claimed. Table 3.1.1.4.A provides airtightness targets in three different metrics; ACH, NLA, NLR. Any one of them can be used.
OBC Reference Default Air Leakage Rates (Table 3.1.1.4.A)

Building Type	Airtightness Targets				
	ACH @ 50 Pa	NLA @ 10 Pa		NLR @ 50 Pa	
Detached dwelling	2.5	1.26 cm^2/m^2	1.81 $in^2/100ft^2$	0.93 $L/s/m^2$	0.18 $cfm50/ft^2$
Attached dwelling	3.0	2.12 cm^2/m^2	3.06 $in^2/100ft^2$	1.32 $L/s/m^2$	0.26 $cfm50/ft^2$

The building code requires that a blower door test be conducted to verify the air tightness of the house during construction if the *SB-12 Prescriptive* option with airtightness credit being applied. Results of the airtightness test may need to be submitted to the Authority Having Jurisdiction. Airtightness of less than 2.5 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of detached houses, or 3.0 ACH @ 50 Pa (or NLA or NLR equivalent) in the case of attached houses is necessary to meet the required energy efficiency standard.

E. House Designer

The building code requires designers providing information about whether a building complies with the building code to have a BCIN. Exemptions apply to architects, engineers and owners designing their own house.

Form authorized by OHBA, OBOA, LMCBO. Revised November 30, 2016.

Application for a Plumbing Permit

For use by Principal Authority	
Application number:	Permit number (if different):
Date received:	Roll number:

Application submitted to: **Township of Gillies,** 1092 Highway 595, Kakabeka Falls, ON, P0T 1W0

A. Project information			
Building number, street name		Unit number	Lot/con.
Municipality Gillies	Postal code	Plan number/other description	
Proposed Use of Building:			

B. Applicant Applicant is: ☐ Owner or ☐ Authorized agent of owner			
Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )		Cell number ( )

C. Owner (if different from applicant)			
Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )		Cell number ( )

D. Contractor			
Last name	First name	Corporation or partnership (if applicable)	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )		Cell number ( )

Fixtures		**Stacks and Vents**			
Item	**No. of Units**	**Item**	**No.**	**Diameter**	**Material**
Water Closets		Soil Stacks			
Kitchen Sinks		Vent Stacks			
Wash Tubs		Rain Water Leader			
Basins		Waste Pipes			
Bathtubs		Hose Drain			
Urinals		Floor Drain			
Hot Water Tank		Dishwasher			
Others		Bar Sink			
Shower					
Laundry					

E. Attachments

i. Attach documents establishing compliance with applicable law as set out in Article 1.1.3.3.

ii. Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.

iii. Attach types and quantities of plans and specifications for the proposed construction or demolition that are prescribed by the by-law, resolution, or regulation of the municipality, upper-tier municipality, board of health or conservation authority to which this application is made.

F. Declaration of applicant

I _____ certify that:
(print name)

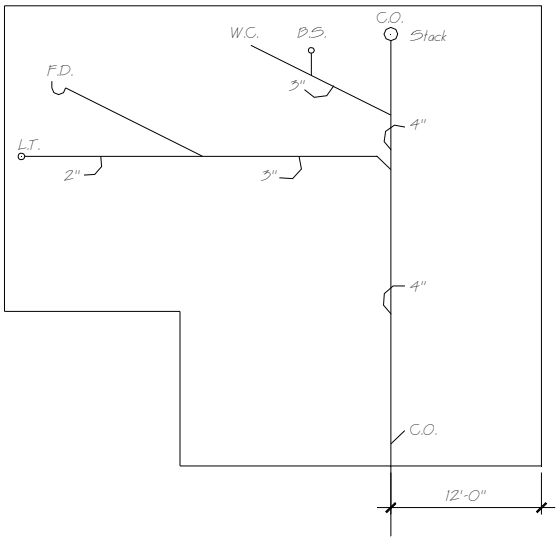
1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. I have authority to bind the corporation or partnership (if applicable).

_____ _____
Date Signature of applicant

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Diagram of Plumbing Installation

This Diagram is for Information and Guideline Only, other Installations maybe Accepted.

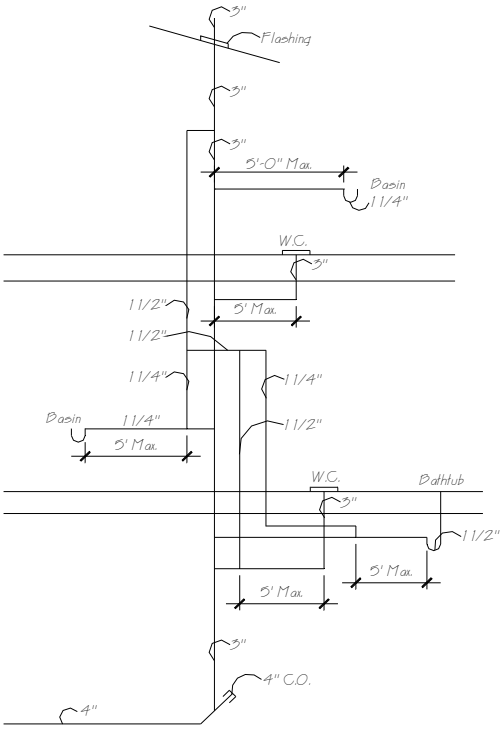


A - Ground Work

Note:

W.C. – Water Closet
F.D. – Floor Drain
B.S. – Basin
L.T. – Laundry Tub
K.S. – Kitchen Sink
C.O. – Clean Out

Indicate Location of Existing Plumbing



B – Isometric Drawing

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name			Unit no.	Lot/con.
Municipality	Postal code	Plan number/ other description		

B. Individual who reviews and takes responsibility for design activities

Name		Firm		
Street address			Unit no.	Lot/con.
Municipality	Postal code	Province	E-mail	
Telephone number ( )	Fax number ( )		Cell number ( )	

C. Design activities undertaken by individual identified in Section B. [Building Code Table 2.20.2.1]

❑ House	❑ HVAC – House	❑ Building Structural
❑ Small Buildings	❑ Building Services	❑ Plumbing – House
❑ Large Buildings	❑ Detection, Lighting and Power	❑ Plumbing – All Buildings
❑ Complex Buildings	❑ Fire Protection	❑ On-site Sewage Systems

Description of designer's work

D. Declaration of Designer

I _____ declare that (choose one as appropriate):
(print name)

❑ I review and take responsibility for the design work on behalf of a firm registered under subsection 2.17.4. of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: _____

Firm BCIN: _____

❑ I review and take responsibility for the design work and am qualified in the appropriate category as an "other designer" under subsection 2.17.5. of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

❑ The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification:_____

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have authority to bind the corporation or partnership (if applicable).

_____ _____
Date Signature of Designer

*For the purposes of this form, "individual" means the "person" referred to in Clause 2.17.4.7.(1)(d), Article 2.17.5.1. and all other persons who are exempt from qualification under Subsections 2.17.4. and 2.17.5.

