RESEARCH REPORT

Code Requirements and Costs of Incorporating Accessory Apartments in Houses

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Code Requirements and Costs of Incorporating Accessory Apartments in Houses

FINAL Report

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TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

Executive Summary

Accessory apartments are an affordable housing option that meets the needs of many people, including singles, seniors and those with low or fixed incomes, and contributes to optimizing the use of existing housing stock and infrastructure. In order to improve housing affordability, several municipalities have enacted zoning changes that facilitate the provision of accessory apartments. Provincial, Territorial and Municipal building codes have different requirements for this form of housing, with the result that different regulations apply to accessory apartments in many Canadian municipalities.

This research comprises a literature review and consolidation and organization of documents regulating accessory apartments in Canada, evaluates the levels of performance provided by the various building code health and safety requirements and compares them with objectives of the National Building Code, to enable building authorities to assess proposed amendments to building and fire codes. It compares the costs of complying with regulations in different jurisdictions for the construction of a typical basement accessory apartment. Specifically, this research:

1. Lists National Building Code (NBC) and National Fire Code (NFC) provisions governing houses containing one principle residence and one accessory apartment that are distinct from the requirements for a single dwelling. It includes requirements for fire separations, egress, windows, sound control, clearances, heating and ventilation, smoke detection, fire alarms and protected openings;
2. Identifies provincial, territorial and municipal building and fire code requirements that differ from those in the NBC and NFC;
3. Categorizes code requirements in tabular form, with references and exact wording;
4. Evaluates the relative level of performance of the various municipal building and fire code requirements for accessory apartments, compared with the NBC requirements,
5. Proposes means for achieving equivalent levels of performance;
6. Summarizes code requirements in plain English; and
7. Estimates the costs of complying with each code requirement for a typical 60m2 basement accessory apartment in existing and new construction.

Résumé

Les appartements accessoires constituent une option de logement abordable qui répond aux besoins de nombreuses personnes, notamment les personnes seules, les personnes âgées et celles à revenu faible ou fixe, et favorisent l'utilisation optimale du parc de logements et de l'infrastructure. Afin de rendre les logements plus abordables, plusieurs municipalités ont apporté des changements de zonage qui facilitent l'aménagement d'appartements accessoires. Les dispositions des codes du bâtiment provinciaux, territoriaux et municipaux portant sur ce type de logements diffèrent, ce qui fait que de nombreuses municipalités canadiennes ont adopté des règlements différents relatifs aux appartements accessoires.

Les auteurs de la recherche dont il est question ont procédé à un dépouillement d'ouvrages spécialisés, et ils ont recueilli et organisé les documents régissant les appartements accessoires au Canada, ont évalué les niveaux de performance relatifs à la santé et à la sécurité prévues par les divers codes du bâtiment et les ont comparés aux objectifs du Code national du bâtiment afin de permettre aux autorités en la matière d'évaluer les modifications proposées aux codes du bâtiment et de prévention des incendies. On y compare les coûts de construction, dans un sous-sol, d'un appartement accessoire représentatif conforme aux règlements des différentes administrations. Plus particulièrement, cette recherche :

1. énumère les dispositions du Code national du bâtiment (CNB) et du Code national de prévention des incendies (CNPI) régissant les maisons comportant une résidence principale et un appartement accessoire qui diffèrent des exigences relatives à un logement individuel. On y trouve notamment les exigences relatives aux séparations coupe-feu, aux sorties, aux fenêtres, au contrôle du bruit, aux dégagements, au chauffage et à la ventilation, à la détection de la fumée, aux avertisseurs d'incendie et aux ouvertures protégées;
2. relève les exigences des codes du bâtiment et de prévention des incendies provinciaux, territoriaux et municipaux qui diffèrent de celles du CNB et du CNPI;
3. catégorise les exigences des codes sous forme de tableau, avec des renvois et des citations textuelles;
4. évalue le niveau relatif de performance des exigences des divers codes du bâtiment et de prévention des incendies municipaux visant les appartements accessoires par rapport aux exigences du CNB;
5. propose des moyens d'atteindre des niveaux de performance équivalents;
6. résume les exigences des codes en langage clair;
7. fait une estimation de ce qu'il en coûterait pour se conformer à chacune des exigences des codes pour un appartement accessoire représentatif de 60 m^2 aménagé dans le sous-sol d'une construction existante et d'une construction neuve.

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1. INTRODUCTION

1.1 Background

Accessory apartments provide affordable housing options while optimizing existing housing reserves and infrastructure. In recognition of this, some Provinces and Municipalities across Canada have created provisions that endeavor to provide an acceptable level of health and safety in accessory apartments and the house in which they are located, while still providing affordable housing. In general, the National Building Code (NBC) or related Provincial Codes and municipal by-laws are used to regulate accessory apartments in houses through the Part 9 (less than 3 storeys in height and 600m^2) requirements for duplexes and multi-unit buildings. Even though accessory apartments are often created through modification or renovation of a single family dwelling, the Building Code provisions that are applicable to accessory apartments often impose additional requirements compared to a single-family dwelling designed in accordance with the applicable Building Code.

The Provinces and Municipalities across Canada that have made attempts to regulate the construction of accessory apartments have done so through modifications of their Codes or through the introduction of By-laws. The provisions contained within these Building Codes and By-laws are often similar to the provisions applicable to a single-family dwelling. The reasons that are cited for these relaxed requirements are:

- To reduce the number of non-Code conforming accessory apartments, and
- To increase the affordable housing stock.

Canada Mortgage and Housing Corporation (CMHC) has created a project to review the Code provisions relating to accessory apartments, to:

- Compare existing regulations at various governmental levels,
- Compare the level of safety provided by these requirements, and
- To compare the costs of compliance with the various authority requirements.

Morrison Hershfield Limited has been retained to perform this review on behalf of CMHC.

1.2 Purpose

The purpose of this report is to consolidate the various National, Provincial, Territorial and Municipal regulations concerning accessory apartments, so that comparisons can be made and common requirements identified. The comparisons of Code provisions between jurisdictions and the level of performance achieved by

these provisions in conjunction with estimated costs of compliance may enable building authorities to assess the relative impacts of amendments to Building and Fire Codes and may assist in harmonizing the requirements governing accessory apartments. To support this objective, possible modifications to the existing provisions that govern the construction of accessory apartments have been offered. These modifications include:

- Possible equivalencies that allow a certain provision to be substituted by other safety features, so as to provide the same level of performance, or

- Justification of performance level similar to that required for a single-family house where considered applicable, such as where the building is owner occupied or where the intent of a Code requirement for duplexes or multi-unit residential building is considered to be met by the requirements for a single-family house.

1.3 Approach

The 1995 NBC, being the model building code on which the other jurisdictional Building Codes and regulations are based, has been reviewed to determine provisions relating to accessory apartments. These provisions have been categorized based on their intent and each category has been identified as a "Key Issue". The proposed 2005 NBC has also been reviewed to determine the extent of proposed changes, additions or deletion of provisions.

The supporting documentation developed for the Objective Based Codes, including the intent statements and application statements developed for the new 2005 Objective Based Codes, have been reviewed to assist in the development of the Key Issues from the Code provisions as indicated above and to assist in the development of possible equivalencies to existing Code provisions.

Provincial and Territorial Code requirements and regulations from municipal jurisdictions that have been developed to address accessory apartments have also been reviewed.

The individual Code provisions enforced by the various jurisdictions have been compared to determine variations from the NBC and to assess the performance level achieved by compliance with these Code provisions.

A comparison method has been developed to provide a possible means of assessing the level of performance provided by compliance with the various jurisdictions.

2. TERMINOLOGY

This report is written to be understandable by a layperson, however, in some instances technical terminology has been included for clarity or so that the intent of the Code is not lost. Where technical terminology has been used, it is as defined in the NBC. The exception to this applies where the NBC does not define a term, for example, *accessory apartments*. Some terms that are used throughout this report but which may not be readily obvious to persons not conversant with the NBC are defined below for clarity.

Accessory apartments are also referred to as accessory suites, secondary suites and two-family dwellings by the various jurisdictions that have made attempts to regulate their construction. There is no NBC definition for "accessory apartment" or the alternative terms.

The definition for accessory apartment (secondary suite) as included in the British Columbia Building Code and Vancouver Building By-law are included as examples of how accessory apartments have been defined:

British Columbia Building Code:

> *Secondary Suite means an additional dwelling unit*
>
> *a) having a total floor space of not more than 90 m^2 in area,*
>
> *b) having a floor space less than 40% of the habitable floor space of the building,*
>
> *c) located within a building of residential occupancy containing only one other dwelling unit, and*
>
> *d) located in a part of a building which is a single real estate entity.*

Vancouver Building By-law:

> *Secondary Suite means that area of a building that is or is intended to be a dwelling unit that is smaller than the principal residence in the same building where the two dwelling units have internal access between them.*

In addition to the boundaries of the definition, additional restrictions are often enforced including: the size of the accessory apartment, the ownership of the building and the maximum number of people permitted to occupy the accessory apartment.

2.1 National Building Code Definitions

The words and terms below are defined in the NBC and have the following meanings:

Dwelling unit - a suite operated as a housekeeping unit, used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities

Exit –that part of a means of egress, including doorways, that leads from the floor area it serves, to a separate building, an open public thoroughfare, or an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare.

Exposing building face –that part of the exterior wall of a building that faces one direction and is located between the ground level and the ceiling of its top storey or, where the building is subdivided into fire compartments, the exterior wall of a fire compartment which faces in one direction.

Fire compartment –an enclosed space in a building that is separated from all other parts of the building by enclosing construction providing a fire separation having a fire resistance rating.

Fire damper –a closure which consists of damper installed in an air distribution system or in a wall or floor assembly, which is normally held open but is designed to close automatically in the event of a fire in order to maintain the integrity of the fire separation.

Fire separation –a construction assembly that acts as a barrier against the spread of fire.

Firewall - a type of fire separation of noncombustible construction which subdivides a building or separates adjoining buildings to resist the spread of fire and which has a fire resistance rating as prescribed in the Code and has structural stability to remain intact under fire conditions for the required fire rated time.

Party wall – a wall jointly owned and jointly used by two parties under easement agreement or by right in law, and erected at or upon a line separating 2 parcels of land each of which is, or capable of being, a separate real-estate entity.

Public corridor –a corridor that provides access to exit from more than one suite.

Smoke alarm –a combined smoke detector with audible alarm device designed to sound an alarm within the room or suite in which it is located upon the detection of smoke within that room or suite.

Suite – a single room or series of rooms of complementary use, operated under a single tenancy, and includes dwelling units, …

3. NBC PROVISIONS FOR ACCESSORY APARTMENTS

3.1 Methodology

The 1995 NBC was reviewed to determine the provisions applicable to the construction of an accessory apartment within a single-family house. This review focused on houses less than 3 storeys in height and 600 m^2, as the majority of single-family dwellings fall under this category. Part 9 of the NBC governs a building within the above limitations. The requirements contained in Part 9 of the Code address the construction of an accessory apartment through the provisions applicable to duplexes and multi-unit buildings (such as fire separations between the accessory apartment and the main building). The provisions applicable to this review are those that are over and above the requirements for a single-family house and those provisions that would be applicable to the construction of living spaces within an area that may have originally been designed for a different purpose[1]. Code provisions that apply to all houses, regardless of the number of dwelling units, are not included in this analysis, in part because there is no additional cost or added requirement associated with compliance[2].

Code provisions have been considered for an accessory apartment in a basement, an attic or adjacent to the main building.

The 2005 NBC has also been reviewed to identify any revisions, deletions or additions to the provisions applicable to accessory apartments. The intent statements developed for the Objective Based Codes were also reviewed to assist in determining the intent and objectives of each provision.

The 1995 NBC Code provisions have been summarized and presented in comparison tables, Table A-1 and Table A-2 included in Appendix A, with the relevant Part 9

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[1] For example, Article 9.7.1.2. of the 1995 NBC would not require any glazing to the exterior when the basement is used as a recreation room but would require exterior glazing to be 10% of the area served in the living/dining room if the basement were to be renovated to accommodate a basement accessory apartment. The proposed changes to the 2005 NBC recommends that Article 9.7.1.2. be deleted.

[2] For example, costs of providing electrical fixtures in the basement accessory apartment have not been considered, as a cost would be associated with any occupancy within the basement. The cost associated with the electrical supply to the house and the panel are not included in the costs as the are applicable to all houses.

reference included. Where applicable, the proposed changes, deletions or additions as presented in the 2005 NBC have also been included.

3.2 Observations

The provisions applicable to accessory apartments can generally be categorized into groups that have specific intents, such as egress and exiting and fire separations. For this report, provisions with similar intent have been grouped together and termed the "Key Issues". The description of the Key Issues and how they relate to this report is further developed in the following sections.

The NBC requirements arising from the construction of an accessory apartment are generally more stringent than those governing the construction of a single-family building. The reasons for the additional requirement is often presented in the intent statements developed for the 2005 Objective Based Codes. Examples of increased Code requirements and the associated intent statement include:

- Article 9.8.3.3.

  Exit stair dimensions are required to be increased when both the main dwelling unit and the accessory apartment share the stair.

  Intent statement:

  ...to limit the probability of inadequate stair width for users to pass one another without difficulty, which could lead to... delays in the evacuation or movement of persons to a safe place...

- Article 9.8.7.3.

  When a stair serves more than one dwelling unit, at least one handrail is required to extend not less than 300 mm past the top and bottom of the stairs

  Intent statement:

  Where users are not likely to be familiar with the stairway...to limit the probability of harm to persons.

- Sentence 9.9.6.5.(4).

  An exit door that serves more than one dwelling unit is required to open in the direction of egress.

  Intent statement:

  To limit the probability that an egress door that does not open in the direction of travel will be difficult to open in an emergency situation if

> *several persons approach it at the same time and the pressure of the group prevents the first person from pulling the door towards them, which could lead to delays in the evacuation or movement of persons to a safe place...*

The NBC provisions applicable to accessory apartments do not make any distinction between the construction of an accessory apartment in an existing building and new construction. This, however, is not the case for some other jurisdictional regulations such as the Ontario Building Code (OBC) or Vancouver Building By-law (VBB), which have separate provisions for new construction and the construction of an accessory apartment in an existing building. These Codes are considered in more depth in Sections 5 and 6.

While the NBC does not provide any specific exemptions for construction in an existing building, it does permit the intent of the Code to be met for new and existing buildings through equivalents. To this end, the NBC states:

> ***2.5.1.1. Alternate Materials, Appliances, Systems and Equipment Permitted***
>
> *1) The provisions of this Code are not intended to limit the appropriate use of materials, appliances, systems, equipment methods of design or construction procedures not specifically described herein.*

The NBC also addresses existing buildings in Appendix of the NBC, A-1.1.2.1. "Application to Existing Building", which states:

> *"The successful application of the Code requirements to existing construction becomes a matter of balancing the cost if implementing a requirement with the relative importance of the requirement to the overall Code objectives. The degree to which any particular requirement can be relaxed without affecting the intended level of safety of the Code requires considerable judgment on the part of both the designer and the authority having jurisdiction".*

4. KEY ISSUES AND CODE PROVISIONS

4.1 Key Issues

The provisions of the National, Provincial and Territorial Building Codes and specific Municipal By-Laws have been categorized based on the intent of the provision, which has been determined in conjunction with the intent statements developed for the new 2005 Objective Based Codes.

The key issues that affect the health and safety of the occupants within the building include:

- Egress and Exiting,
- Fire Separation (Compartmentation),
- Fire Detection,
- Livability and General Safety,
- Electrical Safety,
- Ventilation,
- Fire Department Access, and
- Fire Exposure.

The Code provisions relating to accessory apartments have been grouped into Key Issues with the above headings to:

- Present the various provisions in a format that is readily understandable to a layperson, and
- Facilitate the comparison of the performance level provided by the various jurisdictional regulations (refer to Section 7).

The above Key Issues are as follows:

- **Egress and Exiting**

  An accessory apartment is required to be provided with facilities that will permit occupants to safely and quickly exit the building in an emergency situation. Exit facility requirements include:

  - The requirement for two ways out of each dwelling unit,
  - Windows of minimum size required for bedroom spaces,

- Increase in stair and landing dimensions for stairs that serve more than one dwelling unit,
- Increased handrail and guard requirements for stairs that serve more than one dwelling unit,
- Slip resistance required for stairs and landings that serve more than one dwelling unit,
- Increased door requirements including dimensions and opening direction when serving more than one dwelling unit,
- Exit requirements, such as rooms that are not permitted to open onto an exit, and
- Lighting and exit signage requirements when serving more than one dwelling unit.

- **Fire Separation (Compartmentation)**

  Wall or floor assemblies that separate a dwelling unit from the adjacent dwelling unit and from exits or public corridors are required to be fire separations with a specified fire resistance rating. The intent of the requirements, as indicated in the intent statements, is to reduce the probability that:

  - The assembly will fail or collapse prematurely prior to occupants evacuating the building,
  - Fire will spread from one area of the building to other areas,
  - The effects of fire will impede or delay evacuation.
  - Fire or the effects of fire will spread from one area of the building to another area by limiting openings and penetrations in fire separations.

  Fire separation features include:

  - Separation of exit stairs from the remainder of the building when serving more than one dwelling unit,
  - Separation of dwelling units from each other and common areas,
  - Exterior exits to be fire rated or noncombustible construction,
  - Penetrations through fire separations are required to be protected to maintain the integrity of the fire separation,
  - Separation of appliances and equipment from other areas in the building, and

- The requirement for a party wall located on a property line to be constructed as a fire wall where one dwelling unit is located above another dwelling unit when located on one side of the property line.

- **Fire Detection**

  Dwelling units are required to be equipped with smoke alarms to provide early warning of a fire to occupants within the building, including;

  - The requirements for smoke alarms, and
  - The requirements for the smoke alarm to be connected to the electrical power supply or battery powered.

- **Livability**

  The design of each dwelling unit is required to meet minimum criteria to provide a minimum standard of personal comfort and interior living environment. Livability issues include:

  - The height of rooms or spaces,
  - Minimum exterior glazing areas to provide natural lighting,
  - Window-well drainage to maintain adequate indoor air quality,
  - Minimum sound transmission through walls and floors that separate the dwelling units from other areas in the building, and
  - Required plumbing fixtures and facilities such as laundries and kitchens for each dwelling unit.

- **General Safety**

  The design of each dwelling unit is required to meet minimum criteria to provide a minimum standard of personal safety, , including;

  - Measures to resist forced entry into a dwelling unit,
  - Measures to prevent falls from high windows, and
  - Minimum surface finish requirements to minimize the potential for rapid spread of fire.

- **Electrical Safety**

  Electrical installations are required to meet the appropriate Provincial, Territorial or Municipal legislation.

- **Ventilation**

  Adequate heating and ventilation, provided by mechanical or natural ventilation is required to be provided. The intent statements indicate that the intent of these requirements are to limit the probability of inadequate control of:

  - Interior temperatures,
  - Airborne pollutants,
  - Breathable air,
  - Condensation, which could lead to the generation of unhealthy indoor air quality from mould growth.

  In general, a forced air heating and ventilation system is permitted to serve only a single dwelling unit, or be designed to meet alternative requirements.

- **Fire Department Access**

  A building containing an accessory apartment above or below another dwelling unit is required to be provided with Fire Department access to the upper storeys and basement of the building to facilitate effective and expedient emergency response.

- **Fire Exposure**

  The exterior walls of a building are required to have construction to limit the spread of fire from a building to an adjacent building and to protect occupants evacuating a building from a fire in an adjacent dwelling unit. Protection from fire exposure requirements include:

  - Fire rated protection of openings that may expose occupants exiting one dwelling unit to a fire in another dwelling unit,
  - Providing fire rated construction, limited openings or sufficient separation between buildings or unprotected openings in adjacent dwelling units to minimize the potential for fire spread between dwelling units in the same building and to adjacent buildings.

4.2 Applicable Code Provisions

The individual provisions from the NBC 1995, which form the Key Issues, have also been summarized to be more readily understandable by a person not familiar with the wording of Code provisions. Use of terminology from the Code text and intent statements has been used where appropriate to relay pertinent regulations so that the

contexts of the provisions are not lost. These provisions are included as Appendix B.

5. PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS

5.1 Methodology

As the NBC is the model Code from which most of the Provincial and Territorial Code provisions are based, it has been considered as the baseline for comparison with the other Codes.

The Codes adopted by the Provincial and Territorial jurisdictions have been reviewed based on the same criteria considered for the NBC review as detailed in the first paragraph of Subsection 3.1 above. The results of the review have been entered into comparison tables A-1 and A-2, included in Appendix A. Note:

- Where the provision is the same or very similar to the NBC provision, this is indicated in the table with a checkmark.
- Where the provision varies from the NBC provision, it is summarized within the table.
- Where a provision is found in the NBC but not in the provincial Code, the space in the table is left open.

