

KOCHVILLE TOWNSHIP  
REQUIRED INFORMATION FOR CONSTRUCTION PLAN REVIEW  
**COMMERCIAL AND MULTI-FAMILY**

*Please note that this is not an all-inclusive list. The type and complexity of your project may require additional details.*

Failure to provide the minimum information required for plan review will result in plans being rejected or timely and unnecessary delays in the plan review process. The normal timeframe for plan review is ten (10) working days.

Failure to identify a code violation during the review of the plans, **DOES NOT** give the permit applicant the right to violate building codes.

**All plans are subject to field inspections.**

Submit Six (6) sets and .pdf files on disk of site, architectural, structural, electrical, plumbing, mechanical, and fire protection drawings that contain the following information. Upon approval of the drawings, one set of drawings will be returned and stamped **approved** at the time a building permit is issued. **These “approved” drawings must be available “on-site”.**

- A. **Drawings to consist of sheet size of 24” x 36”.**
- B. All documents must be signed, sealed and dated by a state licensed design professional.
- C. Plans to be designed with Michigan Codes currently in effect, indicate codes used on documents.
- D. **Current Codes in effect:** Michigan Building Code of 2015; Michigan Plumbing Code of 2015; Michigan Mechanical Code of 2015; International Fuel Gas Code of 2015; National Electrical Code, part 8 rules of 2014; 2015 International Fire Code.

**ARCHITECTURAL/STRUCTURAL**

- Show the recommended foundation design and presumptive soil bearing capacity. Confirm if a geotechnical evaluation is required at proposed site. A copy of the soil evaluation will be required to be submitted during the construction phase.
- Include Type of Construction, existing and proposed.
- Identify the Use Group for all parts of the building.
- Identify the occupancy and number of occupants on every floor (including basements) and all rooms or spaces.
- Elevations of all sides of the structure.
- Wall sections and stair details as needed.
- Door hardware, door and window schedule.
- The design/construction standards to be used for concrete, masonry, steel and wood.
- Show Means of Egress calculations used to determine exit requirements.
- A floorplan of the entire building, floor by floor, showing all rooms and spaces with proposed use, accessory, incidental areas. Include any fire separations, floor, ceiling or wall required by code.
- Floor plans of basements, stairs, doors, corridors, etc.
- Show how the proposed building meets the height and area limitations or calculations for modifications.
- A Key plan identifying the location of proposed work.
- List fire resistance rating of all structural elements with U.L. or other approved agency label.
- Location and hourly rating of all fire doors, fire dampers, fire windows and size of wired glass panels.
- Description and details of special occupancies, mezzanine, atrium, public garage, etc.
- Details of penetration protection required fire rated assemblies, include U.L. design number or other approved agency.
- Room finish schedule with flame spread and smoke developed documentation for all materials.
- Construction details showing proposed walls, floors, roofs, and any pertinent construction designs.

- Sprinkler system, design standard-NFPA, calculations and evaluation of water supply and discharge requirements. Flow test results, working drawings with pipe sizes, spacing of branch lines and sprinkler heads. Sprinkler head type. Hanger plan.
- Location of all exit signs and means of egress lighting.
- Light and ventilation requirements of all affected space or building.
- Information on elevators or special equipment construction and installation.
- Details of plastic, insulation and safety glazing installation.
- Furniture and fixture layout with dimensions.
- Details of any fire protection systems.
- Accessory details noted below: Use ICC/ANSI A117.1 – 2009
  - Dimensions, slopes and routes must be indicated to show compliance.
  - Provide dimensions and details for all interior accessible routes.
  - Tactile signage with height and locations.
  - Provide dimensions and details for all Use Groups requirements, feature, and facilities required to meet accessibility codes.
  - Dimensions to show required maneuvering clearance at all doors.

**Hazardous Materials list** – If hazardous materials or chemicals are used for manufacturing, processing, dispensing or storage. Provide a letter from owner or tenant describing the type, use, quantity and location of all materials. Material Safety Data Sheets (MSDS) for all chemicals must be submitted. MBC 414  
Fire Department will review information in accordance with adopted Fire Code.

**Special Inspections** – A statement of special inspections prepared by the state licensed Design Professional in charge of the project must be submitted. Must include a complete list of materials and work requiring special inspections, the inspections to be performed and a list of the individuals, approved agencies and firms that will be conducting such inspections. MBC 1704.1

**Energy Calculations** – to show compliance with the current adopted ASHRAE Standard 90.1-2013, with Michigan amendments, effective September 20, 2017. Forms are downloadable from [www.ashrae.org](http://www.ashrae.org). Other acceptable option is to use the COMcheck energy study method, which is downloadable from [www.energycodes.gov](http://www.energycodes.gov). Reports from either source will fulfill the energy paperwork.