NOTE:

1. Firm and Individual BCIN numbers are not required for building permit applications submitted prior to January 1, 2006
2. Schedule 1 does not need to be completed by architects, or holders of a Certificate of Practice or a Temporary License under the *Architects Act.*

Township of GILLIES A Growing Community	***Development Services Department*** *Building Division*	Office Use Only: Application #: _____ Date received: _____

Note: This form is to be accompanied by the following documentation:

- **Ministry of Environment (MOE) Well Record – permit copy***
- **Site plan showing well – refer to Township of Gillies outline**
- **Township of Gillies Certificate of Water Quantity* completed by a licenced Water Well Technician**

(* Note – where the Quantity pump test data/certificate (MOE record or Township of Gillies form) is more than 3 years old, it must be accompanied by a valid (updated) Township of Gillies Water Well Quantity Test form)

Please be advised the Township of Gillies does NOT REVIEW water quality results pertaining to water from private groundwater wells. Applicants for building permits are advised that educational material is available from various sources regarding the testing of water quality. Home builders and home-purchasers can use test results to pursue treatment and/or filtration options to determine what, if anything, needs to be implemented to make the well water suitable for domestic use and consumption.

Declaration – Responsibility for Quality of Well Water

I, _____, am the person, or authorized representative of the person, corporation
please print only
or partnership (as applicable) able to bind the party causing the construction of a dwelling unit which is the subject of the building permit application this document is provided in support of, as it applies to the property location described as:

_____ ,
Municipal address or where none assigned, legal description – Note: must describe the specific piece of property on which the well exists

and declare the following:

- the attached MOE Well Record _____ applies to the above-mentioned property,
  Well Tag # as per MOE Well Record

- acknowledge that I/we am/are aware the Township of Gillies is not involved in the review of the quality of the well water. It is understood that I/we must make the necessary determinations about the feasibly of treating the water from this well by obtaining and using test results from properly certified laboratories and investigating treatment techniques necessary to provide a potable water supply to serve the dwelling.

and, (choose only one of the following)

g I am the property owner and building permit applicant,
g I am a Tarion Homebuilder providing the home served by this well to a customer , OR
g I am the building permit applicant that will become the property owner and have responsibility for delivering a potable water supply to the dwelling unit using the above-referenced groundwater well

Print Name	Signature	Date

Township of GILLIES A Growing Community	***Development Services Department***	Office Use Only: Application Type: _____ Application #: _____ Date received: _____

GROUNDWATER WELL QUANTITY CERTIFICATE

This form is intended for use in an application applying to a SINGLE FAMILY DWELLING UNIT ONLY.
This information is considered valid for the purpose of obtaining a building permit for not more than 3 years from date of test.

This form is to be completed by the Water Well Technician responsible for testing to determine the quantity of water produced by the groundwater well for which well # _____ is submitted for the purpose of applying
Well tag # as per MOE Well Record

for a building permit to construct a new dwelling unit that will be serviced from this well.

Property Location: _____
Municipal address or where none assigned, legal description – Note: must describe the specific piece of property on which the well exists

Date Quantity Test Performed: _____
Month – Day - Year

Well Type: ☐ **Drilled** **or** ☐ **Dug**

MINIMUM PUMPING CAPACITY in 1st Hour

- The well was pumped at no less than an average of 4 gallons (18 litres)/minute for the 1st hour for a minimum total of 240 gallons (1,080 litres) in compliance with the Township's minimum standard.

RECOVERY (SUSTAINED) YIELD immediately after 1st Hour – Choose the appropriate box below

g For DUG OR DRILLED WELLS - In the 2nd subsequent hour or greater (i.e. _____ hours), the well recovered at an average rate of no less than 2 gallons/minute (9 litres/ minute).

g For DRILLED WELLS ONLY - the well recovered at an average rate of no less than 1gallon/minute (4.5 litres/ minute) in the subsequent 2 consecutive hours.

Does the groundwater well meet or exceed the above criteria? ☐ Yes ☐ No

Please report minimum recommended pump rate. _____ gal/min or _____ litres/min

Please report recovery rate on this date. _____ gal/min or _____ litres/min

---

Licenced Well Technician Declaration

I, _____, of the City of _____ am a
Please Print Name **Please Print**

Licenced Well Technician in the Province of Ontario and certify that all the statements contained herein are true.

_____ _____ _____
Signature of Licenced Well Technician **Licence Number** **Date**

Township of GILLIES A Growing Community	***Development Services Department***	Office Use Only: Application Type: _____ Application #: _____ Date Received: _____

WELL LOCATION SITE PLAN

Site plan to include the following:

- Overall clarity and neatness of presentation
- Dimensioned property lines
- Names of adjacent roads
- North direction arrow
- Dimensions showing well location from:
  - property lines
  - closest building/s on same property

Answer the following:

- Is there a driveway serving this property? _____ Yes _____ No
  If Yes show on sketch with dimensions
- Are there significant buildings (> 4 m x 4 m) existing on the property? _____ Yes _____ No
  If Yes show on sketch with dimensions

Property Location: _____

Municipal address or where none assigned, legal description – Note: must describe the specific piece of property on which the well exists

Mechanical Ventilation Design Review Form

Heat Recovery Ventilator Systems

To Be Completed & Submitted With The Building Permit Application

For use by Principal Authority

Application No.:	Permit No. (if different):
Date Received:	Roll No.:

Application submitted to: **Township of Gillies,** 1092 Highway 595, Kakabeka Falls, ON, P0T 1W0

A. Project Information

Building number, street name	Unit number	Lot/con.

Municipality Gillies	Postal Code	Plan number/other description

Purpose Use of Building:

B. Applicant

Applicant is: ☐ Owner or ☐ Authorized agent of owner

Last name	First Name	Corporation or partnership

Street addres	Unit number	Unit number

Municipality	Postal Code	Province	E-mail

Telephone number	Fax	Cell number

C. Type of Building

☐ 1.) Detached ☐ 2.) Row ☐ 3.) Multi-Residential ☐ 4.) Other

D. Type of Heating System(s)

☐ Forced Air ☐ Baseboard ☐ Other ☐ Solid Fuel Appliances

☐ Oil ☐ Gas ☐ Other

☐ Type I (1) ☐ Type II (1) ☐ Type III (1)

E. Hot Water Source

☐ Gas ☐ Other

☐ Type I (1) ☐ Type II (1) ☐ Type III (1)

F. Combustion Air

Provide Details

G. Type of Equipment Applied

H.R.V. (Certified to C.S.A. - C.22.2 No. 113 and Performance Tested to CSA c439/H.V.I.)

Manufacturer	
Brand Name	Model No.

H. Type of Controls

Dehumidistat With

☐ 1.) Interval Timers ☐ 2.) Manually Operated Switch ☐ 3.) HRV Controls(s) - must be centrally located adjacent to "circulation fan" control and identified. NOTE: manufacturers remote control unit acceptable

I. Type of Defrost

☐ 1.) Detached ☐ 2.) Bypass ☐ 3.) Recirculation ☐ 4.) Other

J. Distribution System

☐ 1.) Separate/Dedicated (Duct Size and Layout Drawing Required) (3) ☐ 2.) Integrated with Furnace (Direct Connection to R/A System Required) (4)

Manufacturer	Model No.
BTU/1000 Output	Design Static Pressure Diff. of R/A Plenum (Pa)

Multi Speed Fan	☐ Yes	☐ No
Continuous Operation	☐ Yes	☐ No
Preheating Required	☐ Yes (_____ Watts)	☐ No

(Control switch for systems which utilize the forced air heating/cooling systems must be centrally located and identified as the "CIRCULATION FAN".)

