

BUILDING CODES/CONSTRUCTION INFORMATION
RESIDENTIAL BUILDING PERMIT/PLAN SUBMITTAL CHECKLIST

This checklist contains the standard information required on submittals for residential construction projects. For additional information, please contact the Buildings & Safety Engineering Department, Coleman A. Young Municipal Center – 4th Floor, Detroit, MI 48226. The telephone number is (313) 224-0167.

All submittals for building permits should provide a completed Building Permit Application. The project may have to be designed by Michigan licensed professional engineers and architects, and the drawings prepared under their supervision and signed and sealed by them. Three complete sets of plans drawn to scale, one set of calculations and one set of specifications are to be submitted for plan review.

The design has to meet the zoning and construction codes in effect at the time of plan submittal. The City of Detroit enforces the Michigan Residential Code. Please go to the State of Michigan Web site at www.michigan.gov for information on the current edition of the code in effect. You may view the City of Detroit Zoning Code (ordinance) on the City's Web site at www.detroitmi.gov.

Permit and plan review fees are based on the City of Detroit fee schedule and a deposit is required at the time of log-in. The balance of the permit fees is to be paid at the time of permit issuance, after review and approval of the plans.

Plot Plan

- Show the size and shape of the lot
- Identify the property lines with dimensions
- Show all buildings and structures.
- Provide distances between the buildings and to the property lines
- Show the streets and alleys
- Lot area in square feet
- Flood Plains (yes or no)
- Show all utilities

Foundation Plans

- Note on the drawings the allowable soil bearing pressure used in the design of the footings.
- It is up to the designer/homebuilder to be aware of the soil conditions of the subdivision, to refer to the soil report and reflect soil report recommendations on the plans.
- Partial foundation plans may be required to reflect the structural requirements for each different elevation.
- Dimension the stem wall thickness, footing width, thickness and depth into undisturbed soil for each footing type and condition.
- Provide the minimum reinforcing specified in the soil report or structural calculations.
- Provide foundation details on the foundation plan sheet or on a separate detail sheet. Details shall be cross-referenced to the foundation plans.
- Locate and detail all footings for the following: fireplace, girder truss bearing locations, interior bearing walls, posts, columns, sunken or raised areas and stair pads.
- All slabs (i.e. patio slabs and pads outside of doors optional or standard) shall be shown and their thickness specified. Indicate the slopes for exterior slabs.
- Locate and specify all anchor bolt spacing and post anchors on the foundation plan.
- Shear wall locations shall be identified and hold-downs located and specified, if applicable.
- Show location of underground return air ductwork on the foundation plan.

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Floor plans

- Label all rooms and spaces. Show all doors.
- Provide all window sizes and types, and designate locations of tempered glass.
- Comply with light and ventilation requirements for all windows.
- Comply with bedroom and basement window egress requirements.
- Show maximum sill height of 44 inches in bedroom and basement egress windows and coordinate with all elevations.
- Detail and specify basement window wells (area ways) showing a minimum width at egress windows of 36 inches and a permanent egress ladder complying with section
- Provide access to each separate attic and crawl spaces. Designate locations on the drawings. Openings for crawl spaces shall not be less than 18 x 24 inches. Openings for attic spaces shall not be less than 22 x 30 inches. The location of the attic access shall provide a minimum of 30 inches of headroom.
- Provide fire-rated wall separations between the garage and the house. Provide ½-inch gypsum board applied to the garage side. This shall also be applied to all garage bearing walls and the floor/ceiling assembly. All doors leading into the house from the garage shall be 1 ³/₈-inch solid or honeycomb core steel doors or 20-minute fire-rated doors. No openings from the garage into sleeping rooms shall be permitted.
- Provide ½-inch gypsum board separation within usable enclosed space under stairs.
- Detail and specify stair width, rise and run, landing width, handrail heights, guardrail height and intermediate rail spacing.
- Factory-built fireplaces (zero clearance) shall be listed by an approved listing agency.
- For masonry and zero-clearance fireplaces, indicate fireplace location, hearth size and materials. Show all proposed hearth elevations.
- Locate skylights and specify materials.
- If applicable, provide the location of laundry chutes and specify shaft enclosure.
- Provide landings at exit doors, stairways and ramps as required.
- Locate and identify shear wall types and locations if applicable.
- Locate and identify heights of furred down and vaulted ceilings.
- Designate the locations of water heaters.
- Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than ⁵/₈-inch (15.9 mm) Type X gypsum board or equivalent. Where the separation is a floor to ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.

