



## ALTERATION TO A SINGLE FAMILY RESIDENCE APPLICANT CHECKLIST

The purpose of this form is to inform applicants of: 1) the requirements for building permits and stormwater permits for alterations to single family residences; 2) the standards that staff will employ in reviewing permit submittals; and 3) provide the inspection standards staff will employ to confirm the implemented scope of work is both consistent with the approved scope of work and compliant with the ordinances and building codes as amended as adopted by McHenry County. An alteration to a Single Family Residence is a work that alters or changes the configuration of spaces, systems, or the use of a space within an existing single family residence, including provisions for living, sleeping, eating, cooking, and sanitation. This checklist is purposely brief and does not replace consulting the County's adopted ordinances and codes.

If the information described in the Submittal Checklist section is not provided, the permit application will not be accepted. The information provided in the Office Review Checklist section is for the applicant's general information. This checklist does not restrict staff's ability to review or inspect additional items, as appropriate, based on the permit submittals and construction site observations.

Applicants are ultimately responsible for ensuring that their development complies with the County's adopted zoning and stormwater ordinances and building codes and amendments, which are available on the County's website: [www.co.mchenry.il.us/PlanDevOrdinances](http://www.co.mchenry.il.us/PlanDevOrdinances).

### **SUBMITTAL CHECKLIST** (if the information is not provided, the permit application may be rejected)

- Completed "PERMIT APPLICATION FOR ALTERATION(S) TO A SINGLE FAMILY RESIDENCE".
- Current plat of survey (unless the Planning Division determines that one is not necessary). Contact the Planning Division to determine if a plat of survey is available for your parcel (if you do not have one).
- A site plan showing the information required by the [Site Plan Checklist](#) (also attached to the end of this packet), as appropriate to your project. The site plan may, but is not required to, be drawn on the provided form. The site plan may also be drawn on an aerial photograph, plat of survey, or septic plan as long as it contains all required information. Aerial photographs may be printed from the County's website: [www.mchenrycountygis.org/planning](http://www.mchenrycountygis.org/planning). If a Stormwater Management Permit is required or if the site plan must be reviewed by the Staff Plat Review Committee, a more detailed site plan may be required. Staff will review the site plan to ensure that the project complies with the County's adopted Unified Development Ordinance and Stormwater Management Ordinance.
- Two (2) sets of scaled construction plans, 1/4"=1'-0" scale or scaled to clearly identify and detail the proposed scope of work. The scope of work may not involve all items listed below; the construction documents should be appropriate to the work proposed.
  - Code Compliance Plan/Legend(s):
    - Basis of Design Building Codes ([Building Codes and Amendments](#) as adopted by McHenry County)
    - Net habitable area of the proposed alteration and area of existing residence
    - Net uninhabitable areas; garages, screen porch, deck, covered porch, and unfinished basements
    - Number of Bedrooms proposed and number of existing Bedrooms
    - Provide energy efficiency prescriptive specifications for Climate Zone 5 as applicable to the scope
    - Specify design loads: ground snow load, floor live loads, basic wind speed (if modifying exterior envelope)
    - Basis of design dimensional lumber species and grade(s) for floors, walls, ceilings, and/or rafters
  - Foundation/Basement Plan:
    - Locate and label emergency escape and rescue openings and include dimensions as proposed
      - New Bedrooms in basement will require emergency access / rescue openings
    - Specify and dimension partitions, rooms, stairs, and other trades as appropriate to the scope.

- Specify foundation and footing dimensions, thickness, and elevation(s) above grade, if replacing sections
- Specify and dimension first floor framing, beams, girders, etc.
- Locate and specify proposed columns and means of attachment to isolated footings
- Specify concrete slab, subgrade, and vapor barrier
- Locate & specify subsurface drainage system, existing or proposed sump pit, floor drain, & ejector pit.
- Floor Plan(s):
  - Provide a reference floor plan with both the existing and proposed layouts
    - Existing areas not affected by the scope of work require only rooms and room names
  - Locate and label emergency egress doors & windows as impacted by the alteration
    - Include dimensions of all proposed egress doors & windows.
  - Provide plan dimensions for all proposed rooms, hallways, walls, doors, windows, stairs, etc.
  - Provide room names for each proposed space and associated ceiling heights
  - Specify the span(s), spacing, and size(s) each set of floor joist
  - Specify the span(s), spacing, and size(s) each set of ceiling joist
  - Locate and specify proposed columns and means of attachment / load transfer
  - Specify and dimension header/beam size(s), spans, and elevations.
    - *If composite beam (ML, PSL, GluLam, etc.), submit proposed Manufacturer's Span Charts*
  - Provide plumbing plan(s), equipment layouts, and specifications.
    - If proposing new plumbing fixtures, then include all existing plumbing fixtures on the reference floor plans. Plumbing fixtures to be included are: water closets, lavatories, showers, bath tubs, kitchen sinks, laundry tubs/sinks, dishwashers, clothes washers, hose bibs, etc.
  - Provide HVAC/mechanical plan(s), equipment layouts, and specifications.
    - If existing furnace to remain, provide model and rating of unit.
  - Provide electrical plan(s), equipment layouts, and specifications.
    - List size of existing service and capacity of existing electrical distribution panel.
- Roof Plan:
  - Specify the span(s), spacing, and size(s) each set of roof rafters
    - *If proposing engineered trusses, non-certified truss certificates (not stamped by a Structural Engineer or Architect licensed in Illinois) shall be submitted at the time of application. Certified truss certificates (stamped by a Structural Engineer or Architect licensed in Illinois) shall be submitted for review prior to scheduling the Rough Framing Inspection.*
  - Specify ridge and valley beams
  - Dimension roof overhangs and soffit extensions
  - Specify roof assembly and slope for each roof area
  - Specify and locate means of roof ventilation
  - Identify locations to received ice and water shield underlayment
  - Specify existing roof areas to be modified (tie-in) or required to support (over-roof) proposed roof areas.
- Elevation Views:
  - Dimensioned elevations of each façade locating grade, first floor elevation, second floor bearing elevation, roof bearing elevation(s), window sill elevations, and roof ridge elevation(s)
  - Indicate materials, fixtures, window size(s), and door size(s).
- Detailed Section(s): Provide sections as appropriate to define the scope of work. Scale shall be set to clearly define intent (1/2"=1'-0" scale). All details shall be referenced on the respective plans/views
  - Bearing wall section(s) detailing and specifying foundation system, exterior wall system, roof framing (soffit to ridge), roof assembly, insulation, and floor systems-to-floor elevations



