

PLAN REVIEW REQUIRED INFORMATION FOR RESIDENTIAL STRUCTURES



CONSTRUCTION DRAWINGS

Reference Michigan Residential Code 2015

City of Madison Heights Code of Ordinances

- ✓ Not completing all required information will result in rejection of submitted plans for review.
- ✓ Information in this hand out is the minimum information required to conduct a plan review.
- ✓ Use this form as a checklist when preparing your plans for review and permits.
 - ✓ All plans must be clean and legible.

DRAWING REQUIREMENTS

1. Site plans are required on all new construction which changes the original footprint or size of the building or structure. For information on site plans reference the Policies, Requirements and Regulations handout.
2. All plans must be drawn to scale. Engineering scales are preferred at a scale of $\frac{1}{4}$ inch equals a (1) foot, $\frac{1}{4}'' = 1'$ or $\frac{1}{2}$ inch equals a (1) foot, $\frac{1}{2}'' = 1'$.
3. No original drawings please, keep your original drawing for your records or to make changes if necessary. Submit a minimum of two copies from the original drawings for permit submittal and plan review.
4. Plans can be drawn on 8 x 11 sheet paper using $\frac{1}{4}$ inch graph paper to assist you. If graph paper is used as a guide, each $\frac{1}{4}''$ square equals will one foot, which will give you a $\frac{1}{4}'' = 1'$ scale. At least one set of drawings must be submitted in a format no larger than 11 x 17.
5. Title Box is required. Title box will be located on each sheet bottom right hand corner.
 - a. Address
 - b. Owner or applicant name
 - c. Date
 - d. Scale used
 - e. Sheet title (i.e. foundation plan, floor plan etc.)
 - f. Short description of work (i.e. addition, renovation, new home).
 - g. Page Number or sheet number (i.e. page 1 of 4 or sheet 1 of 4)

EXAMPLE TITLE BOX

<u>123 APPLE STREET</u>	
<u>OWNER</u>	MR. FIXIT
<u>SUBMITTED</u>	02/02/02
<u>SCALE</u>	$\frac{1}{4}'' = 1''$
<u>2ND FL. ADDITION,</u>	<u>FOUNDATION DRAWING</u>
<u>SHEET 1 OF 4</u>	Drawn By

NOTE: MINIMUM INFORMATION REQUIRED ON DRAWINGS:

6. FOUNDATION PLAN

7. Entire layout of structure (foot print) including all exterior wall dimensions.
 - a. Show all structural supports and their sizes. (i.e. steel beams, wood beams, existing and new construction)
 - b. Size and location of support columns.
 - c. Support column pads show size (height x width x depth), location with spacing dimensions
 - d. Utilities location to structure (i.e. Water, Sewer, Electric, Gas etc.)
 - e. Sump basin, floor drain and weep tile location and connections and indicate how and where water is discharge.
 - f. Floor specifications including sand or gravel base, 6 mill vapor barrier and a minimum of a 4 inch concrete floor.
 - g. Stair location with stairway lighting details.
 - h. Smoke alarms location.
 - i. Locations of HVAC system, hot water tank.
 - j. Emergency Escape and Rescue openings indicated, size & location
 - k. Indicate 1st floor joist system and spacing.
 - a. Wood joist indicate Span, Grade, species and construction type. Example “←” 12 foot span SPF, 2 x 10, No. # 2 construction 16 inches on center).
 - b. Manufacturers joist system (provide manufacturers specification and drawings).

8. FLOOR PLAN

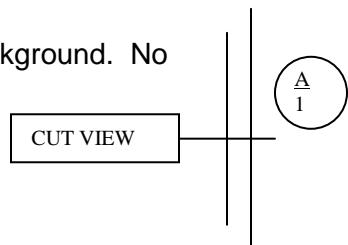
1st and 2nd floors new construction. Before and after plans for alteration or renovations;

- a. Show all areas and rooms, list sizes, names and uses of all areas and rooms.
- b. Show all doors, door swings and sizes include all arches
- c. Show all door header sizes
- d. Show all window headers sizes
- e. Show all windows and their size. Indicate location of all emergency escape and rescue windows.
- f. Show width of all hallways
- g. Show attic access.
- h. Stairways including details on tread and risers.
- i. Handrail details.
- j. All stairway and balcony guard details.
- k. Smoke alarms location of all alarms. (Type of power),
- l. All barring points (i.e. 2nd floor joist, beams, columns etc.)
- m. Show any section view locations
- n. Any vents and chimneys
- o. Plumbing fixtures (i.e. tubs, showers water closets etc.).

