



VAN BUREN CHARTER TOWNSHIP

DEPARTMENT OF PLANNING & ECONOMIC DEVELOPMENT

46425 TYLER RD, VAN BUREN TOWNSHIP, MI 48111
PHONE (734) 699-8913 FAX (734) 699-8958

DEPARTMENT OF PUBLIC SAFETY FIRE DEPARTMENT

7981 BELLEVILLE RD, VAN BUREN TOWNSHIP, MI 48111
PHONE (734) 699-8928

APPLICATION FOR FIRE SUPPRESSION OR PROTECTION

JOB SITE LOCATION

ADDRESS:	VAN BUREN TOWNSHIP, MICHIGAN 48111
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PROPERTY OWNER OR LESSEE

NAME:		PHONE:	
ADDRESS:		EMAIL ADDRESS:	
CITY:	STATE:	ZIP:	

CONTRACTOR INFORMATION

NAME:		PHONE:	
ADDRESS:		EMAIL:	
CITY:	STATE:	ZIP:	
MECHANICAL LICENSE NUMBER:		EXPIRATION DATE:	
FEDERAL EMPLOYER ID NUMBER:		WORKERS COMP INSURANCE CARRIER:	

TYPE OF APPLICATION (CIRCLE ONE): FIRE SUPPRESSION / FIRE PROTECTION / OTHER

TYPE OF CONSTRUCTION (CIRCLE ONE): NEW / REMODEL

LAND USE (CIRCLE ONE): SINGLE FAMILY RES. / MULTI-FAMILY RES. / COMMERCIAL / INDUSTRIAL / OTHER

NOTICE TO APPLICANT

Section 23a of the state Construction Code Act of 1972, Act NO. 230 of the Public Acts of 1972, being section 125, 1523a of the Michigan Compiled laws, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Violators of Section 23a are subject to civil fines.
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PROJECT DESCRIPTION. Please use the space below to provide us with a detailed description of the proposed project.

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as their authorized agent, and we agree to conform to all applicable laws of the State of Michigan. All information submitted on this application is accurate to the best of my knowledge.

Applicant Signature: _____

Date: _____

Fire Suppression Fee Schedule

Description	Fee	Qty	Total
Administrative Fees			
Base Permit Fee	\$40.00	1	\$40.00
Archiving Fee	\$25.00	1	\$25.00
Re-Inspection Fee	\$75.00		
Registration (\$15 per year of license + \$25 for administrative fee)			
1 Year	\$40.00		
2 Years	\$55.00		
3 Years	\$70.00		
Permit Renewal	See Expiration Policy (attached)		
After-the-Fact Administrative Fee Multiplier	Up to 2x Permit Fee		
Building Department Plan Review Fees			
New Sprinkler/Fire Suppression System (# of Heads): Building Department Fees ^{1,2} (includes plan review fees)			
1-100	\$150.00		
101-200	\$175.00		
201-300	\$200.00		
301-400	\$225.00		
401-500	\$275.00		
Over 500	\$300.00		
Processing Piping- Air or Gas Piping, Hydraulic Piping, Incinerator, or Cooling Towers, etc.			
Up to 500 ft.	\$25.00	1	
> 500 ft.	\$0.05 per lineal foot		
Plan Review Outside Service Multiplier	120% of cost		
Fire Department Plan Review Fees – Billed Separately. See Exhibit A.			
Witness Tests			
Special Restaurant Wet Chemical System (includes FD plan review and acceptance test)	\$400 per system		
FD System Pump Test	\$100.00		
FD System Flush Test (witnessed) ³	\$100.00		
FD System Hydrostatic Test (witnessed) ⁴	\$200.00		

Exhibit A

New Sprinkler / Fire Suppression System (# of Heads)		Sprinkler System modifications with no base riser assembly modification ³	
1-100	\$550.00	1-20	\$150.00
101-200	\$650.00	21-40	\$225.00
201-300	\$700.00	41-60	\$300.00
301-400	\$750.00	61-80	\$375.00
401-500	\$850.00	81-100	\$450.00
Over 500	\$0.40/head		

- Requires plan review*, flush test, process piping*, hydrostatic test* and final inspection. *Separate fee required. Separate fees also required for Fire Department review, as listed.
- Requirements also apply to kitchen hood suppression systems.
- No flush test required for sprinkler system modifications with no base riser assembly modification.
- Only required when 20 or more heads are installed.

