



## **Plan Review Guidelines** **Updated – July 2017**

Plan review plays a vital role in the Government of the Northwest Territories' (GNWT) obligation to protect occupants and property from fire and spread of fire. Pursuant to the *Fire Prevention Act (FPA)*, the Office of the Fire Marshal (OFM) conducts a review of construction plans and specifications to determine that the submission meets the requirements of the *FPA* and its *Regulations*. Once the OFM has reviewed plans and specifications, a written report is provided to the person who submitted the documents.

These guidelines have been developed to provide owners, builders, contractors, designers and professionals with clarity concerning the plan review process and the statutory obligations.

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## **Tab #1 - Terms and Definitions**

The following are common terms and definitions routinely used in conjunction with plan review activities:

1. Fire Marshal - a statutory official appointed by the Minister responsible for the *Fire Prevention Act*.
2. OFM Plan Examiner - a GNWT official employed by the OFM who is responsible for reviewing construction plans and specifications for compliance with adopted codes and standards.
3. National Research Council of Canada (NRC) - the Government of Canada's premier research and technology organization. Working with clients and partners, the NRC provides innovation support, strategic research, and scientific and technical services.
4. Canadian Commission on Building and Fire Codes (CCBFC) - an independent committee of volunteers established by the NRC to provide direction and oversight on the development of the National Model Construction Codes.
5. National Building Code (NBC) - published by NRC and developed by the CCBFC, the *NBC* sets out technical provisions for the design and construction of new buildings. It also applies to the alteration, change of use and demolition of existing buildings.
6. National Fire Code (NFC) - published by NRC and developed by the CCBFC, the *NFC* sets out the technical provisions regulating activities related to the construction, use or demolition of buildings and facilities, the condition of specific elements of buildings and facilities, and the design or construction of specific elements of facilities related to certain hazards as well as the protection measures for the current or intended use of buildings.
7. Authority Having Jurisdiction - The Government body responsible for the enforcement of any part of the *NBC* or the official or agency designated by that body to exercise such a function.
8. Final Drawings - final issued for construction drawings and specifications, sealed and signed by a professional licensed to practice in NWT.
9. Designer - A person responsible for a design.
10. Contractor - a person who contracts with an owner or their authorized agent to undertake a project, and includes an owner who contracts with more than one person for the work on a project or undertakes the work on a project or any part thereof.
11. Owner - Any person, firm or corporation controlling the property under consideration.

Note: These terms and definitions are for the purposes of the OFM Plan Review Guidelines until such time as they can form part of the *Fire Prevention Act*.

## **Tab #2 - Legislative Requirements**

All structures in the NWT shall be constructed, altered and repaired in accordance with the applicable codes and standards adopted under the *Fire Prevention Act (FPA)* and *Fire Prevention Regulations (the Regulations)*.

- *Section 3(d)* of the *FPA* specifies that a duty of the Fire Marshal is to review plans and specifications for the construction, alteration or repair of buildings with a view to determining that proper precautions are taken against fire and the spread of fire.
- *Section 2(a)* of the *Regulations* adopts the *NBC*, making compliance with the *NBC* a statutory requirement for precautions against fire and the spread of fire. Prepared by the Canadian Commission on Building and Fire Codes, the *NBC* is used as a model or basis for virtually all building standard regimes in Canada and apply to all construction projects, whether new buildings, renovations, or alterations.

For the purpose of fire prevention, provincial and territorial regulatory authorities rely on building and fire codes to perform the review function. Both codes contain provisions that deal with the safety of persons in buildings in the event of a fire and the protection of buildings from the effects of fire. The *NBC*, *NFC* and related standards are adopted under the *Regulations*, making compliance mandatory.

Adopted codes and standards represent the minimum level of performance acceptable to the Authority Having Jurisdiction (AHJ), which in the NWT, is the Fire Marshal. The adopted codes include both prescriptive and performance related requirements. Each code provision is supplemented by clearly stated objectives, functional statements and intents. The Codes are not a design guide or a “how-to” book on how a building should be built. Rather, when adopted by the NWT, they set out minimum requirements for building construction. Best practices will often exceed these minimum provisions.

## **Tab#3 - Description of Proposed Work**

A person who proposes to construct, alter or repair a structure shall, unless the proposed work is of a class exempted by the *Regulations*, submit a description of the proposed work to the Fire Marshal. Where the Fire Marshal directs, persons shall submit copies of all plans and specifications in respect of the proposed work to the Fire Marshal for review.

Persons shall not begin work on the construction, alteration or repair of a structure until the Fire Marshal has notified him/her that the plans and specifications for the proposed work are not required to be reviewed; or the Fire Marshal has reviewed the plans and specifications and reported in writing to the person on the review.

#### **Tab #4 - Scope of Plan Review**

The Fire Marshal is the Authority Having Jurisdiction (AHJ) throughout the territory and has statutory authority under the *FPA* to review plans and specifications, unless exempted by the *Regulations*, for the construction, alteration or repair of structures with a view to determining that proper precautions are taken against fire and the spread of fire.