**Structural Calculations** – For all structural members and foundations as required by section 1603.1. Include deflection limits and all live and dead loads for floors, roof, snow, wind, concentrated, combination of loads and special loads. MBC 1603.1

**Cross sections** – from footing to roof peak. List all pertinent information.

**Truss Design Drawings** – provide copy of truss drawings when available.

**Specifications Manual** – work to be performed.

**Site Plans** – Details and information regarding information required on site plans can be found in the Kochville Township Zoning ordinance, Section 155.330 through 155.335. Parking requirements information can be found in Section 155.081 through 155.089. The zoning ordinance is online at [www.kochvilletwp.com](http://www.kochvilletwp.com).

*Please note: Any change made to the approved drawings or changes made during construction must be discussed with the appropriate inspector before proceeding. Failure to notify the inspector could result in delay of your project and may result in significant added expense to the project.*

**The following contacts are provided for your convenience. Depending on the project, some additional documentation may be required. Copies of any other permits or required documents must be submitted along with the building permit application before a permit can be issued.**

- Driveway permits – contact the Saginaw County Road Commission – (989) 752-6140. The Road Commission issues driveway and addresses. Other items are the connection to storm sewer for surface water runoff.
- Contact the Kochville Township Water Department for information on water tap, sewer connections, temporary water connections, meters and other questions regarding water and sewer service. Contact: Mike Comstock - (989) 792-7596.
- Kochville Township Fire Inspector. Contact: Brandon Rossi – (989) 792-7596.
- Saginaw County Public Health Department for food service. (989) 758-3830.
- Consumers Energy for electrical and gas service requests. (989) 477-5050.
- Soil Erosion and Sedimentation – permit are required from the Saginaw County Public Works Commission – (989) 790-5258, if within 500 feet of county drain or disturbing more than one (1) acre.
- Any other permit required from the DEQ. (989) 686-8025.
- Miss Dig for underground utility location. (989) 482-7171.

**Reference the Michigan Building Code 2015**

<b>INFORMATION</b>	<b>SECTIONS</b>
<input type="checkbox"/> Plans must have signature, seal and date from a State Licensed Design Professional .....	107.1
<input type="checkbox"/> Means of Egress (provide calculations for exit width and travel distance).....	107.2.3
<input type="checkbox"/> Use Group Classifications .....	302.1
<input type="checkbox"/> Utility and Accessory Use Groups .....	312.1
<input type="checkbox"/> Mixed Use & Occupancy.....	508
<input type="checkbox"/> Separations between Uses .....	T-508.4
<input type="checkbox"/> Allowable Building Area .....	508.3.2
1. Number of stories	
2. Square footage of building or area from exterior wall or firewalls.	
<input type="checkbox"/> Incidental Uses .....	T509
<input type="checkbox"/> Type of Construction .....	602.1
Exterior and Interior walls, floor/ceiling, and roof construction.	
<input type="checkbox"/> Fire Resistance Rating of all building components indicated and U.L. Design Number .....	703.2
<input type="checkbox"/> Exterior walls and projections .....	705
<input type="checkbox"/> Fire Walls .....	706.1
<input type="checkbox"/> Fire Partitions .....	708.1
<input type="checkbox"/> Smoke Barriers .....	709.1
<input type="checkbox"/> Smoke Partitions .....	710.1
<input type="checkbox"/> Horizontal Assemblies .....	711.1
<input type="checkbox"/> Penetrations .....	714.1
Penetration protection, location and U.L. Design Number	
<input type="checkbox"/> Fire Resistance Joint Systems .....	715.1
<input type="checkbox"/> Ducts and Air Transfer openings and systems .....	717.1
Location and hourly ratings of all fire doors, dampers, fire windows	
<input type="checkbox"/> Concealed Spaces .....	718.1
Fire blocking and draft stopping	
<input type="checkbox"/> Fire-Resistance periods (walls and partitions).....	T721.1(2)
<input type="checkbox"/> Minimum Protection (floor and roof systems) .....	T721.1(3)
<input type="checkbox"/> Interior finishes (provide flame spread and smoke developed documentation).....	803.1
<input type="checkbox"/> Fire Protective Systems .....	901.1
Show location of alarms, manual pull stations, smoke detectors, etc.	
<input type="checkbox"/> Standpipe Systems .....	905.1
<input type="checkbox"/> Fire Alarm and Detection Systems.....	907.1
<input type="checkbox"/> Smoke Control and Detection Systems .....	909.1
<input type="checkbox"/> General Means of Egress .....	1003.1
<input type="checkbox"/> Occupant Loads (T1004.1.2).....	1004.1
<input type="checkbox"/> Means of Egress Sizing .....	1005.1
<input type="checkbox"/> Means of Egress Illumination .....	1008.1
<input type="checkbox"/> Accessible means of Egress .....	1009.1
<input type="checkbox"/> Stairways .....	1011.1