Note: Fees are based on the adopted mechanical fee schedule of the Van Buren Township Building Department and the fee schedule of the Van Buren Township Fire Department.

Fire Protection Fee Schedule

Description	Fee	Qty	Total
Administrative Fees			
Base Permit Fee	\$40.00	1	\$40.00
Archiving Fee	\$25.00	1	\$25.00
Re-inspection	\$75.00		
Registration (\$15 per year of license + \$25 for administrative fee)			
1 year	\$40.00		
2 years	\$55.00		
3 years	\$70.00		
Permit Renewal	See Expiration Policy (attached)		
After-the-Fact Administrative Fee Multiplier	Up to 2x Permit Fee		
Building Department Plan Review Fees			
Fire Alarm			
Up to 10 Stations & Horns	\$150.00		
11-20 Stations & Horns	\$250.00		
(Ea) over 20 Stations & Horns	Additional \$10 per device		
Plan Review (Outside Service) Multiplier	120% of cost		
Fire Department Fees – Billed Separately. Fees include plan review and acceptance test.			
1-50 devices	\$400.00		
51-75 devices	\$450.00		
76-100 devices	\$500.00		
101-125 devices	\$550.00		
126-150 devices	\$600.00		
Over 150 devices	\$650 + \$2/device over 150		

Note: Fees are based on the adopted electrical fee schedule of the Van Buren Township Building Department and the adopted fee schedule of the Van Buren Township Fire Department.



VAN BUREN TOWNSHIP FIRE DEPARTMENT

46425 Tyler Road, Van Buren Township, MI 48111

David C. McNally II, Fire Chief: (734) 699-8900 x 8916

Andrew Lenaghan, Deputy Chief/Fire Marshal: (734) 699-8900 x 9416

Fire Alarm Credential & Submittal Requirements

All alarm contractors performing any alteration work on a fire alarm system, which is not regular maintenance, shall submit for plan review and apply for an electrical permit. The submittal documents shall be prepared by a professional engineer or architect registered in the State of Michigan; or a person who has achieved NICET Level III certification (or higher) in fire alarm system layout (information can be found at www.nicet.org). A Level II is acceptable if supervised by a Level III or higher, or a professional engineer (See MBC section 107). Supporting documentation shall be included with all submittals and shall comply with Chapter 7 of NFPA 72.

Submittals:

Submittals shall be collated and assembled as complete sets. The sorting of **ALL** documents shall be completed by the submitting contractor, prior to submission. Special circumstances apply, regarding size of project (please make notification ahead of time). The title page shall contain the job name, address, whom the submittal is being sent to and the name and address of the company submitting the information. All submittals shall include appropriate supporting information on the fire alarm system, including written scope of work, manufacturer installation instructions, clarifications and notes to support the design of the system.

Each submittal shall include three (3) paper copies of each drawing sheet and all specifications, cut sheets and details, etc.

Minimum Requirements:

Submittal documents for fire alarm systems (and dedicated function systems) shall include the following items:

- Written scope of work, indicating the design standards, overview of the installation and intent of the system.
- A floor plan indicating the use of all rooms.
- Location of all alarm initiating and notification appliances.
- Location of all alarm control and trouble signaling equipment.
- Remote Annunciation location(s) (if necessary).
- Power connection (Panel & Circuit ID).
- Battery calculations.
- Conductor type and sizes.
- Voltage drop calculations.
- Manufacturers, model numbers and listing information for equipment, devices and materials. (Provide details and cut sheets)
- Details of ceiling height and construction.
- The interface of fire safety control functions.
- Copy of Monitoring Certificate.
- Communication lines/means of communication.