Fire and spread of fire has not been defined in the current code and for the purposes of plan examination, in the view of the OFM, fire and spread of fire means ensuring occupants of a building are able to exit safely before the environment in a building under fire conditions becomes untenable.

To protect a structure against fire and the spread of fire, applicable parts of the adopted codes and standards are enforced to ensure the safety of the building with respect to the following: fire protection, structural sufficiency, and barrier free requirements/accessibility.

Plan review is mandatory for all new construction, additions, alterations, renovations, relocations, repairs or change of occupancy for any building or structure excluding single family dwellings not intended as lodging, ancillary buildings, and storage units. Plan review is required for both site-built and factory-constructed buildings. Work shall not begin until the OFM has reviewed the plans and specifications and reported in writing to the person on the review.

The review considers but is not limited to locations of a buildings or structures on a property, area, height, number of stories, occupancy, type of construction, interior finish, exit facilities, electrical systems, mechanical systems, fuel storage tanks and their appurtenances, automatic fire-extinguishing systems, fire alarm systems for multi-family residential units, office buildings, recreation facilities, and medical facilities.

***It is important to note that the OFM cannot assist or act in the capacity of an engineering or architectural consultant in relation to a building that is, or will be subject to plan review by the OFM as this will place the OFM in a conflict of interest.***

#### **Tab #5 - Submission Requirements**

Plan review requests shall include, but are not limited to the following requirements:

1. A site plan showing the location of the proposed building with respect to the dimensions to property lines, all proposed and existing buildings, parking, fencing, fire lanes, hydrants, and standpipe and sprinkler connections.
2. Architectural drawings showing the building plans; all room designations/use; fire separations including fire resistance ratings; building elevations including wall openings; wall and floor details; and door schedules including size, fire-protection ratings and hardware details.

3. Structural drawings including foundation and structural frame, all design loads, and all materials standard references.
4. Mechanical drawings including HVAC systems, fire dampers, make-up air and exhaust systems, fire suppression systems, special hazardous processes such as spray booths, cooking equipment, and dust collection systems.
5. Electrical drawings including service and distribution, power and lighting, fire alarm and detection system, smoke detectors, heat detectors, exit signs, emergency lighting, high voltage wiring, and transformers.
6. Complete building code analysis.

Documents submitted to OFM shall not be considered for a review unless the architectural, structural, mechanical, electrical drawings and building code analysis bear the date, seal and signature of the respective architect and professional engineer licensed to practice in the NWT. All drawings submitted to the OFM shall be marked “released for construction” or “final drawings” and shall be submitted prior to starting work at the site. One hard copy and one PDF copy of all documents shall be submitted to the OFM.

All materials are kept strictly confidential by the OFM.

### **Tab #6 - Pre-Submission Meetings**

The OFM is available to meet with designer, professionals, owners and contractors to discuss code issues that may or may not be project specific, and to meet at both the pre-submission stage and the plan review stage.

The OFM encourages professionals to arrange a pre-submission meeting to understand and resolve code issues related to a specific project at the conceptual design stage before final drawings are submitted to the OFM. This will help the OFM in providing plan review observations promptly.

Please be advised that a pre-submission meeting is neither a preliminary review nor an informal review meeting but an opportunity extended to professionals by the OFM to clarify building code requirements prior to submitting construction plans to the OFM.

### **Tab #7 - Partial Review**

The Office of the Fire Marshal (OFM), as the Authority Having Jurisdiction (AHJ), *may* provide a partial review at the risk of the owner for a complex or a major building before all construction plans have been accepted by the OFM.

Partial review will not be provided for Part 9 buildings of the Code and design-build projects do not automatically qualify for a partial review.

Partial reviews allow construction to proceed before full plan review has been completed. Partial review for a complex or major project may be considered by the AHJ on the request of a developer/owner.

For obtaining a partial building foundation review, both a fire protection review and a structural review is required. Sufficient information must be submitted to permit a fire protection review of the major occupancy classification, building construction requirements, fire access route, exit locations and building location/spatial separation requirements. Sufficient structural information is needed to determine all loads are transferred to do full foundation review.

Plans required for obtaining a partial building foundation review:

- ✓ Site plan
- ✓ Geotechnical Report
- ✓ Preliminary architectural drawings and specifications (50% complete)
- ✓ Final foundation drawings complete sealed and signed by a structural professional
- ✓ Preliminary superstructure drawings indicating all design loads and have sufficient framing details to determine all loads are transfer to the foundation.

### **Tab #8 - Plan Review Stages**

The developer, owner, or professional may request a full review for the entire construction or may request separate reviews for various aspects or stages of construction.

*The following plan review stages are currently considered by the OFM:*

- ✓ *Partial building foundation review, to permit construction of the foundation stage;*
- ✓ *Partial building structural frame review, to permit construction to the structural frame stage;*
- ✓ *Building shell review, to permit construction to the shell only; and*
- ✓ *Full Building or superstructure review, to permit construction to completion of project.*

A partial plan submission is a set of plans that are either preliminary drawings and/or do not include one of the following: architectural, structural, mechanical or electrical drawings. Plan review shall be done in stages based on the extent of final sealed and signed drawings submitted to the OFM for review.

