

Building Control Update on BCMS review

Planning & Building Control Workshop
23rd April 2015

Content

- Overview of system after 12 months
- Issues arising
 - Uploading data, signed documents etc
 - Description of works and title, introduction, name and type of construction and location
 - Applications oversight
 - Type of submission
 - Submission miss-management (up-to-date drawings)
 - Inspection plan
 - Completion certs
- Inspection Policy and requirements
- Current review

Update Building Control Amendments Regulations (BCAR) SI 9 of 2014 (1st March 2014)

- Reason for Regs:
 - Empower competence of building practitioners
 - Accountability for compliance
 - Improve oversight by BCA
- Mandatory Certification by competent persons
- Monaghan had 166 CN in 2014 issues arising:
 - Uploading to system
 - Insufficient information
- Overall good level of compliance in Monaghan

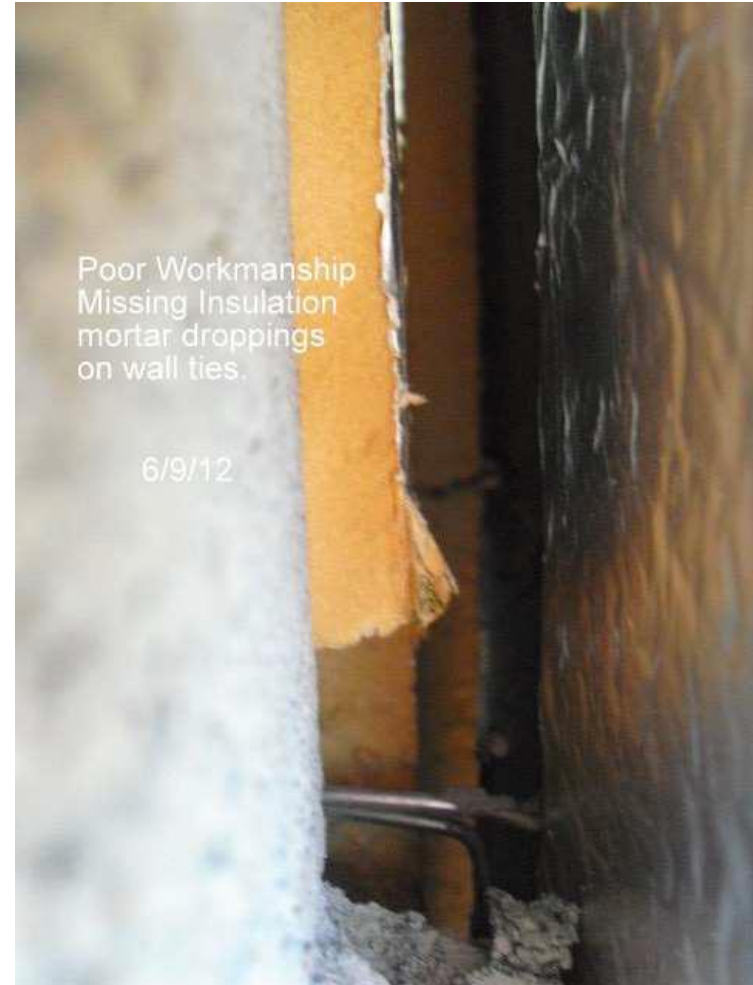
Issues raised

- ▶ Consistency of Building Control Regulations application?
 - Should be in accordance with Code of Practice
 - Statutory forms, certificates, drawings & documentation.
 - 7 day notice form cannot be completed on BCMS
 - Ancillary certs determined by Assigned Certifier
 - Design drawings to be submitted with suitable details & dimensions. Marked 'Planning Permission Only' drawings are not acceptable.
 - Online assesment
 - Inspection to be discussed
 - Signed by nominated roles

Issues raised Cont'd

- ▶ In a self build if the owner has taken on the role as the builder has there been any issues or have owner been questioned about there competency in this role?
 - Self build requires same obligation and level of responsibility as those of a register builder.
- ▶ Have the council come across the issue of none compliance on site yet?
 - We've had issues with the Building Control Regulations:
 - Commencing without a CN
 - Dates incorrect
 - Statutory documents not signed
 - Cases of poor workmanship

Poor Workmanship



Poor workmanship



Poor Workmanship



Examples

The image displays a screenshot of the Adobe Reader application window. The main content area shows three architectural drawings: a 'CROSS SECTION' on the left, two vertical sections labeled 'HT-4 BED SECTION 'X-X'' and 'HT-3 BED SECTION 'Y-Y'' in the middle, and a larger horizontal section at the bottom. The drawings are color-coded to show different materials and components. Annotations include 'Ventilation strips incorporated in all windows', 'Mechanical ventilation to bathroom, kitchen, CD-Room and Disabled WC', and 'Disabled access to main entrance'. A list of specifications on the right side of the page includes: '100mm quilt insulation', 'Air Tight over insulation', 'Cavity insulated with air spacer, turned down at wall junction and sealed', 'SPC tiles', 'Precast concrete lintels', 'Insulated board to back of UB', 'DPC under & dressed up sides & back of all', '100mm Cavity Block outer & inner leaf with galvanneal wall ties', '125mm Full fill cavity insulation', and 'Joints in galvanneal lintels'. The Adobe Reader interface includes a menu bar (File, Edit, View, Window, Help), a toolbar, and a right-hand sidebar with a 'Export PDF' panel.

