14th ANNUAL INDUSTRY WORKSHOP

Kitchener Building Division
Tuesday January 23, 2018
THE FIRST RULE OF PERMITS

"IT WAS THAT WAY WHEN I BOUGHT THE HOUSE"
Welcome

- Washrooms and exits

- Introductions of staff and comments from Chief Building Official – Mike Seiling
Agenda

- Administration
- Part 3 - Updates
- Part 9 - Updates
- Lunch
ADMINISTRATION

Matt Ruetz
Interim Manager, Building
2018 Development Charge Rates

• City of Kitchener (+2.9% from 2017)**
  Single = $11,096  Townhouse = $7,861
  Multiple = $6,124  Non-Res = $5.31 sq. ft.

• Region of Waterloo (+2.4% from 2017)**
  Single = $21,725  Townhouse = $16,311
  Multiple = $11,832  Non-Res = $11.68 sq. ft.

• School Boards (WRDSB & WCDSB)
  Rates remain unchanged until May 31, 2018

**The new development charge rates will apply to all permits issued in 2018
No increase from 2017 rates

- Singles, semis, towns - $1.19/sq. ft.
- Apartment Building - $1.19/sq. ft.
- Interior Finishes - $0.41/sq. ft.
  (basement finishes & major renovations)
- Deck - $106.00 each
- Solar Panels - $106.00 for singles and duplex’s
- Residential Revisions - $181.00 (min), will be charged for each revision submitted
Permit Pick Ups

• Permits ready for issuance must be picked up within 6 months.

Quote from our Building By-law;

“Where an application for a permit remains incomplete or inactive for six months after it is made, the application may be deemed by the Chief Building Official to have been abandoned and notice thereof shall be given to the applicant. If an application is deemed to be abandoned, a new application must be filed for the proposed work.”

• This also applies to permits gone dormant after a status letter has been issued.
MBO II staff will now be reviewing and inspecting Part 9 Commercial and Industrial Buildings, in addition to Part 9 Residential.

Training required to assist with this transition.

**NO INSPECTIONS OR PERMIT REVIEW**

Every Wednesday, for 5 weeks from;
March 7, 2018, through to and including April 4, 2018.

Please plan ahead for any critical inspections or permit needs.
ADMINISTRATION

Tammy Hogg
Supervisor of Permits
Upgrade to the existing public portal coming in 2018. No major changes expected for the end user – we are trying to work in some efficiencies and will provide updates as they become available.
Website

Click here to access Kitchener Building Division website
PART 3
Administration
Agenda

- Development Charge Rates
- Part 3 Plans Review
  - Code changes July 2017
  - Code Changes January 2018
  - Supplementary Standard SB-10
- Electronic Plans Review
- Part 3 Inspection
2018 Development Charge Rates
City of Kitchener (2.9% from 2017)**

- Non-res Central Neighbourhoods = $1.60 / sq.ft.
- Non-res Suburban Area = $5.31 / sq.ft.
- Industrial development will be charged 50% of the non-residential development charge rate

**The new development charge rates will apply to all permits issued in 2018
Permit Fees

2018 Permit Fees

• Building Permit fees remain unchanged

• Damage Deposit fees have increased
  – Damage Deposit = $122/m of frontage
  – Damage Deposit Inspection = $44/m of frontage (max $440)
Downtown DC Exemption

• City & Regional Development Charges apply after Feb. 28, 2019

• We expect to be very busy therefore...

Complete permit applications must be filed by
May 1, 2018 or sooner

• Complete Coordinated Permit Applications
  – Types of permit i.e. foundation/SS, shell, full
  – Do NOT submit incomplete applications
  – Permit issuance as per BCA 8.(2)
Downtown DC Exemption

• As per BCA 8.(2), permit can be issued when:
  – Proposed construction/demolition complies with the BCA, building code and any other applicable law
  – Architect and/or P.Eng provided when required
  – When provided, designer is qualified with the Ministry
  – Complete application form and all applicable forms
  – Fees are paid

• Note: if a permit application is made for the full building, it cannot be changed to a foundation only permit to make DC deadline
Downtown DC Exemption

Help us help you!

