

# ROCHON REPORT

Rochon Engineering

## The Building Permit Process

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When property damage occurs to a building and an insurance claim is filed, the loss location is examined by the insurance company, or its appointed expert, to determine insurance coverage and the extent of the damage. In the event that there is structural damage to the building, restoration of the building requires an engineered solution, complete with engineering drawings sealed by a Professional Engineer. In fact, the 2006 Ontario Building Code Act requires that a permit be issued by the local municipality for all buildings that are to be constructed, altered or demolished. Many people are not aware that the demolition of a building also requires a permit. Restoration drawings prepared and sealed by a qualified Professional Engineering consultant will help to minimize the time required to obtain a building permit. It is important to note that no structural repair (including repair of building envelope and cladding components) can commence until a building permit has been issued.

From a building standards perspective, the building department of a local municipality must consider any project to restore a building damaged by an unanticipated insured peril in the same manner as any other planned new construction project. Fortunately, given the sudden and typically unexpected occurrence of insurance perils, municipalities will generally give special consideration (i.e. fast-track processing) to these types of restoration projects. Municipalities issue building permits for construction projects only after the application has satisfied the requirements of the applicable section(s) of the building code.



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**PERMIT PLACARD**  
Every Construction Permit shall have a Permit Placard posted on the property that is visible from the roadway. The Owner is responsible for ensuring the Permit Placard remains posted during the duration of construction.

**BUILDING PERMIT # 127-09**

LOCATION

CLASS OF PERMIT REPAIR

The person to whom the Permit has been issued shall notify the Chief Building Official, with two business days notice, for the following marked inspections.

<input type="checkbox"/> Prior to placing concrete for footings, slab or ICF walls	<input type="checkbox"/> Completion of Wood Stove/Fireplace and Chimney
<input type="checkbox"/> Prior to backfilling foundation upon completion of drainage elements	<input type="checkbox"/> Fire Separations, closures, fire suppression, alarm, lighting
<input type="checkbox"/> Completion and readiness for setting of building drains	<input type="checkbox"/> Septic System Site Evaluation - Provide a test pit @ least 1.0m x 1.0m
<input checked="" type="checkbox"/> Completion of Structural Framing	<input type="checkbox"/> Completion of Septic Systems prior to backfilling
<input type="checkbox"/> Rough-In Plumbing - includes air/water test on DWV & supply	<input type="checkbox"/> Prior to Occupancy or Use of the Building/Structure
<input type="checkbox"/> Rough-In Heating, Ventilation, Air Conditioning	<input checked="" type="checkbox"/> Final - Upon completion of all construction, cladding, <del>permits</del>
<input type="checkbox"/> Completion of Insulation and Air/Vapour Barrier	

Chief Building Official

The building permit process begins with the collection of detailed information on sketches or drawings of the existing site. This includes information such as a site plan; floor plans that outline the structural frame of the building (including the roof, wall, ceiling and floor structures), building sections; building elevations, and, descriptions of

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interior and exterior finishes. This step of the process typically requires one or two site visits. In general, municipal building departments have drawings for recently constructed or renovated buildings on file. When collecting information regarding a damaged building, it is always a good idea to check with the municipality for existing drawings; this can save time and verify information collected at the site.

Following the collection of site information, project-specific engineering drawings must be produced to support a building permit application. Municipalities in Ontario currently follow the requirements of the 2006 Ontario Building Code (OBC). Small buildings are defined by the OBC as buildings less than 600 m<sup>2</sup> in building area or buildings not more than 3 storeys in building height and can be designed and constructed under Part 9 of the OBC. Buildings that exceed the above-noted floor area and storey height, or are assembly, care/detention or high hazard industrial occupancies, must be designed and constructed under Parts 3, 4, 5 and 6 of the OBC. Professional engineers are generally retained to provide design services under these parts of the OBC. In addition, the condition of building structures that have sustained damage must be reviewed by a professional engineer. In these instances, a scope of repair shall be prepared by the professional engineer that conducted the review. The OBC stipulates that, depending upon the size, height, and intended use of a building, the design and general review of a project must be

completed by a professional engineer and/or architect.

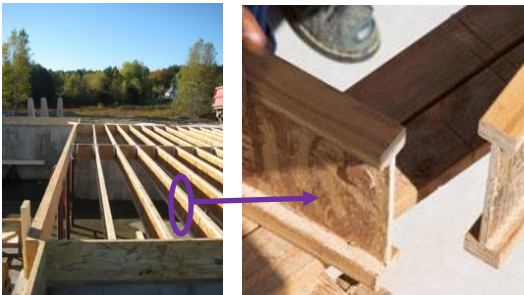
Engineering and architectural drawings are the basis on which a building construction project is carried out. The drawings must depict the existing components of the building and the proposed new work (i.e. new floor frame section). The drawings must include a site plan, a floor plan for each level of the building (including the roof), sections through exterior and interior walls and exterior elevations. Structural components such as beams and floor joists must be selected and specified based on engineering calculations. Wall components of the building envelope (i.e. environmental separation) must also be specified on the drawings. The amount of time required for this step of the process will vary depending on the complexity of the work (range from hours to days). It is rare for structural damage to a building that results from an insured peril to occur at optimum locations; the application of sound engineering judgement and principles is necessary to ensure repairs extend beyond the damaged area(s) to undamaged structural components that can support any temporary or permanent repair work.



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Modern advances in materials and manufacturing processes have resulted in the increased use of pre-fabricated building systems. It is now common in the building construction industry to utilize pre-engineered building frames, pre-fabricated roof truss systems and/or pre-engineered floor frame systems. Suppliers of these systems produce project-specific engineered drawings. Exterior insulation and finish systems (EIFS) are proprietary systems designed and provided by a variety of manufacturers. These systems also require document submission as part of the building permit application and review process. It is vitally important to commence the process of obtaining drawings for any of these applicable components as early as possible in the restoration process in order to avoid delays at the building permit review stage.



Two (2) complete sets of drawings are typically submitted to the municipal building department, along with a building permit application fee. This fee will vary depending on the project and municipality. The issuance of the building permit can be expedited by providing a qualified seal (Professional Engineer) on the documents submitted

with the building permit application and if the permit application and drawings are submitted in accordance with the current OBC requirements. In addition to a structural/architectural review of drawings submitted with a building permit application, other reviews such as zoning, mechanical/HVAC, heritage or land development may also be undertaken by the municipality. During the review period, the plans examiner(s) may consult with the Design Engineer regarding the proposed work. Input from the property owner may also be necessary to address items such as zoning issues.

Upon approval of the building permit application, the municipality contacts the applicant to inform them of the permit status. The permit is issued and the work may commence. The original building permit must be prominently displayed at the building site. A copy of the approved drawings for the building project must also be kept at the site for use by project personnel and inspectors.

The building permit process can be complex and arduous. With proper field work and efficient engineering design, the timeline required to obtain a building permit for an emergency restoration project can be expedited.

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