K. Supply Ventilation (Greater of A or B)

A) 'Rooms' Or B) Exhaust Ventilation Continuous

			L/s	cfm
Bsmt. & Master Bdrm.	____	@ 10 L/s (20 cfm)		
Other Bedrooms	____	@ 5 L/s (10 cfm)		
Bathrooms & Kitchen	____	@ 5 L/s (10 cfm)		
Other Habitable Rooms	____	@ 5 L/s (10 cfm)		
		Total		

			L/s	cfm
Kitchens	____	@ 30 L/s (60 cfm)		
Bathrooms	____	@ 15 L/s (20 cfm)		
		Total		

Minimum Supply Required (5)

L. Outside Vented Mechanical Exhaust System

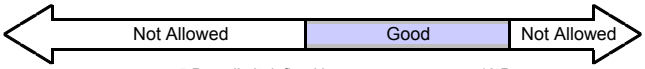
	L/s	cfm
☐ Clothes Dryer (Default 160 cfm)		
☐ Central Vacuum		
☐ Kitchen Range Hood (Default 100 cfm)		

	L/s	cfm
☐ Bathroom (Default 50 cfm)		
☐ Other		
Total		

M. Relief/Makeup Air Required Provide details how Relief/Makeup Air is achieved.

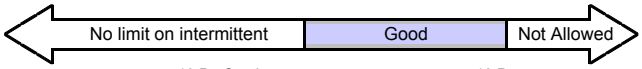
N. CSA F326 House Pressure Limits

1. For houses with non-direct vent combustion appliances.



-5 Pa or limit defined by maunufacturer of heating equipment (not more than -10 Pa) 10 Pa

2. For houses with only direct vent combustion appliances.



-10 Pa Continuous 10 Pa

Note: - Include all ventilation fans in test.
- Also include the dryer and the next largest fan for intermitten (Reference Exhaust) pressure measurement.

O. Addendum To Application

Note (1) Combustion Appliance Category

Type I - Natural Draft Type

Type II - Induced Draft Type

Type III - Sealed Unit or Non-Fuel Burning Appliances

Note (2) Soild fuel appliance must have provisions for combustion air.

Note (3) Part 9 of the Ontario Building Code has duct sizing provisions for dedicated systems.

Note (4) This Department assumes that all furnaces/ductwork are sized in accordance with good engineering practice. As per Part 6 of the Ontario Building Code.

Note (5) Must include low temperature ventilation correction rate for HRV.

Note (6) This Department strongly recommends that each project is field tested to determine relief/make-up are requirements.

P. Certified Designer

Last name	First Name	Registration/Cert.#/BCIN	
Street addres		Unit number	Unit number
Municipality	Postal Code	Province	E-mail
Telephone number	Fax	Cell number	
Date	Signature		

BUILDING PERMITS MUST BE OBTAINED BEFORE YOU START WORK ON A NEW HOUSE, OR AN ADDITION, OR ANY ALTERATIONS TO AN EXISTING HOUSE WHICH ARE SIGNIFICANT IN NATURE. PERMITS ARE GEARED TO THOSE PROJECTS WHERE HEALTH & SAFETY MATTERS ARE INVOLVED, AND EXIST TO PROTECT YOU, OTHER HOMEOWNERS, BUILDING OCCUPANTS, FUTURE OWNERS AND THE COMMUNITY.

WHEN DO I NEED A PERMIT ?

CONTACT YOUR LOCAL MUNICIPAL OFFICES FOR SPECIFIC PERMIT REQUIREMENTS FOR ANY PARTICULAR PROJECT.

PERMITS ARE NORMALLY REQUIRED FOR:

Building any detached structure larger than 108 ft.^{2}
Building any addition to your home
Raised porches or decks
Carports or garages
Structural alterations
Moving or lifting your house
Installing a wood stove or fireplace
Partitioning a basement or adding a basement entrance
Creating an apartment in your house
Altering or adding any plumbing
Demolishing a house

PERMITS ARE NOT NORMALLY REQUIRED FOR:

Detached structures 108 ft.^{2} or less in area
Decks which are at or close to grade
Replacement of windows, doors, roofing or siding
New interior wall, floor or ceiling finishes
Repairs to chimneys, porches, decks or roofs
Waterproofing repairs to a basement
Replacement of plumbing fixtures
Replacement of a furnace

HOW DO I GET A PERMIT?

1. Prepare drawings which accurately and to scale describe the construction you propose. Standard technical details are available at your local municipal offices to assist in the preparation of your plans. The attached sample plans are an example of the scope of drawings usually required for an addition to a house. THESE DRAWINGS ARE NOT INTENDED FOR USE IN YOUR PERMIT APPLICATION. It is usually advisable to verify with your local municipal offices that your proposed site plan will meet local zoning standards before you prepare the complete construction plans.
2. Visit your local municipal offices, and complete a building permit application.
3. Provide the required number of copies (usually 2 or 3) of the construction drawings, including a site plan.
4. Pay the permit fee.

WHEN WILL I GET THE PERMIT?

Your permit will usually be issued promptly if your drawings are complete and the proposed construction meets local zoning standards, the Ontario Building Code and the the requirements of other agencies such as the Conservation Authority.

WHAT DO I HAVE TO DO AFTER I GET THE PERMIT?

Review your approved permit drawings before you start work, and keep them on the project site. The permit must be posted in a conspicuous place on your property prior to starting work. You can commence construction any time after obtaining the permit and your permit will remain valid for a minimum of six months. Local utilities such as hydro, gas and telephone operate independently from your municipality and should be contacted regarding their specific approval and inspection requirements. All utilities must be contacted prior to commencing any excavation to determine the location of any nearby underground services.

Inspection requirements are normally noted on your permit drawings or the permit itself and must be arranged by calling the municipal building inspection offices prior to covering the work. For a house addition, an inspection is usually required for footings & foundations, structural framing, plumbing, insulation and vapour barriers and a final inspection before using the new space. Smaller projects such as decks, garages and minor alterations will usually involve fewer inspections.

If changes to the approved work are anticipated, speak with the inspector to determine if a revision to your permit is required. PLEASE REMEMBER TO WORK SAFELY!

A GUIDE TO BUILDING PERMITS

DWG. NO.
A01
07-98

CONSTRUCTION SPECIFICATIONS

1 BRICK VENEER WALL

4" FACE BRICK, 1" AIR SPACE
0.03 THICK X 7/8" WIDE
GALVANIZED METAL TIES
INSTALLED W/ GALVANIZED
SPIRAL NAILS OR SCREWS
32" O.C. HORIZ., 16" O.C. VERT.
SHEATHING PAPER, LAYERS
TO OVERLAP EACH OTHER
EXTERIOR TYPE SHEATHING
2"X6" WOOD STUDS @ 16" O.C.
R 17 BATT INSUL. IN CONTINUOUS
CONTACT W/ EXTERIOR SHEATHING
CONTINUOUS AIR / VAPOUR BARRIER
1/2" INTERIOR DRYWALL FINISH
DOUBLE PLATE @ TOP
SOLE PLATE @ BOTTOM

2 FOUNDATION WALL

BITUMINOUS DAMPPROOFING ON
MINIMUM 1/4" PARGING ON
CONCRETE BLOCK FDN. WALL
TOP BLOCK COURSE FILLED
W/ MORTAR OR CONCRETE
PROVIDE PARGING COVED OVER
18"X 6" POURED CONC. FOOTING
TO BEAR ON UNDISTURBED SOIL
PROVIDE DRAINAGE LAYER
- MIN. 3/4" MINERAL FIBRE
  INSULATION W/ A DENSITY OF
  NOT LESS THAN 3.6 LB./FT. OR
- MIN. 4" OF FREE DRAINING
  GRANULAR MATERIAL OR
- A B.M.E.C. APPROVED
  DRAINAGE LAYER MATERIAL

