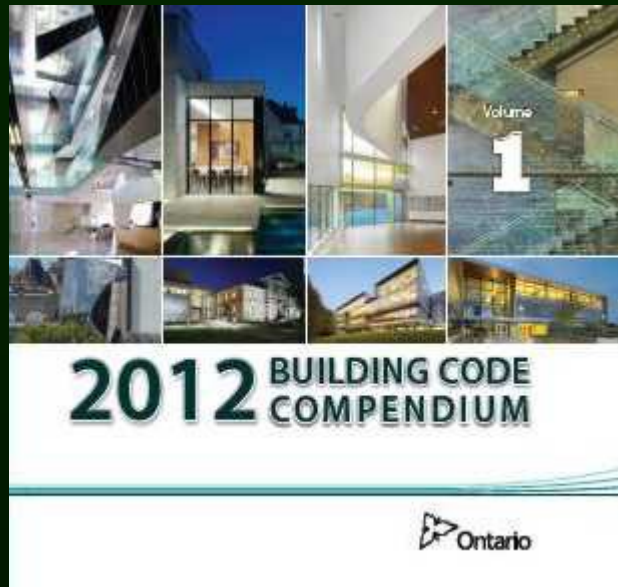


Ontario Building Code

April 2014 Update

(What's New?)



Presented to:
Toronto Chapter
Construction
Specifications Canada

April 1, 2014

Alek Antoniuk, OAA

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This presentation is available on-line at: www.codenews.ca

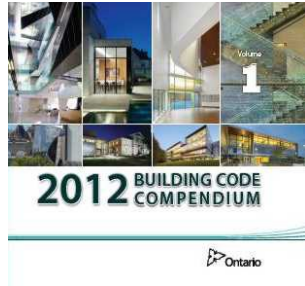
Agenda

- 2012 Ontario Building Code - Highlights
- O. Reg. 151/13 – Retirement Homes
- O. Reg. 360/13 - Fees Reg.
- O. Reg. 361/13 - “Clean-up” Reg.
- O. Reg. 368/13 - Accessibility Reg.
- Mid-rise Combustible Construction
- Trends in Code Development

2012 Ontario Building

- The Ontario Building Code is a Regulation made pursuant to The Building Code Act
- Ontario Regulation 332/12, as amended, is the “**Building Code**”:
 - was filed on November 2, 2012
 - came into effect on January 1, 2014
- O. Reg. 332/12 is freely available on the e-Laws web site at:
www.e-laws.gov.on.ca

Buying the Building Code



- Official 2 Volume 2012 Building Code Compendium

www.publications.serviceontario.ca



- Ontario Building Code 2012 by Orderline *(no Supplementary Standards included)*

<http://www.orderline.com>



- “e-version” of the Building Code Compendium

COMING REAL SOON

Selected Highlights of 2012 Ontario Building Code Changes Related to Larger Buildings

What's changed in the 2012 Code ?

- The Ministry of Municipal Affairs & Housing posted 15 slide decks detailing the significant changes
 - See: www.mah.gov.on.ca/Page10300.aspx
- Over 20,000 editorial and technical changes were made 
 - Comparison documents for Division A, B, and C are available in Word format at:
 - See: www.codenews.ca

New Terminology: ***fire stop & fire block***

- New term: “*fire stop*”
- 2006 Building Code referred to: “fire stop system” in Div. B, Subsection 3.1.9.
- Associated with fire separations
- New term: “*fire block*”
- 2006 Building Code referred to: fire stops in concealed spaces in Div. B, Subsection 3.1.11.
- Associated with concealed spaces





Smoke Alarms

- Every sleeping room shall be provided with a smoke alarm – See Div. B, Sentence 3.2.4.22.(3).
- Battery backup for smoke alarm to provide 7 days monitoring + 4 minutes alarm power – See Div. B, Sentence 3.2.4.22.(5).
- Smoke detectors in suites of residential occupancy permitted in lieu of smoke alarms - See Div. B, Sentence 3.2.4.22.(6).

But!

EXIT SIGNS



- ISO 3864-1 / ISO 7010 Green Pictogram Exit Signs – See Div. B, Article 3.4.5.1.