<input type="checkbox"/>	Stair Treads and Risers .....	1011.5.2
<input type="checkbox"/>	Ramps .....	1012.1
<input type="checkbox"/>	Exit Signage .....	1013.1
<input type="checkbox"/>	Handrails .....	1014.1
<input type="checkbox"/>	Travel Distance to Exit Access .....	1017.1 & T1017.2
<input type="checkbox"/>	Exit Discharge .....	1028
	Access to a Public Way (1028.5)	
<input type="checkbox"/>	Accessibility .....	1101.1
	ICC/ANSI A117.1 – Accessible & Usable Buildings and Facilities	
<input type="checkbox"/>	Interior Environment .....	1201.1
<input type="checkbox"/>	Energy Efficiency (provide calculations) .....	1301.1
	Michigan Uniform Energy Code – part 10a, R 408.31087 to R 408.31099	
<input type="checkbox"/>	Exterior Walls .....	1404.1
<input type="checkbox"/>	Roof Assemblies and Rooftop Structures .....	1501.1
<input type="checkbox"/>	Structure Design (Construction Documents) .....	1603.1
	Live and dead loads for floors, roof, snow, wind, concentrated and special loads	
<input type="checkbox"/>	Structural Tests and Special Inspections .....	1704.1
<input type="checkbox"/>	Fire Resistant Penetrations and Joints.....	1705.17
<input type="checkbox"/>	Soils and Foundations .....	1801.1
<input type="checkbox"/>	Concrete (specified compressive strength at stated age) .....	1901.1
<input type="checkbox"/>	Masonry 2101.1 – (Construction Documents and Standards) .....	2101.3
<input type="checkbox"/>	Steel – (Construction Documents and Standards) .....	2201.1
<input type="checkbox"/>	Wood – (Construction Documents and Standards) .....	2301.1
<input type="checkbox"/>	Safeguards during construction 3301.1 – (Remodeling and Additions) .....	3302.1
<input type="checkbox"/>	Existing Buildings and Structures (Michigan rehabilitation Code 2015)	

**NATIONAL ELECTRICAL CODE  
ELECTRICAL PLAN REVIEW**

- Submit information indicating compliance with NEC Art. 110 Sec. 110-9 & 110-10.
- Indicate the circuitry and wiring method proposed.
- Show lighting layout including emergency and exit lighting to code.
- Show locations for proposed control of lighting in each room (ASHRAE 90.1).
- Indicate conductor type(s), sizes and insulation.
- Indicate raceway sizes, fill and rotating overhead, underground, etc.
- Show service location, point of entry, lateral, and overhead.
- Indicate utility company name, main incoming service voltage and characteristics.
- Submit a riser diagram showing the distribution of power and lighting.
- Show circuitry for power distribution.
- Identify enclosures, fixtures and other equipment by referencing NEMA standards for their suitability for the environment.
- Submit a low-tech calculation for each branch circuit, each feeder and the total load on the service.
- Show system voltages, single phase or three phase and 3 or 4 wire. These characteristics should be shown at all major points on the riser diagram.
- Indicate concrete encased grounding electrode location (in footings).
- Submit load schedule for each power panel and each lighting panel indicating circuitry, wattage, over-current production, voltage, phase and whether it is a 3 or 4 wire panel.

Miscellaneous information \_\_\_\_\_  
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**MICHIGAN PLUMBING CODE  
PLUMBING PLAN REVIEW REQUIREMENTS**

- Plumbing fixture and piping specifications, including identification of the applicable referenced standard.
- Plumbing fixture information to include:
  1. The occupant load used to determine the number of required plumbing fixtures.
  2. Number and distribution based on the Use Group.
  3. Separate facilities for each sex (available to public).
  4. Accessible plumbing facilities and details.
  5. Pressure balanced valves.
- Plumbing piping plan showing layout, pitch of drainage lines, cleanouts, size of traps and riser diagram.
- Water supply and distribution plan showing piping sizes, valves, back-flow preventers, water heater details and thermal expansion control.
- Sanitary drainage and vent system riser diagram showing drainage fixture units (dfu), sizes and vent termination details through the roof.
- Potable water system riser diagram showing piping sizes and provisions for protection of potable water supply.
- Piping support and insulation.
- Storm drainage including rain gutter or roof drain sizes and downspout sizes and secondary roof drainage.
- Health care plumbing and fixture details.
- Show the size, location of the proposed domestic water tap and fire line (if applicable).
- Show the size and location of the water meter with backflow preventer.