The tabular format allows comparison of the various Codes and highlights any gaps or additional requirements compared to the baseline (National) Code requirements.

5.2 Comparison to the NBC

5.2.1 Applicable Codes

With the exception of Prince Edward Island, the Provinces and Territories have adopted the NBC with either:

- No changes,
- Minor modifications, or
- Significant modifications.

Prince Edward Island has adopted the National Fire Protection Association – Life Safety Code (NFPA 101), as the Code that regulates building construction. NFPA 101 regulates the construction of accessory apartments through Chapter 24 One - and Two - Family Dwellings, which are applicable to the construction of accessory apartments in the same way as multi-dwelling unit requirements apply to accessory apartments in the NBC.

The construction requirements for accessory apartments vary by Province or Territory depending on how the Code has been modified to address new construction or renovations in existing buildings. Some Provinces have modified their Codes to address alterations and renovations to existing buildings separately; these Provinces address the change of use or renovation of existing buildings through additional Parts added to the Building Code. The remainder of the Provinces and Territories do not differentiate between new construction and construction in an existing building.

5.2.2 Accessory Apartments in New Construction

British Columbia is the only Province that has created specific regulations to address the construction of accessory apartments (secondary suite) as distinct from a duplex or multi-unit building. The provisions relating to accessory apartments are contained in Section 9.36. "Secondary Suites" of the British Columbia Building Code (BCBC). The BCBC does not make any distinction between the construction of accessory apartments in new or existing buildings.

With the exception of Prince Edward Island, the remainder of the Provinces and the Territories address the construction of accessory apartments through the Code provisions that are applicable to duplexes and multi-unit buildings.

The construction requirements for an accessory apartment in new construction vary most significantly from the NBC provisions in the British Columbia Building Code and NFPA 101. The requirements for the remainder of the Provinces and the Territories are generally in accordance with the requirements of the NBC.

5.2.3 Accessory Apartments in Existing Construction

The following Provinces have modified their Codes to address existing and new construction:

- Nova Scotia,
- Ontario, and
- Quebec.

These Provinces address the renovation of existing buildings (built prior to a specified date) through the introduction of supplementary Parts, or Schedules, to the Code. The OBC has introduced Parts 10 and 11, which include provisions for the change of use, alteration or renovation of existing buildings. These Parts address accessory apartments in existing buildings by evaluating performance level against key factors. Specific compliance

alternatives are also offered. In general, where the proposed construction or renovation affects the existing dwelling unit, upgrades are required to maintain the performance level. An example of a situation where the main portion of the building may be required to be modified is where an exit route serving one suite passes an unprotected window from another suite.

Quebec has added a similar Part and Nova Scotia has added a similar Schedule to their Building Codes to address the alteration of existing buildings.

These Parts generally relate to the Part 9 requirements, and either permit the existing construction to remain (provided that it meets certain parameters), or allow for a relaxation of the more stringent Part 9 requirements. In some instances alternatives are offered, such as reduced fire resistance rating where interconnected smoke alarms are installed in each dwelling unit and common areas.

5.2.4 Retrofit of Existing Accessory Apartments

The National and Provincial Fire Codes are applicable to existing buildings and provide a mechanism to maintain or upgrade fire and life safety features in existing buildings. The Fire Code is complementary to the Building Code, which relates to new construction, renovations, alterations or additions and is not intended to enforce the retrospective application of requirements.

The Ontario Fire Code (OFC) generally assumes that the building was built to the applicable provisions of the Code and addresses the maintenance of specific life safety feature. Existing accessory apartments (built prior to July 14, 1994) are considered under Section 9.8 - Two Unit Residential Occupancies.

The National and other Provincial Fire Codes do not address accessory apartments distinctly from duplexes or multi-unit residential buildings.

6. MUNICIPAL BY-LAWS

6.1 Methodology

The municipalities reviewed have addressed accessory apartments through their building By-laws. The By-laws address the construction of accessory apartments by modifications to the NBC and, in general, zoning provisions.

Five municipalities that have altered their By-law to address accessory apartments have been reviewed. The municipalities chosen for review include:

- City of Sidney, British Columbia,
- City of Surrey, British Columbia,
- City of Vancouver, British Columbia,
- City of Saskatoon, Saskatchewan,
- City of Montreal, Quebec.

The provisions regulating accessory apartments in the above municipalities have been reviewed in consideration of the same criteria as that considered for the review of the NBC and provincial Codes (refer to Subsection 3.1). The results of the review for new construction and existing buildings have then been entered into Table C-1 and Table C-2 in Appendix C, respectively. The review is limited to the above five municipalities as they provide various examples of how accessory apartments have been regulated. A number of other municipalities have made efforts to regulate accessory apartments. The majority of these are located in British Columbia and regulate accessory apartments through zoning by-laws.

6.2 Comparison to the NBC

6.2.1 Limitations of Applicability

Where municipalities have enforced regulations to address accessory apartments, a key item has been defining an accessory apartment. In general, definitions impose certain limitations, such as:

- Setting the minimum size of the principal unit,
- Setting the maximum size of the accessory apartment,
- Limiting the number of bedrooms in the accessory apartment,

- Limiting the number of persons who may occupy the accessory apartment,
- Requiring the owner of the house to live in one of the dwelling units, and
- Requiring each dwelling unit to have its own entrance.

6.2.2 Accessory Apartments in New Construction

In general, the provisions relating to accessory apartments are the same or similar to the NBC provisions for the cities of Montreal, Saskatoon and Vancouver.

The City of Vancouver requires that all newly constructed buildings be provided with sprinkler protection. With this one exception, the Code provisions that regulate the construction of an accessory apartment are the same as, or comparable to the NBC requirements.

The provisions for accessory apartments in Sidney and Surrey (which adopt the BCBC) are more comparable to the requirements of a single-family house with less additional requirements compared to additional requirements required by the NBC (as is the case when comparing the BCBC to the NBC).

6.2.3 Accessory Apartments in Existing Buildings

6.2.3.1 No Distinction Between New Construction and Existing Buildings

The cities of Saskatoon, Sidney and Surrey have adopted the applicable provincial Building Code (that is, the NBC for Saskatoon and the BCBC for Sidney and Surrey). Therefore, no distinction is made between the construction of an accessory apartment in new construction or in an existing building.

6.2.3.2 Distinction Between New Construction and Existing Buildings

The City of Vancouver permits a reduction in requirements compared to new construction when an accessory apartment is constructed in an existing building under the following conditions:

- Where the building existed prior to April 25, 1992, the storeys located above the lower dwelling unit are not required to be upgraded provided the lower unit is sprinklered and the dwelling units are separated by smoke separations.

- Where the building was constructed after April 25, 1992, the entire building is required to be upgraded to comply with the requirements of the VBB for the construction of an accessory apartment in an existing building.

The City of Montreal also permits a reduction in requirements compared to new construction when an accessory apartment is constructed in an existing building. The Code or by-law that regulates the building construction depends upon the age of the existing building.

- Chapter 1 of the Montreal Housing By-law is applicable to a building constructed prior to 1994. Relaxed provisions include reduced egress dimensions and permitting existing construction in good condition to provide the fire resistance rating of a required fire separation.

- Where the building was constructed after 1994, the Quebec Construction Code (QCC) is applicable. As stated in Section 5 above, the QCC addresses renovations and alterations in an existing building through Part 10 of the Code. Part 10 of the QCC is applicable to a building more than 5 years old or built prior to 7 November, 2000. Therefore, a building built between the period of January 1, 1994 and 7 November, 2000 is permitted to be designed in accordance with Part 10 of the QCC and any building built prior to this period is permitted to be designed in accordance with the Housing By-law.

6.2.4 Retrofit of Existing Construction

The Cities of Vancouver and Saskatoon have developed mechanisms in their By-laws for legalizing existing accessory apartments. The provisions focus on the major fire and life safety features rather than full compliance with Part 9 of the Code. The main provisions include:

- Fire separation of dwelling units, service rooms, exit stairs and corridors and include reduced fire resistance rating requirements of the fire separations and the doors located within them (Vancouver and Saskatoon).

- Egress and exiting features including rise, run, width, and headroom dimensions, and hand and guardrail requirements in the dwelling unit and for egress features that serve more than one dwelling unit (Vancouver and Saskatoon).

- Smoke alarms permanently connected to an electrical circuit (hard wired) are required in each dwelling unit (Vancouver and Saskatoon).

- The secondary dwelling unit is required to have at least two openable windows to the outside. A window is required in each bedroom with an unobstructed opening portion of not less than 0.35 m^2, with no dimension less than 380 mm (Saskatoon).

6.3 Recommendation

The Municipalities that have addressed accessory apartments have done so through the modification of their By-law. This is in part possible, as the accessory apartment has been defined by these jurisdictions. A definition for accessory apartments is considered to be one of the key features in the development of a uniform means of regulating accessory apartments, unique to other multi-unit residential buildings.

7. PERFORMANCE LEVEL

7.1 Methodology

A basis for determining the performance level of the relevant Provincial and Territorial Code requirements has been developed to provide a means of comparing the performance of similar Code requirements to the 1995 NBC. This method allows assessment of the weighted performance level provided by the various Codes for each of the Key Issues as discussed earlier (refer Section 4).

7.1.1 Performance Level

The comparison method sets the NBC provisions as a baseline with a constant performance level of 3 assigned to each individual provision. Provisions from the Provincial and Territorial Codes are compared to the NBC and assigned a level of performance on a scale of 1 (low) to 5 (high) relative to the perceived level of safety provided by the NBC. The rating of 1 to 5 is as follows:

- Where the performance is considered to be the same as that provided by the NBC the performance level for the provision is 3.
- Where a provision is considered to provide greater benefit or performance level than that provided by the NBC provision, the performance level is 4 or 5.
- Where a provision is considered to provide a performance level that is less than that provided by the NBC provision, the performance level is 1 or 2.
- Where there is no provision comparable to the NBC the space in the table is left open.

7.1.2 Weighting

Each provision has been assigned a weighting from 1 (low) to 5 (high) that reflects the priority of the provision compared to the other provisions. Life safety features were assigned high weightings than general comfort features. This allows comparison of the relative performance levels provided by the various Codes. The weightings were determined by averaging the values assigned to each provision by the project Steering Committee and the Consultant.

7.1.3 Weighted Performance Level

The product of the performance level and weighting provides a non-dimensional number that can be totaled for each Key Issue and then compared to that obtained by the NBC to provide weighted performance level for each of the various Key Issues.

7.1.4 Performance Level Normalized to the NBC

The total performance level for each Province (the sum of the Key Issue weighted performance levels) has been normalized by dividing the total performance level for the Province by the total performance level provided by the 1995 NBC. The normalized performance level provides an overall indication of the performance level achieved by the particular Code when considering the weighted performance levels of all of the Key Issues.

7.2 Observations

The weighted performance levels provided by the various jurisdictions are indicated for each key issue in the Table 1 and Table 2 below. Detailed performance ratings are presented in Table D-1 and Table D-2 of Appendix D. Where a Province, Territory or Municipality (as identified in Sections 5 and 6) is not indicated in the table, it has the same provisions, and therefore level of safety as that provided by the NBC.

7.2.1 Accessory Apartments in New Construction

Table 1 below indicates the performance level provided by compliance with the applicable regulations per province for the construction of an accessory apartment in new construction. Conclusions from the analysis of performance level include the following:

- As can be seen in Table 1 below, where specific regulations have been provided to regulate the construction of accessory apartments, such as in the BCBC and NFPA 101, the performance level appears to be reduced compared to that provided by the NBC.

- Also, where provinces have altered their Building Code (Ontario, Alberta and Quebec) the weighted performance level has been reduced for the livability Key Issue. This is consistent with the proposed changes for the 2005 NBC, which has a reduction in the height of living spaces and proposes to delete the requirement for exterior glazing and laundry facilities.

- The weighted performance level for heating and ventilation in Ontario presently exceeds that of the NBC. The proposed changes for the

2005 NBC, which include the requirement for carbon monoxide detection will provide a performance level equal to that of the OBC.

- The weighted performance level for the fire detection Key Issue, and the overall level of performance in Vancouver is greater than that provided by the NBC. This increase in performance level is related to the requirement for sprinklers in new construction and the weighting (priority) assigned to sprinklers.

Table 1 Accessory Apartments in New Construction Performance Rating

	Weighted Performance Level					
Key Issue	NBC and other jurisdictions not otherwise noted.	Ontario	Alberta	British Columbia Surrey Sidney	Prince Edward Island	Vancouver
Egress and Exiting	1.0	1.0	1.0	0.8	0.7	1.0
Fire Separations	1.0	0.9	0.9	0.8	0.2	1.0
Fire Detection	1.0	1.0	1.0	1.3	1.0	2.7
Livability	1.0	0.7	0.7	0.4	0.0	1.0
General Safety	1.0	1.0	1.0	1.0	0.6	1.0
Electrical Safety	1.0	1.0	1.0	1.0	0.0	1.0
Heating and Ventilation	1.0	1.3	1.0	1.0	0.0	1.0
Fire Department Access	1.0	1.0	1.0	1.0	0.0	1.0
Fire Exposure	1.0	1.0	1.0	1.0	0.0	1.0
Total Performance Level	9.0	8.9	8.6	8.3	2.5	10.7
Performance Level Normalized to NBC	1.0	1.0	1.0	0.9	0.3	1.2

7.2.2 Accessory Apartments in Existing Buildings

Table 2 below indicates the performance level provided by compliance with the applicable regulations per province for the construction of an accessory apartment in an existing building. Conclusions from the analysis of performance level include the following:

- Even though Ontario, Quebec and Nova Scotia have provided additional Parts to their Building Code that address alterations, the level of performance is comparable with that provided by the NBC.

- Nova Scotia and Vancouver permit alternatives where the building is fully sprinklered. It is considered that where the building is sprinklered, the performance level of the fire separation is equal to that provided by the NBC, provided the required separation is a minimum of an unrated fire separation.

- The BCBC does not make any distinction between accessory apartments in new construction and existing buildings and therefore the performance level, although reduced from the NBC is the same as that provided for new construction.

- The performance level provided by compliance with the Vancouver and Montreal by-laws, which specifically address accessory apartments in existing construction, appear to be less than the performance level provided by the other jurisdictions.

- A wide disparity in performance arises where the additional requirements of the NBC that are required when an accessory apartment is constructed in a residential house are not required by other regulations (including Prince Edward Island, Vancouver and Montreal). These Codes treat the entire house similar to that of a single-family dwelling.

Table 2 Accessory Apartments in Existing Buildings Performance Rating

	Weighted Performance Level						
Key Issue	NBC and other jurisdictions not otherwise noted.	Ontario, Quebec	Nova Scotia[3]	British Columbia, Surrey, Sidney	Prince Edward Island	Vancouver[4]	Montreal
Egress and Exiting	1.0	0.7	0.9	0.8	0.6	0.3	0.3
Fire Separations	1.0	0.7	1.0	0.8	0.2	0.2	0.2
Fire Detection	1.0	0.7	1.0	1.3	0.7	1.0	0.3
Livability	1.0	1.0	1.0	0.4	0.0	0.0	0.0
General Safety	1.0	1.0	1.0	1.0	0.6	0.4	0.6
Electrical Safety	1.0	1.0	1.0	1.0	0.0	0.0	0.0
Heating and Ventilation	1.0	1.2/1.0[5]	1.0	1.0	0.0	0.2	0.0
Fire Department Access	1.0	0.9	1.0	1.0	0.0	0.0	0.0
Fire Exposure	1.0	1.0	1.0	1.0	0.0	0.2	0.0
Total Performance Level	9.0	8.2/8.0[5]	8.9	8.3	2.1	2.3	1.4
Performance Level Normalized to NBC	1.0	0.9	1.0	0.9	0.2	0.3	0.2

7.3 Limitations

While the results obtained by the above comparison method provide a useful means of comparing the level of performance, the results are limited by the priority and

[3] It is assumed that the building is not fully sprinklered.

[4] It is assumed that sprinklers are not used as an equivalency.

[5] 1.0 weighting factor represents change to NBC.

weighting assigned to the individual provisions. It is possible to modify the priority and weighting levels to determine the effect of modifications to these numbers. If these numbers are to be considered for further use, consultation with major stakeholders to provide a consensus approach will be required.

Other contributing factors, which may affect the determination and analysis of the performance level, include the following:

- Comparison of fire loss statements between the various jurisdictions. This may highlight any trends or issues applicable to accessory apartments,

- Review of the number of building permits that have been granted compared to the estimated number of apartments constructed without a building permit per province if this information is available. This may highlight the requirement for increased inspections or justification for a different performance level for accessory apartments.

The above comparison method does not consider intangibles such as the affects of owner/occupancy of the building, limits on apartment size and number of persons permitted to live in the apartment.

8. COSTS OF ACCESSORY APARTMENTS

8.1 Methodology

The costs of compliance with each individual Code provision in a sample basement accessory apartment have been estimated. Costs are identified for a basement accessory apartment in a sample existing building and a sample of new construction. The estimated costs are order of magnitude only. The costs of complying with the regulations have been estimated for the National Building Code, Provincial, Territorial and Municipal requirements under consideration in this report.

8.1.1 Construction Assumptions

The assumptions for the basement accessory apartment as prescribed by CMHC are:

- Basement area of approximately 60 m^2,
- Poured concrete foundation walls with a height between the floor and the underside of the joists of 2200 mm for an existing building and 2400 mm for new construction,
- Basement ceiling not more than 800 mm above grade on all sides of the building,
- Detached building, and
- Accessory apartment heated by electric baseboard heating.

8.1.2 Floor Layouts

Two different floor areas were adopted for the costing exercises. These floor layouts were chosen by CMHC as they provide a variety of construction challenges while providing a realistic scenario that may be considered as an illustration of a sample basement accessory apartment. Existing and proposed floor plans are included as Appendix E.

8.1.3 Costing Considerations

As would be the case with actual construction, the construction sequencing has been considered to provide realistic cost estimates. An example of this applies where blocking is installed in the door framing at the time that the entrance door to the dwelling unit is installed.

In some instances, it is not possible to separate the individual costs for the construction of features that address multiple issues, an example of this would be where a fire separation and sound attenuation are required. As both of these features are contained within the same assembly it is not practical to provide separate costs for the two Code provisions.

The building considered for the existing construction is assumed to have been built in the 1970's.

The cost related to the fit-up of the space including electrical costs, the fit-up costs for the construction of the kitchen and bathroom and the costs of the additional fixtures although relevant to the consideration of the overall costs are not considered applicable to this review. The exception to this is where the costs are over and above those that would be required for the fit-up of a residential space.

Costs include material at retail prices and contracted labour.

Costs do not include appliances, furniture or cosmetics such as interior finishes and fixtures.

The costs associated with the construction of an accessory apartment in new construction and existing buildings are included in Table F-1 and Table F-2 in Appendix F, respectively.

8.2 Conclusions of Costing Exercises

8.2.1 Sample Cost of an Accessory Apartments in New Construction

Conclusions arising from the construction of the sample accessory apartment in new construction are as follows:

- The costs associated with the construction of an accessory apartment in a new building are the highest when in accordance with the requirements of the NBC, and the Building Codes from the other jurisdictions that adopt the NBC with little or no modifications.
- The construction costs directly correlate with the level of performance as determined above, in that construction costs are less, to a similar proportion as the lower performance level of the various regulations.
- The largest portion of the additional construction costs arise from the requirement to separate the accessory apartment from the other areas of the building with fire rated and sound rated construction.

- The remainder of the costs generally arise from compliance with the provisions applicable to the key issues of livability. This appears contrary to the general trend of the performance level tables, which indicate a general decrease in performance level for livability.

Costs for compliance with the individual Code provisions for new construction are summarized in the Table 3 below.

Table 3 Costing – New Construction

Jurisdiction	Overall Cost	Percentage Compared to NBC Cost	Relative Level of Performance
NBC and other Regulations not otherwise indicated in this table	$7690	100%	1.0
British Columbia, Surrey and Sidney	$5340	69%	0.9
Prince Edward Island	$850	11%	0.3

8.2.2 Sample Cost of an Accessory Apartments in Existing Buildings

Conclusions arising from the construction of the sample accessory apartment in an existing building are as follows:

- The costs associated with the construction of an accessory apartment in an existing building will vary widely depending upon the existing construction and layout.

- As with new construction, the cost of construction an accessory apartment in an existing building is related to the performance level provided.