Water Conservation



- 4.8 LPF or dual 4.1/6.0 LPF flush water closets in residential occupancies
- 7.6 L/min. high efficiency shower heads in residential occupancies
- 1.9 LPF urinals in all occupancies
- Permit drainless composting toilets in all areas



Water Re-use

Div. B, Article 7.1.5.3.	Treated Rainwater	Treated Greywater / Storm Sewage
Clothes Washers	✓	
Laundry Trays	✓	
Mop Sinks	✓	
Bedpan Washers	✓	
Hose Bibs	✓	
Flushing W.C.s / Urinals	✓	✓
Priming Traps	✓	✓
Subsoil Irrigation	✓	✓

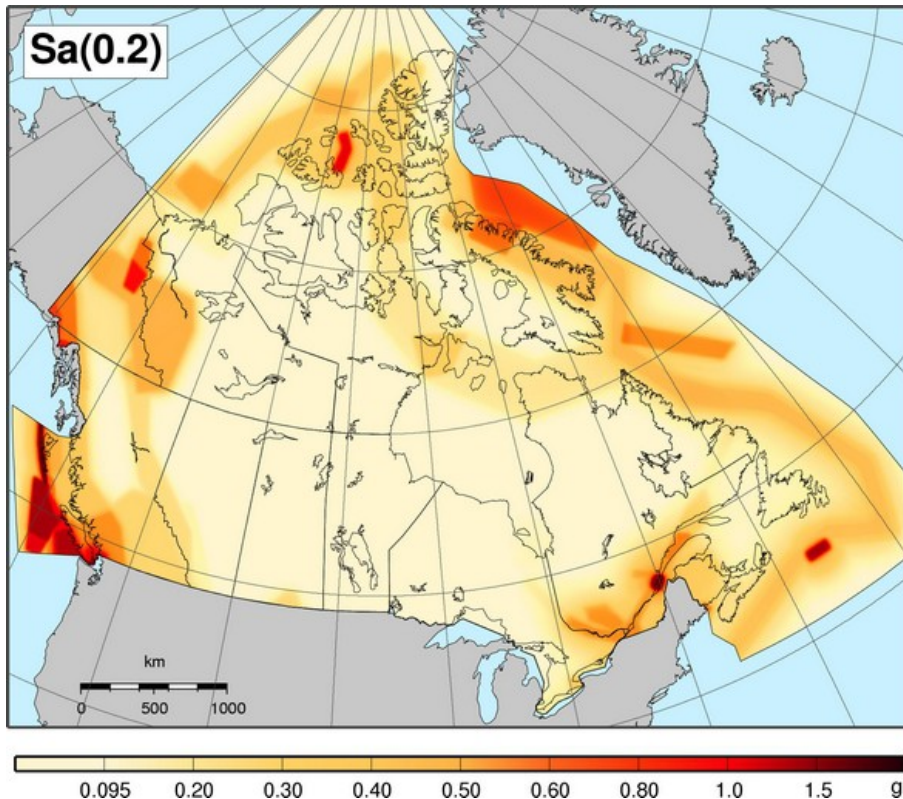
Energy Efficiency Design



- Beginning on January 1, 2017, energy efficiency levels of “Part 3 + non-residential Part 9” buildings are increased by 13% over the current Building Code levels – See Div. B, Article 12.2.1.2.
- “Part 3 + non-residential Part 9” buildings are deemed to meet the new carbon dioxide equivalent and peak electric demand requirements of Div. B, Section 12.2., if they conform to SB-10, “Energy Efficiency Requirements”
– See Div. B, Subsections 12.2.2. + 12.2.3.
- The City of Toronto has set higher energy performance requirements in its Toronto Green Standard, effective on January 1, 2014 (15% higher than current OBC for “Tier 1”)



Earthquake Design



Spectral acceleration for a period of 0.2 seconds at a probability of 2%/50 years for firm ground conditions (NBCC soil class C)

- Peak ground acceleration values and 0.2 second spectral acceleration values have been generally reduced for Ontario – See Seismic Data in Supplementary Standard SB-1

Wind and Earthquake Design

- Other design requirements are detailed in:
 - The link to the Div. B, Part 4 detailed description at:
<http://www.mah.gov.on.ca/Page10300.aspx>
 - The Word file comparison document between the 2006 and the 2012 Regulations, available at:
www.codenews.ca
- Note: Structural components associated with the building envelope in ALL buildings, including post-disaster building, are to be designed for earthquake loads – *NBC emergency revision to Div. B, Sentence 5.2.2.1.(2) and its Appendix Note*