3 BRICK VENEER @ FDN. WALL

20 MIL POLY FLASHING MINIMUM
6" UP BEHIND SHEATHING PAPER
WEEP HOLES @ MIN. 2'-7" APART

4 GRADE

SLOPE GRADE AWAY FROM
BUILDING FACE & PROVIDE
SEMI-SOLID BLOCK COURSE
AT OR BELOW GRADE LEVEL

5 SILL PLATE

2"X6" SILL PLATE FASTENED
TO FOUNDATION WALL WITH
MIN. 1/2" DIA. ANCHOR BOLTS
EMBEDDED MIN. 4" IN CONCRETE
@ 7'-10" O/C. MAX. & PROVIDE
CAULKING OR GASKET BETWEEN
PLATE & FOUNDATION WALL

6 FLOOR INSULATION

CONTINUOUS HEADER JOIST WITH
R 17 BATT INSULATION, EXTEND
VAPOUR / AIR BARRIER & SEAL
TO JOIST AND SUBFLOOR

7 FOUNDATION INSULATION

1/2" INTERIOR DRYWALL FINISH
2"X3" WOOD STRAPPING @ 16" O/C.
MIN. R8 INSULATION W/ 6 MIL POLY
AIR / VAPOUR BARRIER FULL HEIGHT.
MOISTURE BARRIER TO HEIGHT OF
EXTERIOR GRADE BETWEEN
FOUNDATION WALL & WOOD FRAMING

8 BASEMENT SLAB

3" POURED CONCRETE SLAB
(3600 PSI CONC. STRENGTH)
4" CRUSHED STONE BELOW

9 DRAINAGE

4" DIA. WEEPING TILE W/
6" CRUSHED STONE COVER

10 ROOF CONSTRUCTION

20 YEAR ASPHALT SHINGLES ON MIN.
3/8" EXTERIOR PLYWOOD SHEATHING
ON APPROVED ROOF TRUSSES OR
CONVENTIONAL FRAMING (SEE PLANS)
USE 'H' CLIPS IF 24" O.C. SPACING

11 OVERHANG CONSTRUCTION

PREFINISHED ALUMINUM FASCIA,
EAVESTROUGH & RAIN WATER LEADERS
TO MATCH EXISTING FINISHES. PROVIDE
DRIP EDGE AT FASCIA & VENTED SOFFIT
EXTEND DOWNSPOUTS TO GRADE LEVEL

12 ROOF VENTILATION

1:300 OF THE INSULATED CEILING
AREA UNIFORMLY DISTRIBUTED.

13 EAVES PROTECTION

EAVES PROTECTION MEMBRANE TO
EXTEND FROM THE EDGE OF THE
ROOF, 36" UP THE SLOPE BUT NOT
LESS THAN 12" BEYOND THE INTERIOR
FACE OF THE EXTERIOR WALL

14 CEILING CONSTRUCTION

5/8" INTERIOR DRYWALL FINISH
CONTINUOUS AIR / VAPOUR BARRIER
W/ MINIMUM R 31 BATT INSULATION

15 WALL/CEILING INSULATION

CARRY MIN. R12 INSULATION
TO COVER THE INTERIOR FACE
OF THE EXTERIOR WALL

16 FLOOR CONSTRUCTION

5/8" T&G PLYWOOD SUBFLOOR
2X8 FLOOR JOISTS @ 16" O/C.
FLOOR JOISTS BRIDGED W/
CONTINUOUS 1"X3" STRAPPING OR
2 ROWS OF 2"X2" CROSS BRIDGING
OR SOLID BLOCKING

17 INTERIOR STUD PARTITION

1/2" DRYWALL FINISH BOTH SIDES OF
2"X4" WOOD STUDS @ 16" O/C
2 TOP PLATES & 1 BOTTOM PLATE
PROVIDE SOUND ATTENUATION
INSULATION IN BATHROOM WALLS
& WHERE INDICATED ON PLAN

18 MECHANICAL VENTILATION

PROVIDE MIN. 1 AIR CHANGE
PER HOUR IN ROOMS SPECIFIED
TO BE MECHANICALLY VENTED
80 CFM FOR BATH PRIMARY VENTS

19 STAIRS INTERIOR/EXTERIOR

MAXIMUM RISE	=	7 7/8"
MINIMUM RISE	=	4 7/8"
MINIMUM RUN	=	8 1/4"
MAXIMUM RUN	=	14"
MINIMUM TREAD	=	9 1/4"
MAXIMUM TREAD	=	14"
MAXIMUM NOSING	=	1"
MINIMUM WIDTH	=	2'-10"
MINIMUM HEADROOM	=	6'-5"

20 GUARDS

INTERIOR LANDINGS	=	2'-11"
EXTERIOR BALCONY	=	3'-6"
INTERIOR STAIRS	=	2'-11"
EXTERIOR STAIRS	=	2'-11"
MAX. BETWEEN PICKETS	=	4"

GUARD HEIGHT IF
DECK TO GRADE IS:

GREATER THAN 5'-11"	=	3'-6"
5'-11" OR LESS	=	2'-11"

NO MEMBER OR ATTACHMENT
BETWEEN 4" & 2'-11" HIGH
SHALL FACILITATE CLIMBING

21 ATTIC ACCESS

PROVIDE ATTIC ACCESS
MIN. 20"X 28" W/ INSULATION
& WEATHER STRIPPING

22 PIERS

PROVIDE 8" DIA. SONO TUBE
FOR POURED CONCRETE PIERS
MINIMUM 4'-0" BELOW GRADE

23

EXISTING SOLID MASONRY
EXTERIOR WALLTO REMAIN.

24

3 1/2" DIA. PIPE COLUMN W/
6X6X3/8" TOP & BOTTOM PLATE
38"X38"X16" CONCRETE FOOTING

25

EXISTING FLOOR STRUCTURE
TO REMAIN.

26

EXISTING CEILING STRUCTURE
TO REMAIN.

27

REMOVE EXISTING EXTERIOR WALL
AS SHOWN DOTTED

28

REMOVE EXISTING INTERIOR STUD
PARTITIONS AS SHOWN DOTTED

29

REMOVE EXISTING ROOF OVERHANG
AS SHOWN DOTTED

30

REMOVE EXISTING FOUNDATION WALL
AS SHOWN DOTTED

31

REMOVE EXISTING WINDOW & FRAME
MAKE GOOD OPENING W/ BRICK TO
MATCH EXISTING ON THE EXTERIOR

32

INSTALL A CARBON MONOXIDE
DETECTOR CONFORMING TO
CAN/CGA-6.19 OR UL 2034

A small housing addition will usually require the submission of the following drawings. All drawings must be accurately drawn to scale, in ink.