- The costs related to the construction of an accessory apartment in an existing building are comparable for the provinces that adopt the NBC or have modified the Code.

- While the OBC permits a reduced fire resistance rating of 30 minutes, 15 minutes or any unrated fire resistance rating with exceptions, it still requires that each dwelling unit be separated from adjacent areas with construction that provides a minimum sound transmission rating of 50. The construction of an assembly that provides a minimum sound transmission rating of 50 often provides a fire resistance rating of 45 minutes. A 45 minute fire resistance rating is generally required by the NBC for fire separations.

Costs for compliance with the individual Code provisions for an existing building summarized in the table 4 below.

Table 4 Costing – Existing Buildings

Jurisdiction	Overall Cost	Percentage compared to NBC cost	Relative Level of Performance
NBC and other Regulations not otherwise indicated in this table	$14640	100%	1.0
Ontario	$11920	81%	0.9
Quebec	$14240	97%	1.0
British Columbia Surrey Sidney	$8790	60%	0.9
Prince Edward Island	$2930	20%	0.2
Vancouver[6]	$150	1%	0.3
Montreal	$4530	31%	0.2

8.3 Limitations

The cost comparisons provide an indication of the costs involved in constructing an accessory apartment in a single-family house in the various jurisdictions across Canada. While these cost comparisons are useful to illustrate the variation in construction costs for compliance with the applicable legislation that pertains to accessory apartments, the limitations must be noted. Such limitations may include:

- The costs may be considerably higher when different situations exist. An example of this would be when the house in which the accessory apartment is to be contained is semi-detached. In this instance a number of Codes would require that the party wall be upgraded to a firewall, or that the fire resistance rating of the party wall be increased.

- Jurisdictions may permit exemptions or equivalencies to certain requirements on a case-by-case basis.

8.3.1 New Construction

Prudent design can mitigate many of the possible costs associated with the construction of an accessory apartment in new construction. For example, the costs associated with the requirement for natural lighting and ventilation, exit requirements and fire exposure considerations can be mitigated by room layout, site choice etc.

Also of interest is the portion of the overall cost of constructing an accessory apartment in new construction that is associated with the key issue of livability. The proposed changes to the 2005 NBC include the deletion or revision of many of the provisions that make up the "livability" key issue.

[6] It is assumed that sprinklers are not used as an equivalency.

8.3.2 Existing Buildings

It is noted that, if an accessory apartment were to be constructed in an older house, the costs to renovate an existing basement for an accessory apartment could be considerably higher. Addition costs may include items such as:

- Lowering the basement floor level to achieve minimum room heights in some cases,
- Increasing the egress and exiting feature dimensions within the accessory apartments and those features that are used by more than one dwelling unit, and
- Adding windows or increasing window dimensions, and providing window-wells with drainage where required.

In the sample design for an accessory apartment in an existing building, a portion of the basement area that is not occupied by the accessory apartment can only be accessed through the accessory apartment. This may be problematic, as the owner of the building would have to obtain approval of the accessory apartment tenant to gain access to the unfinished basement area. While this situation would not be expected in new construction, it does highlight unique situations that may exist when constructing an accessory apartment in an existing building. As this is not a Code issue and it does not affect costing, entry to the unfinished basement area is not further considered for the purpose of this report.

9. EQUIVALENTS AND REDUCED REQUIREMENTS

As indicated in the previous Sections of this report, there are often additional requirements for accessory apartments compared to a single-family house. This is due in part to the generic nature of the various Building Codes, which categorize an accessory apartment in the same way as a conventional duplex or multi-unit residential building.

Various Provinces and Municipalities across Canada have made efforts to address accessory apartments. This indicates a desire to specifically address this type of residential accommodation as a unique sub-set of residential accommodation rather than as duplexes or multi-unit buildings. While this report does not consider the justification of addressing accessory apartments as separate from other multi unit dwellings, possible equivalencies and justification of reduced requirements to the individual Code provisions have been considered.

9.1 Equivalencies

Possible equivalencies to the NBC provisions include the following:

9.1.1 Sprinkler Protection

Sprinkler protection in both new construction and existing buildings is an option that provides potential equivalencies for a broad range of Code provisions. Sprinkler protection provides the benefit of controlling the fire size so that other passive life safety features such as the fire resistance rating of fire separations may be reduced. This concept of providing active fire control (sprinklers) to achieve a reduction in passive features is a precedent used throughout Part 3 of the NBC. Some potential equivalencies that relate to the installation of sprinklers in a residential occupancy include:

- Decreased fire resistance rating of fire separations,
- Constructing a party wall as a fire separation rather than a firewall,
- Permitting service rooms to open onto exits,
- No firestopping in walls,
- Allowing the dwelling unit to be served by a single exit, and
- Reduction in fire exposure requirements.

The justification of these equivalencies is based on the fact that, in general, sprinklers will control the fire to a limited size, therefore a reduction in the passive requirements may be warranted.

9.1.2 Interconnected Smoke Alarms

Interconnection of hard wired smoke alarms between both the dwelling units and the common areas of the building may justify the reduction in the required fire resistance rating of fire separations. Interconnected smoke alarms would alert occupants throughout the building of a fire during its early growth stage and therefore occupants would have the information necessary to decide to evacuate the building during the early stages of the fire, rather than relying on the increased fire resistance rating of fire separations between the dwelling units. A disadvantage of this may be increased false alarms throughout the building, which may lead to complacency upon alarm activation.

9.2 Reduction of Additional Requirements

Consideration for reducing requirements of the NBC can be based on:

- Consideration of the intent statements developed for the Objective Based Codes,
- Review of similar provision from the other jurisdictions reviewed in this report, and
- Specific engineering principles, such as engineered egress design and fire dynamics.

The consideration of reduced requirements is preliminary in nature and offered as a basis from which other, more thoroughly developed options may be proposed. Further development of these considerations is discussed in Section 9.3 below. Some Code requirements that are applicable to a single-family house and may also be applicable to a building that contains an accessory apartment include:

- When they serve more than one dwelling unit, egress and exiting features, including, dimensions of the egress features, handrail requirements and direction of door swing are required to meet additional requirements. The intent statements for the egress and exit features indicate that the intent of the increased dimensions are to accommodate persons who may not be familiar with their surroundings.

  As the number of people within an accessory apartment may be limited, it may be possible to justify that egress and exiting features that serve both dwelling units may be the same as for a single-family house.

  In addition to the limited number of persons, the areas occupied by the accessory apartments will generally be of limited size and complexity and therefore occupants may be expected to be familiar with the egress features.

The above considerations do not necessarily apply to other multi-unit buildings, which may contain a number of dwelling units and complex exiting features.

- A party wall is required to be constructed as a firewall where one dwelling unit is located above another dwelling unit.

  A residential building within the size limitation for compliance with Part 9 of the Building Code may be expected to have similar performance in a fire if the building is constructed as a single-family house or a house that contains an accessory apartment. The basis for this may be that the fire load within an accessory apartment is expected to be the same as that for a single-family dwelling.

- Exceptions relating to the exposing building face of a single-family building are not applicable when one dwelling unit is located above another dwelling unit.

  A fire in a building that contains an accessory apartment may be considered to be similar to a single-family house due to the construction and fire loading within the building. In addition the building would normally be separated into fire compartments by the fire separation between the dwelling units and the other areas.

- A number of Codes (such as the BCBC and NFPA 101) permit a window with certain dimensions to be used as a secondary means of egress. Even though the NBC requires a window for each bedroom, it only permits a window to be considered as a required means of egress when it serves a fire escape. Nevertheless, as outlined in Tables A-1 and A-2, Appendix A, Sentence 9.7.1.3.(1) of the NBC states;

  > *"Every bedroom that does not have an exterior door to have at least one window that is large enough and easy enough to open that it can be used as an exit in the case of a fire that prevents the use of the normal building exits... ".*

  Considering a window (that meets certain dimensions and height from the floor) as a second means of egress may provide for a safe alternative means of egress in some situations.

  - Where the building is owner/occupied, certain exemptions may be justifiable, such as a reduction in the fire resistance rating of fire separations that separate the dwelling units on the basis that the owner may be expected to be aware of the general condition of the accessory apartment and the fire separations between the two dwelling units. Complications in this reasoning may include:

- Over time, the owner may temporarily or permanently rent the main dwelling unit,
- The owner may not be interested in maintaining the integrity fire separation or the building in general.

- Limiting the number of persons or bedrooms in each dwelling unit or in the accessory apartment may justify a reduction in the requirements for the dimension of egress features to those applicable to a single-family house.

- Limiting the area of the accessory apartment may justify the reduction of egress facility dimension, as the possible number of people in the dwelling unit will be physically limited.

9.3 Limitations

The concept of equivalencies is used throughout the majority of Building Codes. However, a means of ensuring that active systems such as sprinklers or smoke alarms are maintained is required. Such a mechanism may be achieved by use of the relevant Fire Code.

The local municipality may perceive the need for reduced requirements to assist in achieving specific goals such as the need for affordable housing or the desire to regulate existing accessory apartments and may base their decisions on factors other than life safety.

The above considerations are preliminary and are intended to provide a basis from which other, more thoroughly developed, options may be proposed. Complete development of these considerations is beyond the scope of this review as additional information and major stakeholder participation is required. Further information may include:

- Fire loss statistics in various residential occupancies,

- Review of existing accessory apartments to review existing conditions such as; as-built construction, fire loads, maintenance and other factors that may affect life safety within the building,

- Review of stakeholder objectives to determine the level of support for a reduction in requirements, and other considerations that may be taken into account.

10. MEANS OF REGULATING ACCESSORY APARTMENTS

A strategy to achieve a uniform national standard or alternatives means of nationally regulating accessory apartments across Canada has been considered. The possible options below provide a preliminary review of the various options available with a brief description of the relative advantages and disadvantage of each option.

Two possible options for regulating accessory apartments on a national basis have been considered. These options will only influence the regulation of accessory apartments to the extent that they are adopted and therefore prior consultation with above stakeholders is recommended. These two options are considered as they both involve a consensus and review process. Some stakeholders may include:

- Municipal, Provincial and Territorial organizations
- Building associations,
- Legal input,
- Landlord associations,
- Fire departments,
- CMHC.

10.1 Canadian Standards Association (CSA) Standard

A uniform standard relating to the construction of accessory apartments may be developed. CSA standards can be referenced in the Building Code or can be adopted by policy by the various jurisdictions. The processes involved in developing a CSA standard include the formation of a technical committee and the development of a draft standard, review and comment stages through to publication and maintenance of the standard.

10.2 Modify the NBC to address accessory apartments.

As the NBC is the model Building Code on which the other Codes are based, modification of the NBC to address accessory apartments is considered to provide the greatest long-term influence on the construction of accessory apartments and could lead to uniformity across the country. Modification of the NBC is a consensus process with significant stakeholder representation and public review process. Therefore, the published modifications are a representation of the view of a large portion of major stakeholders. However, due to the consultation and review process the time for any modifications to the NBC can be a number of years and is required to coincide with the overall review of the NBC, which has a set time frame.

11. FURTHER INVESTIGATION

Possible further effort in consideration of accessory apartments may include:

- Development of a definition for an accessory apartment is considered to be a key step in moving towards regulating accessory apartments. Once the accessory apartment has been defined, it will be possible to address other considerations such as reduction in requirements as discussed in Section 9.2.

- Review of fire loss statistics to determine if they provide any insight into accessory apartments or if there is any correlation between the various residential dwelling units that may assist in the development of reduced requirements.

- If further use is to be made from the method developed to determine the performance level provided by the various regulations, consultation with major stakeholders to provide a consensus approach will be required.

- Costing and further investigation into other accessory apartments such as storeys above the first floor may be warranted. However, it is noted that by necessity, any costing exercise involves a number of assumptions so that the benefit of comparison between other scenarios is limited.

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APPENDIX A

CODE REQUIREMENTS

Table A-1
Code Requirements in New Construction

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN NEW CONSTRUCTION						
NBC Provision (Same prevision for Manitoba, Nova Scotia, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**Ontario**	**Alberta**	**Quebec**	**British Columbia**	**Prince Edward Island**
EGRESS AND EXITING		✓ Means same as NBC				
Egress Feature Dimensions						
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	9.7.1.3.	✓	Security bars to be openable from the inside without the use of any tools or special knowledge.	✓	✓	Bedrooms and living area to have two means of egress, door to exterior or sprinkler protection. Existing may be approved. Window as secondary means of egress to have a minimum opening of 0.53 m^2 and sill height of not more than 1100 mm.
Maintain 550 mm clearance at window-well.	9.7.1.4	✓	✓	✓	✓	Maintain 915 mm by 915 mm clearance at window well.
Proposed 2005 Change: Add - protective cover over window well to be openable from inside without use of keys, tools or special knowledge.						
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.	✓	✓	✓	✓	Minimum tread depth 255 mm.
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.	✓	✓	✓	Minimum width permitted to be 860 mm.	915 mm width required.
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.	✓	✓	✓	✓	2.03 metres height required.
Landings dimensions required to increased when serving more than one dwelling unit	9.8.4.1.	✓	✓	✓	Minimum width of 900 mm permitted for exterior landings.	Not less than width of widest door leaf opening onto landing.
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.(4)	✓	✓	✓	✓	
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.	✓	✓	✓	✓	
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.	9.9.2.7.					
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.	✓	✓	✓	Minimum width permitted to be 860 mm	Minimum width of egress facilities 910 mm
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.	✓	✓	✓		Where approved, existing acceptable or not less than 910 mm
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)	✓	✓	✓		Existing acceptable but not less than 2135 mm, 2030 mm below projections.
Handrails and Guards (ramps added)						
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.	✓	✓	✓	Requirements same as if serving a single dwelling unit.	Handrail required on one side of a stair
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.	✓	✓	✓		✓
At least one handrail required to extend not less than 300 mm past top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.	✓	✓	✓		✓

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PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN NEW CONSTRUCTION						
NBC Provision (Same prevision for Manitoba, Nova Scotia, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**Ontario**	**Alberta**	**Quebec**	**British Columbia**	**Prince Edward Island**
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.	✓	✓	✓		Minimum height 1065 mm.
Doors in a Means of Egress						
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2.	✓	✓	✓	✓	Door to leave not less than ½ the required width or project more than 180 mm into required width
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.	✓	✓	✓	Minimum height reduced to 1980 mm	Doors to be not less than 710 mm wide and 1980 mm high
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (4)	✓	✓	✓	Exit door permitted to swing inwards.	Door to be swinging or sliding.
Egress						
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1	✓	✓	✓	Limit may exceed 1 storey provided openable window not more than 1 metre above the floor with opening of not less than 1 metre height and 550 mm width	
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 (and 9.9.7.2)	✓	✓	✓	Second means of egress may be window not more than 1 metre above the floor, 1 metre in height and 550 mm in width. May be openable window.	
Dwelling unit required to be served by second means of egress where egress door opens onto: Shared exit stair, shared public corridor, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.	✓	✓	✓		One primary and one secondary means of escape required from each storey.
General Safety Within Egress Route						
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.	✓	✓	✓	✓	
Slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)	✓	✓	✓	✓	
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.	✓	✓	✓	✓	
Exit signage required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.	✓	✓	✓	Not required	
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.	✓	✓	✓	✓	Stairs are required to be illuminated to at least 10.8 lux
Emergency lighting required in exits and public corridors.	9.9.11.3.	✓	Unless it can be shown as unnecessary	✓	✓	
FIRE SEPARATIONS						
Fire Rating of Materials, Assemblies and Structural Members						
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	✓	✓	✓	30 minutes where the dwelling units are equipped with smoke alarms. Not required where the building is sprinklered.	Dwelling units to be fire separated from non-residential occupancies only.
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)	✓	✓	✓		

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Code Requirements in New Construction

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN NEW CONSTRUCTION						
NBC Provision (Same prevision for Manitoba, Nova Scotia, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**Ontario**	**Alberta**	**Quebec**	**British Columbia**	**Prince Edward Island**
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.	✓	✓	✓		
Load bearing members to have fire resistance rating of supported assembly.	9.10.8.3.	✓	✓	✓		
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.	✓	✓	✓	✓	
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.	✓	✓	✓	✓	
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.	✓	✓	✓	✓	
Protections of Openings and Penetrations Through Fire Separations						
Combustible water distribution piping not more than 30 mm in diameter permitted to penetrate vertical fire separation provided piping is sealed at separation by a firestop system.	9.10.9.6.(7)	✓	✓	✓	Permitted to penetrate horizontal and vertical fire separations	
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)	✓	✓	✓	Permitted to penetrate a fire separation provided; protected with gypsum board, with penetration size of pipe and not on the underside of horizontal fire separation	
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)	✓	✓	✓	If protected by gypsum board assembly, permitted on both sides of fire separation.	
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18	✓	✓	May exhaust directly to the exhaust, with exceptions	✓	
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.	✓	✓	✓	✓	
With exceptions, ducts through fire to be equipped with fire damper.	9.10.13.13	✓	✓	✓	Fire damper not required provided ducts are non-combustible and serve only one fire compartment.	
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.	✓	✓	✓	✓	
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)	✓	✓	✓	✓	
FIRE DETECTION						
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.1.	✓	✓	✓	Additional photo-electric smoke alarm required in each dwelling unit to be interconnected with alarm in the other suite except where fire separations have a 45 minute rating or building is sprinklered.	Permitted to be powered by batteries

Table A-1
Code Requirements in New Construction

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN NEW CONSTRUCTION						
NBC Provision (Same prevision for Manitoba, Nova Scotia, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**Ontario**	**Alberta**	**Quebec**	**British Columbia**	**Prince Edward Island**
LIVEABILITY						
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.	✓	Same heights but area over which minimum height is required varies	Same heights but area over which minimum height is required varies	Minimum 2.0 metres, area over which minimum height is required varies	
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)	✓	✓	✓	May be in any location within the secondary suite.	
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.	✓	✓	✓	✓	
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.	✓	✓	✓	Assemblies need not comply with sound control requirements	
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.	✓	✓	✓	✓	
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2.	✓	✓	✓	✓	
GENERAL SAFETY						
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.	✓	✓	✓	✓	
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)	✓	✓	✓	✓	
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	✓	✓	✓	✓	Finishes permitted to be Class A, B or C from NFPA 255.
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa						
ELECTRICAL SAFETY						
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.	To comply with Section 9.34 of the OBC	✓	✓	✓	
VENTILATION						
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.	✓	✓	✓	✓	Required to comply with NFPA standards
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.	To be designed to Part 6	✓	✓	Each dwelling unit to be served by separate heating systems.	
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or attached garage.		Carbon monoxide detectors required if fuel-burning appliance attached garage.				
FIRE DEPARTMENT ACCESS						
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.	✓	✓	✓	✓	
Access to basement required where serving more than one dwelling unit	9.10.19.2.	✓	✓	✓	✓	

Table A-1
Code Requirements in New Construction

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN NEW CONSTRUCTION						
NBC Provision (Same prevision for Manitoba, Nova Scotia, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**Ontario**	**Alberta**	**Quebec**	**British Columbia**	**Prince Edward Island**
and greater than 25 m in length.						
FIRE EXPOSURE						
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	✓	✓	✓	✓	
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.	✓	✓	✓	✓	
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.	✓	✓	✓	✓	
Soffit spaning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5.	✓	✓	✓	✓	
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	9.10.14.12.(2)	✓	✓	✓	Same requirements as for a single-family house.	