O. Reg. 151/13

Retirement Homes

O. Reg. 151/13 – Retirement Homes

- What is it?
 - An amendment to the 2012 OBC “to enhance fire safety in occupancies housing vulnerable Ontarians”
- In January 2009, 4 residents died in a fire at the Muskoka Heights Retirement Residence, which did not have sprinklers
- In September 2012, the Office of the Fire Marshal’s Technical Advisory Committee recommended changes to the OFC and OBC

O. Reg. 151/13 – Retirement Homes

- In May 2013, the recommendations of the Technical Advisory Committee were implemented by amending the Fire and Building Codes by filing regulations 150/13 and 151/13
- O. Reg. 151/13 came into effect on Jan. 1, 2014, at the same time as the 2012 OBC
- O. Reg. 151/13 is available on the e-Laws web site
- *Note: This amendment has been included in Amendment Package #1 to the 2012 Building Code Compendium, dated September 1, 2013.*



O. Reg. 151/13 – Retirement Homes

- Sprinkler systems for retirement homes regulated under the *Retirement Homes Act, 2010*
 - See: New Div. B, Sentence 3.2.2.47.(5) &
 - See: New Article 9.10.8.4. Automatic Sprinkler Systems
- Fire alarm signal notification to Fire Department
 - See: Div. B, Sentence 3.2.4.8.(1)
- Minimum 20 min water supply for NFPA 13D sprinkler systems
 - See: New Div. B, **Sentence 3.2.5.13.(8)**
- Voice communication system required for building containing a retirement home, depending on height
 - See: New Div. B, **Sentence 3.2.6.8.(1)**

O. Reg. 151/13

Existing Buildings

- Performance level is deemed to be reduced upon a change of Use to a retirement home
- Minimum upgrades required by Part 11:
 - Sprinkler system
 - Voice communication system, depending on height
 - Door closers on suite doors or sleeping room doors
- Change of Use Permit required to change use to a retirement home
 - See: Div. C, Clause **1.3.1.4.(1)(f)**

O. Reg. 360/13

“Fees” Regulation

Note: This amendment has not been incorporated into the 2012 Building Code Compendium, as of April 1, 2014.

O. Reg. 360/13 is available for download from the Ontario government's e-laws web site at:
http://www.e-laws.gov.on.ca/Download/elaws_src_regs_r13360_e.doc

O. Reg. 360/13 - “Fees” Reg.

- Ontario Regulation 360/13:
 - filed on December 20, 2013
 - came into force on January 1, 2014
 - a number of requirements come into force at a later date, on January 1, 2015.
- O. Reg. 360/13 deals with administrative matters such as:
 - Increasing the application fee for a Building Code Commission hearing from \$0 to \$170 and automatic annual increases tied to the Consumer Price Index for Ontario, thereafter
 - Increasing the application fee for a Minister's Ruling to authorize the use of a material evaluated by the CCMC from \$0 to \$550 and automatic annual increases tied to the Consumer Price Index for Ontario, thereafter
 - Increasing a wide range of fees for holders of BCINs

O. Reg. 361/13

“Clean-up” Regulation

Note: This amendment has not been incorporated into the 2012 Building Code Compendium, as of April 1, 2014.

O. Reg. 361/13 is available for download from the Ontario government's e-laws web site at:
http://www.e-laws.gov.on.ca/Download/elaws_src_regs_r13361_e.doc

O. Reg. 361/13 - “Clean-up” Reg.

- Ontario Regulation 361/13:
 - filed on December 20, 2013
 - came into force on January 1, 2014
- This regulation amends the 2012 Building Code (O. Reg. 332/12, as amended by O. Reg. 151/13) and is intended to be a "clean-up regulation".
- Historically, every time a new edition of Ontario's Building Code is published, it is necessary to follow up with another regulation shortly thereafter to correct the minor technical errors that appear in the new edition.

O. Reg. 368/13

Accessibility

Note: This amendment has not been incorporated into the 2012 Building Code Compendium, as of April 1, 2014.