- If project requires a Stormwater Management Permit (Major Development), review plans for:
- Appropriate SE/SC measures and restoration methods
  - Spoil haul-off or re-spread locations
  - Proposed development including limits of grading/disturbance, proposed elevations
  - Calculations and details for proposed stormwater management system, if required
  - Path/location of utilities
  - Base flood elevation (both mapped and by elevation), if necessary
  - Grading in floodplain may require compensatory storage
  - Limits of wetlands & buffers, if necessary
  - Deed or plat restrictions, if necessary
  - Other requirements, as appropriate
  - Verify detention thresholds per approved Subdivision engineering, if necessary

NOTES: \_\_\_\_\_

### **BUILDING PLANS: as applicable to the proposed or as impacted by the alteration**

#### **Design Criteria Review**

- Verify applicable Building Code & Amendments adopted by McHenry County are listed [McHenry County Building Codes](#)
- Verify proper Roof Snow Load/Live Load: 30-psf is listed [\[R301.2\(1\)-O\]](#)
- Verify Floor Live Loads for Sleeping and Non-Sleeping rooms are listed: 30-psf & 40-psf Live Load [\[R301.5\]](#)
- Verify design soil bearing capacity is listed [\[R401.4.1\]](#)
- 3000-psf is recommended, if soil conditions are less than 3000-psf, engineered fill or other improvements may be required as directed by a geotechnical engineer, structural engineer, or an architect
- Verify attic use: accessible with storage or accessible without storage [\[R802.4\(1\) & \(2\)\]](#)
- Uninhabitable with limited storage (*LL = 20-psf*) or without storage (*LL = 10-psf*)
- Verify wall stud, floor and ceiling joists and rafter species and grade are specified [\[R602.3\(5\)\]](#)
- Verify Engineering Site Plan / Septic / Architectural Site/Building Plans are coordinated
- Overall development area, addition and building orientation, area, and number of bedrooms

#### **Life Safety Review**

- Means of Egress: [\[R311.4.1-O\]](#)
- First Floor primary Means of Egress door is at least 3'-0" x 6'-8", side hinged, and labeled
  - First Floor secondary Means of Egress door is at least 3'-0" x 6'-8" and labeled
  - 36" x 36" Landing at service door indicated (hard surface w/ ¼" slope, maximum) [\[R311.4.3\]](#)
  - Entry stairs with 4 or more risers has at least one compliant handrail [\[R311.5.6\]](#)
  - Garage; specify service door size and location(s), 3'-0" x 6'-8" minimum [\[R309.7-O\]](#)
- Emergency Escape and Rescue Openings: [\[R310.1\]](#)
- Secondary Escape/Rescue opening is clearly labeled, specified, and dimensioned in every sleeping room
  - Secondary Escape/Rescue opening is clearly labeled, specified, and dimensioned in basement(s)
- Smoke Detectors: [\[R314\]](#)
- Interconnected on each level, in each sleeping unit, and in the immediate vicinity outside each sleeping unit
- Carbon Monoxide Detectors: [\[R315\]](#)
- Located within 15'-0" of every room used for sleeping purposes [\[R302.5.1\]](#)
- Verify opening between garage and residence is be a 20-minute fire-rated door or approved alternate [\[R302.5\]](#)
- Verify garage is separated from dwelling and attic by ½" gypsum board, 5/8" Type-X if habitable space above [\[R311.2.2\]](#)
- Verify any under stair surface that is accessible shall be protected by ½" gypsum board
- Stairways:
- 36" wide, minimum, with landings at the end of each run measuring 36" (min.) X width of the stair [\[R311.5.4\]](#)
  - Stair riser shall be 7-3/4", maximum, with a variation no greater than 3/8" [\[R311.5.3.1\]](#)
  - Tread depth shall be 10", minimum [\[R311.5.3.2\]](#)
  - Headroom clearance at any stair shall be 6'-8", minimum [\[R311.5.2\]](#)
  - Handrails shall be provided on at least one side of each continuous stair run with 4 or more risers [\[R311.5.6\]](#)
  - Handrail shall be 34"-38" in height as measured from the plane adjoining the tread nosing [\[R311.5.6.1\]](#)

- Guard rails shall be located at any floor surface 30" above floor/grade with a maximum opening of 4" [\[R312.1&.2\]](#)
- Winder, Special Stairways, and Ramps shall comply with section R311.5 [\[R311.5\]](#)