Elevations

- Provide complete drawings of all proposed elevations; include patio covers, decks and fireplaces.
- Indicate all materials used: stucco, concrete block, glass block, roofing systems, siding, veneers, etc.
- Detail and note all exterior frame walls and all main cross partitions and wall bracing.
- Note and specify all roof slopes. Minimum roof slope ¼-inch per foot.
- Detail and note all roof drains/scuppers on flat roofed areas.
- Provide adequate attic ventilation: State on the plans the required and provided net free ventilating area. Detail and note on the plans the location of attic ventilation louvers. Eave or cornice vent areas shall not be located within 3 feet measured laterally above a window or door in the story below nor where insulation will block ventilation action.
- Note and dimension that the fireplace chimney must terminate a minimum of 2 feet above any point of a roof within 10 feet measured horizontally.

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- Glass in hazardous areas and all glass within 18 inches of the floor and within a 24-inch arc of the door shall be safety glass.

NOTE: Any windows within future pool areas must meet glazing requirements.

Framing Plans

- Provide complete roof and floor framing plans. Show size, spacing and span of all framing members, i.e., trusses, joists, rafters, beams, glu-lams, lintels, headers and blocking
- Specify lumber grade, species and sizes of all rafters, joists, beams and headers.
- Provide a separate framing plan to clarify each elevation, for standard homes only.
- Note and detail tie straps, framing anchors and joist hangers by type, size and required attachment to framing members.
- On the floor framing plan, note and detail double joists parallel to bearing partitions, double trimmers and header joists at framed openings, framing anchors for tail joists and header support, and bridging or blocking at the ends and bearing points of the floor joists.
- Locate skylights and other roof openings. Provide details of framing around openings in floor or roof systems.
- Size and schedule wall headers and lintels. State grade, size, required bearing surface and support required.
- Provide details for all bearing and critical non-bearing conditions.
- Detail all connections from the foundation to the roof.
- Indicate and note post sizes or double/triple studs coordinate with foundation plan.
- Provide one set of complete truss calculations. Truss designs submitted must include all types and be designed for the loading conditions, span, slope, and spacing designated on the framing plan. Truss calculations must be signed and sealed by a licensed State of Michigan architect or engineer.

Electrical Plans

- A separate electrical floor plan shall be provided.
- Designate the location and type of all required light fixtures, receptacle outlets, power outlets and switches.
- Provide Arc Fault Protection for all circuits in all bedrooms

Mechanical Plans

- Provide a separate mechanical plan.
- Designate the locations, capacity and fuel type (electric or gas) of the heating and air conditioning equipment.
- Designate the locations of each supply register, return air grill and all ductwork.
- If the house is being newly constructed, provide a completed State of Michigan Energy Code Compliance worksheet.

Details and General Notes

- Note and specify a complete roofing system: specify roofing type and grade, specify valley flashing material, specify underlayment required and method of installation, specify attachments of roofing material as required.
- Masonry and concrete basement walls shall have an engineered design. Note and detail on plans all reinforcement and anchorage required by calculations.
- For veneer, note and specify type of veneer, anchoring method and backing.
- Note and specify the size, spacing and length of embedment of anchor bolts for sill plates, top plates and ledgers.

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- Note and/or detail draft stops for concealed spaces in walls, partitions, furred spaces, at ceiling and floor levels.
- Note and detail fire stops in opening around vents, chimneys and fireplaces at ceiling levels and in concealed spaces between wall studs at stairs in line with stringers.
- Detail and note all masonry wall reinforcement.
- Masonry walls shall be anchored to floors and roofs, which provide lateral support for the wall. Detail a positive direct connection capable of resisting the horizontal forces.
- Detail masonry fireplaces by dimensions and noted sections and a firebox plan. State flue size, dimension hearth width, and reinforcing. Note and detail anchorage tie straps fastened to floor joists with 2½-inch bolts, embedded into masonry and engaging the outer reinforcing bars with a six-inch hooked extension.
- Cross sections shall be cross-referenced to the floor plan and framing plans.
- Note glass block horizontal reinforcing and mortar specifications.
- Header or lintel schedules shall be provided on the plans and if not on the same sheet as the framing plan, be referenced on the framing plan.
- Completely detail all connections and cross reference to the foundation and framing plans:
 - a. Truss to top plate or beam
 - b. Beam to post
 - c. Post to slab (provide clearance to concrete if exposed to water or provide treated wood)
 - d. Sill to slab (washers, anchor bolts sizes and spacing), post to sill plate
 - e. Truss to girder truss
 - f. Ledger bolt size and spacing
 - g. Joist to ledger
 - h. Hanger types
 - i. Straps
 - j. Hold down locations and type
 - k. Nailing
- More than one cross-section may be needed to illustrate how the structure is built.
- For siding, call out material, type of fasteners and spacing and type of vapor barrier.
- Provide detail of continuation of shear walls to roof.
- Cut details for all bearing and exterior non-bearing locations.
- Specify and detail all roof framing. If solid sheathing is used on lower trusses, provide openings for access and ventilation. If solid sheathing is not used on lower trusses, provide details for bracing of top chord of lower trusses.
- Specify design criteria: values for floor dead load and live load, roof dead load and live load.
- Note and specify damp proofing for all basement walls.