



Building & By-Law Division

In this edition:

- ❖ BUILDING PERMIT APPLICATION PROCESS
- ❖ EXCAVATION & FOUNDATIONS
- ❖ FRAMING
- ❖ PLUMBING
- ❖ MISCELLANEOUS TIDBITS

September 2016

CodeTECH Newsletter

Inaugural Edition

Welcome to our inaugural Newsletter, our intention is to publish this newsletter on an as needed basis. We wish to use this newsletter to update you on changes with the Ontario Building Code and other Building Department matters, as well as remind you of existing Code requirements and how they may affect construction practices in the City of Cornwall.

I would like to take the opportunity to introduce myself, my name is Charles Bray, graduate from Architectural Technology in 1994 and I have been a Building Official since 1998. I have held the position of Chief Building Official in various municipalities for the past 15 years. I continue to be very active in our professional association, the Ontario Building Officials Association, having obtained the designation of Certified Building Code Official. I recently joined the City of Cornwall in June of this year in the position of Deputy Chief Building Official. My primary role is to assist Christopher Rogers, the CBO in managing the Building Services Department and provide technical assistance and support to staff.



ONTARIO BUILDING
OFFICIALS ASSOCIATION
Building Knowledge.
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Some of you, I may know from previous dealings with you over the years on various construction sites. Those that I haven't had the pleasure to meet as of yet, I look forward to meeting with you. I can easily be reached at 613-930-2787, extension 2360 or by email at cbray@cornwall.ca

This Newsletter will cover the following topics:

- ❖ BUILDING PERMIT APPLICATION PROCESS
- ❖ EXCAVATION & FOUNDATIONS
- ❖ FRAMING
- ❖ PLUMBING
- ❖ MISCELLANEOUS TIDBITS

Each topic will have different points of discussion, followed by information on *"How this may affect you"*.

As always, I invite you to discuss matters with any of the Building Division Staff. Some items are best discussed with the Building Official that does your specific site inspections, as you may wish to discuss any transitional or phasing in periods directly with them.

Charles Bray, CBCO

BUILDING PERMIT APPLICATION PROCESS

Designers:

All designers that carry out design activities in the production of documents intended to be submitted as part of a Building Permit application must have the required qualifications stipulated in the Ontario Building Code respective to the design work being performed. For example: Qualifications in House, Small Building, Larger Building, etc.

Furthermore, the Ontario Building Code states what information all designers must identify on all documents submitted in a Building Permit Application:

- Designers' name,
- Building Code Identification Number
- Designers' signature

These requirements can be found in Articles 3.2.4.7 and 3.2.5.1. of the Ontario Building Code.



How this may affect you: As a reminder ALL documents being submitted for Building Permit Applications must be identified with the above information.

Building Near the Raisin River, St. Lawrence River or Highway 401:

If your planning project is in proximity to the Raisin River, St. Lawrence River or Highway #401, approval may be required from the Raisin River Conservation Authority (RRCA) and/or Ministry of Transportation of Ontario (MTO) respectively. Information from the RRCA can be obtained by contacting them at 613-938-3611 or email: info@rrca.on.ca. In some cases, the Building Division staff can help to identify the area of influence.



Raisin Region
Conservation Authority
Office de protection de la
nature de la region Raisin

How this may affect you: Approval is best determined at the project concept stage, prior to Building Permit submission; where applicable, Building Permits cannot be issued without this approval. Be aware that these areas of influence can impact on the smallest of projects (shed, etc.).

Applicable Law Relevance:

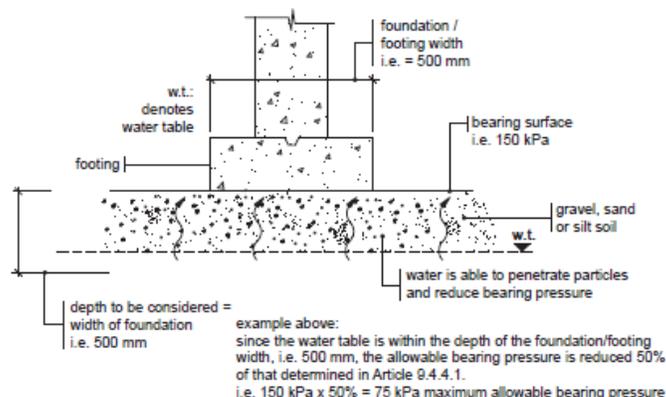
At the concept or preliminary project design stage, be it for a deck, shed or a multi-million dollar development; please determine Applicable Law relevance to your proposed project. A Building Permit cannot be issued until all Applicable Law approvals are obtained. Some common examples of Applicable Law are *Planning Act*, *Environmental Assessment Act* and *Environmental Protection Act*.