• Key Project information ASAP
  – Property use (pre/post)
  – GFA, # of units, # of storeys, u/g parking
  – Contacts: consultant team & primary
  – Project timing
  – Pre-application meetings with Building staff
  – Is a RSC required? (impacts timing & permit review process/issuance)
Inactive Permits

- For permits that have been inactive for 6 months, a letter will be sent out to indicate intent to cancel permit, unless reasons for delay can be substantiated.
PART 3
Plans Review
Design & Review of Part 9 Projects:

- Projects that fall under the provisions of Part 9:
  - 3 or fewer storeys in building height
  - Having a building area not exceeding 600 sq.m.
  - Having major occupancy classified as Group C, Group D, Group E, Group F2, or Group F3

**Shall be designed & reviewed under Part 9 of the OBC**

(staffing changes)
Forms that will soon be editable:

- Building Fire Design Form
- Commitment to General Review
- Alternative Solution
- Flow Control Roof Drains
- Demolition Agreement
- OBC Matrix
- SB-10 Forms
Incomplete Permits

Incomplete/Light permit Applications:

• Numbers have risen for building permits applied for that are not complete applications

**Will be placed under “Application” stage**
July 2017 Code Changes

Revisions to Retirement Homes:

• Revision to definition of Care Occupancies
  – Removal of retirement home
• Revision to definition of Residential Occupancies
  – Includes retirement home not under the Retirement Homes Act, 2010.
• Added definition of Retirement Home
  – As defined in Retirement Homes Act, 2010.
Revisions to Retirement Homes:

- Deemed to be a separate major occupancy
- Shall not be located in a building within the scope of Article 3.2.2.43A or 3.2.2.50A.
- Limitations on combustible elements in partitions and storage lockers.
- Emergency power for lighting and fire alarm systems is 1 hr.
- New Article 3.3.4.11.
Revisions to Retirement Homes:

- New 3.2.2. Articles for Retirement Homes
  - 3.2.2.48A Group C Retirement Home, any height, any area, sprinklered.
  - 3.2.2.48B Group C Retirement Home up to 4 storeys, sprinklered, increased area.
  - 3.2.2.48C Group C Retirement Home, up to 3 storeys, sprinklered, non-combustible const’n.
  - 3.2.2.48D Group C Retirement Home, up to 3 storeys, sprinklered, combustible const’n.
January 2018 Code Changes

• Electric Vehicle Charging
• Sewage Systems (not covered this session)
• Revision to Supplementary Standard SA-1
3.1.21. Electric Vehicle Charging:

- Where vehicle parking is provided in a building (*excludes apartment buildings) not less than 20% of the parking spaces shall be provided with electric vehicle supply equipment
- Remaining 80% of parking spaces shall be designed to permit the future installation of electric vehicle supply equipment
- New definition of “Electric Vehicle Supply Equipment” added in Code
Supplementary Standard SA-1:

- Objective and Functional statements have been added for Electric Vehicle Charging Systems
- Related to new sentence (5) for electric box to be provided with effective barrier against passage of gas and exhaust fumes
Supplementary Standard
SB-10
Two paths of compliance for January 1, 2018:

**Path A:**
- Be 13% more efficient than the requirements as set out in Division 1 and 2 of SB-10

**OR**

**Path B:**
- Conform to Division 1 and Division 3 or 5 of SB-10
Path A - compliance:

• Exceed by not less than 13% the energy efficiency levels attained by conforming to 2011 NECB and Chapter 3 in Division 2 of SB-10.

OR

• Exceed by not less than 17.5% the energy efficiency levels attained by conforming to the ASHRAE 90.1-2010
Path B - compliance:

• Achieve the energy efficiency levels attained by conforming to **2015 NECB and Chapter 3 in Division 3 of SB-10**

OR

• Achieve the energy efficiency levels attained by conforming to the **ASHRAE 90.1-2013 and Chapter 2 of Division 3 of SB-10**

OR

• Achieve the energy efficiency levels attained by conforming to **Section 7 of ASHRAE 189.1-2014** (excluding Sections 7.2.b, 7.4.7.3., 7.4.8. and 7.5)
Permit submission requirements:

• City of Kitchener – 2018 Energy Efficiency Certification Form

• Ministry prescribed forms
  – Forms A, 5.4, 5.5, 5.6, 6.3, 6.4, 7.4, 8.4, 9.4, 9.5, 10.4, 11
  – Form NECB
  – Form C (ASHRAE 189.1)
# 2018 Energy Efficiency Certification Form

**Project Address:**

Each individual responsible for the subject building shall affix their seal and signature in the applicable box thereby certifying that pursuant to Article 12.2.1.1. of Division B, of the Ontario Building Code, the energy efficiency of each building has been designed and will be constructed to:

- [ ] Exceed by not less than 17.5% the energy efficiency levels attained by conforming to the ASHRAE 90.1-2010
- [ ] Exceed by not less than 13% the energy efficiency levels attained by conforming to 2011 NECB and Chapter 3 in Division 2 of SB-10.
- [ ] OR
- [ ] Achieve the energy efficiency levels attained by conforming to the ASHRAE 90.1-2013 and Chapter 2 of Division 3 of SB-10.
- [ ] Achieve the energy efficiency levels attained by conforming to 2015 NECB and Chapter 3 in Division 3 of SB-10.
- [ ] Achieve the energy efficiency levels attained by conforming to Section 7 of ASHRAE 189.1-2014 (excluding Sections 7.2.b., 7.4.7.3., 7.4.8. and 7.5)

**Application Number:**

<table>
<thead>
<tr>
<th>Building Envelope</th>
<th>Professional Seal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date (YYYY/MM/DD)</td>
</tr>
<tr>
<td>Name and Title</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>City Province Postal Code</td>
<td></td>
</tr>
</tbody>
</table>

**Mechanical Systems**

<table>
<thead>
<tr>
<th>Professional Seal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
</tr>
<tr>
<td>Name and Title</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td>City Province Postal Code</td>
</tr>
</tbody>
</table>

**Electrical Systems**

<table>
<thead>
<tr>
<th>Professional Seal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
</tr>
<tr>
<td>Name and Title</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td>City Province Postal Code</td>
</tr>
</tbody>
</table>
SB-10 2017 Forms/Checklists:

• Updated checklist forms are now available on the Build Right Ontario website:
  – www.buildrightontario.com/mmah
Supplementary Standard SB-10:

• Effective January 1, 2018, Model National Energy Code for Buildings (MNECB 1997) has been revoked

• In addition, Division 4 of Supplementary Standard SB-10 is no longer valid, and shall not be used
ASHRAE Standards:

• Free read-only version of ASHRAE Standards 90.1-2013 and 189.1-2014, visit:

    www.ashrae.org/standards-research--technology/standards--guidelines/other-ashrae-standards-referenced-in-code
Software Tools:

• Comcheck is a common software tool demonstrating ASHRAE section 5.6 compliance (shell building – exterior only). A free version of the software can be found at:

www.energycodes.gov/comcheck

Choose: Code (ie: ASHRAE 90.1-2013), State (Ontario), City (Kitchener), Project Type (new construction, addition, alteration)
Electronic Plans Review

Plans for paperless:

• Implementing new 65” touch screen monitors
• Soft roll out March 2018 – some customers will be requested to submit digital copy of all permit plans (memory stick, Sharefile)

Future Expectations:

• Request for full electronic permit submissions
• For Part 9 non-residential projects, digital submissions strongly recommended
INSPECTIONS

Scott Madter
Municipal Building Official
Inspection Topics

Items of discussion:
• iPad – full implementation
• Site representative present during inspections
• Electric Vehicle Charging Stations
• Fire Stopping Engineered Judgement Details
• Submission of Sprinkler & Standpipe Drawings
• Follow up to last years presentation
  – Electronic submission of reports – A+
  – Calling in inspections – A++
  – Notification of site changes – A+++
Mid last year the building inspectors have been supplied with iPad’s for the following benefits.

- Increase inspection efficiency
- Communication enhancements
- Access to email
- Able to keep detailed notes and access previous notes while conducting inspections
- The ability to take pictures and upload accordingly
- The ability to attach reports/revisions to the permit file
The benefits of having a site representative accompany the building inspector on site during inspections:

- Increase in inspection efficiency
- Keeps the building inspector informed of project progress/change
- Lease between other City Departments (i.e. Fire Prevention)
- Ability for the inspector to provide the heads up on permit requirements
- Building Code related discussions and clarity
Electric Vehicle Charging Stations

- What do we want to see in the drawings if anything...?
- What are the acceptable options for the rough-in...?
Fire stopping details which are Engineered Judgements are required to be stamped by a Architect or P.Eng. licensed in the Province of Ontario.
If not included with permit application submit two plotted copies of P.Eng. stamped sprinkler & standpipe drawings including hydraulic calculations to the Building Department for review and approval by both Building & Fire Departments **prior** to installation.
Follow up to Last Years Presentation

• Continue submitting electronic pdf. reports to the building inspector.
• Continue on calling in for required inspections.
• Continue keeping the building inspector informed of any site/building code related changes.
Booking Inspections

519-741-2761

• Automated call-in for inspections allows same day booking, provided prior to 8:00am.
• Online Booking
• When booking inspections there is no guarantee for specific time requested.
• If not ready for inspection(s), please ensure it’s cancelled by calling 519-741-2312.
• Please use the above options for booking inspections, voicemails and emails directly to the inspector can be missed
Questions?

