



Residential Plan Review Information & Checklist

When submitting for a building permit...

Architectural drawings are required to fully indicate the scope & details of the proposed construction. A State of Illinois licensed design professional (architect or structural engineer) is required to seal the drawings for all new single family residences, additions to existing buildings, and those portions of alterations of an existing structure that have walls removed or relocated.

Drawings are to include (as necessary for the project):

Site Plan (required for new residences, additions & alterations to the exterior of a residence) indicate the following on the site plan:

- Zoning district setbacks
- All structures, proposed & existing (for additions & alterations)
- Dimensions from the property lines to the new structure
- Floor overhangs shown dotted (with dimensions from the wall face to the overhang and from the overhang to the property lines)
- Paving dimensions
- A/C location with dimensions from the property lines

Floor Plans (including roof plan)

Elevations

Sections

Details

Energy code compliance diagrams (see more info below)

Civil engineering drawings are required for all new residences and other permit types where there is a net increase in impervious area greater than 400sf. Civil engineering drawings are required to be sealed by a State of Illinois licensed design professional (professional engineer) when they are required to be submitted. See separate Engineering Department Guidelines for drawing those drawing requirements.

Architectural Drawing Plan Review Checklist

(Based on the International Residential Code)

To help us perform a quick plan review for building code compliance, please address all applicable items below on the submitted drawings.

State of Illinois Design Professional Licensing

- Design Professional Seal Required (see above)
- Design Firm Professional Registration (when appl.)

Building Planning

- Design Loads
- Material design values
 - Soil
 - Concrete
 - Lumber
 - Steel
- Light & Ventilation
 - Habitable Rooms
 - Basement
 - Crawl Space
 - Attic
- Safety Glazing (locations identified)
- Garage Separation
 - Walls / Ceiling
 - Door/Self-close
 - Slab Elevation
- Escape Windows
 - Locations
 - Requirements

- Window Sills-Protection From Falling
 - Hallway Widths
 - Exit Doors / Landing Sizes
 - Stair
 - Headroom
 - Width
 - Riser / Tread / Nosing
 - Handrail
 - Guardrail
 - Smoke & CO Alarm Locations
 - Protection Against Decay
 - Flame Spread / Smoke Developed / Ignition Barrier (in attics and/or crawl spaces where insulation materials are exposed)
- Note: Sprayfoam insulation installed in an attic or crawl with access hatch greater than req'd minimum and/or a pull-down stair and/or flooring may require special fire barrier application. Identify sprayfoam product and submit ICC-ESR or similar data sheets.

Foundation

- Foundation Wall Width
 - Height Abv Grade (6" or 4")
 - Dampproofing
- Footing Size
 - Drain Tile Loop W/ Sump Pit (Fdn. Plan)
 - Depth 3'-6" min. (incl. @ wndw wells)
- Sill Plate Treated
 - Anchorage
 - Size

Floor

- Concrete Slab (w/WWF)
- Radon Mitigation per State of IL & IRC Appendix F
- Framing Floor Joist Size/Spacing/Spacing/
 - Floor Trusses (draftstopping)
 - Floor Openings (@ stairs, etc.)
 - Cantilever
- Sheathing Type / Thickness

Wall Construction

- Framing
- Stud Size / Spacing / Height
- Sheathing Type /Thickness/ Bracing
- Header Sizes

Wall Covering

- Weather Resistant Barrier
- Masonry Veneer (incl. anchors / flashing / weeps)
- EIFS (drainage plane)/ Stucco Details
- Flashing @ Windows/Doors/Wall to Roof / Lintels
- Gypsum Board (typical & @ fire rated garage)
- Cement Board (@ tubs / showers)

Roof / Ceiling Construction

- Ceiling Joist - Size / Spacing / Span
- Rafters - Size / Spacing / Span
- Roof Trusses
- Beams
- Sheathing / Thickness
- Attic Access Size / Location
- Ice Barrier
- Roof Venting Area Req'd/Provide Calcs
 - Soffit/Ridge/Box Sizes(free area)
 - Cathedral Venting

Roof Assemblies

- Roof Underlayment (@ high/low slopes)
- Ice Barrier Underlayment **required** (IRC R301.2(1)) (Municipal Amendment Section 6-63-22)

Fireplace

- Masonry
 - Plan w/Firebox Width/Depth, Hearth Extension Width
 - Section w/ flue/firebox height /hearth ext., lintel, surround (mantel) size
 - Chimney Termination Above Roof
- Prefab Fireplaces & Chimneys listed & labeled per UL127 & installed per manufacturer instructions (specs required for bedroom locations)

Energy Code Compliance - 2018 IECC

- Prescriptive or Performance noted on Cover Sheet
- Floor Plan Key Diagrams with thermal envelope shown <https://www.northbrook.il.us/267/Energy-Code-Information> (select Drawing Examples I PDF)
- All Building Components Identified
 - Foundation R value
 - Wall R value (above grade)
 - Roof/Ceiling R value (R above wall plates)
 - Identify product & location of any spray foam insulation & submit ICC-ESR
 - Furnace AFUE; A/C SEER
 - Window/Door/Skylight U value
 - Mandatory Requirements: Ducts Piping
- NOTE: No heat allowed to unconditioned spaces
- Whole House Ventilation Method
- Blower Door Test required w/report submitted

Mechanical

- Identify (See Application Form 3.3)
 - Equipment Size based on bldg loads
 - Furnace location
 - Condensate Disposal
 - Combustion Air
 - Kitchen Exhaust >400cfm makeup air reqd.
 - Method of Radon Mitigation
 - Access/Service Space

Plumbing

- Water Service Size (proposed or existing)
- Plumbing Walls (5 1/2" min.)
- Ejector Pit
- Floor Drain
- Steam Shower
- Water Heater(s) (w/pan required above living areas)
- Protection From Freezing (see IECC)

Electrical

- Identify Electric Panel location & Service Size (NB Amend Sect 6-96 NEC 230.11(B)) & Access/Service Space Reqmnts.
- Lighting locations
 - Closet/Storage (>6sf)
 - 3 way switching (NBK amend.)
- Receptacles: GFCI (kitchen, bath, exterior, garage, unfin. bsmt.) AFCI (living areas)

NEW MUNICIPAL CODE AMENDMENTS!!!

- [2018 International Residential Code Appendix T Solar Ready Provisions for rooftop solar panels.](#)
- [NEC 2017 210.52\(G\)\(1\) Garages](#)
 - [Conduit for Electric Vehicle Charging Equipment](#)