**Structural Review**

- Foundations: [\[R403-O\]](#)
  - Supporting wood frame construction shall be at least 8" thick with 8"x16" footing [\[R404.1.5\]](#)
  - Supporting masonry construction shall be at least 10" thick with 10"x20" footing [\[R404.1.5\]](#)
- Verify columns are specified, dimensionally located, anchored to & supported by a footing or foundation [\[R407.3\]](#)
- Verify concrete slab specifications: [\[R506.1-3\]](#)
  - 3½" Slab Thickness, minimum
  - 4" base course, minimum
  - 6-mil (minimum) vapor barrier shall be provided for all conditioned spaces
- Verify adequacy of each set of floor joists [\[R502.3.1\]](#)
  - Verify support of loads and adequate load transfer for perpendicular and parallel loads [\[R502.4\]](#)
  - Joists shall have 1.5" min. of bearing on wood and 3" min. on masonry or concrete [\[R502.6\]](#)
  - Joists shall lap 3" min. where framing from opposite sides with 2" X full depth blocking [\[R502.6.1 & R502.7\]](#)
  - Preservative-Pressure-Treated wood is required where in contact with ground, concrete, etc. [\[R319.1\]](#)
  - Check manufacturer's Span Charts for all composite wood I-Joists.
- Verify framed wall construction
  - Verify laterally unsupported height adequate for stud & spacing [\[R602.3\(5\)\]](#)
  - Lateral wall bracing specified and, if required, dimensionally located [\[R602.10.3\]](#)
  - Anchor bolts - 7" embedment @ 6'-0" o.c., 2 per plate & within 12" of each corner [\[R403.1.6-O\]](#)
  - Pressure-preservative-treated sill plate, additional treated framing as required per section [\[R319.1\]](#)
- Verify continuity of stair framing and other framed openings [\[R502.10\]](#)
- Verify adequacy of header & beams spans with loading condition(s) [\[R502.5\(1\)\]](#)
  - If composite beam (ML, PSL, GluLam, etc.), verify with proposed Manufacturer's Span Charts
  - Specifications for steel sections beams, girders or other special conditions may require review and sign-off by an architect or structural engineer licensed in the State of Illinois
- Verify adequacy of each set of ceiling joists and proposed ceiling construction; vaulted/tray ceilings [\[R802.4.\(1 & 2\)\]](#)
  - Check manufacturer's Span Charts for all composite wood I-Joists.
  - Verify Attic Storage Use: Uninhabitable with limited storage ( $LL = 20\text{-psf}$ ) or without storage ( $LL = 10\text{-psf}$ )
- Verify adequacy of each set of roof rafters (plan dimension from bearing point to ridge beam) [\[R802.5.1\(3\)\]](#)
  - If engineered trusses, non-certified truss certificates shall be submitted for review prior to issuance. Certified truss certificates shall be submitted prior to scheduling the Rough Framing Inspection
- Verify Ridge and Valley Beams are  $\geq$  rafter depth. Roof slope  $\leq 3:12$  ridges & valleys are reviewed as beams [\[R802.3\]](#)
- Verify at least 1-sf of roof ventilation for 150-sf of roof area is provided and located properly [\[R806.1\]](#)
- Verify roof assemblies are appropriate for the proposed slope(s). Requirements vary by slope & assembly [\[R905.1-15\]](#)
- Roof Sheathing adequate for rafter/truss spacing [\[R503.2.1.1\(1\)\]](#)

**Building Compliance Review**

- Verify Basement ceiling height is at least 7'-0" or compliant with listed exceptions [\[R305.1\]](#)
- Sub-surface drainage system with sump-pump/gravity discharge [\[R405.1\]](#)
  - Verify sump pump point of discharge is located  $\geq 5\text{'-0"}$  from property line [\[R408.1-O\]](#)
- Crawlspace
  - Ventilation ratio of 1 sf/150 sf provided with one vent within 3'-0" of each corner of building [\[R408.1\]](#)
  - Access provided for all under-floor spaces: 18"x24" at floor / 16"x24" through wall [\[R408.4\]](#)
- Verify installation of ice & water shield and underlayment as appropriate to assembly and slope [\[R905.2.7 & R905.2.7.1\]](#)
- Bath, Toilet, and Shower Spaces are provided and comply with minimum access clearances [\[R307.1\]](#)
- 22"x30" (min) attic access and illumination is provided for attics at least 30" in height and  $\geq 30\text{-sf}$  of area [\[R807.1\]](#)
- 4" gas curb is provided in attached garages with garage floor sloped towards overhead door or floor drain [\[R309.8-O\]](#)

**Electrical Review**

- Verify service source, feed, meter, point of entry is located on site plan and floor plan(s)
- Verify electrical panel located with adequate working clearance of 30"W x 36"D x 78"H indicated
- Arc-Fault Circuit-Interrupter protection for branch circuits supplying outlets [\[NEC 210.12\(B\)\]](#)

- Ground-Fault Circuit-Interrupter protection located and labeled in wet areas [\[NEC 210.8\(A\)\(1-8\)\]](#)
- Exterior receptacles shall be GFCI *and* have a weatherproof box/cover [\[NEC 210.8\(A\)\(1-8\)\]](#)
- Stair must have adequate illumination with switch controls at top and bottom [\[R303.6\]](#)
- Switch controlled light shall be located at or near all mechanical appliances and accessories [\[M1305.1.3.1\]](#)
- Confirmation that the electrical distribution specified is compliant for dwelling units
  - At least two (2) dedicated 20-ampere circuits to supply small appliance receptacle outlet(s) [\[NEC 210.11\(C\)\(1\)\]](#)
  - At least one (1) dedicated 20-ampere circuit supplying laundry receptacle outlet(s) [\[NEC 210.11\(C\)\(2\)\]](#)
  - At least one (1) dedicated 20-ampere circuit supplying bathroom receptacle outlet(s) [\[NEC 210.11\(C\)\(3\)\]](#)
  - Walls  $\geq 2'-0"$ , 12'-0" maximum spacing as measured along floor line [\[NEC 210.52\(A\)\(1 & 2\)\]](#)
  - At least two (2) dedicated 20-ampere circuits for counter top receptacles [\[NEC 210.52\(B\)\(1 & 3\)\]](#)
  - Counter top  $\geq 2'-0"$ , 4'-0" maximum spacing as measured from a receptacle [\[NEC 210.52 \(C\)\(1\)\]](#)

