



# City of Prospect Heights

Department of Building and Zoning

8 North Elmhurst Road, Prospect Heights Illinois, 60070-6070

Office: 847/398-6070 x 211-FAX: 847/590-1854-[www.prospect-heights.il.us](http://www.prospect-heights.il.us)

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## BASEMENT GUIDELINE

(Disclaimer: This guide is may not be all inclusive, additional regulations may apply) Edited 5-2013

### **PERMIT SUBMITTAL REQUIREMENTS:**

- Completed application
- Plat of survey(3 copies)
- Provide a site plan showing proposed new window well locations(if applicable)
- Provide three sets of complete construction documents. Provide detailed measurements and a detail of the proposed materials used.
  - Footing detail, Foundation wall detail, if applicable
  - Wall design, Include insulation
  - HVAC design, if applicable
  - Electric layout, if applicable
  - Plumbing detail, if applicable
- Provide details of proposed materials.

### **GENERAL REQUIREMENTS:**

#### **ILLINOIS ENVIRONMENTAL PROTECTION ACT:**

- "Beginning April 2010, federal law will require contractors that disturb lead-based paint in homes, child care facilities and school, built before 1978 to be certified and follow specific work practices to prevent lead contamination. Therefore beginning in April 2010, ask to see your contractor's certification."

#### **FIRE**

- Provide a complete fire suppression system (5 sets) (see ordinance).
- Provide five sets of a proposed fire alarm system. Refer to the Municipal code for submittal requirements.

#### **BUILDING**

- Structural requires plans to be signed and stamped by an Illinois State Licensed Architect or Structural Engineer. (IRC 106.1)
- Provide detail of required treated sill plate.
- The slab shall require a 6-mil vapor barrier. (IRC 406.3.2/405.2.2)
- Drain tile is required to be installed where the area is built below grade.
- Crawlspace require proper access. Provide revisions showing an access opening 30"x30". (City Amendment)
- Crawlspace require a minimum of a 6-mil vapor barrier.
- Provide an emergency escape window in every basement AND in every sleeping room. The opening shall open directly to a yard (exterior). Clarify location of escape window(s) (in each bedroom(s) ((if applicable))

and one in the general area.) Submit complete detail of the emergency escape window(s) (IRC 310)

- Clarify location in each bedroom
  - Provide detail of windowsill height. (<44")
  - Provide detail of clear opening (5.7 min, 24" high, 20" wide)
  - All windows well shall have metal heavy-duty non-lockable covers per the City Amendment capable of holding 250lb. (Ord. 15-3-8)
  - Provide a detail of the required drain connected to the drain tile system.
- Basement Stairs to be drywalled underneath.
  - Provide gasketed doors on the fire place.(Illinois State Energy Code Section 402.4.3)
  - Provide exterior combustibile air for the fire place (Illinois State Energy Code Section 402.4.3)
  - MASONRY: Provide complete structural details of proposed fireplace
    - Provide the footing/foundation detail (IRC 1001.12)/(IRC 1003.2)
    - Provide the size of the hearth opening(IRC 1001.9)
    - and the hearth extension (IRC 1001.10)
    - Provide size and framing of the hearth
      - Fireplace shall not support any structure
    - Return / combustibile air is required (IRC M1602). Provide location within 10' of the firebox.
    - Provide a detail of the Chimney cap (IRC 1003.9.1)
    - Provide a chimney cleanout opening
  - Provide a detail of the exterior air supply, which shall be lower than the fire box (IRC 1006.2)
  - Submit a complete stair detail: (IRC 311.7)
    - **Risers shall be no greater than 7 ¾".** (IRC 311.7.5.1)
    - Treads shall be no less than 10" from nosing to nosing. (IRC 311.7)
    - All steps must be consistent. (IRC 311.7)
    - Landings shall be a minimum of 3' x 3'. (IRC 311.7)
    - Spindle spacing no greater than 4". (IRC 311.7)
    - Submit guardrail details (IRC 312)
    - Handrail ends must curve into wall. (IRC 311.8.3)
    - **Handrail grip shall be no greater than 1 ½".** (IRC 311.8.3)
    - Provide proposed headroom (IRC 311.7.2 -6'8" minimum)
    - Winders are to have a minimum depth of 10", and a minimum of 6" at the converging end (IRC 311.7.4.3)
  - All drywall everywhere to be a minimum of 5/8<sup>th</sup> drywall. (Ord.)
  - All wall framing shall be 16 on center.(City Amendment 12a)
  - Submit a complete detail of bedroom emergency escape window(s) (IRC 310)
    - Clarify location in each bedroom

- Provide detail of windowsill maximum height. (<44")
- Provide detail of the clear opening size (5.7 min, 24" high, 20" wide)

### **HVAC**

- Dryer vents shall be metal (City Ordinance)
- Submit detail of required accessibility to HVAC unit and required clearances to and around the unit.
- Clarify the fan CFM in the bathroom(s). Show the make-up air intake for the bathrooms. Provide exhaust route and discharge.
- Clarify the combustible air location for the HVAC in the closet.
- Provide detail of dryer exhaust route and termination.