Presentation is available on our website.
PART 9

Leslie Collins
Municipal Building Official
What is a “House”? 

**House**: means a detached house, semi-detached house or row house containing not more than two dwelling units

- This new definition alleviates some of the previous restrictive building code requirements. This change helps promotes an option to create more affordable housing.
9.1.1.12.(1) A house is permitted above another house provided there is not more than one dwelling in each
“House” Requirements

• 9.5.2.1.(2)
  Barrier-Free design does not need to be provided for house, triplexes and boarding or rooming houses with fewer than 8 boarders or roomers.

• 9.10.15 (Appendix)
  This subsection applies to the spatial separation between houses which may contain one dwelling unit above another. The designer has the option of using either 9.10.14. or 9.10.15. for the determination of spatial separation requirements for these types of buildings. However, the requirements of these two subsections cannot be mixed.

• 9.10.8.10
  Table 9.10.8.1. does not apply to houses.
“House” Requirements

• 6.2.4.7.(14)
  In a *house* containing 2 dwelling units, return-air from 1 dwelling unit may be recirculated to the other dwelling unit, *provided* a duct-type smoke detector is installed in the supply or return air duct system serving the entire house which would turn-off the fuel supply and electrical power to the heating system upon activation of the detector.

• 7.5.5.5(2)
  Where a plumbing system is installed in a *house*, every storey in which plumbing is or may be installed, including the basement of the *house*, shall have extended into it or passing through it a vent pipe that is at least 1 ½” in size for the provision of future connections.

AND MORE...
## Development Charges:

<table>
<thead>
<tr>
<th>Fee</th>
<th>Single</th>
<th>Conversion &gt; 1 yr</th>
<th>Duplex*</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>$11,096</td>
<td>$0</td>
<td>$12,248</td>
</tr>
<tr>
<td>Region</td>
<td>$21,725</td>
<td>$0</td>
<td>$23,664</td>
</tr>
<tr>
<td>Public</td>
<td>$1,948</td>
<td>$1,948</td>
<td>$3,896</td>
</tr>
<tr>
<td>Catholic</td>
<td>$653</td>
<td>$653</td>
<td>$1,306</td>
</tr>
<tr>
<td>Total</td>
<td>$35,422</td>
<td></td>
<td>$41,114</td>
</tr>
</tbody>
</table>

*based on two apartment units

$3,091

What is your time worth?
Driveway Visibility Triangle

- A requirement of the zoning by-law
- Identified on the City approved site/grading plan by a yellow highlighted triangle

Obstructions that exceed 0.9m above grade are not permitted within the 4.57m driveway visibility triangle on both sides of the driveway.
3.1.10. - Firewalls

- Professional Engineer required to design the wall and all details
- Details shall include items like protection of the soffit, corbel of the wall, parapet, etc.
- *Firewall* location to be shown on all the applicable drawings (i.e. floor plans and elevations)
- Adding a *firewall* to a building creates a separate building on each side of the firewall. Therefore, provide the *building area* for each side of the *firewall*
3.1.10.7 - Combustible projection

- Buildings separated by a *firewall*, combustible projections on the exterior of one building, including balconies, platforms, canopies, eaves projections and stairs, that extend outward beyond the end of the *firewall*, shall not be permitted within 2.4m of combustible projections and window or door openings of the adjacent building.
EEDS

- Provide a form for each unit of the Part 9 residential building
- When completing Section C (Ratio of Windows, Skylights & Glass to Wall Area) for townhouses include exterior and interior *party wall(s).*
Plan Review

EEDS continued

• Complete either nominal or effective R-values
• Complete the number of shower to be connected to the DHWR

OR

- OBOA offers a SB-12 Energy Efficiency for Housing course. Refer to the OBOA website www.oboa.on.ca
Heat Loss/Gain Calculations

• 7.1 of CSA F280-12

When a calculation is prepared in accordance with this standard, and is published as a document for any purpose other than the use of the person carrying out the calculation, then the following requirements shall apply,

A table of inputs shall be prepared that lists all of the pertinent information and assumptions upon with the calculation is based, including, but not limited to;

a) A list of the input data contained in the “heat loss and heat gain calculation summary sheet” shown in Annex D; and
b) The working fluid temperature for heating floor assemblies in contact with soil or exposed to the exterior.