CROSS SECTION

HT-4 BED SECTION 'X-X'

HT-3 BED SECTION 'Y-Y'

Specifications:

- 100mm quilt insulation
- Air Tight over insulation
- Cavity insulated with air spacer, turned down at wall junction and sealed
- SPC tiles
- Precast concrete lintels
- Insulated board to back of UB
- DPC under & dressed up sides & back of all
- 100mm Cavity Block outer & inner leaf with galvanneal wall ties
- 125mm Full fill cavity insulation
- Joints in galvanneal lintels

Examples

Architectural software interface showing construction details for foundation and radon sump systems.

PROPOSED FOUNDATION DETAIL A-A
(Scale 1:20)

Labels include: 150mm concrete slab, 100mm concrete base, 200mm thick wall, 100mm concrete base, 100mm concrete base, 100mm concrete base, 100mm concrete base, 100mm concrete base.

NOTE: The top of the Slab Floor is specified as Finished Floor Level (FFL). All entries and Door Head Heights and Ceiling Heights are taken from this level.

NOTE: Slab Floor / Bottom Floor of FF shall only be packed with a non-compressible material above and entry, the height of packing is 10mm.

GROUND FLOOR S.A.B

150mm FF concrete slab to be power floated to engineer's detail on 120mm FF insulation with 80-75mm perimeter insulation or), an expansion joint on radon mitigation barrier acting as a 200 gauge radon barrier (e.g. Radonex, Radonflex, Radonflex, Radonflex, Radonflex and moisture protection system barrier (similar or approved) on 50mm sand bedding, on min. 150mm min. well compacted hardcore (to be consolidated in layers not exceeding 220mm in thickness to a total depth not exceeding 900mm), as per IGO Part C (September 2004). Strip foundations to structural engineer's design and specification, maximum elemental volume for ground floor construction to exceed the requirements set out in IGO Part I for dwellings (2011).

Labels include: 150mm concrete slab, 100mm concrete base, 200mm thick wall, 100mm concrete base, 100mm concrete base, 100mm concrete base, 100mm concrete base, 100mm concrete base, 100mm concrete base.

Monarflex Radon Sump

Labels: Sump diameter: 400mm, Sump height: 200mm, (a) for diameter: 100mm.

NOTE: Centrally located proprietary radon sumps to be installed in hardcore under floor slabs with 100mm pipe taken horizontally from sump and placed to outside the building, capped and marked to identify. Pipe should be capped off just above ground level. Pressurized radon mitigation barrier to be installed instead of d.p.m. and capped into and sealed with s.t.c. of the external wall. All in accordance with IGO Part C (September 2004 edition), Radonex RAM™ radon and moisture protection system barrier (or similar approved).

MAXIMUM PERMISSIBLE INACCURACIES

Labels: Clearance, Finish level, Finish level.

NOTE: A 100mm (14-in) diameter opening in floor slab shall be provided to allow the radon sump to be installed. Details in plan of location to be provided with ground level.

Examples

Adobe Reader - 100% zoom

Tools | Fill & Sign | Comment

Export PDF

Adobe ExportPDF
Convert PDF files to Word or Excel
or more

Specify File:
system_1.pdf
1/16/2010 10:00

Convert To:
Microsoft Word (.docx)

Recognize Text in Images (OCR)
Change

Convert

Create PDF
Edit PDF
Send Files
Store Files

THERMAL PERFORMANCE

Ensure full fill cavity insulation is secured firmly against inner leaf of cavity wall.

Perimeter insulation with a min. R-Value of $.75m^2 K/W$.

Floor insulation to tightly abut to concrete slab.
200 mm Slab

AIR BARRIER - CONTINUITY

Seal between wall & floor air barrier with flexible sealant OR seal gap between skirting board & floor with flexible sealant.

Seal all penetrations through air barrier using a flexible sealant.

Concrete block inner and outer leaf.

External finishes as shown on plan.

Plaster to all inside blockwork.

PC Cavity insulation to extend 225 below finished floor level.

Radon barrier

Quinn-Lite Foundation Blocks B5

Xtratherm XO underfloor insulation 125mm

Reinforcement To Engineers Spec.

100mm conc block

Reinforcement To Engineers Spec

Xtratherm XO underfloor insulation 125mm

Radon barrier

RC Suspended Floor To Engineers Spec

Quinn-Lite Foundation Block B5

Concrete foundations to the design of the Engineer

LOAD BEARING WALL SECTION GROUND FLOOR SUSPENDED SLAB

Windows taskbar: Internet Explorer, Firefox, Chrome, VLC, Audacity, etc.