9. ELEVATIONS

Straight on view of all sides of the structure, (i.e. North, East, South and West)

- a. Full frontal view of each side.
- b. Location of address. Must be Arabic numerals on contrasting background. No brass.
- c. Finish grade lines
- d. Finish floor line and f.f.e. of side door sills
- e. Type of siding for all floors including roof sections (gable ends)
- f. Height of chimney above roof and distance from roof
- g. Any building extensions (i.e. decks, porches etc.)
- h. Roof pitch.



10. **CUT SECTION**

A cut section is a view of the structure from bottom of footing to top of roof as if you cut the building in half, turned it and look straight on that cut view.

- a. **Foundation walls**
- b. Footing width and depth (thickness and height dimensions) re-rod size and location.
- c. Foundation wall size and type of material and waterproofing or dampproofing.
- d. Anchor sizes and location/spacing. $\frac{1}{2}$ anchor bolts, 12 inches from all corners and 6' on center. Anchor straps per manufacturers instructions.
- e. Drain tile, size, and type of membrane material. Gravel or crushed stone must extend a minimum one-foot out from the footing and a minimum of 6 inches above the tile.
- f. Height of unbalance fill (backfill)
- g. Ceiling height distance from finish floor to bottom of floor system
- h. Sill plate (type of wood i.e. treated)
- i. Bonds, joist and flooring.
- j. Wall framing (stud size and spacing)
- k. Insulation (R-Value)
- l. Exterior wall sheathing.
- m. Exterior finish wall sheathing.
- n. Soffit width and ventilation
- o. Ceiling joists.
- p. Rafters including details for supporting bracing, rafter supports, collar ties etc. and lumber grade, species, spacing and span.

B. Exterior Walls

- a. Bottom and top plates.
- b. Wall studs .
- c. Insulation and R-value.
- d. Header size and height.
- e. Interior wall sheathing.
- f. Exterior wall sheathing.
- g. Exterior wall siding /brick.
- h. Cantilevers.
- i. Soffit width and venting.

C. Interior Walls and Areas

- a. Ceiling height.
- b. Ceiling material.
- c. Interior partition wall (i.e. 2 x 4 stud $\frac{1}{2}$ drywall, 2 x 4 studs 16'o.c.
- d. All Stairs.
- e. All Rise run treads.
- f. All Landing.
- g. All Handrails.

D. Roof Section

- a. Spans.
- b. Trusses.
- c. Rafters also indicate (i.e. size, spacing, span, grade, species, pitch etc.).
- d. Roof sheathing.
- e. Ice shield
- f. Underlayment
- g. Roofing
- h. Ventilation (soffit and attic).

11. You must show at least the following requested information.

DESCRIPTIONS**SECTIONS****YES NO**

- Is your application completed in all required areas and signed.
- Is work description completed and detailed.
- Plot Plan Required.....R106.2
- Are all Connections of Service Utilities indicated on plansR111.1

Note Design CriteriaTable R301.2 (1)

Ground snow load = 25(lb/ft) Wind Speed = 90 mph Weathering = Severe Frost Line Depth = 42"

YES NO

- Is an exterior wall closer than 3 feet from lot lineR302.1
- Does all habitable rooms have proper light 8 percent of floor area.R303.1
- Does All Habitable rooms have proper natural ventilation of 4 percent of floor areaR303.1
- Are all interior and exterior have stairways illumination.....R303.6
- Ceiling heights for habitable rooms not less than 7 feet.....R305.1
- Garage to residence separation of not less than $\frac{1}{2}$ inch gypsum from floor to ceiling or from floor to bottom of roof sheeting.R309.2
- Emergency Escape and Rescue openings indicated, size & locationR310.1
- Landings indicated on plansR311.4.3
- Are stair details provided include tread and riser dimensions givenR311.5
- Handrail details providedR311.5.6
- Guard's details providedR312.1
- Smoke Alarms and multiple – station smoke alarms indicated including location and power source.....R313.1
- Insulation, type r-value givenR316.1
- Protection against decay, location requiredR319.1
- Premises Identification (Approved size, location, color) "Address"R321.1
- Footing minimum DepthR403.1
- Foundation Anchorage (size and location).....R403.1.6.1
- Concrete and Masonry foundation wallsR404.1
- Masonry Foundation WallsR404.1.1
- Height of unbalance fill (backfill) indicatedT- 404.1.1(2) through T – 404.1.1(4)

Failure to comply with the minimum required information and special notes may result in the rejection of your application until the minimum requirements listed herein are submitted.