### **ENERGY**

The is in established climate ZONE 5. See table R301.1.

- Unless performance-based, construction shall follow the prescriptive:
  - **Windows** shall have an U.32 insulation value.
  - **Slabs** shall have an R10, 2ft insulation value.
  - **Crawlspaces** shall have an R-15/19 insulation value.
  - **Floors** shall have an R-49 insulation value.
  - **Walls** shall have an R-20 or -13 continuous on the interior or exterior with a plus R-5 continuous on the exterior or interior of the home.
  - **Basement walls** shall have an R-15 continuous insulation on the interior or exterior of the home or an R-19 cavity insulation value.
  - **Ducts** shall be insulated to a minimum of R-8. (R403.2)
- System Controls (R403):
  - A programmable thermostat is required.
- Heated water pipes shall be insulated.
  - Provide the proposed R-value based upon pipe sizing. (R403.4.2)
  - A Circulating water system shall have an on/off switch.
- Document on the plans:
  - "The registered design professional or contractor shall post on the electric distribution panel a permanent certificate. The certificate shall list the predominant insulation value, each piece of the building thermal envelope, R-values of insulation installed, U-factors of the windows, R-values of ducts in unconditioned spaces, and types and efficiencies of heating cooling and water heating equipment. (R303.1.1 & R401.3) This shall be posted prior to the insulation inspection."

### **PLUMBING**

- New water services connected to the City system requires an RPZ
- Confirm/Clarify-All copper above ground shall be L copper.
- Confirm all exterior PVC piping shall be a minimum of SDR 26.
- Confirm all interior PVC piping above ground shall be Schedule 40 PVC.

- Clarify location of roof vent; it must be a minimum of 12' from any open able window.
- Basements below grade require a floor drain connected to the sanitary sewer.
- Tub & Shower faucets shall be posi-temp.
- Whirlpool motors and pumps must have access panel at pumps and motors - 18" x 24" minimum.
- All spaces shall be accessible for inspections (Basement, Crawl , Attic)
- All personal showers must be back flow prevented.

### **ELECTRICAL**

- Electric panel; Provide measurements of the space in front of and sides of the electrical panel(s). Ensure there is 3' clearance without obstructions.
- Provide a hardwired inner-connected smoke alarm(s) on each floor and in each bedroom.
- Provide a hardwired inner-connected carbon monoxide detector(s) on each floor (IRC315)
- Outlet spacing must be every 12', starting 6' from doorways.
- Outlets in unfinished basement area shall be GFCI.
- Closet lights shall be fluorescent or if recessed incandescent shall have a totally enclosed cover. No open lamps allowed.
- All altered or new outlets to be "tampered resistant outlets".
- Provide stairways with a light on a 3-way switch at the top and bottom of the staircase.
- Hallways of 10' or more require an outlet (IRC 3901.1.4).
- Each bathroom sink requires a separate GFCI outlet. (IRC 3901.10).
- Bathroom receptacles must be GFCI protected. (IRC 3902.1).

### **APPLICABLE CODES:**

- City of Prospect Heights Municipal Ordinance (<http://www.prospect-heights.il.us/>)
- International Residential Code ([www.iccsafe.org](http://www.iccsafe.org) )
- International Building Code ([www.iccsafe.org](http://www.iccsafe.org) )
- International Mechanical Code ([www.iccsafe.org](http://www.iccsafe.org) )
- International Fire Code ([www.iccsafe.org](http://www.iccsafe.org) )
- International Fuel Gas Code ([www.iccsafe.org](http://www.iccsafe.org) )
- National Electric Code ([www.nfpa.org](http://www.nfpa.org))
- Illinois State Plumbing Code([www.idph.state.il.us](http://www.idph.state.il.us))
- International Energy Code/Illinois Energy Conservation Code([www.iccsafe.org](http://www.iccsafe.org))

### **INSPECTION REQUIREMENTS:**

- Call 847-398-6070 x 211 to schedule an inspection
  - Insulation/fire-stop
  - Rough inspection(s) for structural, electric, plumbing, & HVAC and final inspections are required. (Prior to concealment a passing inspection must occur)
- Call J.U.L.I.E @ 800-892-0123 to locate underground lines.