Building Control Inspection Policy

Risk assessment approach to assist in the preparation of an inspection plan

Assessment Process

- Nature of Building
- Size & complexity of design
- Extent of compliance of BCMS submissions and historical compliance issues
- Level of experience and professionalism of designer, builder and assigned Certifier
- Identify critical stages during construction for inspection

Preliminary Inspection Plan

Table 1 Preliminary Inspection Plan template for non-complex dwelling houses				
Inspection Stage	Typical Items to be checked for compliance with Parts A to M (Strike out if not applicable/ not checked)	Date of Inspection	Sign off (Y/N)	Notes
1. Formation Stage	a) Ground bearing suitability b) General arrangement of foundation c) Width of trench d) Depth below ground e) Steps in formation level (if any) f) Other relevant items <ul style="list-style-type: none"> • • • 			
2. Foundation Stage	a) Depth and width of concrete b) Reinforcing steel c) Other relevant items <ul style="list-style-type: none"> • • • 			
3. Ground Floor Stage	a) Rising walls (external and internal) b) DPC c) Hardcore d) Under floor services e) Radon sump/venting pipe f) DPM or Radon Barrier (incl. seals) g) Ventilated sub-floor (if any) h) Floor Insulation – thickness/ type i) Floor structure e.g. <ul style="list-style-type: none"> • concrete ground bearing • concrete/ timber suspended j) Other relevant items <ul style="list-style-type: none"> • • 			
4. Roof Structure Stage (prior to slabbing ceilings)	a) Wall construction – Masonry/ timber frame/ other <ul style="list-style-type: none"> • Masonry units e.g. block/ bricks etc • Wall ties • Wall insulation/ thermal bridging • Sound requirements e.g. wall type & flanking provision b) Cills & lintels incl. DPC & bearing c) First floor joists & floor (if any) e.g. <ul style="list-style-type: none"> • timber grade/markings • span 			

Cont'd

	<ul style="list-style-type: none"> • joist hangers • noggins & straps <p>d) Wall-plate & tie down straps</p> <p>e) Chimney/ Flue liners/ gather</p> <p>f) Roof structure (Prefabricated) e.g.</p> <ul style="list-style-type: none"> • truss tag/mark • bracing/ hangers & shoes <p>g) Roof structure (Cut) e.g.</p> <ul style="list-style-type: none"> • purlins & Struts • collar ties • hangers & runners • timber grade/markings <p>h) Roof covering e.g.</p> <ul style="list-style-type: none"> • felt type & laps • tile/slate & nailing • flashings <p>i) Other relevant items</p> <ul style="list-style-type: none"> • • • 			
<p>5. Completion Stage</p>	<p>a) Approach & Access</p> <p>b) Finished G.L versus FFL</p> <p>c) Soffit vents</p> <p>d) Radon sump vent identification</p> <p>e) Surface & Foul Drainage e.g.</p> <ul style="list-style-type: none"> • rainwater goods • soil vent pipes • gully traps • waste water treatment system (if any) <p>f) Fuel storage e.g.</p> <ul style="list-style-type: none"> • location • distance from dwelling/ burner/ boundary • fire protection <p>g) Background vents & extraction fans</p> <p>h) Mechanical Ventilation Heat Recovery (if any)</p> <p>i) Windows & doors e.g.</p> <ul style="list-style-type: none"> • opening sizes/ readily open able • restrictors • guarding • safety glazing • letter plate height <p>j) Floor to ceiling height</p>			
	<p>k) Circulation</p> <ul style="list-style-type: none"> • Effective door width • Corridor width <p>l) Stairs e.g.</p> <ul style="list-style-type: none"> • bulk head height/ stair width • riser/tread dimensions • handrail height/ guarding <p>m) Roof insulation (incl. tank insulation)</p> <p>n) Sound requirements e.g.</p> <ul style="list-style-type: none"> • separating wall incl. finishes <p>o) Fire requirements e.g.</p> <ul style="list-style-type: none"> • smoke alarms (mains connected) • separating wall/ fire stopping • fire doors & self-closers (if any) • fire stopping around openings (if any) <p>p) Carbon monoxide alarms (if applicable)</p> <p>q) WC e.g.</p> <ul style="list-style-type: none"> • visitable • dual flush toilet <p>r) Water supply e.g.</p> <ul style="list-style-type: none"> • direct to sink incl. stop valve • water storage capacity • insulation of pipework <p>s) Renewables</p> <p>t) Heating system e.g.</p> <ul style="list-style-type: none"> • zone controls • pipe work insulation where applicable, etc. <p>u) Primary heating appliance e.g.</p> <ul style="list-style-type: none"> • efficiency • air supply • condensate drain <p>v) Secondary heating system e.g.</p> <ul style="list-style-type: none"> • efficiency • air supply • notice plate for hearths & flues <p>w) Other relevant items</p> <ul style="list-style-type: none"> • • • 			

12 Month Review and consultation to examine cost burden of one-off houses

- Options
 - a. Certification advisory rather than mandatory
 - b. Broaden the pool of competency
 - c. No changes but better and improved guidance
 - d. Exemption to extension

Submission due 15th May