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
EGRESS AND EXITING						
Egress Feature Dimensions						
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	9.7.1.3.	✓ (Means ***Comparable*** to NBC)	✓	✓	✓	Bedrooms and living area to have two means of egress, door to exterior or sprinkler protection. Existing may be approved. Window as secondary means of egress to have a minimum opening of 0.53 m^2 and sill height of not more than 1100 mm.
Maintain 550 mm clearance at window-well.	9.7.1.4	✓	✓	✓	✓	Maintain 915 mm by 915 mm clearance at window well
Proposed 2005 Change: Add - protective cover over window well to be openable from inside without use of keys, tools or special knowledge.						
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.	Existing stairs acceptable provided that minimum width is 700 mm and the minimum height is 1800 mm.	✓	Existing acceptable provided acceptable to the Authority Having Jurisdiction.	✓	Minimum tread depth 255 mm
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.		Existing acceptable if greater than 760 mm.		Minimum width permitted to be 860 mm.	915 mm width required
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.		✓		✓	2.03 metres height required
Landings dimensions required to increased when serving more than one dwelling unit	9.8.4.1.		✓		Minimum width of 900 mm permitted for exterior landings.	Not less than width of widest door leaf opening onto landing
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.(4)		✓		✓	
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.		✓		✓	
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.						
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.	Existing acceptable provided not less than 800 mm	Existing acceptable provided not less than 760 mm.	✓	Minimum width permitted to be 860 mm	Minimum width of egress facilities 910 mm
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.	The minimum width of a public corridor is permitted to be 800 mm	✓	Public corridors and exits are permitted to have a minimum width of 800 mm.		Where approved, existing acceptable or not less than 910 mm
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)	Existing headroom clearance of 1950 mm acceptable	Existing height acceptable provided it is greater than 1900 mm.	✓		Existing acceptable but not less than 2135 mm, 2030 mm below projections

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO** (for buildings more than 5 years old)	**QUEBEC** (for buildings more than 5 years old or built prior to 7 November, 2000)	**NOVA SCOTIA** (for buildings built prior to 13 March, 1987)	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
Handrails and Guards (ramps added)						
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.	Existing acceptable except where considered unsafe by the chief building official	✓	Existing permitted provided acceptable to the Authority Having Jurisdiction	Requirements same as if serving a single dwelling unit.	Handrail required on one side of a stair
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.		✓			✓
At least one handrail is required to extend not less than 300 mm horizontally past the top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.		✓			✓
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.		✓			Existing permitted to be not less than 760 mm
Doors in a Means of Egress						
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2.	Existing is acceptable	✓	Existing permitted provided 550 mm exit provided the building is fully sprinklered	✓	Door to leave not less than ½ the required width or project more than 180 mm into required width
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.	Existing acceptable provided 800 mm wide and 1950 mm high	✓	✓	Minimum height reduced to 1980 mm	Doors in means of escape to be not less than 710 mm wide and 1980 mm high
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (3) and (4)	Existing door swing is acceptable	Existing is acceptable 10.9.2.1.(2)	A second egress door not required to swing in direction of egress providing the building is fully sprinklered and supervised system	Exit door permitted to swing inwards.	
Egress						
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1.	Existing acceptable if: door to exterior with reasonable access to ground level, dwelling units equipped with hard wired smoke alarms, Where serving more than one dwelling unit and providing only means of egress, separated from the remainder of the building by 30 minute fire separation and all areas are equipped with hard wired smoke alarms, Access from one dwelling unit through another dwelling unit	✓	✓	Limit may exceed 1 storey provided openable window not more than 1 metre above floor and with opening of not less than 1 metre height and 550 mm width.	
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 9.9.7.2		Dead end corridor up to 12 metres permitted provided; public corridor has 45 minute fire resistance rating, doors to dwelling units self closing and do not lock automatically, corridor has interconnected smoke alarms and dwelling units have balcony or building is sprinklered	A dead end corridor is permitted up to a maximum length 10 metres provided building is fully sprinklered smoke alarms are installed within the corridor.	Second means of egress may be window not more than 1 metre above the floor, 1 metre in height and 550 mm in width.	

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
Dwelling unit to be served by second means of egress where the egress door opens onto: A shared exit stair, shared public, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.	with additional means of escape through a window meeting fixed criteria, or building is sprinklered and equipped with hard wired smoke alarms	✓	✓	The second means of egress may be an openable window conforming to 9.9.9.1.(2)	One primary and one secondary means of escape is required from each storey.
General Safety Within Egress Route						
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.	✓	✓	Existing permitted provided acceptable to the Authority Having Jurisdiction	✓	
slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)	Existing are acceptable	✓		✓	
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.	✓	✓	Where building is less than 3 storeys and sprinklered fire separated service rooms may open directly onto an exit		
Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.	Not required	✓	✓	Not required	
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.	Only required where a shared exit provides the only means of egress	✓	✓	✓	Stairs are required to be illuminated to at least 10.8 lux
Emergency lighting required in exits and public corridors.	9.9.11.3.		✓	✓	✓	
FIRE SEPARATIONS						
Fire Rating of Materials, Assemblies and Structural Members						
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	30 minute fire separation is acceptable	Also applies to any non-modified exit	Existing ½ hour fire separations acceptable provided building is sprinklered and not greater than 3 storeys.	30 minutes where the dwelling units are equipped with smoke alarms. Not required where the building is sprinklered.	Dwelling units to be fire separated from non-residential occupancies only.
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)	30 minute fire separation is acceptable, 15 minute fire separation acceptable where both dwelling units are equipped with hard wired interconnected smoke alarms, Fire resistance rating waived where the building is sprinklered.	✓	✓		
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.		✓	Existing ½ hour fire separations are acceptable if the building is fully sprinklered		
Load bearing members to have a fire resistance rating of the supported assembly.	9.10.8.3.		✓	Heavy timber construction is permitted provided that the building is sprinklered		
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.		✓	✓	✓	
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.	✓	✓	✓	✓	

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.	Party wall with 1 hour fire resistance rating is acceptable	A 2 hour rating on the altered side is acceptable	✓	✓	
Protections of Openings and Penetrations Through Fire Separations						
Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	9.10.9.6.(7)	✓	✓	✓	Permitted to penetrate horizontal and vertical fire separations	
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)	Existing is acceptable.	✓	✓	Permitted to penetrate a fire separation provided; protected with gypsum board, with penetration size of pipe and not on the underside of horizontal fire separation	
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)	✓	✓	✓	If protected by gypsum board assembly, permitted on both sides of fire separation.	
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18	✓	May exhaust directly to the exhaust, with exceptions.	✓	✓	
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.	✓	✓	✓	✓	
With exceptions, ducts through fire to be equipped with fire damper.	9.10.13.13	Existing acceptable.	✓	✓	Fire damper not required provided duct are non-combustible and serve only one fire compartment.	
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.	Required where balloon framing is exposed during renovations.	✓	✓	✓	
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)	✓	✓	✓	✓	
FIRE DETECTION						
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.1.	May be battery operated.	✓	✓	Additional photo-electric smoke alarm required in each dwelling unit to be interconnected with alarm in the other suite except where fire separations have a 45 minute rating or building is sprinklered.	Permitted to be powered by batteries
LIVEABILITY						
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.	Minimum 1950 mm or 2030 mm over at least 50% of floor area.	Same heights but area over which minimum height is required varies	Existing acceptable.	Minimum 2.0 metres, area over which minimum height is required varies	
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)	Where not used as a means of egress or for ventilation may be reduced by 50%	✓		Minimum required exterior glazing may be in any location within the secondary suite.	
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.	✓	✓	✓	✓	

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO** (for buildings more than 5 years old)	**QUEBEC** (for buildings more than 5 years old or built prior to 7 November, 2000)	**NOVA SCOTIA** (for buildings built prior to 13 March, 1987)	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.	✓	✓	✓	Assemblies need not comply with sound control requirements	
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.	✓	✓	✓	✓	
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2	✓	✓	✓	✓	
GENERAL SAFETY						
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.	✓	✓	✓	Existing permitted	
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)	✓	✓	✓	✓	
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	✓	Limits also apply in non-modified egress facilities if flame spread rating is greater than 75.	✓	✓	finishes are permitted to be Class A, B or C in accordance with NFPA 255.
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa	9.8.9.1.					
ELECTRICAL SAFETY						
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.	To comply with Section 9.34 of the OBC, with the following exceptions;	✓	✓	✓	
VENTILATION						
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.	Required in accordance with 9.32.2 or by mechanical ventilation	✓	Existing mechanical systems are not required to fully comply to the requirements of Part 6	✓	Required to comply with NFPA standards
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.	Existing may serve both dwelling units if smoke detectors installed in each dwelling unit and ducts. Fuel supply and electrical power to the heating system to turn off on activation of detector.	✓	✓	Each dwelling unit to be served by separate heating systems.	
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or a garage.	9.32.3.9.	May be battery operated or plugged into an electrical outlet				
FIRE DEPARTMENT ACCESS						
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.	Existing is acceptable	✓	✓	✓	

Table A-2
Code Requirements in Existing Buildings

PROVINCIAL AND TERRITORIAL CODE REQUIREMENTS IN EXISTING BUILDINGS						
NBC Requirement (Same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC Reference**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA**	**PRINCE EDWARD ISLAND**
Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	9.10.19.2.	✓	✓	✓	✓	
FIRE EXPOSURE						
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	✓	✓	✓	✓	
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.	✓	✓	✓	✓	
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.	✓	✓	✓	✓	
Soffit spaning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5.	✓	✓	✓	✓	
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	9.10.14.12.(2)	✓	Existing acceptable provided no increase in openings beyond Part 9 limits no reduction in limiting distance or fire resistance rating.	Unprotected openings not limited provided; Exterior walls clad with 12.7 mm gypsum board or lath and plaster in good condition, minimum limiting distance 1 metre, building is sprinkler ed with connection to Fire Department.	Same requirements as for a single-family house.	
				Exposing building face not required to have fire resistance rating if building is sprinklered. Exposing building face is not required to be non-combustible construction if protected by exterior sprinkler system and has exterior walls with interior cladding as above.		

APPENDIX B

KEY ISSUES AND CODE PROVISIONS

Key Issues and Code Provisions

As part of the *"Code Requirements and Costs of Incorporating Accessory Apartments in Houses"* project carried out by Morrison Hershfield Limited (MH) on behalf of Canada Mortgage and Housing Corporation (CMHC), MH has reviewed the regulations relating to accessory apartments in houses in the National, Provincial and Territorial Codes. In Canada, accessory apartments are regulated by either the Part 9 requirements of the NBC relating to duplexes and semi-detached dwelling units, or, where provided, Provincial, Territorial or municipal regulations.

The National, Provincial and Territorial Building Codes have been reviewed to determine the major health and safety issues that are applicable to the construction of accessory apartments in both new and existing buildings. These provisions have been reviewed and categorized based on the intent of the provision which, has been determined in conjunction with the intent statements developed for the new 2005 Objective Based Codes. These categories have been termed the "Key Issues". The Key Issues that are applicable to accessory apartments have been presented in language that is understandable by a lay person. The individual Code requirements that form the Key Issues have also been presented in language suitable for a lay person. Use of terminology from the Code text and intent statements has been used where appropriate to relay important regulations and so that context is not lost. The Key Issues are indicated in ***bold and italics*** below and include:

- Egress and Exiting,
- Fire Separation (Compartmentation),
- Fire Detection,
- Liveability and General Safety,
- Electrical Safety,
- Ventilation,
- Fire Department Access, and
- Fire Exposure.

The individual Code requirements are listed below the Key Issues.

Egress and Exiting

An accessory apartment is required to be provided with facilities that will permit occupants to safely and quickly exit the building in an emergency situation.

Exit facility requirements include:

Two Separate Exits

Where only one egress route is provided from a floor area, direct egress to the exterior is required. Egress to the exterior may be;

- to a corridor or exterior passageway permitting travel in two opposite directions, or
- through a protected corridor of limited length providing access to the exterior.

Bedroom Windows
Except where a bedroom door provides direct access to the exterior, a window is required to provide as a secondary means of escape from the bedroom. Minimum dimensions for the window are specified so that the openable portion of the window will provide adequate area to use as an alternative means of egress.

Window Opening into a Window-Well
Where a bedroom window used as a secondary means of egress opens into a window-well, adequate clearance is required in front of the window so as not to restrict escape in an emergency.

Stair Dimensions
The minimum dimensions of egress and exiting features include:

- The minimum width of exits, corridors, stairs and length of landings is specified so that inadequate dimensions do not lead to persons colliding or falling and to facilitate efficient egress in an emergency situation.
- Stair dimensions are specified to reduce the possibility of a person misstepping, tripping or of excessively steep stairs.
- The minimum headroom height of exits and corridors and over stairs and landings is specified to provide adequate clearance under ceilings or protrusions from the ceiling.

Handrails
Continuous handrails are required to provide balance and to prevent falls. Handrails are required to be terminated in such a way so as not to cause an obstruction or create a hazard.

Height of Guards
The height of guards is specified to provide reasonable protection from falling.

Wood Stair Stringers
The span between stair stringers is reduced when serving more than one dwelling unit to provide additional support where stairs may be exposed to increased use.

Finish for Treads and Landings
Slip resistant surfaces are required for stairs that are not within a dwelling unit to provide protection from falling due to slippery stair treads or landings.

Types of Exits
Various building features may be used for exiting including exterior fire escapes providing they meet specified design and installation criteria.

Ancillary Rooms
Certain rooms such as laundry rooms are not permitted to open directly onto an exit to limit the probability of:

- A fire within the room spreading into the exit, or
- An appliance malfunction leading to hazardous conditions within the exit.

Doors in a Means of Egress

Doors are required to be of sufficient width and be located so that they do not obstruct a required egress route, to permit efficient evacuation in an emergency situation.

Direction of Door Swing
An exit door that serves more than one dwelling unit is required to open in the direction of egress to limit the probability that:

- The door will be difficult to open in an emergency situation if several people approach at the same time and the pressure from the crowd prevents the first person from pulling the door towards them,
- A person having fallen in front of the door will obstruct the opening of the door in an emergency.

Common Exits
Where a dwelling unit opens onto a common exit, a second and separate egress route is required to provide occupants with an alternative egress route in the event that one route is blocked due to an emergency.

Exit Signage
Exit signage is required where occupants in a building are not expected to be familiar with the location exit facilities.

Lighting
A minimum average level of illumination is required in exits to provide adequate levels of illumination that may otherwise lead to safety hazards or delays in evacuation.

Emergency Lighting
Emergency lighting is required to limit the probability that egress routes will not be illuminated when there is a loss of normal power which, could lead to safety hazards or delays in evacuation.

Fire Separation (Compartmentation)

Wall or floor assemblies that separate a dwelling unit from the adjacent dwelling unit and from exits or public corridors are required to be fire separations with a specified fire resistance rating to reduce the probability that:

- ***the assembly will fail or collapse prematurely prior to occupants evacuating the building,***
- ***of fire spread from one area of the building to other areas,***
- ***that the effects of fire will impede or delay evacuation.***

Openings and penetrations in fire separations are to be limited or protected to limit the probability of fire or the effects of fire spreading from one area of the building to another area.

Fire separation features include:

Fire Separation for Exits

Assemblies that separate exits or public corridors from adjacent areas are required to be constructed to achieve a predetermined fire resistance rating to provide occupants adequate time to evacuate the building prior to failure of the assembly.

Separation of Residential Suites

Where dwelling units are located above one another, the fire resistance rating of the fire separation separating the a dwelling units is required to be increased from 45 minutes to 1 hour if one of the dwelling units containing two or more storeys, on the basis that moving from one storey to another in an emergency situation could lead to increased evacuation times.

Floors of Exterior Passageways

An exterior passageway used as part of a means of egress is required to have a fire-resistance rating or be of non-combustible construction to reduce the potential of the exterior passageway collapsing when exposed to heat from a fire, which could lead to delays in evacuation or the effectiveness of emergency response.

Service Equipment Penetrating a Fire Separation

Openings and penetrations through fire separations are required to be limited or protected to limit the spread of fire or the effects of fire from one area of the building to another area.

Appliances and Equipment to be Located in a Service Room

Where a fuel fired appliance (such as a furnace) serves both dwelling units, it is required to be located in a room that is fire separated from the remainder of the building with a 1 hour fire resistance rating to limit the probability of:

- A fire involving the fuel fired appliance spreading to other parts of the building, and
- A fire originating outside of the service room, which could lead to an undue fire hazard within the building.

Firewalls

Where a dwelling unit is located above another dwelling unit, a party wall on a property line between adjacent buildings is required to be constructed as a firewall to reduce the probability of fire spread between adjacent buildings.

Required Fire Stops in Wall Assemblies

Fire stops are required in wall assemblies where the width of the continuous space is greater than 25 mm, the construction materials within the space are combustible and the space is not filled with insulation, to limit the potential of fire spread from one area of the building to other areas via concealed spaces within the wall assembly.

Fire Detection

Dwelling units are required to be equipped with smoke alarms to provide early warning of a fire to occupants within the building.

Smoke Alarms
Smoke alarms conforming to certain standards and installed in specific locations are required to notify occupants in a dwelling unit during the early stages of a fire so that they may move to a safe place.

Power Supply
Smoke alarms are required to be permanently connected to an electrical circuit rather than battery powered.

Liveability

To provide a minimum standard of personal comfort and interior living environment, the design of each dwelling unit is required to meet minimum criteria, including; the height and area of various spaces, natural lighting, adequate indoor air quality and access to facilities.

Liveability issues include:

Heights of Rooms or Spaces
Minimum room heights are specified to provide adequate clearance under protrusions from ceilings, such as light fixtures, ceiling fans and low door jambs.

Minimum Window Areas
A minimum amount of windows to the exterior are required to provide natural lighting during daylight hours, to prevent eye strain.

Window Wells
Window wells are required to be adequately drained to reduce the probability of the foundation being exposed to excessive amounts of moisture, which could lead to:

- Reduced air quality within the building due to mould growth,
- Reduced thermal comfort,
- Damage of contents within the basement due to contact with moisture,
- Increased pressure (load) on the wall which may compromise the structural integrity of the foundation wall,
- Deterioration of the foundation wall.

Minimum Sound Transmission Class Rating
Dwelling units are required to be separated by construction that reduces the sound transmission between dwelling units so that occupants in one part of the building will not be exposed to excessive levels of noise from other parts of the building.

Required Fixtures
A kitchen sink, lavatory, bathtub or shower stall and water closet is required to be provided in each dwelling unit.

Laundry Fixtures
Laundry facilities or a space for laundry facilities are required to be provided in each dwelling unit or provided elsewhere in the building in a location conveniently accessible to occupants of each unit.

General Safety

To provide a minimum standard of personal safety, the design of each dwelling unit is required to meet minimum criteria, including provisions; against forced entry, falling and flame spread.

Solid Blocking
Solid blocking is required in the door framing at the level of the lock to resist forces imposed by intruders attempting to spread the frame away from the door.

Height of Window Sills above Floors or Ground
Openable windows of upper storeys that are located in close proximity to the floor level are required to be protected by a guard or device to limit the window opening to provide infants and children protection from falling.

Flame Spread Limits
Surface finishes in public corridors and exits are required to have limited flame spread properties to limit the potential for rapid spread of fire across the exposed surface of the finish.

Electrical Safety

Electrical installations are required to meet the appropriate Provincial, Territorial or Municipal legislation.

Standard for Electrical Installations
Electrical installations are required to be deigned and installed to meet certain criteria to reduce the potential that electrical installations will fall significantly below expectations, which could lead to electrical shock or over heating of components that may lead to fire.

Ventilation

Adequate ventilation, provided by mechanical or natural ventilation is required to be provided to limit the probability of inadequate control of;

- ***Interior temperatures,***
- ***Airborne pollutants,***
- ***Breathable air,***
- ***Condensation which could lead to the generation of unhealthy indoor air quality from mould growth.***

Ventilation and Air-Conditioning
Mechanical or natural ventilation is required to provide adequate air quality of indoor spaces and thermal comfort.

Heating
Where a heating system serves more than one dwelling unit, it is required to be meet additional requirements.

Fire Department Access

A building containing an accessory apartment above or below another apartment is required to be provided with Fire Department access to the upper storeys and basement of the building to facilitate effective and expedient emergency response.

Fire Department Access
Fire Department access is required to above grade and below grade storeys in a building to limit the probability of delays in fire emergency response operations.

Fire Exposure

The exterior walls of a building are required to have construction to limit the spread of fire from a building to an adjacent building and to protect occupants evacuating a building from a fire in an adjacent dwelling unit.

Openings Near Unenclosed Exit Stairs and Ramps
To protect occupants from the effects of fire, openings in the exterior walls of a dwelling unit are required to be located remote from an exit or be protected by fire rated construction.

Exposing Building Face of Houses
The exterior walls of a building that face an adjacent building require certain minimum construction requirements (relating to the maximum area of unprotected openings, minimum fire resistance rating, type of construction and cladding) to limit the spread of fire from the building to an adjacent building during the time required for the Fire Department to arrive and perform their duties.