How this may affect you: An exhaustive list of Applicable Law as defined by the Ontario Building Code can be found in Clause 1.4.1.3. of Division A – Part 1 of the Ontario Building Code.

EXCAVATIONS & FOUNDATIONS

High Water Table:

A high water table weakens the load-bearing capacity of the soil. Where high water tables are present the footing width must be doubled as required by the OBC (9.15.3.4.). This is why it is important for the builder/contractor to determine where the high water table is on a property before constructing the footings. If the excavation for the proposed building, ground water is encountered at the footing level (or within the width of the footing) the building/contractor can consult with the designer prior to proceeding.



How this may affect you: Building Officials may, depending on the site conditions, require a test hole to be dug in the vicinity of the footings to determine if a high water table is present. Care must be taken in selecting the location of the test hole as to not undermine the footings.

Excavation Inspections:

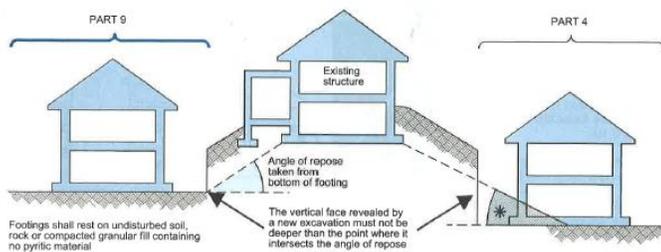
In an effort to make inspections more efficient, excavation inspections will be conducted at the same time as the formwork (Strip and Pad Footings) as well as sewer laterals (see plumbing section).

How this may affect you: Beginning January 1, 2017, Inspectors will be verifying the excavation, formwork and any required reinforcing bars at the same time. Therefore, all the formwork for strip and pad footings must be erected prior to inspection. Furthermore, all reinforcing bars (Re-Bar) must be in place at time of inspection. Minor reinforcing bars can be placed adjacent to the formwork and set in place during the placing of concrete in the forms.

Angle of Repose:

When designing foundation systems, care must be taken to ensure that foundation bear on undisturbed soil. It is the Designer's/Owner's responsibility to ensure that proposed foundation systems will not adversely affect adjacent foundations. Where the existing footing of an adjacent building or a proposed building are within the angle of repose of the soil, the foundations and the methods for excavation shall be designed and reviewed by a Professional Engineer.

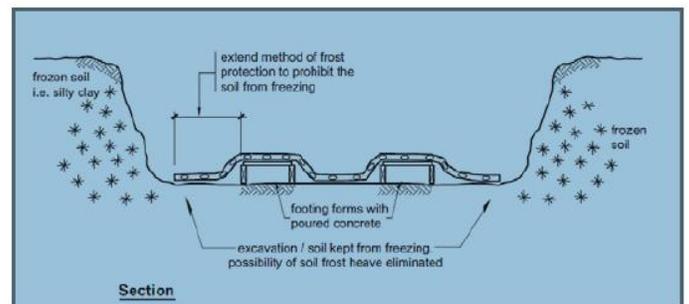
The same can be said, when proposing a shallow foundation (5'-0" in height) that is close to a property line and the angle of repose of the new foundation would be affected by the disturbed soil of the adjacent lot.



How this may affect you: If a Building Official has concerns about the possibility of the Angle of Repose being affected by a new and/or existing foundation system, they may require you to have a Professional Engineer comment on the proposed work and provide an engineered solution to the issue. This is best avoided by taking extra care at the design phase to avoid this scenario from occurring. Lot grading should also be reviewed at this time. This may also include works such as: weeping tile repairs and foundation dampproofing.