SITE PLAN

A SITE PLAN is a drawing showing the complete property and identifying all structures in relation to the property boundaries. It should include:

- Scale
- North arrow
- Lot lines & dimensions
- Existing & proposed construction & dimensions
- Setbacks & lot lines
- Proposed changes to existing grade

FLOOR PLANS

A FLOOR PLAN is a drawing of the structure as seen as if it is cut horizontally a few feet above the floor lines. One floor plan is required for every floor of the house which is affected by the new construction. Each plan shows the interior layout of the level in question as well as providing the structural framing information for the floor or roof above. Floor plans should include:

- Scale
- Use of rooms & spaces
- Dimensions
- Extent of new construction including new work within existing building
- Size, type and location of exterior and interior walls and partitions
- Widths, locations and lintel sizes of all openings
- Location, dimensions and direction of stairs
- Sectional arrows
- References to detailed drawings
- Material specifications or notes
- Heating details and calculations

ELEVATIONS

ELEVATIONS show the exterior view of each side of the house. Each elevation is identified by the direction it is facing, and should include:

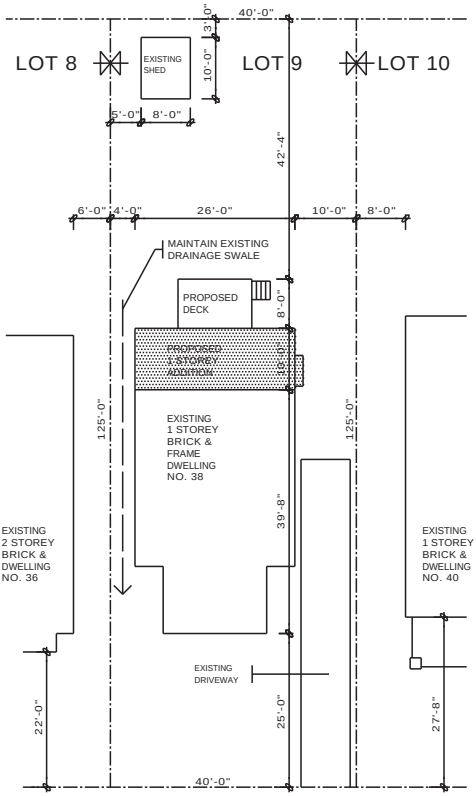
- Scale
- Extent of new & existing construction
- Vertical dimensions of walls, windows & doors
- Grade level
- Exterior wall cladding, finishes & flashing
- Overhang dimensions
- Roof shape, slope & finish
- Rain water leader & eavestrough

SECTIONS and DETAILS

A SECTION represents a view of the house along an imaginary line at a particular location, & illustrates construction details. The extent of the sections should correspond with the sectional arrows shown on the plans. Sections should indicate the following:

- Scale
- Details of footings, foundations, walls, floors & the roof
- Distance from grade to floor & underside of footing
- Attic & crawl space ventilation

At times a specific aspect of the project may require specific details. An inventory of standard construction details is available from your local municipal offices, which can be used to augment your plans.



SITE PLAN

SCALE 1"= 15'-0"

SKETCH OF SURVEY OF
LOT 9
REG.'D PLAN 4220
CITY OF TORONTO
B.C. TRANSIT. O.L.S.
DECEMBER 31ST, 1999

KHALMUR CRESCENT

ZONING	LOT NO:	PLAN NO:	LOT AREA	LOT FRONTAGE	LOT DEPTH
R2 Z0.6	LOT 9	4220	6250.00 S.F. (580.64)	50.00' (15.24)	125.00' (38.10)

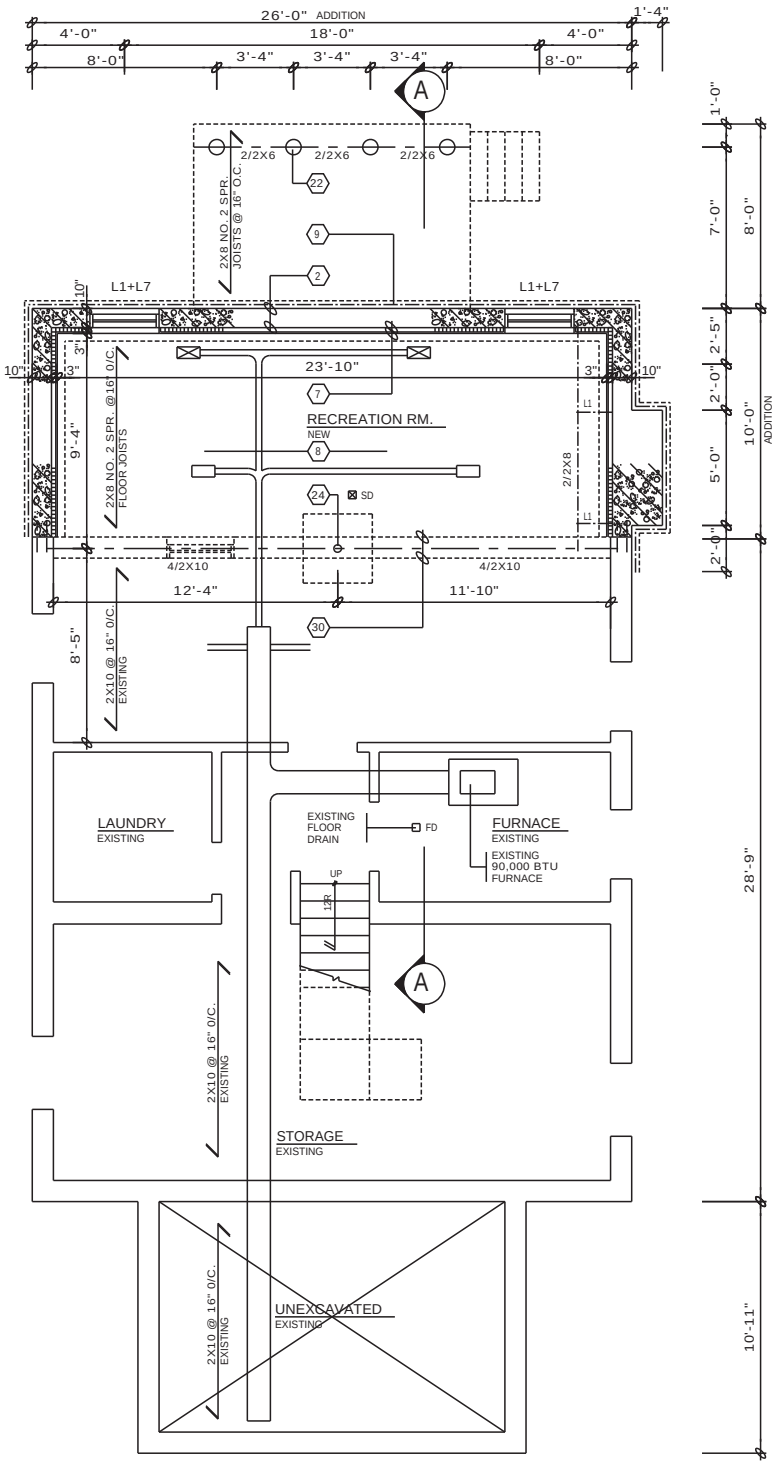
DESCRIPTION	EXISTING	ADDITION	TOTAL	%	ALLOWED	%
LOT COVERAGE	931.26 S.F. (86.52)	260.00 S.F. (24.15)	1191.00 S.F. (110.65)	19.0	- - - - - - - -	
GROSS FLOOR AREA	931.26 S.F. (86.52)	260.00 S.F. (24.15)	1191.00 S.F. (110.65)	19.0	3750.00 S.F. (348.39)	60.0
LANDSCAPED AREA	- - - - - - - -	- - - - - - - -	- - - - - - - -		- - - - - - - -	
NO. OF STORIES HEIGHT	1 STOREY 14'-11" (4.55)	1 STOREY 14'-11" (4.55)	1 STOREY 14'-11" (4.55)		32'-10" (10.00)	
WIDTH	26'-0" (7.93)	26'-0" (7.93)	26'-0" (7.93)		- - - - - - - -	
DEPTH	39'-8" (12.09)	10'-0" (3.50)	49'-8" (15.14)		55'-9" (17.00)	
PARKING	- - - - - - - -	- - - - - - - -	- - - - - - - -		- - - - - - - -	

SETBACKS	EXISTING	PROPOSED
FRONT YARD	25'-0" (7.62)	25'-0" (7.62)
REAR YARD	60'-4" (18.39)	42'-4" (12.90)
INTERIOR SIDE (east)	10'-0" (3.50)	10'-0" (3.50)
INTERIOR SIDE (west)	4'-0" (1.20)	4'-0" (1.20)
EXTERIOR	- - - - - - - -	- - - - - - -

NOTE: ZONING RESTRICTIONS VARY IN EVERY MUNICIPALITY. CONTACT YOUR LOCAL MUNICIPAL OFFICE FOR SPECIFIC SETBACKS AND OTHER LIMITATIONS IN YOUR AREA.