APPENDIX C

MUNICIPAL BY-LAW REQUIREMENTS

Table C-1
Municipal By-law Requirements in New Construction

MUNICIPAL BY-LAW REQUIREMENTS IN NEW CONSTRUCTION				
NBC Requirement **Same requirements for Saskatoon**	**MUNICIPAL CODE REQUIREMENT**			
	NBC Reference	**Vancouver**	**Montreal**	**Surrey** **Sidney**
Additional requirements for Saskatoon • Maximum size of secondary suite 65m^2, • Minimum size of principal building 100 m^2, • The secondary suite is not permitted to contain more than 2 bedrooms, • No more than 3 persons may occupy the suite, • Zoning requirements.				Surrey • May only be located in a single family home, • The home owner is required to live in one of the dwelling units, • Maximum size of secondary suite 65 m^2 Sidney • May only be located in a single family home, • May not exceed the lesser of 40% of the gross floor area of the principal building or 120 m^2 • Is required to be located above or below the other dwelling unit, • Each dwelling unit is required to have their own entrance separate from that of the other dwelling unit.
EGRESS AND EXITING				
Egress Feature Dimensions				
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - Window to maintain the required opening	9.7.1.3.	✓ Means ***Comparable*** to NBC	✓	✓
Maintain 550 mm clearance at window-well.	9.7.1.4	✓		✓
Proposed 2005 Change: Add - protective cover over window well to a window to be openable from the inside without the use of keys, tools or special knowledge.				
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.	✓	✓	✓
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.	✓	✓	Minimum width permitted to be 860 mm.
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.	✓	✓	✓
Landings dimensions required to increased when serving more than one dwelling unit.	9.8.4.1.	✓	✓	Minimum width of 900 mm permitted for exterior landings.
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.(4)	✓	✓	✓
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.	✓	✓	✓
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.				
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.	✓	✓	Minimum width permitted to be 860 mm
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.	✓	✓	
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)	✓	✓	
Handrails and Guards (ramps added)				
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.	✓	✓	Requirements same as if serving a single dwelling unit.
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.	✓	✓	

Table C-1
Municipal By-law Requirements in New Construction

MUNICIPAL BY-LAW REQUIREMENTS IN NEW CONSTRUCTION				
NBC Requirement **Same requirements for Saskatoon**	**MUNICIPAL CODE REQUIREMENT**			
	NBC Reference	**Vancouver**	**Montreal**	**Surrey** **Sidney**
At least one handrail required to extend not less than 300 mm past top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.	✓	✓	
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.	✓	✓	
Doors in a Means of Egress				
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2.	✓	✓	✓
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.	Doors to be 800 mm wide and 2030 mm high.	✓	Minimum height reduced to 1980 mm
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (4)	✓	✓	Exit door permitted to swing inwards.
Egress				
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1.(2) and (3)	✓ Where building is sprinklered, maximum distance from occupied floor is 2 storeys.	✓	Limit may exceed 1 storey provided openable window not more than 1 metre above the floor with opening of not less than 1 metre height and 550 mm width
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 (and 9.9.7.2)	✓	✓	Second means of egress may be window not more than 1 metre above the floor, 1 metre in height and 550 mm in width. May be openable window.
Dwelling units to be served by second means of egress where the egress door opens onto: A shared exit stair, shared public corridor, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.	✓	✓	
General Safety Within Egress Route				
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.	✓	✓	✓
slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)	✓	✓	✓
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.	✓	✓	
Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.	✓	✓	Not required
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.	✓	✓	✓
Emergency lighting required in exits and public corridors.	9.9.11.3.	✓	✓	✓
FIRE SEPARATIONS				
Fire Rating of Materials, Assemblies and Structural Members				
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	✓	✓	May be reduced to 30 minutes where the dwelling units are equipped with smoke alarms. Not required where the building is sprinklered.
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)	✓	✓	
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.	✓	✓	30 minutes acceptable where dwelling units are equipped with smoke alarms.
Load bearing members to have a fire resistance rating of the supported assembly.	9.10.8.3.	✓	✓	fire resistance rating is not required where the building is sprinklered
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.	✓	✓	✓
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.	✓	✓	✓
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.	✓	✓	✓

Table C-1
Municipal By-law Requirements in New Construction

MUNICIPAL BY-LAW REQUIREMENTS IN NEW CONSTRUCTION				
NBC Requirement **Same requirements for Saskatoon**	**MUNICIPAL CODE REQUIREMENT**			
	NBC Reference	**Vancouver**	**Montreal**	**Surrey** **Sidney**
Protections of Openings and Penetrations Through Fire Separations				
Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	9.10.9.6.(7)	✓	✓	Permitted to penetrate horizontal and vertical fire separations
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)	✓	✓	Permitted to penetrate a fire separation provided; protected with gypsum board, with penetration size of pipe and not on the underside of horizontal fire separation
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)	✓	✓	If protected by gypsum board assembly, permitted on both sides of fire separation.
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18	✓	May exhaust directly to the exhaust, with exceptions.	✓
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.	✓	✓	✓
With exceptions, ducts through fire to be equipped with fire damper.	9.10.13.13	✓	✓	Fire damper not required provided duct are non-combustible and serve only one fire compartment.
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.	✓	✓	✓
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)	✓	✓	✓
FIRE DETECTION				
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.1.	✓	✓	Additional photo-electric smoke alarm required in each dwelling unit to be interconnected with alarm in the other suite except where fire separations have a 45 minute rating or building is sprinklered.
		Newly constructed buildings to be provided with sprinkler system.		
LIVEABILITY				
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.	✓	Same heights but area over which minimum height is required varies	Minimum 2.0 metres, area over which minimum height is required varies.
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)	✓	✓	Minimum required exterior glazing may be in any location within the secondary suite.
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.	✓	✓	✓
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.	✓	✓	Assemblies need not comply with sound control requirements
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.	✓	✓	✓
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2.	✓	✓	✓
GENERAL SAFETY				
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.	✓	✓	Existing permitted.
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)	✓ Also required for single family dwellings.	✓	✓
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	✓	✓	✓

Table C-1
Municipal By-law Requirements in New Construction

MUNICIPAL BY-LAW REQUIREMENTS IN NEW CONSTRUCTION				
NBC Requirement **Same requirements for Saskatoon**	**MUNICIPAL CODE REQUIREMENT**			
	NBC Reference	**Vancouver**	**Montreal**	**Surrey** **Sidney**
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa	9.8.9.1.			
ELECTRICAL SAFETY				
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.	Electrical installation to met the "Electrical Safety Act".	✓	✓
VENTILATION				
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.	✓	✓	✓
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.	✓	✓	Each dwelling unit to be served by separate heating systems.
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or a garage.				
FIRE DEPARTMENT ACCESS				
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.	✓	✓	✓
Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	9.10.19.2.	Not required in sprinklered building.	✓	✓
FIRE EXPOSURE				
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	✓	✓	✓
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.	✓	✓	✓
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.	✓	✓	✓
Soffit spaning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5.	✓	✓	✓
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	9.10.14.12.(2)	Not required in sprinklered building.	✓	Same requirements as for a single-family house.

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Additional requirements for Saskatoon: • Maximum size of secondary suite 65 m^2, • Minimum size of principal building 100 m^2, • The secondary suite is not permitted to contain more than two bedrooms, • No more than 3 persons may occupy the suite, Guidelines for legalizing existing suites provided.		For a single family dwelling that existed Prior to 25 April, 1992, the storeys located above the lower dwelling unit are not required to comply with the below requirements that are indicated with a * provided, • There are no additions or exterior alterations to the upper storeys, • ***The lower dwelling unit is sprinklered***, • Dwelling units and common areas are separated by smoke separations, • The sprinkler riser is extended to the upper dwelling unit For a single family dwelling that was constructed after 25 April, 1992, the entire building is required to comply with the requirements below.			Surrey • May only be located in a single family home, • The home owner is required to live in one of the dwelling units, • Maximum size of secondary suite 65 m^2 Sidney • May only be located in a single family home, • May not exceed the lesser of 40% of the gross floor area of the principal building or 120 m^2 • Is required to be located above or below the other dwelling unit, • Each dwelling unit is required to have their own entrance separate from that of the other dwelling unit
EGRESS AND EXITING		**Sprinklered Building**	**Partially Sprinklered or Unsprinklered**		
Egress Feature Dimensions					
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - Window to maintain required opening	9.7.1.3.				✓
Maintain 550 mm clearance at window-well.	9.7.1.4				✓
Proposed 2005 Change: Add - protective cover over window well to be openable from inside without use of keys, tools or special knowledge.	9.7.1.4.(3)			Screens required to be easily opened without the use of keys or other instruments.	
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.		Existing to be reconstructed if; Existing runs and treads are more than 15 mm and 25 mm deficient respectively, Existing risers are more than 15 mm higher.		✓
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.	Second interior exit stair may be 750 mm in width.		Building constructed after December 1, 1976 – 760 mm Building constructed before June 21, 1978 550 mm provided a smoke alarm installed in stairwell and a sign is posted in each dwelling unit urging occupants to familiarise themselves with the exit and to keep it free of clutter	Minimum width permitted to be 860 mm.

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.		Existing to be reconstructed if headroom is deficient by less than 1.95 metres.	Building constructed after December 1, 1976 – 2050 mm. Other buildings – 1900 mm.	✓
Landings dimensions required to increased when serving more than one dwelling unit	9.8.4.1.				Minimum width of 900 mm permitted for exterior landings.
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.				✓
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.				✓
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.	9.9.2.7.				
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.				Minimum width permitted to be 860 mm
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.				
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)				
Handrails and Guards (ramps added)					
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.		✓		Requirements same as if serving a single dwelling unit.
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.		✓	✓	
At least one handrail is required to extend not less than 300 mm horizontally past the top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.		✓		
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.		✓		
Doors in a Means of Egress					
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2.			Not permitted to reduce required width or clear height by 50 mm.	✓

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.				Minimum height reduced to 1980 mm
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (4)			Exit door permitted to swing inwards	Exit door permitted to swing inwards.
Egress					
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1.		Where sprinklered, the maximum distance from an occupied floor to an exit is 2 storeys.	✓	Limit may exceed 1 storey provided openable window not more than 1 metre above the floor with opening of not less than 1 metre height and 550 mm width
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 (and 9.9.7.2)		Single exit permitted provided vertical distance does not exceed 7 metres.	✓ Dead end corridor may be 15 metres where; Interconnected smoke alarm, or either, if the building is sprinklered only one sprinkler is required in the dwelling unit near the door leading to the public corridor, or each dwelling unit has an exterior balcony.	Second means of egress may be window not more than 1 metre above the floor, 1 metre in height and 550 mm in width. May be openable window.
A dwelling unit is required to be served by a second means of egress where the egress door opens onto: A shared exit stair, shared public, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.			✓ Secondary means of egress may be window at least 500 mm by 1000 mm with sill height not more than 900 mm above the floor of the first storey, 1600 mm above the floor in basement. Storey served to be not more than 1500 mm above ground.	
General Safety Within Egress Route					
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.				✓
slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)		✓		✓
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.				
Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.			✓	Not required
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.			✓	✓
Emergency lighting required in exits and public corridors.	9.9.11.3.			No required	✓

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
FIRE SEPARATIONS					
Fire Rating of Materials, Assemblies and Structural Members					
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	Existing lath and plaster in good condition is acceptable. Existing doors and frames acceptable if glazing to be wired of tempered glass. Fixed wired glass or tempered glass transom acceptable.	*The dwelling units to be separated by smoke separation. Existing doors and frames acceptable glazing to be wired of tempered glass.	✓ Existing partitions in good condition permitted. Existing doors to dwelling units are acceptable.	May be reduced to 30 minutes where the dwelling units are equipped with smoke alarms. Not required where the building is sprinklered.
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)				
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.			Dwelling units to be fire separated from the public areas in building with 45 minute fire resistance rating.	30 minutes acceptable where dwelling units are equipped with smoke alarms. fire resistance rating is not required where the building is sprinklered
Load bearing members to have a fire resistance rating of the supported assembly.	9.10.8.3.				
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.				✓
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.			A fuel-fired heating system not required to be separated	✓
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.				✓
Protections of Openings and Penetrations Through Fire Separations					
Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	9.10.9.6.(7)		*Permitted provided they are tightly fitted or stopped.		Permitted to penetrate horizontal and vertical fire separations
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)				Permitted to penetrate a fire separation provided; protected with gypsum board, with penetration size of pipe and not on the underside of horizontal fire separation
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)				If protected by gypsum board assembly, permitted on both sides of fire separation.
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18				✓

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.				✓
With exceptions, ducts through fire to be equipped with fire damper.	9.10.13.13	Exiting ducts with specific cross-sectional area or materials are not required to be equipped with fire dampers.	No fire dampers or fire stopping required.		Fire damper not required provided duct are non-combustible and serve only one fire compartment.
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.				✓
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)				✓
FIRE DETECTION					
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.1. 9.10.18.3.		✓ Smoke alarms are required to be provided with manually operated 10 minute silencing capability and battery backup.	✓ A building constructed before August 27, 1985 may have battery power smoke alarm.	An additional photo-electric smoke alarm to be installed in each dwelling unit and be interconnected with alarm in the other suite except where fire separations have a 45 minute rating or building is sprinklered.
LIVEABILITY					
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.			Minimum floor to ceiling height 2100 mm.	
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)				Minimum 2.0 metres, area over which minimum height is required varies
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.				Minimum required exterior glazing may be in any location within the secondary suite.
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.				✓
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.				Assemblies need not comply with sound control requirements
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2.				✓
GENERAL SAFETY					✓
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.				

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)				Existing permitted
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	Existing finish with a flame spread rating of 150 or less acceptable.	* Existing finish with a flame spread rating of 150 or less acceptable.	✓	✓
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa	9.8.9.1.				✓
ELECTRICAL SAFETY					
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.				✓
VENTILATION					
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.				✓
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.		*No separation required but proper combustion air is required to be provided.		Each dwelling unit to be served by separate heating systems.
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or a garage.	9.32.3.9.				
FIRE DEPARTMENT ACCESS					
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.				✓
Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	9.10.19.2.				✓
FIRE EXPOSURE					
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	Existing acceptable where the glazing is wired or tempered glass.	*Existing acceptable.		✓
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.		*Existing acceptable.		✓

Table C-2
Municipal By-law Requirements in Existing Buildings

MUNICIPAL BY-LAW REQUIREMENTS IN EXISTING CONSTRUCTION					
NBC Requirement (same requirements for Saskatoon)	**NBC Reference**	**Vancouver**		**Montreal**	**Surrey Sidney**
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.				✓
Soffit spaning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5.				✓
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single-family house may not apply.	9.10.14.12.(2)	Existing exterior wood framed walls provided 45 minute fire resistances rating provided and all voids filled insulation. Specified combustible cladding permitted provided materials have flame spread rating of not more than 25 and are underlaid with with 1 layer of exterior gypsum board. Existing exterior wall openings are acceptable	*Suite above or below another suite; 2.4 m or less from property line – 45 minute combustible construction (if sprinklered, existing permitted) Combustible cladding permitted if within 0.6 m of property line to be treated with intumescent paint, 2.4 m from property line –no restrictions, *Suite side by side; 0.6 m or less from property line – 45 minute combustible construction (if sprinklered, existing permitted) Combustible cladding permitted if within 0.6 m of property line to be treated with intumescent paint, 0.6 m from property line –no restrictions. *Exterior wall less than 1 metre from the property line – Existing windows to have tempered glass, Exterior wall more than 1 metre from the property line – Existing windows may remain.		Same requirements as for a single-family house.

APPENDIX D

PERFORMANCE COMPARISON

Table D-1
Performance Comparison in New Construction

Code Reference	NEW CONSTRUCTION	Assigned Weighting	NBC Performance	Weighted Performance	Ontario	Weighted Performance	Alberta	Weighted Performance	Quebec	Weighted Performance	British Columbia	Weighted Performance	Prince Edward Island	Weighted Performance	Vancouver	Weighted Performance	Montreal	Weighted Performance	Saskatoon	Weighted Performance	Surrey	Weighted Performance	Sidney	Weighted Performance
	EGRESS AND EXITING	(1 - 5)																						
	Egress Feature Dimensions																							
9.7.1.3.	Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	4	3	12	2	8	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12
9.7.1.4	Maintain 550 mm clearance at window-well.	4	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12	3	12
	Proposed 2005 Change: Add - protective cover over window well to a window to be openable from the inside without the use of keys, tools or special knowledge.																							
9.8.3.1.	Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	2	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6	3	6
9.8.3.3.	Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	3	3	8	3	8	3	8	3	8	2	5	3	8	3	8	3	8	3	8	2	5	2	5
9.8.3.4.	Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	2	3	7	3	7	3	7	3	7	3	7	3	7	3	7	3	7	3	7	3	7	3	7
9.8.4.1.	Landings dimensions required to increased when serving more than one dwelling unit	3	3	8	3	8	3	8	3	8	2	5	2	5	3	8	3	8	3	8	2	5	2	5
9.8.4.2.	A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	3	3	10	3	10	3	10	3	10	3	10		0	3	10	3	10	3	10	3	10	3	10
9.8.4.4.	Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	2	3	7	3	7	3	7	3	7	3	7		0	3	7	3	7	3	7	3	7	3	7
9.9.2.7.	Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.	3																						
9.9.3.2.	Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	3	3	9	3	9	3	9	3	9	2	6	3	9	3	9	3	9	3	9	2	6	2	6
9.9.3.3.	Public corridors and exit corridors are required to have a minimum width of 1100 mm.	3	3	8	3	8	3	8	3	8	2	5	2	5	3	8	3	8	3	8	2	5	2	5
9.9.3.4.(1)	Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	3	3	8	3	8	3	8	3	8	3	8	3	8	3	8	3	8	3	8	3	8	3	8
	Handrails and Guards																							
9.8.7.1.	Handrails required for all stairs when serving more than one dwelling unit.	3	3	10	3	10	3	10	3	10	2	7	3	10	3	10	3	10	3	10	2	7	2	7
9.8.7.2.	One handrail to be continuous for stairs serving more than one dwelling unit.	3	3	9	3	9	3	9	3	9	2	6	3	9	3	9	3	9	3	9	2	6	2	6
9.8.7.3.	At least one handrail is required to extend not less than 300 mm horizontally past the top and bottom of stairs serving more than one dwelling unit.	2	3	6	3	6	3	6	3	6	2	4	3	6	3	6	3	6	3	6	2	4	2	4
9.8.8.2.	Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	3	3	8	3	8	3	8	3	8	2	5	3	8	3	8	3	8	3	8	2	5	2	5
	Doors in a means of egress																							
9.9.6.2.	Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	3	3	9	3	9	3	9	3	9	3	9	2	6	3	9	3	9	3	9	3	9	3	9
9.9.6.4.	Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	3	3	8	3	8	3	8	3	8	2	5	2	5	3	8	3	8	3	8	2	5	2	5
9.9.6.5.(4)	Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	2	3	7	3	7	3	7	3	7	2	5	2	5	3	7	3	7	3	7	2	5	2	5
	Egress																							
9.9.9.1.	Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	4	3	11	3	11	3	11	3	11	2	7		0	3	11	3	11	3	11	2	7	2	7
9.9.9.2 (and 9.9.7.2)	TTwo means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	4	3	12	3	12	3	12	3	12	2	8	3	12	3	12	3	12	3	12	2	8	2	8
9.9.9.3.	A dwelling unit is required to be served by a second means of egress where the egress door opens onto:A shared exit stair, shared public, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	4	3	12	3	12	3	12	3	12	2	8	3	12	3	12	3	12	3	12	2	8	2	8
	General safety within a means of egress																							
9.8.9.3.	Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	2	3	6	3	6	3	6	3	6	3	6		0	3	6	3	6	3	6	3	6	3	6
9.8.9.5.(2)	Stair treads and landings that serve more than one dwelling unit are required to be provided with slip resistance finish or strips.	2	3	7	3	7	3	7	3	7	3	7		0	3	7	3	7	3	7	3	7	3	7
9.9.5.9.	Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.9.10.1.	Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	2	3	6	3	6	3	6	3	6	2	4		0	3	6	3	6	3	6	2	4	2	4
9.9.11.2.	Lighting is required in exits and public corridors to an average level of not less than 50 lux at floor level.	3	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9
9.9.11.3.	Emergency lighting independent of the electrical supply for the building and that is automatically actuated for a period of not less than 30 minutes is required in exits and public corridors.	2	3	7	3	7	2	5	3	7	3	7		0	3	7	3	7	3	7	3	7	3	7
	Key Issue Weighted Performance Total			231		227		229		231		191		154		231		231		231		191		191
	Performance Rating			1.0		1.0		1.0		1.0		0.8		0.7		1.0		1.0		1.0		0.8		0.8
	FIRE SEPARATIONS (COMPARTMENTATION)																							
	Fire resistance ratings of materials, assembly or structural members																							
9.9.4.2.(1) and (2)	Exits to be fire separated with minimum 45 minute fire resistance rating	4	3	11	3	11	3	11	3	11	2	7	1	4	3	11	3	11	3	11	2	7	2	7
9.10.9.15.(1)	Public corridors to be fire separated with minimum 45 minute fire resistance rating.	4	3	11	3	11	3	11	3	11	2	7	1	4	3	11	3	11	3	11	2	7	2	7
9.10.9.14.	Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	4	3	12	3	12	3	12	3	12	2	8	1	4	3	12	3	12	3	12	2	8	2	8
9.10.8.3.	Load bearing members to have a fire resistance rating of the supported assembly.	4	3	11	3	11	3	11	3	11	2	7	1	4	3	11	3	11	3	11	2	7	2	7
9.10.8.7.	Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	3	3	10	3	10	3	10	3	10	3	10	1	3	3	10	3	10	3	10	3	10	3	10
9.10.10.4.	Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	3	3	10	3	10	3	10	3	10	3	10	1	3	3	10	3	10	3	10	3	10	3	10
9.10.11.2.	Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	3	3	8	3	8	3	8	3	8	3	8	1	3	3	8	3	8	3	8	3	8	3	8