Miscellaneous information \_\_\_\_\_

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**MICHIGAN MECHANICAL CODE  
MECHANICAL PLAN REVIEW**

- Heating equipment data including the following information:
  1. Equipment capacity (BTU)
  2. Controls
  3. Appliance diagram showing location, access and clearances.
  4. Disconnect switches.
- Ventilation data, ductwork and equipment including the following:
  1. Ventilation schedule indicating the amount of outside air (in c.f.m.) supplied to each room or space.
- Layout showing outside air intakes:
  1. Construction of ducts, including support and sheet metal thickness.
  2. Duct lining and insulation materials with flame spread and smoke developed ratings.
  3. Exhaust fan ductwork layout and termination to the outside.
  4. Size of louvers and grilles for attic ventilation.
- Boiler and water heater equipment and piping details including safety controls and distribution piping layout.
- Gas piping layout with material, sizes and valves.
- Combustion air intakes quantities and details.
- Commercial kitchen exhaust equipment details including hood and fan drawings, details of automatic fire suppression and clearances.
- Mechanical refrigeration equipment data details.
- Solid fuel burning appliance details including incinerator and fireplace drawings and details.
- Energy conservation equipment data and details.
- Indicate smoke alarm location in duct with audio/visual and monitor stations.
- Air Balance report (ASHRAE 62.1-2010 Sec. 7.2.2)

Miscellaneous information \_\_\_\_\_  
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**INTERNATIONAL FIRE CODE  
FIRE DEPARTMENT PLAN REVIEW**

- Marking – where required by the Fire Official, approved signs shall be provided at 50 foot intervals along fire apparatus roads and designated fire lanes. Sec. 503.3 (Site plans)
- When equipment is located above the first floor and or above the roof level, an approved ladder shall be provided. Access ladders shall extend from the finished floor or exterior grade to at least three (3') foot above the equipment level, roof or parapet wall. Ladders shall be provided with side rails. Sec. 504.4
- Keyed access fire sprinkler connections. New and existing fire sprinkler and standpipe hose connections shall be provided with approved locking caps. Sec. 506.3
- Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. Key boxes shall meet UL 1037 specifications. Show Knox Box location. Boxes shall be located not less than five feet or more than six feet above finished grade. Sec. 506.1.2
- An approved lock shall be installed on gates or similar barriers when required by the fire code official. 506.1.1
- Show a five foot clear space around hydrants, except as otherwise required or approved. Sec. 507.5.5
- Limited area sprinkler systems serving fewer than five sprinklers on any single connection are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Sec. 903.3.5.1.1
- Show fire extinguisher locations. <sup>1</sup> Within 30 feet of commercial cooking equipment; <sup>2</sup> areas where flammable or combustible liquids are stored, used or dispensed; <sup>3</sup> where required by the sections indicated in Table 906.1; <sup>4</sup> special hazard areas such as laboratories, computer rooms, generator rooms, as required by the Fire Code Official.
- Show signage identifying any fire protection equipment. Rooms containing controls for air conditioning systems, sprinkler risers and valves or other fire detection, suppression or control elements shall be identified for use by the fire department. Sec. 509.1
- Show utility identification for gas shut off valves, electric meters, service switches and other utility equipment readily visible. Sec. 509.1.1
- Fire Department Connections (FDC) shall be located on the street side of the building, fully visible and recognizable from the street or nearest point of fire department vehicle access with approved identification, or as otherwise approved by the fire chief. FDC must not be obstructed by a fence or landscaping or any other fixed or movable object. Sec. 912.3
- The fire code official is authorized to require locking caps on fire department connections for water based fire department connection systems. The responding fire department carries appropriate key wrenches for removal when necessary. Approved locking caps are available through [www.knoxbox.com](http://www.knoxbox.com).
- Control valves and flow alarms are required in each tenant space at all protected strip malls. Sec. 914.2.1.1

Miscellaneous information \_\_\_\_\_  
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**WATER & SEWER DEPARTMENT**

- All construction drawings are reviewed by the Department of Public Works. Specific questions regarding connections not covered in the Technical Specifications should be directed to the Mike Comstock, DPW manager, at 989-792-7596.
- Refer to Technical Specifications for Water and Sewer available on-line at [www.kochvilletwp.com](http://www.kochvilletwp.com).
- IMPORTANT – REQUIRED BELOW.**
- **The developer must provide a finish set of “as-built” drawings and a .pdf file of those drawings showing the exact locations of all water and sewer lines, valve boxes, clean-outs, after construction and site improvements have been completed.**

Miscellaneous information \_\_\_\_\_

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