O. Reg. 368/13 is available for download from the Ontario government's e-laws web site at:
http://www.e-laws.gov.on.ca/Download/elaws_src_regs_r13368_e.doc

O. Reg. 368/13 - Accessibility

- Accessibility for Ontarians with Disabilities Act (AODA) was enacted in 2005
- A 20-year time horizon (2005 – 2025) was set for accessibility standards implementation
- Standards have been developed through Standards Development Committees (SDC) in 5 areas:
 - Customer service
 - Employment
 - Information and communications
 - Transportation
 - Design of public spaces

O. Reg. 368/13 - Accessibility

- The Building Code is deemed to be the regulatory vehicle for accessibility standards for *buildings*
- A public consultation was held on certain proposed accessibility amendments to the Building Code in Dec. 2012 – Mar. 2013
- Consultation paper can be viewed at:
<http://www.mah.gov.on.ca/AssetFactory.aspx?did=10044>
- The proposed amendments were reviewed by a Technical Advisory Committee in May 2013
- Further consultations with selected “stakeholders” were held in the Fall, 2013

O. Reg. 368/13 - Accessibility

- Ontario Regulation 368/13:
 - Was made on Dec. 11, 2013
 - Was filed on Dec. 27, 2013
 - Comes into effect on January 1, 2015
- A free annotated version of the accessibility amendments is available for non-commercial use on the CodeNews.ca website at:
<http://www.codenews.ca/docs/AnnotatedAccessibility-O.Reg.368-13-CodeNews.ca.pdf>

O. Reg. 368/13

Accessibility Changes

- Barrier-Free Pedestrian Entrances
- Power Door Operators
- Barrier-Free Access to All Other Floor Areas
- Barrier-Free Path Dimensions
- Visitable Suites in Apartment Buildings
- Visual Smoke Alarms & Visual Signal Devices for Fire Alarm and Detection Systems
- Universal Toilet Rooms
- Access to Pools and Spas
- Renovations

O. Reg. 368/13 - Accessibility

- **The Closed Fist Standard**



The Closed Fist Standard

-controls for the operation of *building* services or **safety devices**, including electrical switches, thermostats and intercom switches, intended to be operated by the occupant and located in a *barrier-free* path of travel shall be operable **using a closed fist** 3.8.1.5.(1)
- the control for a power door operator shall be operable **using a closed fist** 3.8.3.3.(17)
- Every barrier-free water closet stall in a washroom shall,
 - (b) be equipped with a door that shall,
 - (i) be capable of being latched from the inside with a mechanism that is operable **using a closed fist**, 3.8.3.8.(1)

O. Reg. 368/13 - Accessibility

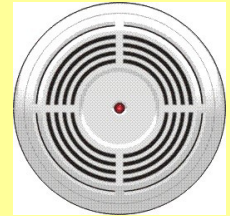
Doorways and Doors

***STANDARD 1 3/4" X 3 FT. WIDE DOORS
ARE EFFECTIVELY BANNED!***

Every doorway that is located in a barrier-free path of travel shall have a clear width of not less than ~~850~~ **860** mm when the door is in the open position. 3.8.3.3.(1)

O. Reg. 368/13 - Accessibility

Visual Smoke Alarms



Smoke alarms in dwelling units and sleeping rooms shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, "National Fire Alarm and Signaling Code".

[NEW]

3.2.4.22.(13)

DETERMINING THE ACCESSIBLE WASHROOMS REQUIRED BY SECTION 3.8

IN ACCORDANCE WITH THE ONTARIO BUILDING CODE, AS AMENDED BY O. REG.368/13

STEP 1: DETERMINE THE NUMBER OF WATER CLOSETS AND LAVATORIES REQUIRED FOR THE BUILDING IN ACCORDANCE WITH SUBSECTION 3.7.4. OF DIVISION B.

STEP 2: LOCATE THE WATER CLOSETS AND LAVATORIES TO SERVE THE INTENDED OCCUPANCIES IN THE BUILDING.

STEP 3: INCORPORATE THE FOLLOWING TYPES OF ACCESSIBLE WASHROOMS REQUIRED BY SECTION 3.8 OF DIVISION B:

TYPE A
UNIVERSAL
WASHROOM
conforming to 3.8.3.12.

GO TO PAGE 2.

Reference: 3.8.2.3.(2)

TYPE B
BARRIER-FREE
WASHROOM
conforming to
3.8.3.8. - 3.8.3.11.

GO TO PAGE 3.