Table D-1
Performance Comparison in New Construction

Code Reference		Assigned Weighting	NBC Performance	Weighted Performance	Ontario	Weighted Performance	Alberta	Weighted Performance	Quebec	Weighted Performance	British Columbia	Weighted Performance	Prince Edward Island	Weighted Performance	Vancouver	Weighted Performance	Montreal	Weighted Performance	Saskatoon	Weighted Performance	Surrey	Weighted Performance	Sidney	Weighted Performance
	Protection of openings and penerations through fire separations																							
9.10.9.6.(7)	Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.10.9.7.(2)	Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	3	3	9	3	9	3	9	3	9	2	6		0	3	9	3	9	3	9	2	6	2	6
9.10.9.7.(5) and (6)	Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	3	3	9	3	9	3	9	3	9	2	6		0	3	9	3	9	3	9	2	6	2	6
9.10.9.18	Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	3	3	9	3	9	3	9	2	6	3	9		0	3	9	3	9	3	9	3	9	3	9
9.10.9.19.	A central vacuum system is not permitted to serve more than one dwelling unit.	3	3	8	3	8	3	8	3	8	3	8		0	3	8	3	8	3	8	3	8	3	8
9.10.13.13	With exceptions, ducts through fire to be equipped with fire damper.	3	3	10	3	10	3	10	3	10	2	7		0	3	10	3	10	3	10	2	7	2	7
9.10.15.2.	Fire stops in wall assemblies at each floor level. Exceptions apply.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.10.9.16.(2)	A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	3	3	10		0	3	10	3	10	3	10		0	3	10	3	10	3	10		0		0
	Key Issue Weighted Performance Total			144		135		144		141		120		24		144		144		144		111		111
	Performance Rating			1.0		0.9		1.0		1.0		0.8		0.2		1.0		1.0		1.0		0.8		0.8
	FIRE DETECTION																							
9.10.18.1.	Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	5	3	15	3	15	3	15	3	15	4	20	3	15	3	15	3	15	3	15	4	20	4	20
	Vancouver - new buiklingds are required to be equipped with a sprinkler system	5													5	25								
	Key Issue Weighted Performance Total			15		15		15		15		20		15		40		15		15		20		20
	Performance Rating			1.0		1.0		1.0		1.0		1.3		1.0		2.7		1.0		1.0		1.3		1.3
	LIVEABILITY																							
9.5.3.1.	Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	2	3	7	3	7	3	7	3	7	2	5		0	2	5	3	7	3	7	2	5	2	5
9.7.1.2.(1)	Minimum exterior glazing areas for specific rooms.Proposed 2005 Change: Delete.	2	3	5	3	5	3	5	3	5	2	3		0	3	5	3	5	3	5	2	3	2	3
9.14.6.3.	Window-wells are required to be drained to the footing level or other suitable location.	3	3	8	3	8	3	8	3	8	3	8		0	3	8	3	8	3	8	3	8	3	8
9.11.2.1.	Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	2	3	7	3	7	3	7	3	7	1	2		0	3	7	3	7	3	7	1	2	1	2
9.31.4.1.	A kitchen sink, lavatory, bathtub or shower stall and water closet is required to be provided in each dwelling unit.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.31.4.2.	Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit.Proposed 2005 Change: Delete.	2	3	5	3	5	3	5	3	5		0		0	3	5	3	5	3	5		0		0
	Key Issue Weighted Performance Total			21		21		21		21		11		0		21		21		21		11		11
	Performance Rating			1.0		1.0		1.0		1.0		0.5		0.0		1.0		1.0		1.0		0.5		0.5
	GENERAL SAFETY																							
9.6.8.1., 9.6.8.9.	Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	2	3	6	3	6	3	6	3	6	3	6		0	3	6	3	6	3	6	3	6	3	6
9.7.1.6.(2)	Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	2	3	6	3	6	3	6	3	6	3	6		0	3	6	3	6	3	6	3	6	3	6
9.10.16.	IFlame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	3	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9	3	9
9.8.9.1.	Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa																							
	Key Issue Weighted Performance Total			22		22		22		22		22		9		22		22		22		22		22
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.4		1.0		1.0		1.0		1.0		1.0
	ELECTRICAL SAFETY																							
9.34.1.1.	Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	4	3	12	3	12	3	12	3	12	3	12		0	3	12	3	12	3	12	3	12	3	12
	Key Issue Weighted Performance Total			12		12		12		12		12		0		12		12		12		12		12
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.0		1.0		1.0		1.0		1.0		1.0
	VENTILATION																							
9.32.1.1.	Mechanical ventilation to serve only one dwelling unit or be designed to Part 6.Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.33.1.1.	Heating and air conditioning systems, including provisions for combustion air, are required to serve only one dwelling unit or to be designed to Part 6.	3	3	8	3	8	3	8	3	8	3	8		0	3	8	3	8	3	8	3	8	3	8
9.32.3.9.	Proposed 2005 Change: Add - Carbon monoxide detectors are required to be installed in buildings that contain a fuel-burning appliance or a garage.	4		0	3	11		0		0		0		0		0		0		0		0		0
	Key Issue Weighted Performance Total			17		28		17		17		17		0		17		17		17		17		17
	Performance Rating			1.0		1.7		1.0		1.0		1.0		0.0		1.0		1.0		1.0		1.0		1.0
	FIRE DEPARTMENT ACCESS																							
9.10.19.1.	Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.10.19.2.	Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
	Key Issue Weighted Performance Total			18		18		18		18		18		0		18		18		18		18		18
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.0		1.0		1.0		1.0		1.0		1.0
	FIRE EXPOSURE																							
9.9.4.4.	Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	4	3	11	3	11	3	11	3	11	3	11		0	3	11	3	11	3	11	3	11	3	11
9.9.4.5. 9.9.4.6.	Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	4	3	11	3	11	3	11	3	11	3	11		0	3	11	3	11	3	11	3	11	3	11
9.10.12.4.	Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	3	3	10	3	10	3	10	3	10	3	10		0	3	10	3	10	3	10	3	10	3	10
9.10.12.5.	Soffit spaning two dwelling units to be firestoppsd, or building sprinklered.	3	3	9	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9	3	9
9.10.14.12.(2)	Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	2	3	7	3	7	3	7	3	7	2	5		0	3	7	3	7	3	7	2	5	2	5
	Key Issue Weighted Performance Total			49		49		49		49		46		0		49		49		49		46		46
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.0		1.0		1.0		1.0		1.0		1.0

Table D-2. Performance Comparison in Existing Buildings

Code Reference	EXISTING CONSTRUCTION	Assigned Weighting	NBC Performance	Weighted Performance	Onatrio	Weighted Performance	Quebec	Weighted Performance	Nove Scotia	Weighted Performance	British Columbia	Weighted Performance	Prince Edward Island	Weighted Performance	Vancouver	Weighted Performance	Montreal	Weighted Performance	Saskatoon	Weighted Performance	Surrey	Weighted Performance	Sidney	Weighted Performance
	EGRESS AND EXITING	(1 - 5)																						
	Egress Feature Dimensions																							
9.7.1.3.	Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	4	3	12	3	12	3	12	3	12	3	12	3	12		0		0	3	12	3	12	3	12
9.7.1.4	Maintain 550 mm clearance at window-well.	4	3	12	3	12	3	12	3	12		0		0		0		0	3	12		0		0
	Proposed 2005 Change: Add - protective cover over window well to a window to be openable from the inside without the use of keys, tools or special knowledge.																							
9.8.3.1.	Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	2	3	6	2	4	3	6	2	4	3	6	3	6	2	4		0	3	6	3	6	3	6
9.8.3.3.	Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	3	3	8	2	5	2	5	2	5	2	5	3	8		0	2	5	3	8	2	5	2	5
9.8.3.4.	Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	2	3	7	2	5	3	7	2	5	3	7	3	7	2	5	2	5	3	7	3	7	3	7
9.8.4.1.	Landings dimensions required to increased when serving more than one dwelling unit	3	3	8	2	5	3	8	2	5	2	5	2	5		0		0	3	8	2	5	2	5
9.8.4.2.	A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	3	3	10	2	7	3	10	2	7	3	10		0		0		0	3	10	3	10	3	10
9.8.4.4.	Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	2	3	7	2	5	3	7	2	5	3	7		0		0		0	3	7	3	7	3	7
9.9.2.7.	Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.	3																						
9.9.3.2.	Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	3	3	9	2	6	2	6	3	9	2	6	3	9		0		0	3	9	2	6	2	6
9.9.3.3.	Public corridors and exit corridors are required to have a minimum width of 1100 mm.	3	3	8	2	5	3	8	2	5	2	5	2	5		0		0	3	8	2	5	2	5
9.9.3.4.(1)	Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	3	3	8	2	5	2	5	3	8	3	8	3	8		0		0	3	8	3	8	3	8
	Handrails and Guards																							
9.8.7.1.	Handrails required for all stairs when serving more than one dwelling unit.	3	3	10	2	7	3	10	2	7	2	7	3	10	3	10		0	3	10	2	7	2	7
9.8.7.2.	One handrail to be continuous for stairs serving more than one dwelling unit.	3	3	9	2	6	3	9	2	6	2	6	3	9	3	9	3	9	3	9	2	6	2	6
9.8.7.3.	At least one handrail is required to extend not less than 300 mm horizontally past the top and bottom of stairs serving more than one dwelling unit.	2	3	6	1	2	3	6	2	4	2	4	3	6	3	6		0	3	6	2	4	2	4
9.8.8.2.	Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	3	3	8	2	5	3	8	2	5	2	5	2	5	3	8		0	3	8	2	5	2	5
	Doors in a means of egress																							
9.9.6.2.	Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	3	3	9	2	6	3	9	3	9	3	9	2	6		0	3	9	3	9	3	9	3	9
9.9.6.4.	Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	3	3	8	2	5	3	8	3	8	2	5	2	5		0		0	3	8	2	5	2	5
9.9.6.5.(4)	Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	2	3	7	1	2	1	2	3	7	2	5	2	5		0	1	2	3	7	2	5	2	5
	Egress																							
9.9.9.1.	Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	4	3	11	2	7	3	11	3	11	2	7		0	3	11	3	11	3	11	2	7	2	7
9.9.9.2 (and 9.9.7.2)	TTwo means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	4	3	12	2	8	2	8	3	12	2	8	3	12	3	12	2	8	3	12	2	8	2	8
9.9.9.3.	A dwelling unit is required to be served by a second means of egress where the egress door opens onto:A shared exit stair, shared public, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	4	3	12	2	8	3	12	3	12	2	8	3	12		0	2	8	3	12	2	8	2	8
	General safety within a means of egress																							
9.8.9.3.	Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	2	3	6	3	6	3	6	2	4	3	6		0		0		0	3	6	3	6	3	6
9.8.9.5.(2)	Stair treads and landings that serve more than one dwelling unit are required to be provided with slip resistance finish or strips.	2	3	7	2	5	3	7	2	5	3	7		0	3	7		0	3	7	3	7	3	7
9.9.5.9.	Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	3	3	9	3	9	3	9	3	9	3	9		0		0		0	3	9	3	9	3	9
9.9.10.1.	Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	2	3	6	1	2	3	6	3	6	2	4		0		0	3	6	3	6	2	4	2	4
9.9.11.2.	Lighting is required in exits and public corridors to an average level of not less than 50 lux at floor level.	3	3	9	2	6	3	9	3	9	3	9	3	9		0	3	9	3	9	3	9	3	9
9.9.11.3.	Emergency lighting independent of the electrical supply for the building and that is automatically actuated for a period of not less than 30 minutes is required in exits and public corridors.	2	3	7	2	5	3	7	3	7	3	7		0		0	1	2	3	7	3	7	3	7
	Key Issue Weighted Performance Total			231		161		215		198		179		140		71		75		231		179		179
	Performance Rating			1.0		0.7		0.9		0.9		0.8		0.6		0.3		0.3		1.0		0.8		0.8
	FIRE SEPARATIONS (COMPARTMENTATION)																							
	Fire resistance ratings of materials, assembly or structural members																							
9.9.4.2.(1) and (2)	Exits to be fire separated with minimum 45 minute fire resistance rating	4	3	11	2	7	3	11	3	11	2	7	1	4	1	4	2	7	3	11	2	7	2	7
9.10.9.15.(1)	Public corridors to be fire separated with minimum 45 minute fire resistance rating.	4	3	11	2	7	3	11	3	11	2	7	1	4	1	4	2	7	3	11	2	7	2	7
9.10.9.14.	Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	4	3	12	2	8	3	12	3	12	2	8	1	4	1	4	2	8	3	12	2	8	2	8
9.10.8.3.	Load bearing members to have a fire resistance rating of the supported assembly.	4	3	11	2	7	3	11	3	11	2	7	1	4		0		0	3	11	2	7	2	7
9.10.8.7.	Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	3	3	10		0	3	10	3	10	3	10	1	3		0		0	3	10	3	10	3	10
9.10.10.4.	Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	3	3	10	3	10	3	10	3	10	3	10	1	3		0	1	3	3	10	3	10	3	10
9.10.11.2.	Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	3	3	8	2	5	3	8	3	8	3	8	1	3		0		0	3	8	3	8	3	8

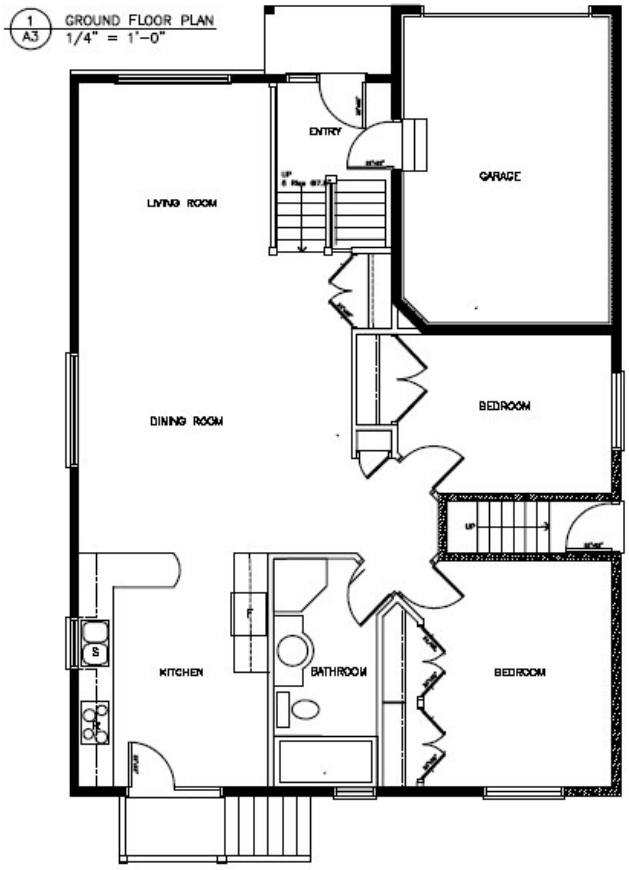
Table D-2. Performance Comparison in Existing Buildings

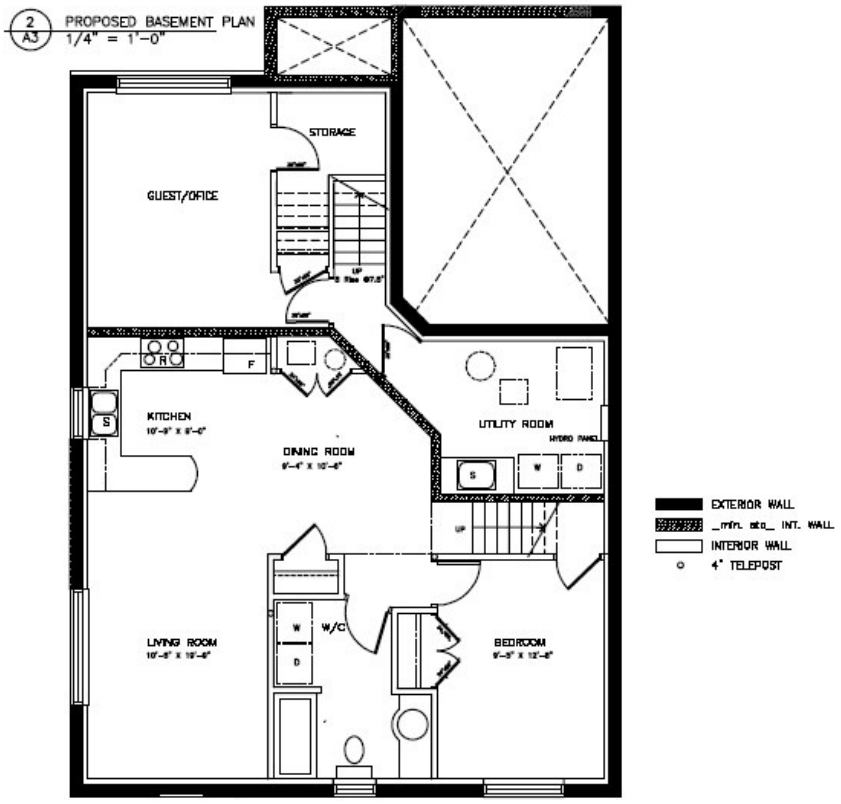
Performance Comparison Existing Construction Page 2