**Plumbing Review**

- Supply Diagram or plumbing plan locates fixtures and identifies supply lines [\[ILPC Sec890.1200\]](#)
- Verify compliance/adequacy of domestic water supply with calculation of Water Supply Fixture Units:
 

Water Closet (Toilets)	3 X _____ = _____
Lavatory	1 X _____ = _____
Bathtub	2 X _____ = _____
Shower	2 X _____ = _____
Kitchen Sink	2 X _____ = _____
Dishwasher	1 X _____ = _____
Laundry Tub	3 X _____ = _____
Clothes Washer	2 X _____ = _____
Hose Bibb	1 X _____ = _____
<b>Total W.S.F.U.</b>	<b>= _____</b>
- Verify compliance of water supply service line:
 

1/2" Service	(2 – 7 W.S.F.U.)
3/4" Service	(8 – 19 W.S.F.U.)
1" Service	(20 – 34 W.S.F.U.)
1 1/4" Service	(35 – 59 W.S.F.U.)
1 1/2" Service	(60 – 119 W.S.F.U.)
- Domestic supply and Sanitary Waste lines are specified and separated by 10'-0", minimum [\[ILPC Sec 890.1150a\)\]\]](#)
- Locate water supply full-port shut-off valve [\[ILPC Sec 890.1190a\)\]\]](#)
- Locate floor drain and associated ejector pit (required if not discharged via gravity) [\[ILPC Sec 890.1360\]](#)
- Stack vent or vent stack is no smaller than 3 inches [\[ILPC Sec 890.1420\]](#)

**HVAC Review**

- Verify gas service and branch distribution routing [\[G2412-13\]](#)
- Verify proposed location of all gas fired heating appliances and accessory equipment [\[G2406.1\]](#)
  - Provide Installation instructions for each proposed gas fired heat accessories [\[G2435.1\]](#)
- Verify proposed diffuser location(s) within each room of the dwelling unit [\[R303.1\]](#)
- Confirmation that all heating and cooling equipment shall be sized based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies [\[M1401.3\]](#)
- Verify air removed by mechanical exhaust is to be discharged to the outdoors [\[M1501.1\]](#)
- Verify dryer vent duct length will not exceed the maximum run(s) allowed [\[M1502.6\]](#)
- Confirmation that all duct systems serving heating, cooling and ventilation equipment shall be fabricated in accordance with the provisions of this section and ACCA Manual D or other approved methods [\[M1601.1\]](#)
- Appliance and Chimney vents must extend 2'-0" above any point of the roof within 10'-0" [\[R1003.9\]](#)
- Verify approximate location of combustion air intakes as required due to location of heating appliance [\[M1702.2\]](#)

**Energy Efficiency Review**

- Verify REScheck Report is compliant using UA Trade-off or Performance Alternative [\[REScheck\]](#)
- Verify the building Thermal Envelope assemblies, areas, and perimeter values are consistent with the building plans
- Verify Thermal Envelope specifications comply with the Prescriptive Specifications for Climate Zone 5 [\[IECC R402.1.1\]](#)
  - Walls: R-20 / R-13 + R-3, Floors: R-30, Roof: R-49
  - Basement Walls: R-15 (interior or exterior) / R-19 (cavity) / R-13 + R-5 (cavity + interior/exterior)
  - Verify exterior glazing has a maximum Solar Heat Gain Coefficient (SHGC) rating of .32

- Specific Building Thermal Envelope components not listed above shall comply with [IECC Section R402.2](#)
- Verify statements of compliance with the 2012 IECC are listed on the construction documents
  - The interior design temperatures used for load calculations shall be a maximum of 72°F for heating
  - The interior design temperatures used for load calculations shall be a minimum of 75°F for cooling
  - A programmable thermostat is provided to control the heating and cooling systems [\[IECC R403.1\]](#)
  - Supply ducts in attics shall have R-8 insulation, R-6 if not completely in Thermal Envelope [\[IECC R403.2.1\]](#)
  - Mechanical piping carrying fluids above 105-degrees: R-3 [\[IECC R403.3\]](#)
  - Hot water supply shall be recirculating with an automatic or manual recirculating pump [\[IECC R403.4.1\]](#)
  - Domestic hot water supply lines and: R-3 [\[IECC R403.4.2\]](#)
  - A 75% (min.) of the lamps in permanently installed lighting fixtures shall be high efficacy lamps or a minimum of 75% (min.) of the permanently installed lighting fixtures shall contain only high efficacy lamps [\[IECC R404.1\]](#)
  - The building thermal envelope shall be constructed to limit air leakage as outlined in [IECC R402.4.1-4](#)

#### **Miscellaneous Items Required Prior to Issuance**

- Review proposed deck, porch, etc. construction per the *Deck, Gazebo, Pergola, and Covered Porch Applicant Checklist*
- Copy of Plumber's Illinois License, State of Illinois Registration, and Letter of Intent
- Copy of Illinois Roofer's License
- Verify well and septic system permit is received, if required [\[MCDH Environmental Apps\]](#)

NOTES: \_\_\_\_\_

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#### **ON-SITE INSPECTIONS – Inspections required as appropriate to the scope of work**

##### **General Information**

- Inspection will not be conducted if approved set of plans are not provided to the Inspector