Reference: 3.8.2.3.(3)

TYPE C
WASHROOM
IN ONE OF THE
15% SPECIAL SUITES
IN AN APARTMENT
BUILDING
conforming to 3.8.2.1.(5)

GO TO PAGE 4.

Reference: 3.8.2.1.(5)

TYPE D
WASHROOM
IN ONE OF THE
10% SPECIAL SUITES
IN A HOTEL
conforming to 3.8.2.4.(3)

GO TO PAGE 5.

Reference: 3.8.2.4.(3)

TYPE E
WASHROOM
IN A FLOOR AREA
NOT REQUIRED TO BE
BARRIER-FREE
ACCESSIBLE
conforming to 3.8.2.3.(6)

GO TO PAGE 6.

Reference: 3.8.2.3.(6)

Table 3.8.2.3.A.
Minimum Number of Universal
Washrooms per Building

Number of <i>Storeys</i> in <i>Building</i>	Minimum Number of Universal Washrooms per <i>Building</i>
1 to 3	1
4 to 6	2
Over 6	3, plus 1 for each additional increment of 3 <i>storeys</i> in excess of 6 <i>storeys</i>

O. Reg. 368/13 - Accessibility

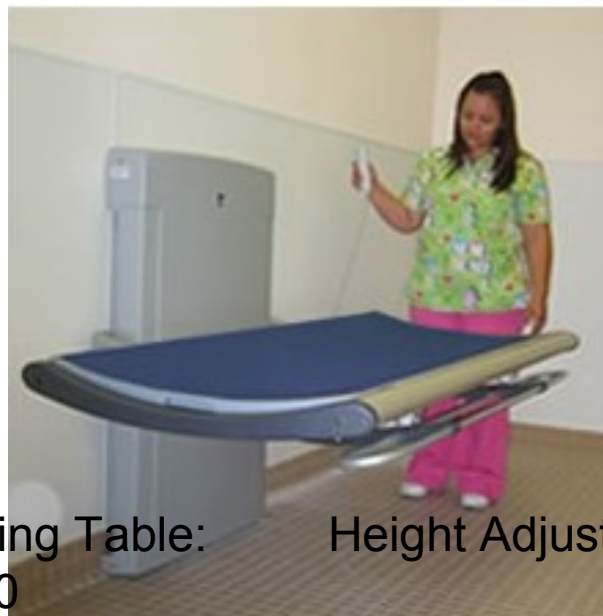
Universal Washrooms

A universal washroom requires:

- an emergency call system **3.8.3.12.(2)**
- 810 mm wide and 1 830 mm long clear space for an adult-size change table **3.8.3.12.(3)**



Pressalit Care 3000 Changing Table:
Model R8520021 \$7,343.00



Height Adjustable:



Adult Length

<http://www.max-ability.com>

Mid-rise Combustible Construction

The Ontario Ministry of Municipal Affairs and Housing posted an Ontario Regulatory Registry Notice, on March 20, 2014, of its intent to amend the 2012 Ontario Building Code to permit 6 storey buildings of combustible construction.

Changes in British Columbia

British Columbia changed its Building Code to allow six storey combustible residential buildings

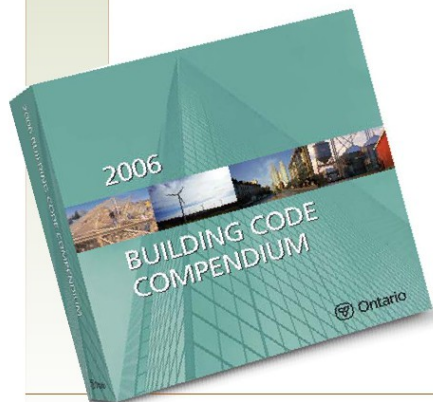
- Change introduced in January, 2009
- Change took effect in April, 2009
- British Columbia included additional restrictions on five and six storey combustible buildings to address concerns related to structural and fire safety
- British Columbia also developed:
 - Appendix note for designers to address wood shrinkage
 - Guideline for architects, engineers on mid rise wood design

Ontario Code Development - 2011



Potential Changes for the Next Edition of the Building Code:

Second Round of Consultation
(February-April 2011)