• As of July 1, 2018 the “heat loss and heat gain calculation summary sheet” will be required submitted with all applications.

• City of Kitchener is working on a standard form that will be made available in the near future
# Plan Review

## Heat loss and gain calculation summary sheet

These documents issued for the use of
and may not be used by any other persons without authorization. Documents for permit and/or construction are signed in red.

<table>
<thead>
<tr>
<th>Building location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model:</td>
</tr>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>City and Province:</td>
</tr>
</tbody>
</table>

### Calculations based on

- **Attachment:** Detached
- **Number of stories:** 2 + basement
- **Weather location:** Cambridge, ON, CA (Ventilated)
- **HRV:** Included
- **Recovery %:** 75%

### Heating design conditions

<table>
<thead>
<tr>
<th>Below grade walls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style A:</td>
</tr>
</tbody>
</table>
- **Above grade walls**
| Style A: | Style B: |
- **Floors on soil**
| Style A: | Style B: |
| Exposed floors**
| Style A: | Style B: |

### Cooling design conditions

<table>
<thead>
<tr>
<th>Below grade walls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style A:</td>
</tr>
</tbody>
</table>
- **Above grade walls**
| Style A: | Style B: |
- **Floors on soil**
| Style A: | Style B: |
- **Exposed floors**
| Style A: | Style B: |

### Windows

| Style A: | Style B: |

### Skylights

| Style A: | Style B: |
Plan Review

Part 10 or 11

• Provide a completed Change of use/Part 11 code matrix either on the drawings or as separate form available on our website at https://www.kitchener.ca/en/building-and-development/building-applications-and-standard-forms.aspx
INSPECTIONS

Justin Massecar
Municipal Building Official
Inspections

• Reminder on TOF (submitted prior to framing inspection)
• Hard copy of full permit drawings in colour and to scale to be on site at all times
• Use the City approved drawings for construction
  – Redline notes and changes that the constructors need to be aware of.
• Shingles and windows/doors must be installed prior to framing inspection
• Electronic submission of reports by email to the area inspector is our preference, attaching documents online is not permitted
Inspections

- Plumbing inspection reports and HVAC inspection reports will soon be available on our website. These forms will be able to be electronically filled out, signed and emailed directly to the inspector.
Inspections

• Final inspections ASAP after occupancy
  – Full access for inspection (no fences)
  – Homeowners could make alterations, which may not be code compliant
  – Faster return for permit deposit (if grading has been approved)

• Blue Tuck tape now required

INTERIOR

EXTERIOR
Inspections

Infiltration Galleries
Inspections

Infiltration Galleries

- Final Engineer Reports must clearly indicate that the gallery was installed (not just stone on site)
Infiltration Galleries

- Not Permitted Downspout Connections

EXTEND ABOVE GRADE AND ENSURE IT IS TURNED AWAY FROM FOUNDATION. ADD AN EXTENSION OR SPLASHPAD
Inspections

DWHR – Drain Water Heat Recovery
Inspections

Water Heaters

- Energy Factor NOT Efficiency
- Information must be submitted to inspector prior to occupancy

**EEDS FORM**

<table>
<thead>
<tr>
<th>Building Component</th>
<th>Efficiency Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows &amp; Doors</td>
<td>Provide U-Value[^1] or ER rating</td>
</tr>
<tr>
<td>Windows/Sliding Glass Doors</td>
<td>0.28 U VALUE</td>
</tr>
<tr>
<td>Skylights/Glazed Roofs</td>
<td>0.49 U VALUE</td>
</tr>
<tr>
<td><strong>Mechanicals</strong></td>
<td></td>
</tr>
<tr>
<td>Heating Equip.(AFUE)</td>
<td>96%</td>
</tr>
<tr>
<td>HRV Efficiency (SRE% at 0°C)</td>
<td>75%</td>
</tr>
<tr>
<td>DHW Heater (EF)</td>
<td>.8</td>
</tr>
<tr>
<td>DWHR (CSA B55.1 (min. 42% efficiency))</td>
<td>42% # Showers[^2]</td>
</tr>
<tr>
<td>Combined Heating System</td>
<td>NA</td>
</tr>
</tbody>
</table>