##### **Soil Erosion and Sediment Control**

- Verify placement of soil erosion and sediment control measures prior to grading or excavation
- Verify placement of soil erosion and sediment control measures prior to grading or excavation
- Verify maintenance of soil erosion and sediment control measures

##### **Footings**

- Verify size (width and depth), layout, and location of footings per plan
- Verify sizing (width, depth, and thickness) of interior/isolated footings
- If applicable, verify fireplace foundations consistent with approved plans
- If applicable, verify placement of reinforcing steel

##### **Backfill**

- Verify placement of vapor barrier for all conditioned spaces
- Verify concrete foundation placement on footing, thickness, and elevations per approved plans
- Verify sub-base thickness for concrete slab
- Verify waterproofing or dampproofing means per approved plans
- Verify placement, size, and spacing anchor bolts per plan
- Verify drain tile, membrane, and stone placement
- Verify placement of 4-inch gas curb about the attached garage
- Verify lateral bracing of walls
- Verify the approved concrete slab thickness is capable of being placed
  - Elevation marks or stakes at each slab edge may be required to demonstrate
- Verify placement of foundation and slab insulation
  - Basement Walls: R-15 (interior or exterior) / R-19 (cavity) / R-13 + R-5 (cavity + interior/exterior)

##### **Service Inspection**

- Approval required prior to energizing the system
- Verify service feed clearances / coverage, conductor size and type, and sealed raceway
- Verify service grounding type and installation
- Verify conductor raceway is sealed and installation is consistent with equipment
- Verify panel location and working clearances

- Verify installation of bonding bushings, jumpers

### **Slab Plumbing**

- Verify ejector pit and sump pit installation, location, and connections as applicable
- Verify locations, traps, and venting of floor drains
- Verify location of slab plumbing (future plumbing) per the approved plans
- Verify the installation and labeling of radon mitigation system
- Verify any domestic hot-water larger than ¾" located sub-slab has R-3 insulation

### **Rough Framing**

- Verify primary/secondary means of egress at first floor, basement, and each bedroom
- Verify interior partition layout is installed per approved plans
- Verify stairway construction, located per plan and within dimensional tolerances
- Open risers not to exceed 4" opening, triangular space created by the stairs & railing to be 6" maximum
  - Circular handrails must have a cross section dimension of min. 1¼"-2". Noncircular handrails shall have a min 4" & max. 6¼" perimeter dimension with a maximum cross section dimension of 2½"
  - Handrail perimeters greater than 6 ¼" must provide a graspable finger recess area on both sides of handrail
- Verify treated sill plate treated; with anchor bolts 6'-0" o.c., at least two (2) per plate, and within 12" of each corner
- Verify attic and/or crawlspace access is provided
- Floor Framing
- Verify framed floor(s) construction and consistency with approved plans: size, spacing, spans, grade, and lateral bracing
    - If composite joists, manufacturer's installation instructions shall be provided at inspection
  - Verify floor sheathing installation is adequate and per plans
  - Verify installation and adequacy of Fire Blocking and Fire Caulking
- Wall Framing
- Verify framed wall construction and placement per plan: size, spacing, grade, height, nailing patterns, and lateral bracing
  - Verify sheathing and/or lateral wall bracing is located per plans and anchoring methods are adequate
  - Verify adequate installation of vapor barrier
  - Verify beam(s)/header(s) installation, continuity, and consistency with approved specifications and spans
    - If composite beams/headers, the manufacturer's installation instructions shall be provided at inspection
  - Verify installation and adequacy of Fire blocking and Fire Caulking
- Roof/Ceiling Framing
- *Certified truss certificates shall be submitted for review prior to scheduling the Rough Framing Inspection*
  - Verify roof construction and continuity of rafters, rafter/collar ties, size(s), spacing, & spans for each roof area
  - Verify rafter/truss field connections of truss clips and uplift connectors
  - Verify roof sheathing sizing and installation pattern, and plywood clips (as required)
  - Verify framed ceiling construction and consistency with approved plans: size, spacing, grade, and lateral bracing
    - If composite ceiling joists, manufacturer's installation instructions shall be provided at inspection
  - Verify roof venting means provided per approved plans
  - Verify installation and adequacy of Fire blocking and Fire Caulking
- Verify any Drilling and/or Notching of all framing components is compliant, refer to [\[R602.6\]](#).
- Glazing
- Verify tempered glazing is installed per [\[R308\]](#)
  - Effective June 1, 2015: Verify exterior glazing has a maximum Solar Heat Gain Coefficient (SHGC) rating of .32
    - Window specification label/sticker shall remain on the window until final inspection complete
  - Effective June 1, 2015: Verify skylight glazing has a maximum Solar Heat Gain Coefficient (SHGC) rating of .55
- If applicable, verify chimney construction adequacy and compliance with the approved plans
- Manufacturer's installation instructions shall be provided for prefabricated fireplaces
  - Verify installation and adequacy of Fire blocking and Fire Caulking along chase
- Verify general construction

### **Rough Electric**

- Verify boxes for floor and ceiling fan application are listed for intended use

- Verify conduit and boxes are properly filled
- Verify disconnects/shut offs is properly located
- Verify smoke detectors are located properly and interconnected
- Circuit Distribution; Loads may be requested at the time of inspection to verify compliance with **[2008 NEC 210.11(A)]**
  - Minimum of two (2) 20-ampere circuits for small appliances in kitchen and counter top receptacles
  - 20-ampere dedicated circuit(s) for Laundry Room, bathroom, and small appliances
  - Verify counter top receptacles are supplied by at least two (2) 20-ampere circuits
  - Verify quantity of receptacle outlets on each circuit
  - Verify lights are not fed from any appliance circuit
- Verify conductor, sizing, proper routing, and support of raceways, conduit or cable
- Verify receptacle locations, spacing, and installations per the electrical distribution type; BX, Romex, Thin Wall, etc.
- Grounding & Bonding
  - Verify grounding and bonding continuity to main panel
  - Verify all systems and any components that may become energized are properly bonded
- Verify lighting outlets located per approved plans; each room, attic, stair, exterior, countertops, etc.
- Verify installation and adequacy of Fire blocking and Fire Caulking