Protection from Freezing:

The bottom of excavations should be kept from freezing throughout the entire construction period. Certain types of soils are subject to frost heave. The amount of frost heave is dependent on the type of soil, moisture content and the depth of the frost or freezing. Construction of a foundation on frozen soil will result in the foundation settling unevenly as the soil thaws, damaging the foundation and other supports. Precautions must be taken during construction to avoid the bottom of the excavation from freezing. The protection of the open excavation must be maintained for the entire duration of the construction or until the building can be enclosed and heated. Builders that plan to undertake such activities in the winter months must plan ahead and develop a plan of action that will ensure protection of the soil from freezing. The use of insulated blankets is one method of preventing the soil from freezing.



How this may affect you: It is strongly recommended that builders consult a geotechnical engineer and develop a 'Frost Protection Plan' that is suitable to the soil condition you are working with. Inspectors will be ensuring that winter construction undertaken by builders complies with the Protection from Freezing Requirement in Part 9 of the OBC. Upon visiting construction sites, they may require a plan or method for ensuring the protection from freezing is being implemented during the excavation, placement of concrete for footings and foundation walls.

SCHEDULING EXCAVATION INSPECTION

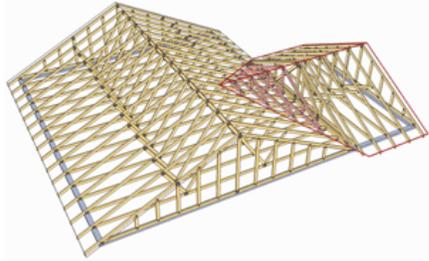
48 hour notice is required for all inspections; therefore coordinate your inspections accordingly for excavation (formwork) inspection, prior to scheduling your concrete pours.

How this may affect you: For safety and insurance reasons, effective immediately Building Officials will NOT be accessing foundations via ladders. Please refer to Ministry of Labour Standards on page 4.

FRAMING

Inspection of roof trusses:

Shop Drawings from the Roof Truss Manufacturer must be on site at the time of the Framing Inspection. Inspectors must be able to visual inspect the roof trusses from the floor level.



*How this may affect you: Effective January 1, 2017 Building Officials will **NOT** be inspecting roof trusses if the Vapour Barrier is install. The inspector must be able to clearly identify and inspect the roof trusses from the floor level below. All mandatory lateral bracing and additional bracing specified by the Truss Manufacturer must also be in place at time of framing inspection.*

PLUMBING

Sewer Lateral Connection:

Again in an effort to streamline inspections and be more efficient with our inspection services, sewer lateral connections will be required to be inspected at the Excavation/Formwork Inspection. In other words, only one inspection will be conducted for these two inspection stages.



*How this may affect you: Effective January 1, 2017 Building Officials will be inspecting Sewer Lateral, Excavation and Formwork (Rebar) in **ONE** inspection. Coordination of various trades will be required to insure that all work is ready to be inspected at the same time.*

MISCELLANEOUS TIDBITS

Control of Rain Water & Flashing:

To control rain water penetration, flashings are mandatory at locations identified in the Ontario Building Code in Article 9.20.13.3., which includes jointed masonry sills. Approved Flashing materials are listing in Table 9.20.13.1.

Adjustable Dampers and Balance Stops:

As a reminder, sentence 6.2.4.6.(1) of the Ontario Building Code... All branch supply ducts for residential systems shall be equipped with volume control dampers at the boot to permit balancing or shall be fitted with a diffuser incorporating an adjustable and lockable volume control device that can be set in a fixed position.

Site Inspections:

Please call 913-930-2787, Extension 2310 to schedule site inspections as indicated on the Building Permit.



Please note that 48 hour notice is required, plan and book your inspections accordingly.

Ministry of Labour Standards:

While under construction, access to basement, second floor or other levels of a building shall be by way of at least a temporary stairs (O. Reg. 213/91 of the Occupational Health and Safety Act).

How this may affect you: As a reminder, due to safety and insurance concerns, Building Officials will not be conducting site inspections if temporary stairs are not provided.

If there are items that you which to be addressed in future editions of the Newsletter, please forward me your suggestions via email. It will be our pleasure to provide any additional information on various matters that relate to construction in the City of Cornwall.