### **Tab#9 - Design-Build Projects**

Design-build is a method to deliver a project in which the design and construction services are contracted by a single entity, generally known as the design-builder. Design-build adopts different methodology to deliver a project, but the classification, construction and design components are mandated by adopted codes and no part of the

code can be waived, altered or modified. Therefore, design-build projects are not treated differently by the OFM.

In such cases, the OFM recommends that the design-builder engage the OFM at the conceptual design stage. Owners, builders, contractors, designers and professionals may request a pre-submission meeting at the RFP stage and the owner may request partial reviews instead of a full review.

### **Tab#10 - Site Inspections**

Site inspections are generally not part of the plan review process during construction. However, the Fire Marshal is authorized under the *FPA* to inspect any property to ensure precautions against fire and the spread of fire, which includes perceived departures from adopted codes and standards stemming from the plan review process.

Once a structure is built and occupied, the OFM may inspect and enforce the requirements of the *NFC*.

### **Tab#11 - Fees and Cost Estimates**

The current fee associated with plan review is \$147 for each hour or part of an hour required for the review. Fees are adjusted periodically to account for inflation. Persons submitting plans and specifications for review will receive a corresponding invoice for fees payable to the GNWT. Fees are payable prior to release of the OFM review. As per the *Financial Administration Regulations*, the person who submits plans to the OFM for review is responsible for payment to the GNWT.

Usually, the time taken for any plan review is directly influenced by the following major factors:

- a. Complexity of the project;
- b. Quality, accuracy, and extent of information provided to the OFM;
- c. whether the construction plan has undergone pre-submission meetings; and
- d. Work load in the office of the Fire Marshal at the time of submission.

It is challenging to estimate the time required for a review of a specific project, however, if a submission is complete and provides all the required details, the OFM plan review process will take less time. The size and intended use of the project may also play a role in completing the plan review. For example, high hazard industrial occupancy or treatment occupancy takes more time than the business and personal services occupancies.

Projects that have undergone a pre-submission meeting are more likely to require less time for the OFM plan review than other projects where no pre-submission meeting has occurred. An objective of the OFM is to ensure that all plan reviews are completed in the shortest time possible with the greatest efficiency.

For a more detailed cost estimate, it is recommended that professionals visit the OFM with construction plans to gain a better understanding of the number of review hours required for a particular project.

### **Tab#12 - Design Changes**

Once OFM observations are provided there is no requirement for re-submission unless specifically noted in the OFM observations. Any project that has been re-designed requires re-review by the OFM.

### **Tab#13 - Other Regulatory Requirements**

In the NWT, there are a number of regulatory requirements which direct construction practices in the public and private sectors in addition to the plan review function. The Electrical/Mechanical Inspections section of Public Works and Services (GNWT) provides inspection, registration and permits, and advice about: electrical, including elevators; boilers and pressure vessels; and gas installations. Further, some municipal authorities administer their own development and/or building permitting requirements.

It is the responsibility of owners to ensure all regulatory requirements for construction projects are met.

### **Tab#14 - Resources**

The NRC is the author of the National Model Construction Codes (NBC and NFC) adopted by the GNWT through the *Fire Prevention Regulations*. The following links provide general information about the NRC and its services;

- National Research Council Home Page - [NRC Home Page](#)
- To obtain a copy of the Nation Building and Fire Codes - [Order National Building Code of Canada or National Fire Code of Canada](#)
- To Request a change to the next edition of the National Building and Fire Codes - [Request a Change to the National Building Code or Fire Code of Canada](#)
- To learn about statements on the functions that the components of a building must perform and the objectives that these functions must satisfy - [NBC Intent Statements](#)
- To Contact the National Research Council of Canada - [Contact the National Research Council of Canada](#)
- Frequently Asked Question concerning the National Model Construction Codes - [Frequently Asked Questions](#)

### **Other Useful Links**



- Public Works and Services (GNWT) - <http://www.pws.gov.nt.ca/elec-mech/standards.htm>
- City of Yellowknife Planning and Development Division - <https://www.yellowknife.ca/en/city-government/planning-and-development.asp>
- Hay River Building Permitting - <http://hayriver.com/town-hall/building-permits/>
- Inuvik Building and Development Permits - <http://www.inuvik.ca/en/doing-business/Building-and-Development-Permits.asp>
- Fort Simpson Development Permit - [http://www.fortsimpson.com/sites/default/files/application\\_for\\_development\\_permit.pdf](http://www.fortsimpson.com/sites/default/files/application_for_development_permit.pdf)
- *Fire Prevention Act* - <https://www.justice.gov.nt.ca/en/files/legislation/fire-prevention/fire-prevention.a.pdf>
- *Fire Prevention Regulations* - <https://www.justice.gov.nt.ca/en/files/legislation/fire-prevention/fire-prevention.r1.pdf?t1464711567196>

### **Tab#15 - Contact Us**

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