#### **Rough Plumbing**

- Verify service entry into building is frost protected
- Verify location and pitch of main sanitary discharge line
- Verify ejector pit and sump pit installations, connections, and discharge points, as applicable
- Verify proper use of materials and connections for supply lines
- Verify sizing, proper routing, insulation, and support of domestic water distribution system
- Verify proper use of materials, pitches, and connections for sanitary lines
- Verify locations, traps, and venting of floor drains
- Verify sizing, proper routing, support, and extension of plumbing vents
- Verify adequate support and anchoring of each plumbing fixture
- Verify installation of anti-scald mixing valve(s)
- Verify water distribution, if metallic, is properly bonded
- Verify hot water temperature
- Verify installation and adequacy of Fire blocking and Fire Caulking
- Verify pressure balance or thermostatic control valves
- Verify water heater connections (electrical or gas) and distribution lines

#### **Rough HVAC**

- Verify location, installations, and support of all gas fuel lines
- Verify adequate sizing, routing, installations, and support of all duct
- Verify vertical clearances are maintained with duct routing
- Duct connections, air handlers and filters shall be sealed
- Verify exhaust fan venting installation and material is appropriate for end use
- Verify adequacy and location of condensing unit, power source, disconnect, and refrigerant routing
- Verify connections, support, and separation is adequate for furnace or other heating accessory(s)
  - Manufacturer's installation instructions shall be provided at inspection
  - Heating and cooling loads calculations may be requested at the time of inspection
- Verify disconnect/shut off is properly located
- Verify all system components that may become energized are properly bonded
- Verify installation and adequacy of Fire Blocking and Fire Caulking

#### **Insulation Inspection**

- Verify the following building components are insulated per the listed R-value
  - Walls: R-20 / R-13 + R-3
  - Basement Walls: R-15 (interior or exterior) / R-19 (cavity) / R-13 + R-5 (cavity + interior/exterior)
  - Crawl space wall insulation as an alternative to floors over crawl insulated.
  - Floors: R-30 or sufficient to fill the cavity, R-19 minimum

- Roof: R-49, uncompressed R-38 shall be deemed to satisfy the R-49 requirement at top of wall plate at the eave
- Eave Baffle shall be above the insulation and maintain air space  $\geq$  size of the vent
- Mechanical piping carrying fluids above 105-degrees: R-3
- Domestic hot-water larger than  $\frac{3}{4}$ " and after water heater to kitchen supply: R-3
- Verify exterior glazing has a maximum Solar Heat Gain Coefficient (SHGC) rating of .32
- Specific Building Thermal Envelope components not listed above shall comply with [IECC Section R402.2](#)

Blower Door tests shall be conducted by a third party and may be requested at the time of inspection

#### **Final Site Engineering Inspection**

Verify site conditions are in accordance with the site plan - extent of grading, spoil re-spread areas, spoil piles, swales, final vegetative stabilization

#### **Final Inspection**

- Verify operation of smoke detectors
- Verify complete means of egress; landing dimensions and elevations, stair rise and run, hand/guard railings installations
- Verify stairways and associated hand & guard rails
  - Open risers not to exceed 4" opening, triangular space created by the stairs & railing to be 6" maximum
  - Circular handrails must have a cross section dimension of min. 1 $\frac{1}{4}$ "-2". Noncircular handrails shall have a min 4" & max. 6 $\frac{1}{4}$ " perimeter dimension with a maximum cross section dimension of 2 $\frac{1}{4}$ "
  - Handrail perimeters greater than 6  $\frac{1}{4}$ " must provide a graspable finger recess area on both sides of handrail
- Verify garage residence separation is adequate and complete; 20-minute rated door and  $\frac{1}{2}$ " or 5/8" Type-X gypsum board
- Verify venting for roof and/or crawlspace is placed properly and functional
- Electrical system is energized and remains compliant with the rough electrical inspection
- Verify electric continuity, GFCI operation, and AFCI operation
- Verify Panel/Subpanel is properly labeled
- Verify installation of electrical trims use and area are per code
- Verify plumbing installations, materials, and functionality remains compliant with the rough plumbing inspection
- Verify connection of the ejector pit/ sanitary lines and the connection and point of discharge for the sump pump
- Verify all heating and cooling equipment is sized based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. Load calculations and specifications may be requested by the inspector
- Verify HVAC System is functional and remains compliant with the rough HVAC inspection
- Verify the HVAC Equipment is set, labeled and the system and components are balanced
- Verify adequacy of combustion air for each furnace or heating accessory
- Verify installation of a programmable thermostat to control the heating and cooling systems
- Verify supply ducts in attics shall have R-8 insulation, R-6 if not completely in Thermal Envelope
- Mechanical piping carrying fluids above 105-degrees: R-3
- Hot water supply shall be recirculating with an automatic or manual recirculating pump
- Domestic hot water supply lines and: R-3
- A 75% (min.) of the lamps in permanently installed lighting fixtures shall be high efficacy lamps or a minimum of 75% (min.) of the permanently installed lighting fixtures shall contain only high efficacy lamps
- The building thermal envelope shall be constructed to limit air leakage as outlined in [IECC R402.4.1-4](#)
- Verify Dryer Duct is installed properly
  - Manufacturer's installation requirements may be requested at the time of inspection
- Verify completion of siding and roofing per plans
- Verify general construction and completion of items identified during previous inspections