Ontario.ca/BuildingCode

- MMAH held a public consultation on proposed Building Code amendments, including mid-rise combustible construction, from February to April, 2011
- Ontario did not proceed with Building Code changes, at that time, due to opposition from the fire services and concrete and steel interests

Ontario Code Development - 2013

- Ontario decided to continue support for the National Research Council's research in mid rise combustible construction and code development
- The Canadian Commission on Building and Fire Codes (CCBFC) held its annual public review of proposed changes to the 2010 National Model Construction Codes from October - December, 2013, including changes related to mid-rise combustible construction

Ontario Regulatory Registry Notice

- The Ontario Ministry of Municipal Affairs and Housing posted an Ontario Regulatory Registry Notice, on March 20, 2014, of its intent to amend the 2012 Ontario Building Code to permit 6 storey buildings of combustible construction.

- The Notice is posted at:

<http://www.ontariocanada.com/registry/view.do?postingId=15462&language=en>

- A policy paper, in MS Word format, providing further details of the proposed changes has been posted and will be available online until May 4, 2014.

- The Policy Paper is posted at:

<http://www.ontariocanada.com/registry/showAttachment.do?postingId=15462&attachmentId=23915>

Ontario Regulatory Registry Notice

- To facilitate mixed uses, certain other building uses would be permitted on the first and second floors of mid-rise wood frame residential or office buildings, including restaurants, stores, and medical offices.
- Limits on building height to top floor (18m from first floor, 20m from fire access route)
- Limits on building area to 25% of that of non-combustible buildings
- Minimum building perimeter requirements
- Non-combustible stairwells with a fire-resistance rating of at least 1.5 hours
- Enhanced automatic sprinklering, including balconies and decks
- Increased fire protection in concealed spaces
- Non-combustible exterior cladding
- Combustion-resistant roof cladding
- Improved fire service access to the building

Fire Safety During Construction

Section 12.(1) of the *Fire Protection and Prevention Act* states:

“Subject to subsection (4), the fire code does not apply to the unoccupied parts of a building that is under construction within the meaning of the *Building Code Act, 1992* or of a predecessor to that Act.”

The *Fire Protection and Prevention Act* is on the e-laws web site at:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_97f04_e.htm

Summary

.... so far

2012

O. REG. 332/12 FILED IN
NOVEMBER, 2012 AS
THE 2012 BUILDING CODE

2013

O. REG. 151/13 FILED IN MAY, 2013
(RETIREMENT HOMES)

O. REG. 360/13 ("FEE" REG.)
O. REG. 361/13 ("CLEAN-UP" REG.)
O. REG. 368/13 (ACCESSIBILITY)
FILED IN DECEMBER 2013

2014



JANUARY 1, 2014:
THE FOLLOWING REGULATIONS CAME
INTO FORCE:

- O. REG. 332/12 (2012 BUILDING CODE)
- O. REG. 151/13 (RETIREMENT HOMES)
- O. REG. 360/13 ("FEE" REG.)
- O. REG. 361/13 ("CLEAN-UP REG.)