A SAMPLE DRAWING FOR
PERMIT APPLICATION
Site Plan & Zoning Information

DWG. NO.
A03
07-98

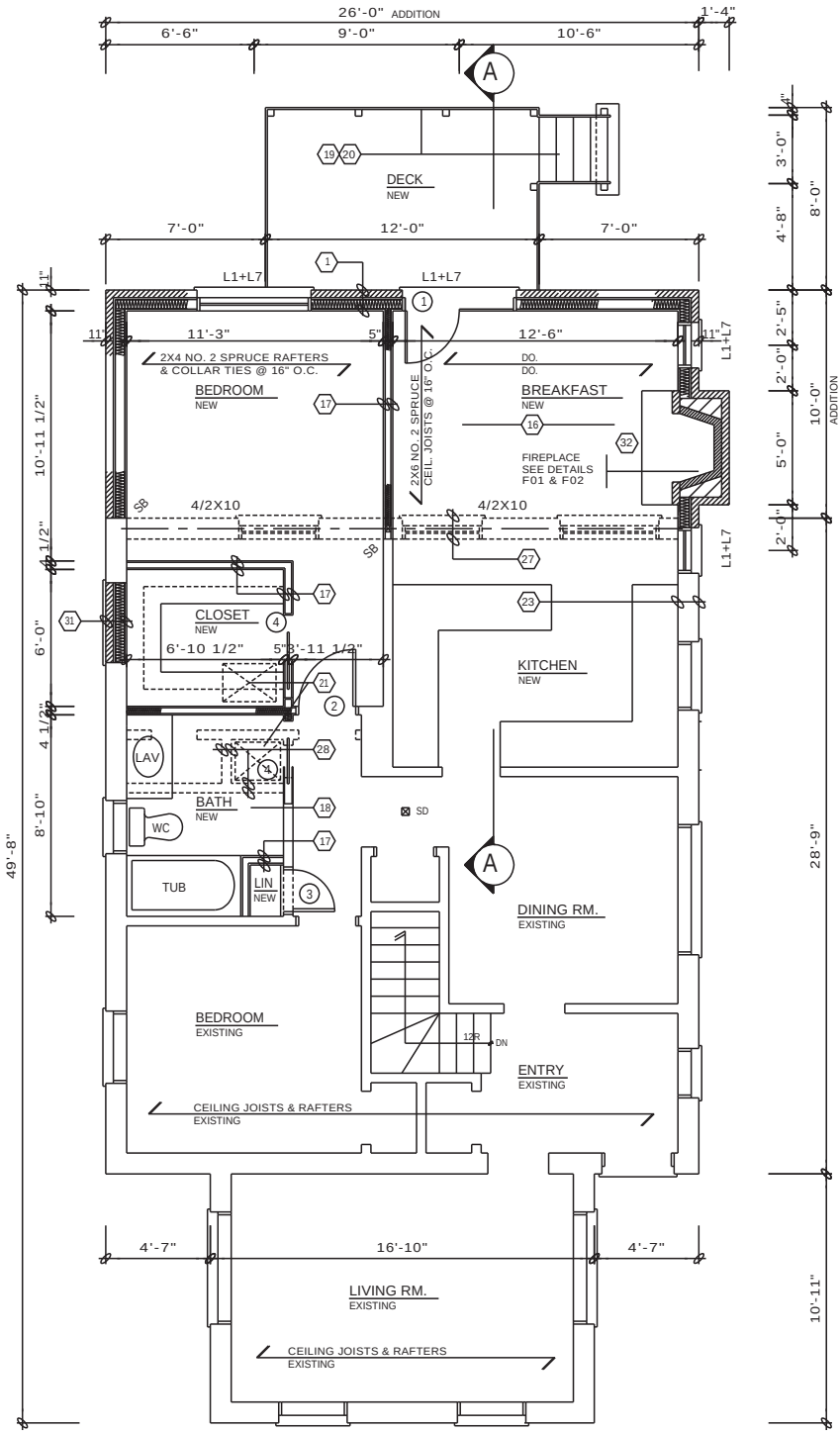


BASEMENT PLAN

SCALE 3/16" = 1'- 0"

SAMPLE DRAWING FOR
PERMIT APPLICATION
Basement Plan

DWG. NO.
A04
07-98



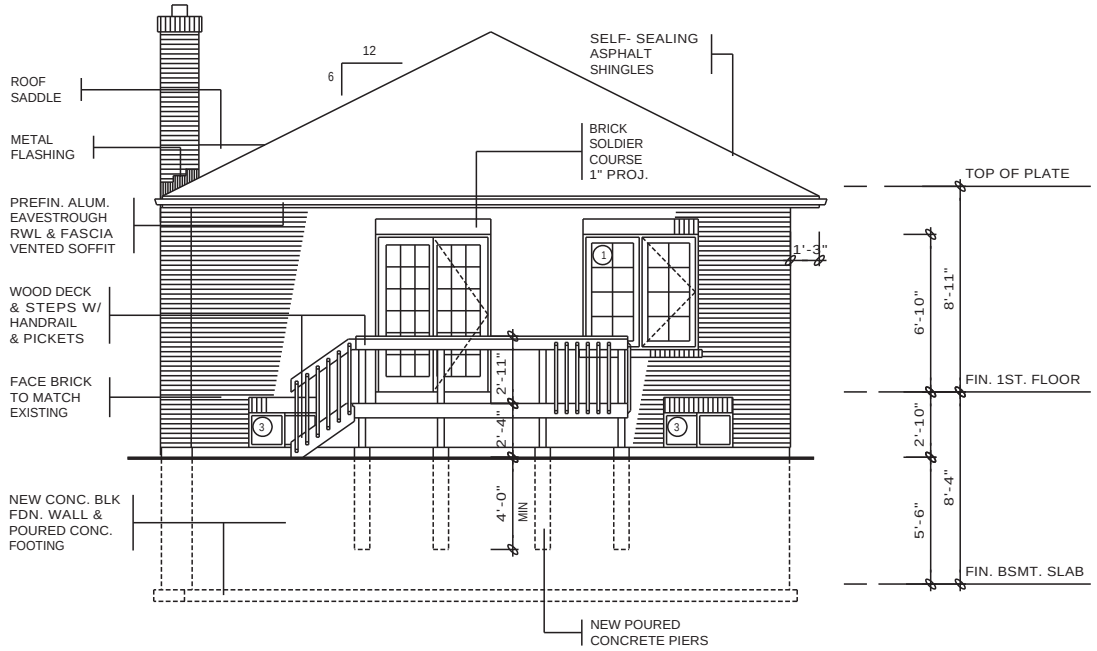
GROUND FLOOR PLAN

SCALE 3/16" = 1'- 0"