NOTES: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**McHenry County**  
**Department of Planning and Development**

OFFICE: McHenry County Admin. Bldg. 667 Ware Road, Woodstock, Illinois  
 MAIL: 2200 N. Seminary Ave. Woodstock, Illinois 60098  
 EMAIL: plandev@co.mchenry.il.us P: 815-334-4560 F: 815-334-4546

www.co.mchenry.il.us/plandev

*For internal use only*

Permit #: \_\_\_\_\_

Zoning: \_\_\_\_\_

Date: \_\_\_\_\_

Twp Road \_\_\_\_\_

Jurisdiction: \_\_\_\_\_

## PERMIT APPLICATION FOR RESIDENTIAL ALTERATION

### OWNER/PRIMARY CONTACT INFORMATION

Property Owner's Name: _____ Company Name (if any): _____ Address: _____ _____ Email Address: _____ Phone: _____ Preferred Method of Permit Release: <input type="checkbox"/> Pick-up <input type="checkbox"/> Mail	<p style="text-align: center;"><i>This section required only if primary contact is different than the owner</i></p> Primary Contact: _____ Company Name (if any): _____ Address: _____ _____ Email Address: _____ Phone: _____
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### PROPERTY INFORMATION

Parcel/Tax Number: \_\_\_\_\_ Subdivision Name: \_\_\_\_\_

Parcel/tax numbers can be found at: [www.mchenrycountygis.org/planning](http://www.mchenrycountygis.org/planning)

Lot: \_\_\_\_\_ Block: \_\_\_\_\_

### PROJECT INFORMATION

Project Description: \_\_\_\_\_

\$ \_\_\_\_\_ Approximate value of proposed work      Number of Bedrooms: Existing \_\_\_\_\_ New \_\_\_\_\_

\_\_\_\_\_ -sq. ft. Area(s) of proposed alteration      \_\_\_\_\_ -sq. ft. Area of residence (including newly habitable spaces)

Is there any proposed grading, trenching, excavation, etc? (If yes, provide the area of disturbance) \_\_\_\_\_ -sq.ft.

Is there any proposed impervious area? (If yes, provide the area of the proposed impervious surfaces) \_\_\_\_\_ -sq. ft.

**Structural / Gen.**      Are engineered structural components being proposed? If yes, provide manufacturer or engineering specifications

**Electrical**      Existing/Proposed Service: \_\_\_\_\_ -Amps      New Electrical Distribution? (wiring, receptacles, lights, etc.)

**Plumbing**      No. of Existing Plumbing Fixtures: \_\_\_\_\_ No. of Proposed Plumbing Fixtures: \_\_\_\_\_

Existing Water Service Size: \_\_\_\_\_ -inches      New Plumbing Distribution (hot, cold, sanitary)

**Mechanical (HVAC)**    Existing/Proposed Furnace: \_\_\_\_\_ -Btu      New Ductwork Distribution? If yes, locate ductwork.

Existing/Proposed Condensing Unit: \_\_\_\_\_ -Tons      New Heating Accessory? (fireplace, woodburner, boiler, etc.)

### CONTRACTOR/SUB-CONTRACTOR INFORMATION

Architect/Engineer: _____ General Contractor: _____ Electrician: _____ HVAC Contractor: _____	Roofer: _____ Roofer License #: _____ Plumber: _____ Plumber Lic. & Reg. #: _____
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### OWNER/PRIMARY CONTACT CERTIFICATION

I declare that this Application is true and correct to the best of my knowledge. I realize that the information that I have provided forms the basis for the issuance of the Permit and have included all work to be authorized with this Permit. I agree to construct said development in compliance with the permitted documents.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### STATEMENT OF AUTHORIZATION

*(Must be signed when primary contact is not owner AND a Stormwater Permit is required)*

I hereby authorize \_\_\_\_\_ (Primary Contact) to act on my behalf as my agent in the processing of this Application and to furnish, upon request, supplemental information in support of this Permit Application. This person will act on my behalf as the point of contact for permit correspondence.

Owner's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



# McHenry County Department of Planning and Development

[www.co.mchenry.il.us/plandev](http://www.co.mchenry.il.us/plandev)

OFFICE: McHenry County Admin. Bldg.  
667 Ware Road, Woodstock, Illinois

MAIL: 2200 N. Seminary Ave.  
Woodstock, Illinois 60098

EMAIL: [plandev@co.mchenry.il.us](mailto:plandev@co.mchenry.il.us)  
P: 815-334-4560 F: 815-334-4546

## SITE PLAN APPLICANT CHECKLIST

Every application for a building permit or agricultural exempt structure construction card must be accompanied by a site plan. The purpose of this form is to inform applicants of the requirements for the site plan. If the information described in the Submittal Checklist is not provided on the site plan, the permit application may be rejected. The information is provided for the applicant's general information. This checklist does not restrict staff's ability to require additional information, as appropriate, based on the permit and site conditions. If a Stormwater Management Permit is required or if the site plan must be reviewed by the Staff Plat Review Committee, a more detailed site plan may be required.

Staff will review the site plan to ensure that the project complies with the County's adopted Unified Development Ordinance and Stormwater Management Ordinance. Applicants are ultimately responsible for ensuring that their development complies with these regulations, which are available on the County's website: [www.co.mchenry.il.us/PlanDevOrdinances](http://www.co.mchenry.il.us/PlanDevOrdinances).