**MANUFACTURER’S SPECS**

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed 80% Recovery Efficiency

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Capacity</th>
<th>Nat. kW Input</th>
<th>LP kW Input</th>
<th>1st Hour Rating (Liters)</th>
<th>Energy Factor</th>
<th>Recovery at 50°C Rise*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG1PV40S6N</td>
<td>151</td>
<td>11.1</td>
<td>11.1</td>
<td>273</td>
<td>0.66</td>
<td>163 155</td>
</tr>
<tr>
<td>RG1PV50S6N</td>
<td>189</td>
<td>11.7</td>
<td>11.1</td>
<td>326</td>
<td>0.65</td>
<td>163 155</td>
</tr>
<tr>
<td>RG2PV40S6N</td>
<td>151</td>
<td>11.7</td>
<td>11.1</td>
<td>273</td>
<td>0.67</td>
<td>163 155</td>
</tr>
<tr>
<td>RG2PV50S6N</td>
<td>189</td>
<td>11.7</td>
<td>11.1</td>
<td>326</td>
<td>0.67</td>
<td>163 155</td>
</tr>
<tr>
<td>RG2PV40T6N</td>
<td>151</td>
<td>11.7</td>
<td>11.7</td>
<td>273</td>
<td>0.70</td>
<td>163 163</td>
</tr>
<tr>
<td>RG2PV50T6N</td>
<td>189</td>
<td>11.7</td>
<td>11.7</td>
<td>326</td>
<td>0.70</td>
<td>163 163</td>
</tr>
<tr>
<td>RG2PV50H6N</td>
<td>182</td>
<td>19.1</td>
<td>17.0</td>
<td>424</td>
<td>0.70</td>
<td>265 235</td>
</tr>
</tbody>
</table>

*THIS WATER HEATER DOES NOT MEET THE REQUIREMENT!*
Inspections

Continuous Insulation in basements
Continuous Insulation in basements

- Provide consideration for:
  - Stairs and landings
  - Water meters and other plumbing
  - Electrical panels
Inspections

XPS Foam C.I.

Package A1, A2, A3, A4, A6
XPS Foam C.I.

Package A5
Rock Wool 2” Comfortboard

Inspections

Rock Wool 3” Comfortboard
Inspections

Rock Wool Batt

EPS Foam C.I.

3/4" = 1'-0"
Inspections

Continuous Insulation in basements

• Protection of Foam Plastics
  – Walls with batt insulation in front of foamed plastic
  – Top of walls (Roxul in rim of unfinished space)
  – Around windows & doors

Acceptable materials include Gypsum board, 3/16” Plywood or OSB (studs @16” o.c.), 0.38mm metal
Inspections

Thermal pan

- Noncombustible material (metal) is required below floor registers, at the bottom of vertical ducts and under furnaces having a bottom return
- Thermal pan is not equivalent to sheet metal
Inspections

Fire Blocking at Bulkheads

HORIZONTAL BULKHEADS
Inspections

Fire Blocking at Bulkheads

VERTICAL BULKHEADS
Electric Vehicle Charging Stations

• Option #1 – Electrical Panel in the garage
  – 200 Amp panel required

• Option #2 – Electrical Panel inside the house
  – 200 Amp panel required
  – 27mm (1”) Conduit required to be run from the panel to the garage
    (must be fume proofed)
Booking Inspections

519-741-2761

• Automated call-in for inspections allows same day booking, provided prior to 8:00am.
• Online Booking
• When booking inspections there is no guarantee for specific time requested.
• Morning inspections are from **9am-1pm**
• Afternoon inspections are from **12pm-3pm**
• If not ready for inspection(s), please ensure it’s cancelled by calling 519-741-2312.
• Please use the above options for booking inspections, voicemails and emails directly to the inspector can be missed
Questions?

Presentation will be available on our website

www.kitchener.ca/building
Thanks to Staff

Leslie Collins
Justin Massecar
Christine Wagner
Scott Madter
Thanks to Staff

Behind the scenes;

Martina Schneider
Derek Taylor
Jenny Taylor
Jennifer Young
Tom Czerlau
Jasmina Catana
Chris Gowing
Lynn McNulty
Angela Dennis
Be Informed

General Inquiries  519-741-2312
Technical Inquiries  519-741-2433
IVR (Voice Permits)  519-741-2761
Fax  519-741-2775
Email  building@kitchener.ca
Online Applications  www.kitchener.ca/onlinepermits
Webpage  www.kitchener.ca
Thank you