Drawings:

- All sheets to be same size ("C" size 24" x 36" preferred).
- All sheets to be same scale, except site plan.
- Preferred scale 1/8" minimum.
- Drawing number, revision date.
- Name and address of project.
- Name and address of installing contractor.
- Reviewed by section on title block showing NICET certification sub-field, level, number and expiration date if applicable.
- Compass points. Plan and Sheet orientation if different.
- Sheet title.
- Clear and legible plans suitable for photocopying.
- Name and address of building owner.
- Name and telephone number of installation company contact person.
- Contractor's license classification and number.
- Name and address of general contractor (if applicable).
- Name and address of electrical contractor (if applicable).
- Square footage of each building and total.
- Building occupancy type.
- Type of system: Fire alarm, conventional hardwired, wireless, addressable, analog addressable, Class "A", Class "B".
- List of applicable codes and standards with editions used in the system design.
- Sequence of operation.
- Identify if wiring is enclosed in conduit, open wiring, power limited or non-powered limited.
- Contractor notes with reference to this project.
- Name and location of monitoring company.
- Scope of work (written).
- Box for AHJ approval stamp.
- Wiring legend.
- Symbol list with manufacturer, part number and back box, etc..
- Main control panel and all sub-control panel locations.
- Fire Alarm annunciators.

Floor Plan Sheets:

- Building floor plan.
- Sheet title.
- Scale of sheet 1/8" minimum.
- Scale bar graph.
- Location of all doors, windows, walls (interior and exterior).
- Intended use of each room (i.e., storage, classroom, restroom, vestibule).
- Location of all air supply and return registers.
- Ceiling heights, ceiling details and configuration. May be shown on an additional sheet with reference key.
- Full height cross section of building. May be shown on an additional sheet with reference key.

- Mounting heights of devices.
- Location of main fire alarm control panel.
- Show location and source of emergency standby power.
- Location of all annunciator panels, sub-fire alarm panels, notification panels.
- Location of all power sources, panel numbers and breaker numbers for each piece of equipment.
- Show location of all ancillary devices, (i.e., door holders, door closers, gas shut-off, fan shutdown, smoke dampers, etc.).
- Show location of all fire sprinkler risers, water flow switches and tamper switches.
- Show locations of all fire pumps and fire pump controllers.
- Show all remote indicators for hidden devices.
- Show zoning if a conventional system.
- Show wiring type, size, number of conductors and approximate wiring layout.
- Show all fire-rated or smoke-barrier walls.
- Device wiring details.
- Device spacing.
- Circuit wiring diagram.

Riser Diagram Sheet:

- Full riser diagram showing all devices as connected in the circuit, device addresses, room numbers and/or names.
- Include communication lines.

Voltage Drop Calculations Sheets:

- Voltage drop calculations for each notification appliance circuit showing wire size, circuit current and voltage drop.
- Standby battery calculation sheets (secondary power).
- Standby battery calculations for each control panel, sub-panel, power booster, central station transmitter, power supply. Details shall be sufficient to verify from the manufacturer installation sheet, floor plan and riser diagram.

Completion:

- A record of completion will be required to be completed at the time of final inspection.

If you have any questions on these requirements, please do not hesitate to contact me at (734) 699-8900 x 9416. Or alenaghan@vanburen-mi.org

Andrew Lenaghan
Deputy Chief/Fire Marshal



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Fire Suppression Credential & Submittal Requirements

All fire sprinkler contractors performing any alteration work on a fire sprinkler system, which is not regular maintenance, shall submit for plan review and apply for a mechanical permit. The submittal documents shall be prepared by a professional engineer or architect registered in the State of Michigan; or a person who has achieved NICET Level III certification (or higher) in fire sprinkler layout (information can be found at www.nicet.org). A Level II is acceptable if supervised by a Level III or higher, or a professional engineer (See MBC Section 107). Supporting documentation shall be included with all submittals and shall comply with Chapter 23 of NFPA 13.