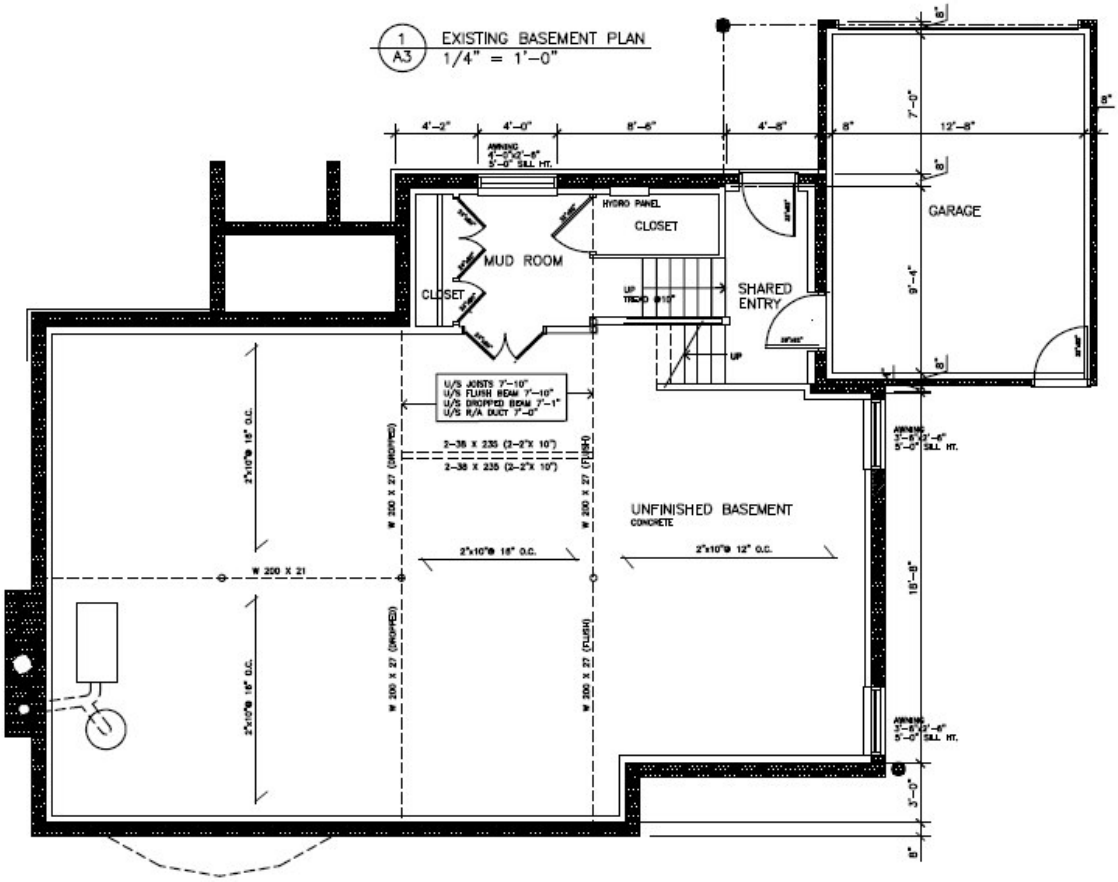
Code Reference	EXISTING CONSTRUCTION	Assigned Weighting	NBC Performance	Weighted Performance	Ontario	Weighted Performance	Quebec	Weighted Performance	Nova Scotia	Weighted Performance	British Columbia	Weighted Performance	Prince Edward Island	Weighted Performance	Vancouver	Weighted Performance	Montreal	Weighted Performance	Saskatoon	Weighted Performance	Surrey	Weighted Performance	Sidney	Weighted Performance
	Protection of openings and penerations through fire separations																							
9.10.9.6.(7)	Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	3	3	9	3	9	3	9	3	9	3	9		0	2	6		0	3	9	3	9	3	9
9.10.9.7.(2)	Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	3	3	9	2	6	3	9	3	9	2	6		0	2	6		0	3	9	2	6	2	6
9.10.9.7.(5) and (6)	Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	3	3	9	3	9	3	9	3	9	2	6		0	2	6		0	3	9	2	6	2	6
9.10.9.18	Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	3	3	9	3	9	3	9	3	9	3	9		0		0		0	3	9	3	9	3	9
9.10.9.19.	A central vacuum system is not permitted to serve more than one dwelling unit.	3	3	8	3	8	3	8	3	8	3	8		0		0		0	3	8	3	8	3	8
9.10.13.13	With exceptions, ducts through fire to be equipped with fire damper.	3	3	10	1	3	3	10	3	10	2	7		0	1	3		0	3	10	2	7	2	7
9.10.15.2.	Fire stops in wall assemblies at each floor level. Exceptions apply.	3	3	9	2	6	3	9	3	9	3	9		0		0		0	3	9	3	9	3	9
9.10.9.16.(2)	A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	3	3	10	3	10	3	10	3	10		0		0		0		0	3	10		0		0
	Key Issue Weighted Performance Total			144		104		144		144		111		24		32		26		144		111		111
	Performance Rating			1.0		0.7		1.0		1.0		0.8		0.2		0.2		0.2		1.0		0.8		0.8
	FIRE DETECTION																							
9.10.18.1.	Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	5	3	15	2	10	3	15	3	15	4	20	2	10	3	15	1	5	3	15	4	20	4	20
	Key Issue Weighted Performance Total			15		10		15		15		20		10		15		5		15		20		20
	Performance Rating			1.0		0.7		1.0		1.0		1.3		0.7		1.0		0.3		1.0		1.3		1.3
	LIVEABILITY																							
9.5.3.1.	Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	2	3	7	2	5	3	7	1	2	2	5		0		0	2	5	3	7	2	5	2	5
9.7.1.2.(1)	Minimum exterior glazing areas for specific rooms.Proposed 2005 Change: Delete.	2	3	5	2	3	3	5	3	5	2	3		0		0		0	3	5	2	3	2	3
9.14.6.3.	Window-wells are required to be drained to the footing level or other suitable location.	3	3	8	3	8	3	8	3	8	3	8		0		0		0	3	8	3	8	3	8
9.11.2.1.	Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	2	3	7	3	7	3	7	3	7	1	2		0		0		0	3	7	1	2	1	2
9.31.4.1.	A kitchen sink, lavatory, bathtub or shower stall and water closet is required to be provided in each dwelling unit.	3	3	9	3	9	3	9	3	9	3	9		0		0		0	3	9	3	9	3	9
9.31.4.2.	Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit.Proposed 2005 Change: Delete.	2	3	5	3	5	3	5	3	5		0		0		0		0	3	5		0		0
	Key Issue Weighted Performance Total			21		21		21		21		11		0		0		0		21		11		11
	Performance Rating			1.0		1.0		1.0		1.0		0.5		0.0		0.0		0.0		1.0		0.5		0.5
	GENERAL SAFETY																							
9.6.8.1., 9.6.8.9.	Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	2	3	6	3	6	3	6	3	6	3	6		0		0		0	3	6	3	6	3	6
9.7.1.6.(2)	Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	2	3	6	3	6	3	6	3	6	3	6		0		0		0	3	6	3	6	3	6
9.10.16.	Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	3	3	9	3	9	3	9	3	9	3	9	3	9	2	6	3	9	3	9	3	9	3	9
9.8.9.1.	Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa																							
	Key Issue Weighted Performance Total			22		22		22		22		22		9		6		9		22		22		22
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.4		0.3		0.4		1.0		1.0		1.0
	ELECTRICAL SAFETY																							
9.34.1.1.	Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	4	3	12	3	12	3	12	3	12	3	12		0		0		0	3	12	3	12	3	12
	Key Issue Weighted Performance Total			12		12		12		12		12		0		0		0		12		12		12
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.0		0.0		0.0		1.0		1.0		1.0
9.32.1.1.	Mechanical ventilation to serve only one dwelling unit or be designed to Part 6.Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	3	3	9	3	9	3	9	3	9	3	9		0	1	3		0	3	9	3	9	3	9
9.33.1.1.	Heating and air conditioning systems, including provisions for combustion air, are required to serve only one dwelling unit or to be designed to Part 6.	3	3	8	2	5	3	8	3	8	3	8		0		0		0	3	8	3	8	3	8
9.32.3.9.	Proposed 2005 Change: Add - Carbon monoxide detectors are required to be installed in buildings that contain a fuel-burning appliance or a garage.	4	0	0	3	11		0		0		0		0		0		0		0		0		0
	Key Issue Weighted Performance Total			17		26		17		17		17		0		3		0		17		17		17
	Performance Rating			1.0		1.5		1.0		1.0		1.0		0.0		0.2		0.0		1.0		1.0		1.0
	FIRE DEPARTMENT ACCESS																							
9.10.19.1.	Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	3	3	8	2	5	3	8	3	8	3	8		0		0		0	3	8	3	8	3	8
9.10.19.2.	Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	3	3	8	3	8	3	8	3	8	3	8		0		0		0	3	8	3	8	3	8
	Key Issue Weighted Performance Total			16		14		16		16		16		0		0		0		16		16		16
	Performance Rating			1.0		0.8		1.0		1.0		1.0		0.0		0.0		0.0		1.0		1.0		1.0
	FIRE EXPOSURE																							
9.9.4.4.	Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	4	3	11	3	11	3	11	3	11	3	11		0	1	4		0	3	11	3	11	3	11
9.9.4.5. 9.9.4.6.	Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	4	3	11	3	11	3	11	3	11	3	11		0	1	4		0	3	11	3	11	3	11
9.10.12.4.	Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	3	3	10	3	10	3	10	3	10	3	10		0		0		0	3	10	3	10	3	10
9.10.12.5.	Soffit spaning two dwelling units to be firestopped, or building sprinklered.	3	3	9	3	9	3	9	3	9	3	9		0		0		0	3	9	3	9	3	9
9.10.14.12.(2)	Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	2	3	7	3	7	3	7	3	7	2	5		0	2	5		0	3	7	2	5	2	5
	Key Issue Weighted Performance Total			49		49		49		49		46		0		12		0		49		46		46
	Performance Rating			1.0		1.0		1.0		1.0		1.0		0.0		0.3		0.0		1.0		1.0		1.0

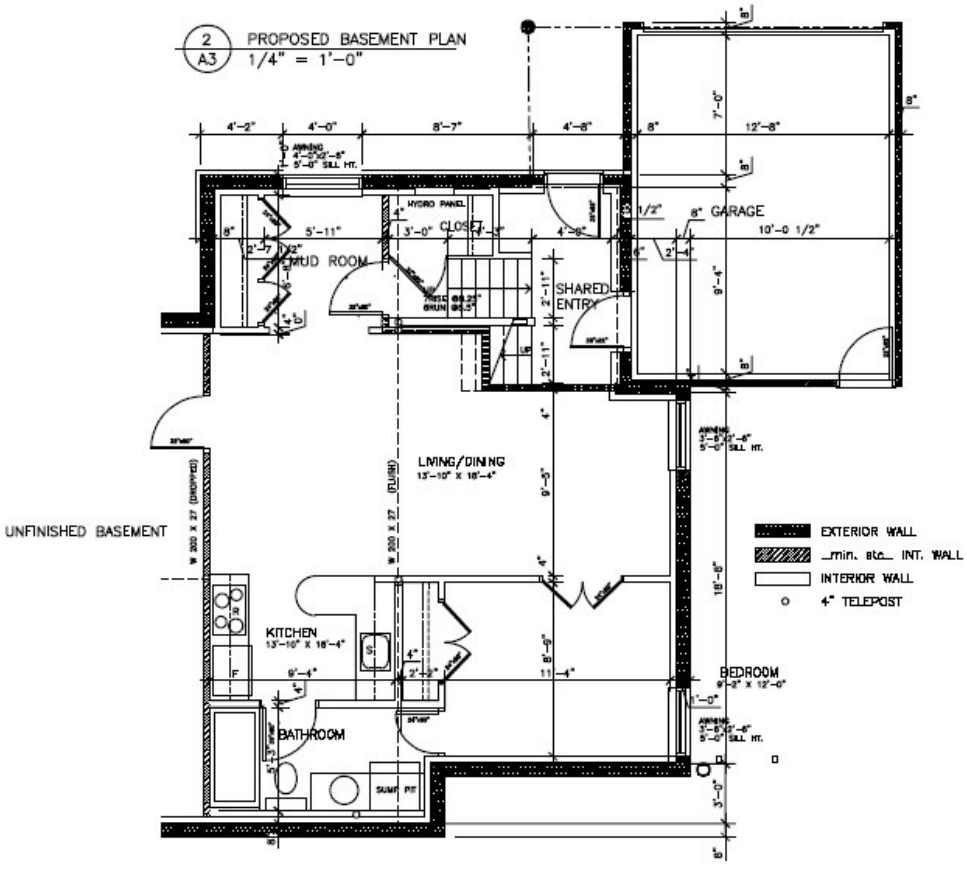
APPENDIX E

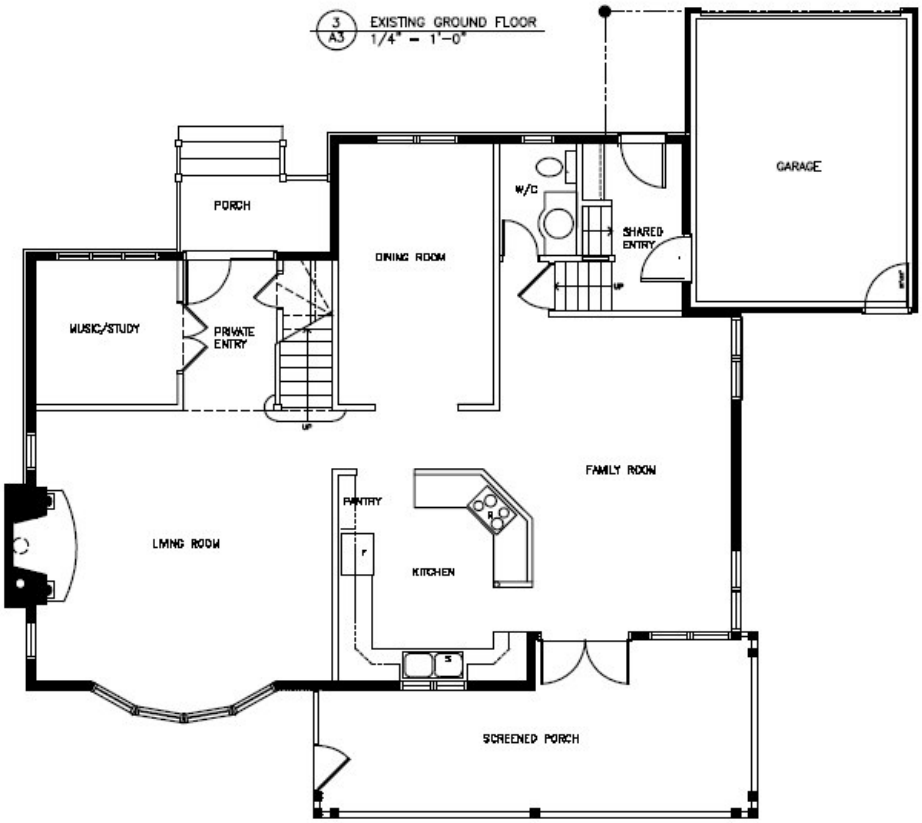
EXISTING AND PROPOSED FLOOR PLANS

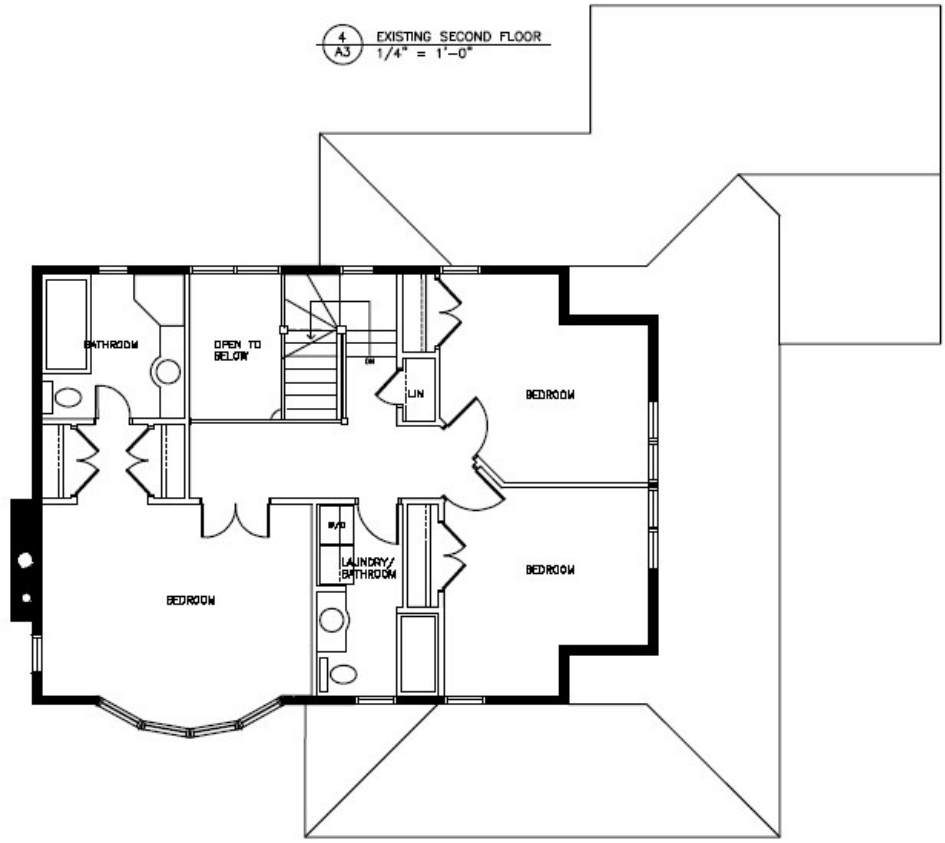

1
A3
GROUND FLOOR PLAN
1/4" = 1'-0"
ENTRY
GARAGE
LIVING ROOM
DINING ROOM
BEDROOM
KITCHEN
BATHROOM
BEDROOM
S


2
A3
PROPOSED BASEMENT PLAN
1/4" = 1'-0"
STORAGE
GUEST/OFICE
KITCHEN
DINING ROOM
UTILITY ROOM
LIVING ROOM
W/C
BEDROOM
EXTERIOR WALL
INTERIOR WALL
4" TELEPOST


1
A3
EXISTING BASEMENT PLAN
1/4" = 1'-0"
4'-2"
4'-0"
8'-6"
4'-8"
8"
12'-8"
7'-0"
GARAGE
HYDRO PANEL
CLOSET
MUD ROOM
CLOSET
SHARED
ENTRY
UP
U/S JOISTS 7'-10"
U/S FLUSH BEAM 7'-10"
U/S DROPPED BEAM 7'-1"
U/S R/A DUCT 7'-0"
2-38 X 235 (2-2"X 10")
2-38 X 235 (2-2"X 10")
W 200 X 27 (DROPPED)
W 200 X 27 (FLUSH)
UNFINISHED BASEMENT
CONCRETE
2"x10"@ 16" O.C.
2"x10"@ 12" O.C.
W 200 X 21
15'-8"
3'-0"


2
A3
PROPOSED BASEMENT PLAN
1/4" = 1'-0"
4'-2"
4'-0"
8'-7"
4'-8"
8"
12'-8"
7'-0"
HYDRO PANEL
CLOSET
GARAGE
10'-0 1/2"
5'-11"
3'-0"
MUD ROOM
SHARED
ENTRY
LIVING/DINING
13'-10" X 16'-4"
UNFINISHED BASEMENT
W 200 X 27 (DROPPED)
W 200 X 27 (FLUSH)
KITCHEN
13'-10" X 16'-4"
BATHROOM
SUMP PIT
BEDROOM
9'-2" X 12'-0"
EXTERIOR WALL
min. std. INT. WALL
INTERIOR WALL
4" TELEPOST


3
A3
EXISTING GROUND FLOOR
1/4" = 1'-0"
PORCH
DINING ROOM
W/C
SHARED ENTRY
GARAGE
MUSIC/STUDY
PRIVATE ENTRY
FAMILY ROOM
PANTRY
LIVING ROOM
KITCHEN
SCREENED PORCH


4
A3
EXISTING SECOND FLOOR
1/4" = 1'-0"
BATHROOM
OPEN TO BELOW
LIN
BEDROOM
W/D
LAUNDRY/ BATHROOM
BEDROOM
BEDROOM

APPENDIX F

COST IMPLICATIONS

Table F-1
Additional Costs in New Construction

ADDITIONAL COSTS IN NEW CONSTRUCTION				
NBC requirement (same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC reference**	**NBC and others not otherwise indicated in the table**	**British Columbia Surrey Sidney**	**Prince Edward Island**
EGRESS AND EXITING				
Egress Feature Dimensions				
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	9..1.3.	No Cost window has sufficient dimensions	No Cost	No Cost
Maintain 550 mm clearance at window-well.	9.7.1.4	No Cost Assumed part of base building costs	No Cost	No Cost
Proposed 2005 Change: Add - protective cover over window well to be openable from inside without use of keys, tools or special knowledge.				
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.	Not applicable stair is inside accessory apartment	Not applicable	Not applicable
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.	Not applicable Stair not required to be an exit and is therefore permitted to be 860 mm wide (Stair is 910 mm)	Not applicable	Not applicable
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.	Not applicable no increase in clear height required	Not applicable	Not applicable
Landings dimensions required to increased when serving more than one dwelling unit	9.8.4.1.	Not applicable no increase in requirement for stair serving single dwelling unit	Not applicable	Not applicable
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.(4)	Not Applicable	Not applicable	Not applicable
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.	Not applicable no increase in clear height required	Not applicable	Not applicable
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.				
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.	No cost all dimensions exceed 900 mm	No cost all dimensions exceed 860 mm	No cost all dimensions exceed 910 mm
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.	Not applicable means of egress does not include public corridors or exit corridors	Not applicable	Not applicable
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)	No cost all dimensions exceed 2.1 metres	No cost	No cost all dimensions exceed 2.135 metres
Handrails and Guards (ramps added)				
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.	Not applicable stairs are within single dwelling unit, no increase in requirements	Not applicable	Not applicable
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.	Not applicable stairs are within single dwelling unit, no increase in requirements	Not applicable	Not applicable
At least one handrail required to extend not less than 300 mm past top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.	Not applicable stairs are within single dwelling unit	Not applicable	Not applicable
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.	Not applicable stairs are within single dwelling unit, no increase in requirements	Not applicable	Not applicable
Doors in a Means of Egress				
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2	Not applicable	Not applicable	Not applicable
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.	Not applicable	Not applicable	Not applicable

Table F-1
Additional Costs in New Construction

ADDITIONAL COSTS IN NEW CONSTRUCTION				
NBC requirement (same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC reference**	**NBC and others not otherwise indicated in the table**	**British Columbia Surrey Sidney**	**Prince Edward Island**
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (3) and (4)	Not applicable door serves single dwelling unit	Not applicable	Not applicable
Egress				
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1.(2) and (3)	Not applicable building above is single storey	Not applicable	Not applicable
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 (and 9.9.7.2)	Not applicable as accessory apartment has direct access to the exterior	Not applicable	Not applicable
Dwelling units to be served by second means of egress where the egress door opens onto: Shared exit stair, shared public corridor, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.	Not applicable accessory apartment has direct access to the exterior	Not applicable	Not applicable
General Safety Within Egress Route				
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.	Not applicable stair serves single dwelling unit	Not applicable	
Slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)	Not applicable stair are within the dwelling unit	Not applicable	
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.	Not applicable	Not applicable	
Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.	Not applicable	No requirement	
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.	Not applicable	Not applicable	Not applicable
Emergency lighting required in exits and public corridors.	9.9.11.3.	Not applicable	Not applicable	
FIRE SEPARATIONS				
Fire Rating of Materials, Assemblies and Structural Members				
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	Not applicable stair is not required to be constructed as an exit	Not applicable	
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)	Not Applicable	Not applicable	
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.(1)	Cost of increased construction requirements $5500 Cost includes the construction of fire rated (and sound rated) ceiling and walls to the remainder of the basement and stairs	Cost of increased construction requirements $3000 Cost decrease from NBC cost as 30 minute fire separation is acceptable where the dwelling units are equipped with smoke alarms.	
Load bearing members to have a fire resistance rating of the supported assembly.	9.10.8.3.	$200 Cost of protecting the telepost located in the washroom partition	$200	
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.	Not Applicable	Not Applicable	
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.	Not applicable Heat system is not shared	Not applicable	
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.	Not applicable building is detached	Not applicable	
Protections of Openings and Penetrations Through Fire Separations				
Combustible water distribution piping not more than 30 mm in diameter permitted to penetrate vertical fire separation provided piping is sealed at separation by a firestop system.	9.10.9.6.(7)	$40 Fire rated sealant around penetrations	$40	

Table F-1
Additional Costs in New Construction

ADDITIONAL COSTS IN NEW CONSTRUCTION				
NBC requirement (same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC reference**	**NBC and others not otherwise indicated in the table**	**British Columbia Surrey Sidney**	**Prince Edward Island**
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)	Cost included in item above	Cost included in above	
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)	$200 Construct bulkhead with fire rated construction	$200	
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18	Not Applicable	Not Applicable	
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.	Not Applicable	Not Applicable	
With exceptions, ducts through fire to be equipped with fire damper.	9.10.13.13	Not applicable Heat system is not shared	Not Applicable	
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.	Not applicable With today's construction methods	Not Applicable	
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)	Not applicable	Not Applicable	
FIRE DETECTION				
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.	$150 Cost of additional hardwired smoke alarm	$300 An additional photo-electric type smoke alarm is required to be installed in each dwelling unit except where required fire separations have a 45 minute rating (assume 30 minute Fire resistance rating)	$150
LIVEABILITY				
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.	No cost minimum heights are met	No cost	
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)	$1000 Increased window dimensions from that in a basement that is no accessory apartment. Window-wells required Assume two extra windows	$1000	
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.	$200 two extra window-wells	$200	
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.	Cost as part of fire separation upgrade	Not Required	
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.	Kitchen $5000[1] Bathroom $3000	Kitchen $5000 Bathroom $3000	
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2.	Cost of additional facilities, including plumbing and laundry tub in each dwelling unit. Accessory apartment $200 Main Dwelling unit $200	$400	
GENERAL SAFETY				
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.	No cost considered negligible if installed during construction	No cost	

[1] A standard cost is assumed for the kitchen and bath. The cost of the kitchen includes countertop and cupboards. Plumbing is included in the costs. Appliances are not included in the cost of the kitchen. Costs not considered for comparison in report.