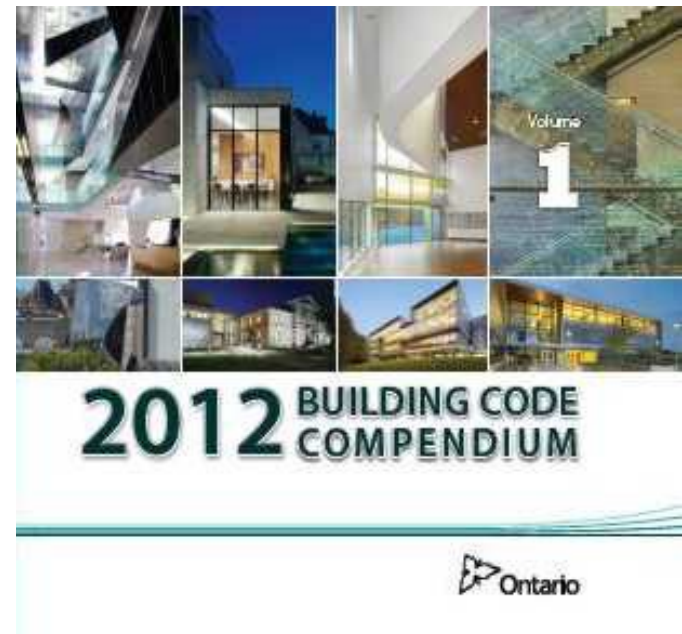
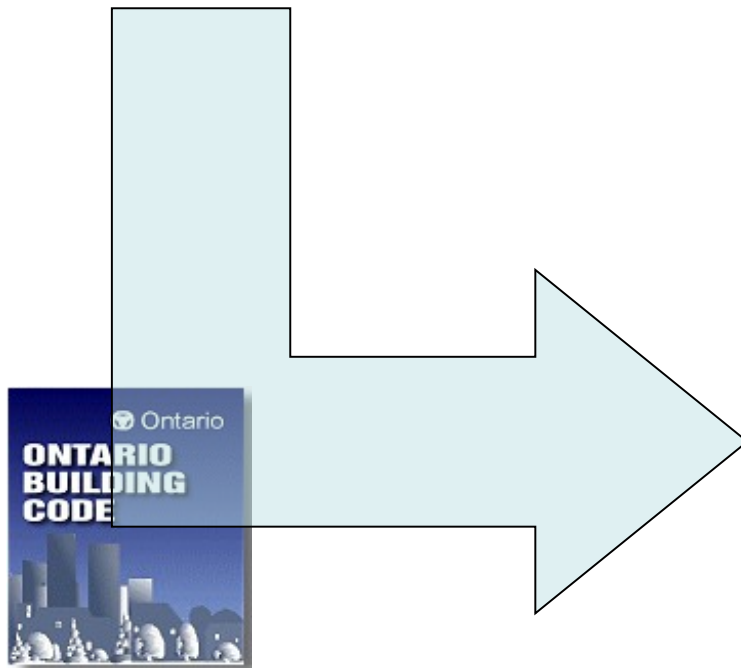
2015

O. REG. 368/13 (ACCESSIBILITY)
COMES INTO FORCE ON JANUARY 1, 2015

The Building Code



Trends in Code Development



Trends in Code Development

- Devolution of Building Code training to George Brown College
 - “This marks a change in how government delivers Building Code training”
 - George Brown College is now responsible for training courses and self-study manuals
- Next: Devolution of Qualification & Registration?
 - New annual fees for BCIN renewals

Trends in Code Development

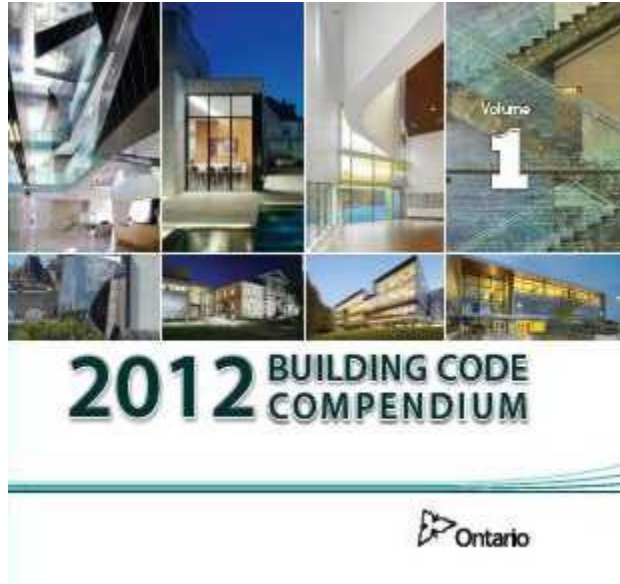
Limited Building Code advisory services:

- NRC Canadian Codes Centre (CCC) staff provide opinions on the requirements in the National Model Construction Codes only to regulatory officials (building, plumbing and fire officials responsible for enforcing the codes)
- The role of the Building and Development Branch has changed
- Ontario's Building and Development Branch is a part of MMAH's Municipal Services Division, which is oriented to providing services primarily to its client municipalities
- Reluctance of MMAH to issue Binding Interpretations by the Minister – see Section 28.1 of the Building Code Act

Trends in Code Development

- Municipalities have time constraints on plan review services
- Can designers rely on unbiased Building Code advice from municipalities?
 - Municipal priorities based on risk management
 - Municipal priorities are not likely aligned with the owner's and designer's priorities
 - Code interpretation varies among municipalities
- Barriers to access the Building Code Commission
- Need for Building Code Consultants

2012 Ontario Building Code Update



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