Submittals:

Submittals shall be collated and assembled as complete sets. The sorting of ALL documents shall be completed by the submitting contractor, prior to submission. Special circumstances apply, regarding the size of the project (please make notification ahead of time). The title page shall contain the job name and address, whom the submittal is being sent to and the name and address of the company submitting the information. All submittals shall include appropriate supporting information on the suppression system, including written scope of work, manufacturer C

Each submittal shall include three (3) paper copies of each drawing sheet and all specifications, cut sheets and details, etc. All submittals include an Owner's Certificate in accordance with Chapter 4.3.

Sheet Requirements:

- Drawn to Scale
- Graphic Scale Included
- Location identified (including street address)
- Name and Address of Contractor
- Name and Address of Occupant
- North Arrow (point of compass) included
- NFPA 13 2019 edition
- Plan of each floor
- Sheet size is uniform

Full-Height cross section or schematic diagram:

- Ceiling Construction
- Method of Protection for non-metallic piping
- Structural member information if required for clarity
- Heights
- Slope

Concealed spaces, closets, attics and bathrooms:

- Locations
- Size of Space
- Enclosures(small) where no sprinklers are to be installed
- Fire Wall Locations
- Occupancy Class of each area or room
- Partition Locations

Hydraulics-Design Criteria:

- Density, flow, or discharge pressure for application
- Design area of water application
- In-Rack sprinkler demand
- Relative elevation of junctions and supply or reference points
- Quantity of Water and Pressure required at common points for each system
- Water required for hose streams inside and out
- Information on Hydraulic Data Nameplate
- Reference points shown on plan (matching calculations)

Pipe, Fittings, Support Pipe and Bracing

- Cut-Lengths (or center to center dimensions, typical lines are acceptable)
- Normal Pipe Diameters
- Schedule of Wall Thickness and Pipe Type
- Location and Type of all Welds and bends
- Location, Type and Method of securing Sprinklers
- Riser Nipple Locations and Size
- Details of Sway Bracing

Sprinklers:

- Location of High-Temperature Sprinklers
- Make, Model, K-factor, and relative elevation of Sprinklers
- Temperature Rating and Type

System and Area Coverages:

- Approximate capacity in gallons of each dry pipe system
- Number of Sprinklers on each riser per floor
- Total number of sprinklers on each dry pipe system, preaction system, combined dry pipe-preaction system, or deluge system

Alarms and Dry Pipe Valves, Pre-Action and Deluge Valves

- Make, Model, Size and Type

Backflow Preventers:

- Make, Model, Size and Type

Control Valves, Check Valves Drain Pipe, Test Connections:

- Locations and Types
- Equipment on existing system: Sufficient details of existing system to make conditions clear

Fire Department Connections:

- Location, Piping Arrangement, and Size (4 " Stortz with 30° downturn)

Standpipe Risers, Hose Outlets, Hand Hose, Monitor Nozzles and Equipment:

- Locations and Size

Public Water Supply:

- City Main Size in Street
- City Main test results and system elevation relative to test hydrants
- Other sources of Water Supply (with pressure and elevation)
- Whether main is Dead-End or Circulating
- If dead end, direction and distance to nearest circulating main

Water Supply Data:

- Date of Test, Flow Location, flow (GPM)

Completion:

- If necessary, electronic As-Built drawings shall be submitted prior to the request for a final inspection.
- A record of completion will be required to be completed at the time of final inspection.