SAMPLE DRAWINGS FOR
PERMIT APPLICATION
Ground Floor Plan

DWG. NO.
A05
07-98

SAMPLE DRAWINGS FOR PERMIT APPLICATION
Elevation

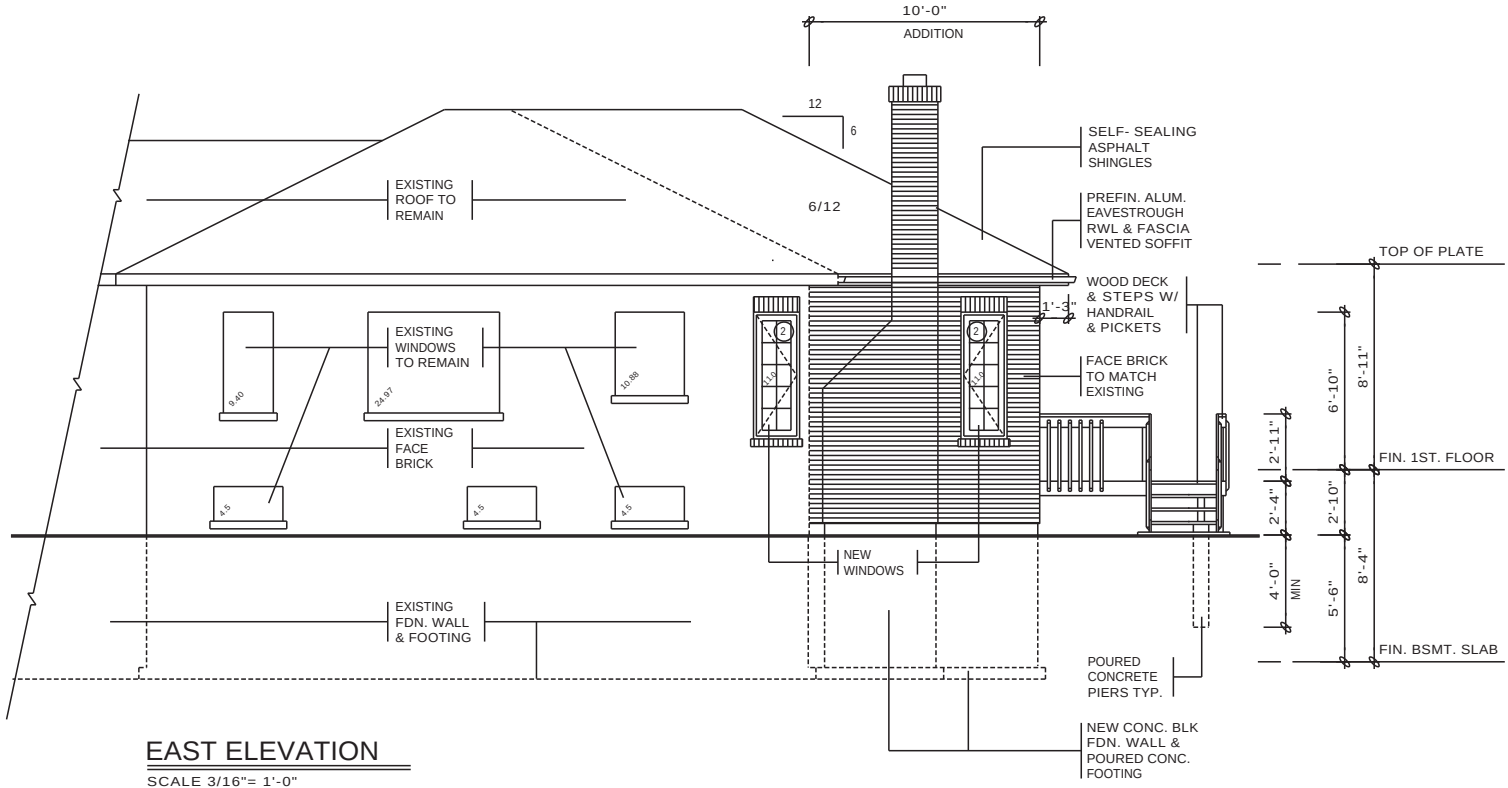


NORTH ELEVATION

SCALE 3/16"= 1'-0"

DWG. NO. A06
07-98

SAMPLE DRAWINGS FOR PERMIT APPLICATION
Elevation



EAST ELEVATION

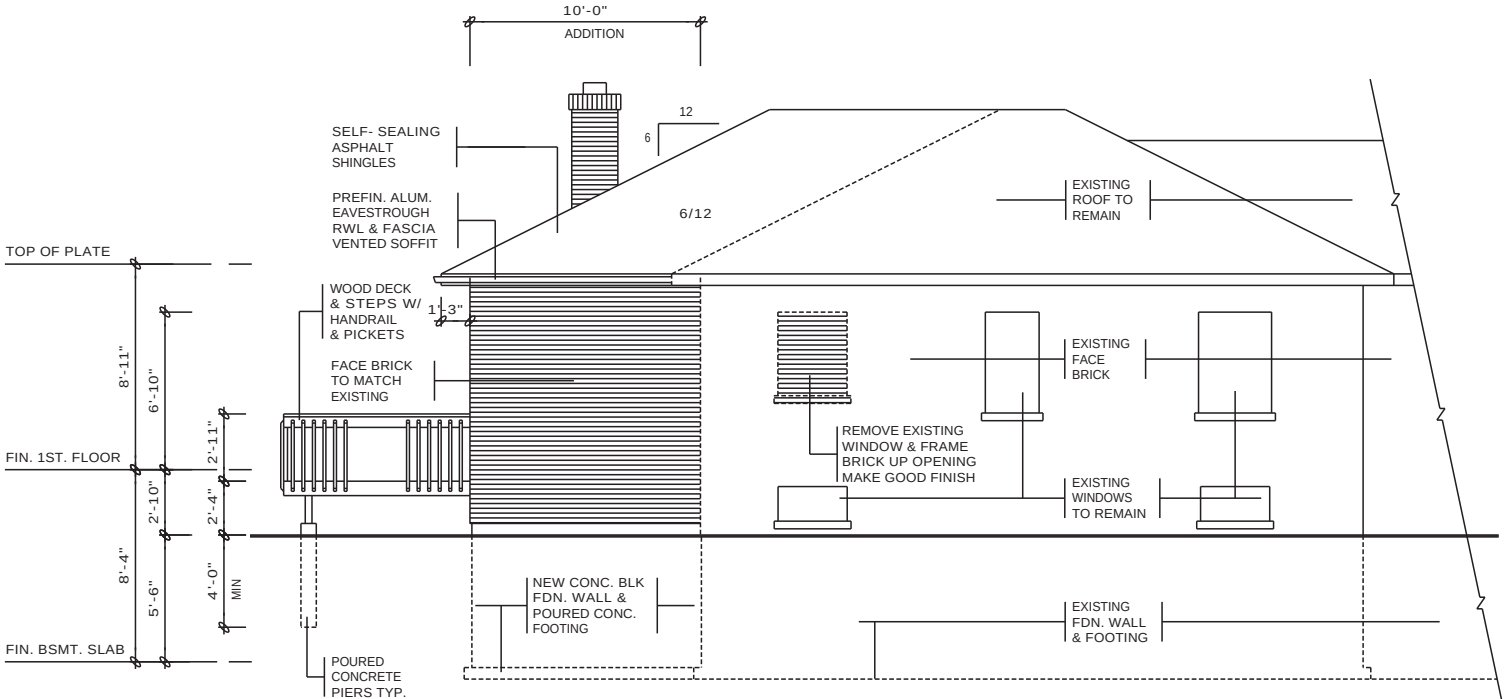
SCALE 3/16"= 1'-0"

UNPROTECTED OPENINGS

WALL AREA	537.93 SQ.FT
LIMITING DISTANCE	10'-0" @ 19.43%
MAX. ALLOWABLE OPENINGS	104.52 SQ.FT.
TOTAL OPENINGS PROVIDED	102.05 SQ.FT.