### **SUBMITTAL CHECKLIST** (if the information is not provided, the permit application may be rejected)

- The site plan may, but is not required to, be drawn on the back of this form. The site plan may also be drawn on an aerial photograph, plat of survey, or septic plan as long as it contains all required information. Aerial photographs may be printed from the County's website: [www.mchenrycountygis.org/planning](http://www.mchenrycountygis.org/planning).
- The site plan should be drawn to scale (such as one inch equals 30 feet).
- The following information, as appropriate to your project, should be represented on the site plan:
  1. Lot lines and lot dimensions.
  2. Parcel size (acres or square feet).
  3. A graphic scale bar or narrative scale (such as one inch equals 50 feet) and a north arrow.
  4. Adjacent road rights-of-way and platted but unbuilt road rights-of-way with road names labeled.
  5. Existing and proposed easements.
  6. Existing structures, sidewalks, access roads, driveways, parking areas, retaining walls, seawalls, piers, etc.
  7. Proposed new or modified structures, access roads, driveways, parking areas, retaining walls, seawalls, piers, and berms with dimensions.
  8. Existing and proposed well(s) and septic systems.
  9. Existing and proposed utilities, equipment, culverts, landscaping, ponds, and creeks.
  10. Limits of land disturbance for construction, including grading, spoil piles, spoil re-spread areas.
  11. Soil erosion and sediment control measures.
  12. Measured setbacks from new or modified structures (measured to building walls) to lot lines, wells and septic fields, and existing structures.
  13. Measured setbacks from areas of land disturbance to wells and septic fields.

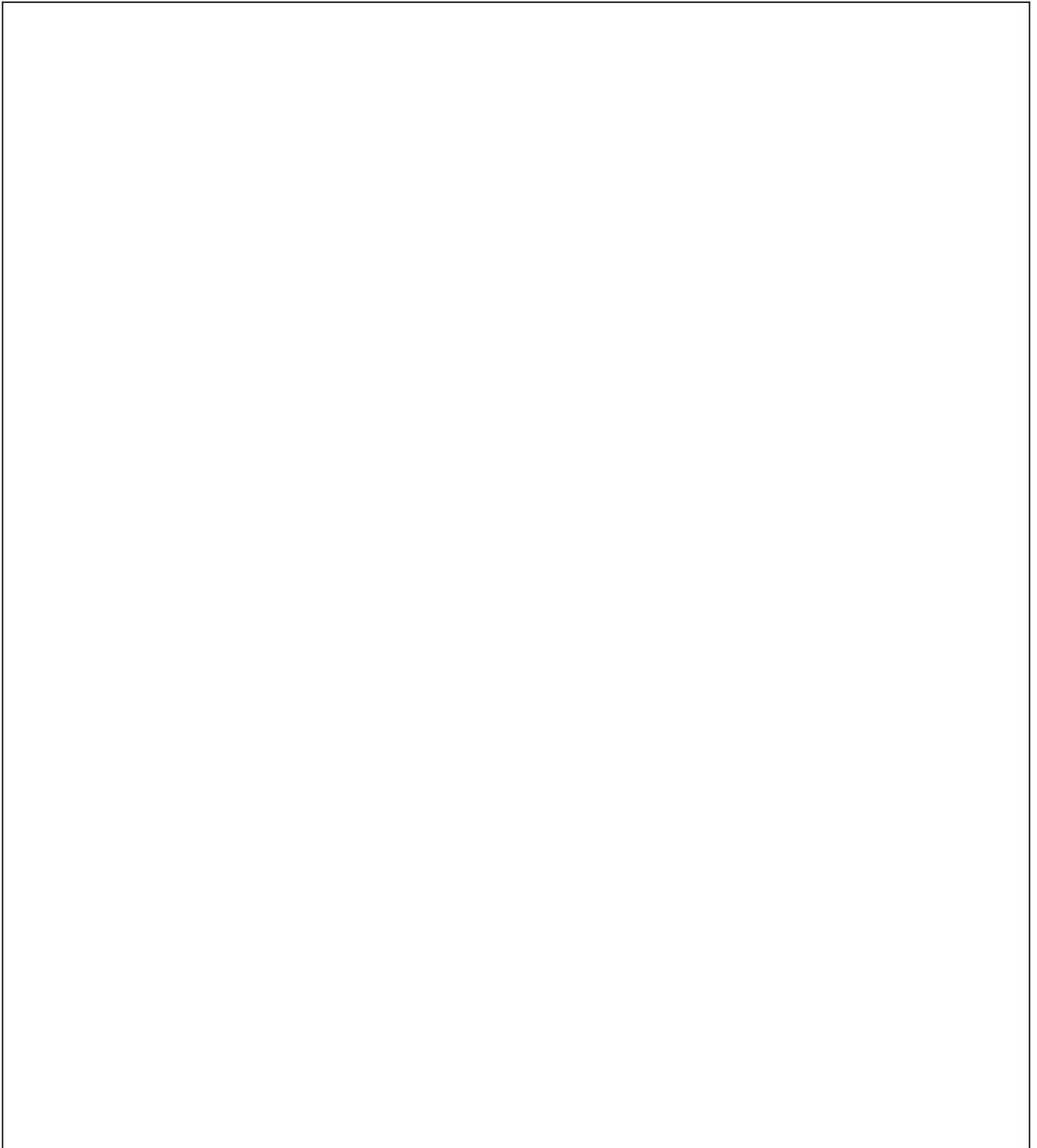
# SITE PLAN

Address: \_\_\_\_\_

PIN: \_\_\_\_\_

**N**

(draw arrow)



Parcel Size: \_\_\_\_\_

Drawing Scale: \_\_\_\_\_

Permit # \_\_\_\_\_

(for office use only)