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Kitchen Hood Suppression System Plan Review

Date of Review: _____/_____/_____	Permit Number: _____
Business/Building Name: _____	Address of Project: _____
Designer Name: _____	Designer's Phone: _____
Contractor: _____	Contractor's Phone: _____
System Manufacturer: _____	Model: _____

Submittal Requirements:

- 2 Sets of drawings submitted.
- Fire extinguisher system is listed in accordance with UL 300.
- Scale: a common scale shall be use and plan information is legible.
- Equipment symbol legend is provided.
- Cross sectional view of the room an equipment is provided.
- Total number of nozzles and aggregate flow rate is provided.
- System model is provided and the plan indicates the permissible number of flow points.
- Description and measurements of the appliances to be protected is provided
- Measurements of hood, plenum, and duct are provided
- Pipe size and length for supply, branches, etc. are provided.
- Pipe volumes are provided with calculations when required as part of the listing
- Pipe configuration complies with the listed manufacturer's design manual
- Piping and nozzles are adequately braced
- Type of fuel or power shutoff device is described and detailed.
- Fuel or power shutdown device shall be arranged that it requires manual resetting
- All equipment under the hood shall shutdown when the fire-extinguishing system activates
- Nozzle types are identified for the appliance hazard, type of use, and coverage area
- Nozzle placement complies with the manufacturer's data sheet, distances from each nozzle to the protected hazard surface are detailed and distance from appliances to filters and duct opening are detailed.
- Plenum and duct areas are protected in accordance with the manufacturer's design manual.
- If provided, the fire-extinguishing system is connected to the building fire alarm system
- At least one accessible manual pull station is provided in path of egress, 10 ft. to 20 ft. from the hood and 42 in. to 48 in. above the floor level
- Control head model number is identified and the wet chemical container installation location is detailed and complies with Section
- Heat detectors or fusible links are located in accordance with the manufacturer's design manual and the detector part number is provided

- Fusible link temperature is in accordance with fire extinguishing systems' listing requirements.
- Simultaneous activation of systems occurs when protecting common hoods, plenums and ducts.

Fire Extinguishers:

- Solid fuel appliance with firebox volume of 5 cu. Ft. or less shall be equipped with at least one 2.5 gallon or two 1.5-gallon K extinguishers. The extinguishers shall be located within 30 ft.
- Class K extinguisher is within 30 ft. of the appliance. Provide one 1.5-gallon extinguisher for up to four deep fat fryers with a maximum cooking medium capacity of 80 pounds and one additional extinguisher for every additional group of four fryers. For fryers exceeding 6 sq. ft. provide an extinguisher in accordance with the manufacturer recommendations.

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Site Water Requirements

Through local ordinances in Van Buren Township, the Van Buren Township Fire Department enforces the most current edition of the International Fire Code. Section 507 provides the basis for water supplies for fire protection, including fire flow.

Appendix B "*Fire-Flow Requirements for Buildings*" and Appendix C "*Fire Hydrant Locations and Distribution*" are specifically adopted to aid in uniform enforcement of the code and determination of needed water supply requirements.

Section 507.1 Required Water Supply States:

"An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises on which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction."

Areas within proximity of a municipal water system are required to extend and provide fire flow through that system in accordance with the provisions of the code and the water authority requirements. These sites are encouraged to provide buildings with approved automatic sprinkler systems to reduce the distance from water supply, number of required hydrants and volume of required fire flow (507.5.1(2) and Appendix B105.2).

Procedure for calculating "Needed Fire Flow":

1. Determine the proposed type of construction, square footage and occupancy classification.
2. Refer to Table B105.1(1), B105.1(2) and B105.2 for needed fire-flow duration.
3. With an approved sprinkler system, the required fire flow may be reduced to 25% of the required fire flow rate, but not below a minimum required flow of 1,500gpm for 2-hours for commercial and no less than 500gpm for ½ - hour for residential.

The Van Buren Township Fire Department will gladly review proposals and alternatives in accordance with the requirements of the code. If you have any questions on these requirements, please do not hesitate to contact me at (734) 699-8900 x 9416.

Andrew Lenaghan
Deputy Chief/Fire Marshal