DWG. NO.
A07
07-98

SAMPLE DRAWINGS FOR PERMIT APPLICATION
Elevation



WEST ELEVATION

SCALE 3/16"= 1'-0"

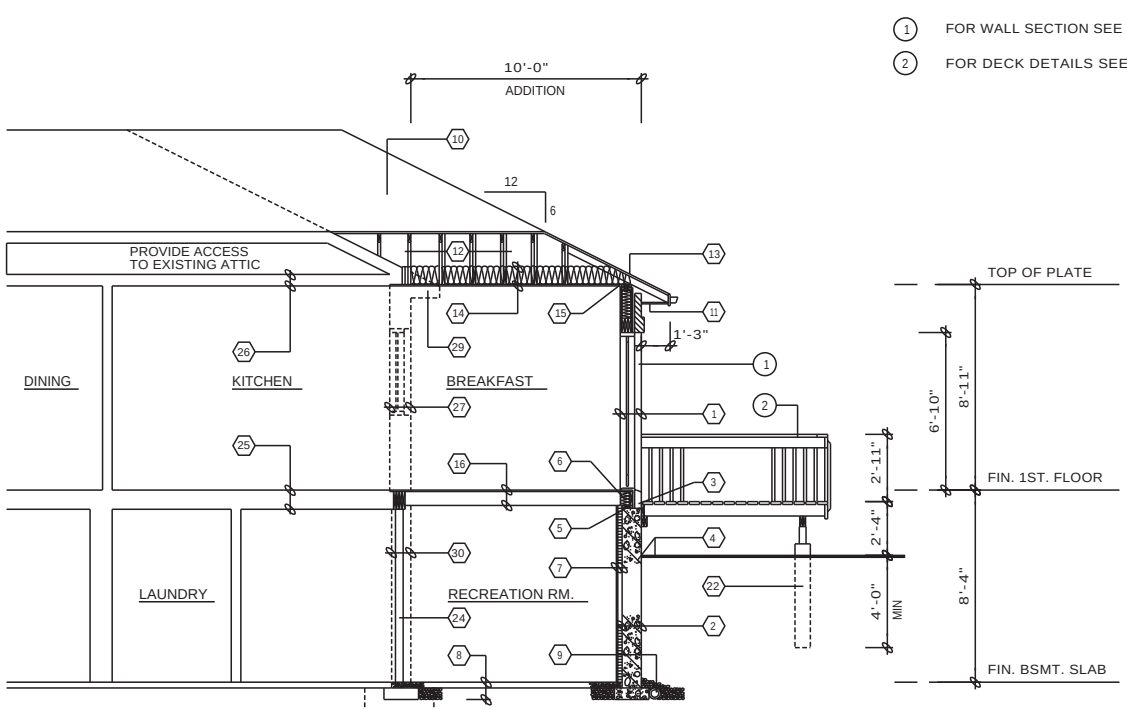
UNPROTECTED OPENINGS

NO NEW OPENINGS
EXISTING TO REMAIN

DWG. NO. A08
07-98

SAMPLE DRAWINGS FOR PERMIT APPLICATION
Cross Section

DWG. NO.
A09
07-98



SECTION 'A-A'

SCALE 3/16"= 1'-0"

ROOM FINISH SCHEDULE

RM. NO.	ROOM NAME	FLOOR		BASE		WALLS		CEILING			REMARKS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	
	FIRST FLOOR										
1.	KITCHEN	CERAMIC TILE	- - - - - -	WOOD	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	8'-11"	
2.	BREAKFAST	WOOD	STAIN	WOOD	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	8'-11"	MAPLE TO MATCH EXISTING
3.	BEDROOM	WOOD	STAIN	WOOD	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	8'-11"	MAPLE TO MATCH EXISTING
4.	CLOSET	WOOD	STAIN	WOOD	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	8'-11"	MAPLE TO MATCH EXISTING
5.	BATH	CERAMIC TILE	- - - - - -	WOOD	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	8'-11"	
	BASEMENT										
6.	REC. ROOM	CONC.	CERAMIC TILE	WOOD	PAINT	DRYWALL	PAINT			7'-8"	

DOOR SCHEDULE

NO.	TYPE	SIZE	QTY.	REMARKS
1.	EXTERIOR	5'-0"X 6'-8"	1.	FRENCH DOOR
2.	SLAB	2'-6"X 6'-8"	1.	800 SERIES
3.	SLAB	2'-0"X 6'-8"	1.	800 SERIES
4.	POCKET DOOR	2'-0"X 6'-8"	2.	

L1NTEL SCHEDULE

NO.	DESCRIPTION
L1	2-2X8 SPRUCE
L2	3-2X8 SPRUCE
L3	2-2X10 SPRUCE
L4	3-2X10 SPRUCE
L5	2-2X12 SPRUCE
L6	3-2X12 SPRUCE
L7	3 1/2"X 3 1/2"X 1/4" L
L8	3 1/2"X 3 1/2"X 5/16" L
L9	4"X 3 1/2"X 1/4" L

LEGEND

- WP — DUPLEX OUTLET (WEATHERPROOF)
- DUPLEX OUTLET (HGT. ABOVE FLR.)
- DUPLEX OUTLET (12" ABOVE FLR.)
- EXHAUST FAN
- S — SWITCH
- HB — HOSE BIB
- SD — SMOKE DETECTOR
- HEAVY DUTY OUTLET
- LIGHT FIXTURE (WALL MOUNTED)
- LIGHT FIXTURE (CEILING MOUNTED)
- P — POT LIGHT FIXTURE
- R — LIGHT FIXTURE (WATER RESISTANT)
- LIGHT FIXTURE (CAPPED)
- FL — FLUORESCENT LIGHT FIXTURE
- SOLID WOOD BEARING
- FD — FLOOR DRAIN
- TV CABLE OUTLET
- TELEPHONE OUTLET
- C — COMPUTER OUTLET
- DE — DRYER EXHAUST

WINDOW SCHEDULE

ONE WINDOW PER FLOOR TO HAVE AN UNOBSTRUCTED OPEN PORTION W/ A MIN. AREA OF 0.35m2 W/ NO DIMENSION LESS THAN 380mm & MAXIMUM SILL HEIGHT OF 1M ABOVE FLOOR

NO.	TYPE	SIZE	QTY.	REMARKS
1.	CASEMENT	5'-0"X 5'-0"	1.	
2.	CASEMENT	2'-0"X 5'-0"	2.	
3.	SLIDER	3'-0"X 1'-6"	2.	
4.				
5.				
6.				

Letter of Authorization

Date:

Owner(s) Name(s):

Address:

Phone Number:

Attention: Chief Building Official

Subject: Letter of Authorization

Re: Lot:

Plan:

Township of Gillies

Dear Sir:

Please be advised that _____ has the authority

to apply for a Building Permit on the above-mentioned lot.

Do not hesitate to contact me personally if there are any further questions.

Yours truly,

Owner(s) Name(s)