Table F-1
Additional Costs in New Construction

ADDITIONAL COSTS IN NEW CONSTRUCTION				
NBC requirement (same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC reference**	**NBC and others not otherwise indicated in the table**	**British Columbia Surrey Sidney**	**Prince Edward Island**
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)	Not applicable	Not applicable	

Table F-1
Additional Costs in New Construction

ADDITIONAL COSTS IN NEW CONSTRUCTION				
NBC requirement (same for Manitoba, Alberta, Saskatchewan, New Brunswick, Newfoundland, North West Territories, Yukon, Nunavut)	**NBC reference**	**NBC and others not otherwise indicated in the table**	**British Columbia Surrey Sidney**	**Prince Edward Island**
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	Not applicable	Not applicable	Not applicable
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa				
ELECTRICAL SAFETY				
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.	$1500[2] additional wiring required to facilitate additional fixtures and appliances	$1500	
VENTILATION				
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.	Not applicable ventilation serves single dwelling units only	Not applicable	Not applicable
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.	$600 Install stand alone heating to accessory apartment	$600	$600
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or a garage.				
FIRE DEPARTMENT ACCESS				
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.	Not Applicable	Not applicable	
Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	9.10.19.2.	Not Applicable	Not applicable	
FIRE EXPOSURE				
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	Not Applicable	Not Applicable	
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.	Not Applicable	Not Applicable	
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.	Not Applicable	Not Applicable	
Soffit spanning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5.	No cost, no openings permitted in soffit within 1.2 m either side of exterior door from the accessory apartment	No cost	
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single-family house may not apply.	9.10.14.12.(2)	No Cost considered as part of original design	No cost	

[2] Cost of upgrading electrical facilities, includes lighting and electrical outlets

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
EGRESS AND EXITING									
Egress Feature Dimensions									
Bedroom window, door to exterior or sprinkler protection Proposed 2005 Change: Add - The window to maintain the required opening	9.7.1.3.	No Cost Window has sufficient dimensions	No Cost	No Cost	No Cost	No Cost	Cost – reduce sill height to not more than 1100 mm $1000		No Cost
Maintain 550 mm clearance at window-well.	9.7.1.4	$450 Increased window size (see below), Cost and installation of window well with drainage to a suitable location	$450	$450	$450	$450	$600, window well with drainage to a suitable location		
Proposed 2005 Change: Add - protective cover over window well to be openable from inside without use of keys, tools or special knowledge.									
Minimum run increased from 210 mm to 230 mm and minimum tread from 235 mm to 250 mm for stairs serving more than one dwelling unit.	9.8.3.1.	No cost Considered acceptable[1]	No cost	No cost	No cost	No cost	No cost	No cost	
Stair width to be increased from 860 mm to not less than 900 mm when serving more than one dwelling unit.	9.8.3.3.	No cost[2]		No cost		No cost	No cost		No cost
Minimum headroom for stairs to be increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.3.4.	No Cost		No Cost		No Cost	No Cost	No Cost	No Cost
Landings dimensions required to increased when serving more than one dwelling unit	9.8.4.1.	Not applicable		No Cost		No Cost	No Cost		
A landing is required at the top and bottom of all stairs that serve more than one dwelling unit.	9.8.4.2.(4)	Not Applicable		Not Applicable		Not Applicable			
Minimum clear height over landings increased from 1.95 metres to 2.05 metres when serving more than one dwelling unit.	9.8.4.4.	No Cost		No Cost		No Cost			
Proposed 2005 Change: Add - One door at principal entrance to be designed as an exit when serving more than one dwelling unit.									

[1] The riser height is approximately 215 mm the difference from the maximum 210 mm is considered nominal.
[2] The stair width is between 890 mm and 915 mm depending upon the location measured. This is considered to meet the Code requirement.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Except for doors and corridors the width of every exit facility is required to be a minimum of 900 mm.	9.9.3.2.	No Cost	No Cost	No Cost	No Cost	No Cost	No Cost		
Public corridors and exit corridors are required to have a minimum width of 1100 mm.	9.9.3.3.	No Cost	No Cost	No Cost	No Cost	No Cost	No Cost		
Except for doors and stairs, the headroom clearance in exits and access to exits is to be 2.1 metres.	9.9.3.4.(1)	No Cost	No Cost	No Cost	No Cost	No Cost	No Cost		
Handrails and Guards (ramps added)									
Handrails required for all stairs when serving more than one dwelling unit.	9.8.7.1.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	
One handrail to be continuous for stairs serving more than one dwelling unit.	9.8.7.2.	Not Applicable		Not Applicable			Not Applicable	Not Applicable	Not Applicable
At least one handrail required to extend not less than 300 mm past top and bottom of stairs serving more than one dwelling unit.	9.8.7.3.	Not Applicable		Not Applicable			Not Applicable	Not Applicable	
Minimum height of guards to be increased to a minimum of 1070 mm when serving more than one dwelling unit.	9.8.8.2.	Not Applicable	Not Applicable	Not Applicable			Not Applicable	Not Applicable	
Doors in a Means of Egress									
Doors not permitted to reduce width of exit corridors by more than 100 mm and other exit facilities by more than 50 mm.	9.9.6.2.	No Cost Existing [3]	No Cost Existing is acceptable	No Cost	No Cost	No Cost	No Cost		
Exit doors to be not less than 810 mm wide and 2030 mm high. Proposed 2005 Change: Change - 810 mm to 800 mm Add - 1980 mm clear height under door closers etc.	9.9.6.4.	No Cost	No Cost	No Cost	No Cost	No Cost	No Cost		
Exit doors that serve more than one dwelling unit are required to swing in the direction of egress (i.e. outward).	9.9.6.5. (3) and (4)	$ 400 New Door and installation Labour	No Cost	No Cost	$ 400	No Cost			No Cost
Egress									
Where a dwelling unit is located above another dwelling unit, maximum travel distance one storey. Exceptions apply.	9.9.9.1.(2) and (3)	No Cost	$100 Additional requirement	No Cost	No Cost	No Cost		No Cost	No Cost

[3] The proposed door to the hydro panel cupboard is to remain in its current location, as an ancillary room is not permitted to open into an exit in a number of Codes. However, this raises access issues, as the owner will require permission from the tenant to access the hydro panel as would be required for the building owner to access the rear portion of the building.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Two means of egress required where a dwelling unit opens into a egress feature that does not provide two directions of egress except where egress feature is not greater than 6 metres in length.	9.9.9.2 (and 9.9.7.2)	No Cost	for shared exit to be equipped with hard wired smoke detector	No Cost	No Cost	No Cost		No Cost	No Cost
A dwelling unit is required to be served by a second means of egress where the egress door opens onto: A shared exit stair, shared public, or shared exterior passageway more than 1.5 metres above ground level, and served by a single exit stairway.	9.9.9.3.	$1000 Fire separate the shared exit to provide direct access from the garage to the main dwelling unit. Requires moving garage door, construction of fire rated wall and upgrading of existing construction to provide fire rated separation		$1000	$1000	$1000	$1000		
General Safety Within Egress Route									
Spacing of wood stair stringers to be reduced to 600 mm when serving more than one dwelling unit.	9.8.9.3.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
slip resistance finish required on stairs when serving more than one dwelling units	9.8.9.5.(2)	No Cost	No Cost	No Cost	No Cost	No Cost		No Cost	
Ancillary rooms, such as a laundry or storage room are not permitted to open onto an exit.	9.9.5.9.	No Cost[4]	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
Exit signage is required in exits serving more than one dwelling unit where the building is three storeys in building height.	9.9.10.1.	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable			Not applicable
Lighting in exits and public corridors to an average level of not less than 50 lux at floor level.	9.9.11.2.	No Cost	No Cost	No Cost	No Cost	No Cost			No Cost
Emergency lighting required in exits and public corridors.	9.9.11.3.	$300		$300	$300	$300			No Cost
FIRE SEPARATIONS									

[4] The proposed door to the hydro panel cupboard is to remain in its current location, as an ancillary room is not permitted to open into an exit in a number of Codes. However, this raises access issues, as the owner will require permission from the tenant to access the hydro panel as would be required for the building owner to access the rear portion of the building.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Fire Rating of Materials, Assemblies and Structural Members									
Exits to be fire separated with minimum 45 minute fire resistance rating.	9.9.4.2.(1) and (2)	$3000 ********* Walls, two doors and ceiling + door	$3000 30 minute fire separation is acceptable however, construction required to achieve sound transmission rating	$3000	$3000	No cost A 30 minute fire resistance rating is likely achieved by the existing construction.		No Cost	No Cost
Public corridors to be fire separated with minimum 45 minute fire resistance rating.	9.10.9.15.(1)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Not Applicable
Suites to be fire separated from adjacent areas by 45 minute fire resistance rating. Where dwelling unit contains 2 or more storeys 1 hour fire resistance rating required.	9.10.9.14.(1)	Wall to remainder of basement + Door $2000 Ceiling $2500	Cost $4500 Reduced fire separation is acceptable however, construction required to achieve sound transmission rating	$4500	$4500	Cost The fire separation may be reduced to 30 minutes where the dwelling units are equipped with smoke alarms. Wall $1200 Ceiling $1300		No Cost	$4500
Load bearing members to have a fire resistance rating of the supported assembly.	9.10.8.3.	$200 Box telepost to provide fire resistance rating	$200	$200	$200	$200			
Exterior means of egress to have a 45 minute fire rating or be noncombustible construction, where dwelling unit is located above or below another dwelling unit.	9.10.8.7.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
Fuel-fired appliance serving both dwelling units, to be located in a service room with a 1 hour fire resistance rating.	9.10.10.4.	Not applicable Assumed Heat system is not shared	Not applicable	Not applicable	Not applicable	Not applicable			
Where a building has a dwelling unit above another dwelling unit wall on property line to be a firewall.	9.10.11.2.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Protections of Openings and Penetrations Through Fire Separations									
Combustible water distribution piping not more than 30 mm in diameter is permitted to penetrate a vertical fire separation provided the piping is sealed at the separation by a firestop system.	9.10.9.6.(7)	No cost Assume copper[5]	No cost	No cost	No cost	No Cost combustible water piping is permitted to penetrate both horizontal and vertical fire separations			
Combustible drain waste and vent piping permitted to penetrate fire separation provided sealed by a firestop system.	9.10.9.7.(2)	$40 Seal penetration with fire rated caulking	$40	$40	$40	$40			
Combustible drain waste and vent piping permitted on only one side of vertical and horizontal fire separation.	9.10.9.7.(5) and (6)	$200 Construct bulkhead with fir rated construction around DWV piping in the basement accessory apartment	$200	$200	$200	No Cost Combustible drain, waste and vent piping is permitted on both sides of a fire separation			
Exhaust ducts permitted to both dwelling units provided in a vertical service space and fan near exhaust outlet.	9.10.9.18	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
Central vacuum not permitted to serve more than one dwelling unit.	9.10.9.19.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
With exceptions, ducts through fire separations are required to be equipped with fire damper.	9.10.13.13	Not Applicable It is assumed that a stand alone heating system in provided in the basement accessory apartment	Not Applicable[6]	Not Applicable	Not Applicable	No cost			
Fire stops in wall assemblies at each floor level. Exceptions apply.	9.10.15.2.	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable			
A garage to be 1 hour fire separated from the dwelling unit that it does not serve.	9.10.9.16.(2)	Cost Considered as part of exit fire separation		Cost Considered as part of exit fire separation	Cost Considered as part of exit fire separation				
FIRE DETECTION									

[5] The house is assumed to be approximately 30 years old and therefore the water piping is considered to be copper.
[6] Even though exemptions are permitted, it is considered that a building owner would opt to provide stand alone heating due to the ease of installation.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Hard wired smoke alarms required in each dwelling unit. To be interconnected within the dwelling unit.	9.10.18.	$150 Material and labour cost	$30 may be battery operated	$150	$150	$300 An additional photo-electric type smoke alarm is required to be installed in each dwelling unit except where required fire separations have a 45 minute rating	$30 Approved smoke alarms permitted to be powered by batteries	$150	$30 A building constructed before August 27, 1985 may have battery power smoke alarm
LIVEABILITY									
Minimum floor to ceiling heights ranging from 2100 mm to 2300 mm. Proposed 2005 Change: Generally reduced to 2100 mm	9.5.3.1.	No Cost minimum height met.	No Cost	No Cost	No Cost	No Cost	No Cost		
Minimum exterior glazing areas for specific rooms. Proposed 2005 Change: Delete.	9.7.1.2.(1)	$1500 Cost to increase minimum glass area to 10% in living/dining area, includes material and labour costs for removing existing, enlarge opening, installation of new	$1500	$1500	$1500	$1500			
Window-wells to be drained to footing level or other suitable location.	9.14.6.3.	Cost Considered above	Considered above	Considered above					
Dwelling units to be separated from other areas by construction providing a sound transmission rating of at least 50.	9.11.2.1.	Cost As part of fire separation upgrade	Cost	As part of fire separation upgrade		No Cost			
Kitchen sink, lavatory, bathtub or shower stall and water closet required in each dwelling unit.	9.31.4.1.	Kitchen $5000[7] Bathroom $3000	$8000	$8000	$8000	$8000	$8000	$8000	$8000

[7] A standard cost is assumed for the kitchen and bath. The cost of the kitchen includes countertop and cupboards. Plumbing is included in the costs. Appliances are not included in the cost of the kitchen.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Laundry facilities or a space for such required in each dwelling unit or elsewhere assessable to occupants of each dwelling unit. Proposed 2005 Change: Delete.	9.31.4.2.	Cost of additional facilities Accessory apartment $200 Main Dwelling unit $1000, retrofit of existing space (upstairs bath room) Costs include material and labour with cosmetics in Main dwelling unit	$1200	$1200	$1200	$1200			
GENERAL SAFETY									
Measures required to secure door locking on doors to dwelling units and between dwelling units and attached garages.	9.6.8.1., 9.6.8.9.	No Cost Assumed installed as part of fire separation construction	No Cost	Assumed installed as part of fire separation construction		No Cost			
Where located above another dwelling unit, openable windows located less than 450 mm above floor level and 1800 mm above the ground, required to be protected by guard or mechanism to control width of unprotected opening.	9.7.1.6.(2)	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable			
Flame spread ratings of ceiling and wall surface finishes in exits and public corridors limited. Requirements vary where building is sprinklered.	9.10.16.	Assume Not Applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable	Assume Not applicable
Proposed 2005 Change: Add - Stairs serving more than one dwelling unit to be designed 4.8kPa									
ELECTRICAL SAFETY									
Electrical facilities to meet requirements of the appropriate provincial, territorial or municipal legislation or the Canadian Electrical Code.	9.34.1.1.	$1500[8]	$1500	$1500	$1500	$1500	$1500	$1500	$1500
VENTILATION									

[8] Cost of upgrading electrical facilities, includes lighting and electrical outlets

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Mechanical ventilation to serve only one dwelling unit or be designed to Part 6. Proposed 2005 Change: Residential occupancies to be designed to 9.32, other occupancies to Part 6.	9.32.1.1.	$400 Install bathroom vent	$400 Install bathroom vent	$400 Install bathroom vent	$400 Install bathroom vent	$400 Install bathroom vent	$400 Install bathroom vent		
Heating and air conditioning systems, including provisions for combustion air, to serve only one dwelling unit or to be designed to Part 6.	9.33.1.1.	$600 Install stand alone electric heating to accessory apartment	$600[9]	$600	$600	$600			
Proposed 2005 Change: Add - Carbon monoxide detectors required if fuel-burning appliance or attached garage.			$ 60 May be battery operated or plugged into an electrical outlet						
FIRE DEPARTMENT ACCESS									
Where one dwelling unit located above another dwelling unit, windows required for fire fighting access on the second and third storeys.	9.10.19.1.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
Access to basement required where serving more than one dwelling unit and greater than 25 m in length.	9.10.19.2.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
FIRE EXPOSURE									
Unenclosed that provide the only means of egress to be protected from openings in another dwelling.	9.9.4.4.	Not Applicable		Not Applicable	Not Applicable	Not Applicable			
Openings in exterior wall of exit or adjacent dwelling unit to be protected to prevent fire exposure to the exit.	9.9.4.5. 9.9.4.6.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable			
Openings in exterior walls of adjacent dwelling units to be separated by a minimum of 1.2 metres fire rated construction.	9.10.12.4.	$300 to protect garage exterior wall or protect or relocate living /dining room window	$300	$300	$300	$300			
Soffit spaning two dwelling units to be firestopped, or building sprinklered.	9.10.12.5. .	No Cost Ensure no openings in soffit within 1.2 meters of exit door to the exterior. Negligible cost	No Cost	No Cost	No Cost	No Cost			

[9] Even though exceptions are permitted, it is considered that a home owner would take the option of providing separate heating appliances to the accessory apartment, due to the increased easy of installation.

Table F-2
Costs for Renovating Existing Buildings

COSTS FOR RENOVATING AN EXISTING BUILDING									
NBC Requirement	**NBC Reference**	**NBC Cost Same for others not otherwise noted**	**ONTARIO (for buildings more than 5 years old)**	**QUEBEC (for buildings more than 5 years old or built prior to 7 November, 2000)**	**NOVA SCOTIA (for buildings built prior to 13 March, 1987)**	**BRITISH COLUMBIA, SURREY, SIDNEY**	**PRINCE EDWARD ISLAND**	**VANCOUVER**	**MONTREAL**
Exceptions relating to construction of an exposing building face (fire resistance rating, type of construction and cladding) for a single family house may not apply.	9.10.14.12.(2)	No Cost New window is sufficiently far from property line	No Cost	No Cost	No Cost	No Cost			

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