



**Building Plan Review Submittal Requirements and
Checklist for
New
Construction**

Current Adopted
Codes

2014 Indiana Building Code (675 IAC 13-2.6)	2014 Indiana Fire Code (675 IAC 22-2.5)
2014 Indiana Mechanical Code (675 IAC 18-1.6)	2010 Indiana Energy Conservation Code (675 IAC 19-4)
2009 Indiana Electrical Code (675 IAC 17-1.8)	2014 Indiana Fuel Gas Code (675 IAC 25-3)
2012 Indiana Plumbing Code (675 IAC 16-1.4)	

*(also: Associated codes and standards. For a complete
list of Indiana adopted codes and standards go to
www.in.gov/dhs)*

This checklist is provided for the convenience of our applicants. Complete and accurate plan submittals help speed the plan review process. Attention to the completeness and accuracy of information at the beginning of the process generally leads to fewer delays and requests for revisions by staff. Please use the following information to ensure that your application includes all of the information that is necessary for a complete review of your plans.

Applicants are responsible for submitting complete applications. Incomplete applications will result in plans being rejected for acceptance or returned to the applicant during the review process.

Submittal Package:

- ☐ 1 electronic copy of plans in pdf format
- ☐ 1 copy of specifications (if applicable)

New Construction Plans

Construction plans must be stamped in accordance with Indiana General Administrative Rules 675 IAC 12-6-7.

Plans must contain the following minimum contents where applicable. This list is not intended to be all-inclusive of every detail required on a set of New Construction Plans. Rather, it is provided to give an overview of the basic plan contents needed for the review of plan sets.



☐ **Cover Sheet** – Include general project information, such as: address, location map, and square footage of the structures. Also include a complete code analysis of the proposed building and state type of construction. State occupancy classification, occupancy loads, exiting requirements, fire sprinklers and fire alarms. Cover sheet must have a legend of symbols and abbreviations used throughout the plan set.

☐ **Code Analysis Info** – as applicable

- ✓ The list of adopted codes and its edition used for the building design
- ✓ Occupancy type
- ✓ Special use and occupancy requirements (IBC Chapter 4 and IFC)
- ✓ Total square footage. New and Existing (if applicable)
- ✓ Actual and Allowable building heights and areas
- ✓ Frontage increase applied. Provide calculations
- ✓ Fire sprinklers increase applied. What percentage? Provide calculations
- ✓ Unlimited area building (if applicable)
- ✓ Type of construction. New and Existing (if applicable)
- ✓ Fire and smoke protection features installed
- ✓ Interior finishes classification
- ✓ Fire protection systems being installed
- ✓ Occupant load New and Existing (if applicable)
- ✓ Occupant load per room including occupant load factor and square footage per room
- ✓ Occupant load per exit door including occupant load factor. New and Existing (if applicable).
- ✓ Travel distance
- ✓ Corridor ratings
- ✓ Accessibility requirements met
- ✓ Roof assembly construction and rating
- ✓ Elevator installed-electric or hydraulic
- ✓ Fire walls, ratings, and UL Design (Provide copy of UL documents)
- ✓ Fire barriers and ratings



- ✓ Fire partitions and ratings
- ✓ Fire Doors, ratings, and UL Design (Provide copy of UL documents)
- ✓ Fire Windows, ratings, and UL Design (Provide copy of UL documents)
- ✓ Identify any deficiencies. Provide a plan of action, from the architect, to fix any problems identified during initial design.

☐ **Life Safety Plan** – Life Safety Plan:

- ✓ Entire building layout
- ✓ Occupant travel distance in feet
- ✓ The location of all fire walls and their ratings. Provide the UL design cut sheet
- ✓ The location of all fire barriers and their ratings. Provide the UL design cut sheet
- ✓ The location of all fire partitions and their ratings. Provide the UL design cut sheet
- ✓ The location of all draft stopping
- ✓ The location of all fire extinguishers with the associated travel distance
- ✓ The location of all load bearing walls and their ratings
- ✓ Indicate the direction of swing for all doors
- ✓ Location of all rated doors and their rating specifications
- ✓ Location of all rated windows and their rating specifications
- ✓ Location of all Rescue Windows
- ✓ Occupant load per room including the occupant load factor and square footage per room
- ✓ Occupants per exit door and its occupant load factor. New and Existing (if applicable)
- ✓ Dead end corridors

☐ **Site Details** – Include trash enclosures, parking areas, accessibility, wall details, and screening methods for all ground mounted mechanical equipment.

☐ **Floor Plans** – Dimensioned floor plans showing all walls, structural elements, exits, windows, fire assemblies, draft stops, separations, and related information. All floor plans must be provided with a directional indicator (North) and a numerical scale.

☐ **Roof and Ceiling Plans** – [ceiling plans may not apply to shell applications] Show all elements, assemblies, fire ratings, and material. Include dimensions and details as required.



- ☐ **Exterior Elevations** – Show all views, openings, vertical dimensions, and heights. Provide elevations of exterior walls, including screening methods for all mechanical, electrical, utility, and communications equipment [if applicable].
- ☐ **Building and Wall Sections** – Show all height dimensions, materials of construction, non-rated and fire-rated assemblies, and fire-rated penetrations. Provide the UL design
- ☐ **Architectural Details** – Building sections, wall sections, waterproofing, fire proofing, weather proofing, door and window information, finishes, and accessibility requirements.
- ☐ **Foundation Plans** – Show all foundations and footings. Indicate size, locations, thicknesses, materials, strengths, and reinforcing. Show all imbedded anchoring such as anchor bolts, hold-downs, and post bases.
- ☐ **Floor and Roof Framing Plans** – Show all structural members, their size, methods of attachment, location, and materials for roof.
- ☐ **Mechanical Details** – [may not apply to shell applications] Provide dimensioned mechanical plans showing duct layouts and sizes, fire, smoke, and combination fire/smoke dampers. Location of mechanical units on roof, ground, or walls. Provide cross-section of roof showing mechanical units and parapet walls. Equipment Schedules [may not apply to shell applications] Provide a detailed schedule of all mechanical equipment and sizes.
- ☐ **Electrical Details** – Show the size and location of the main electrical service equipment and all sub-panels. Show the location of all outlets, switches, light fixtures (interior and exterior and site), and any special outlets. Identify the locations of all required GFCI and AFCI protected outlets and light fixtures.



- ☐ **Plumbing Details** – Plumbing Fixture Schedule [may not apply to shell applications] List each individual fixture and indicate whether each fixture is connected to water, direct waste, and/or indirect waste in a fixture table.

Gas Plan [if applicable] Provide gas demand schedule showing individual and total appliance

BTU/CFH demands. Provide plan view or isometric drawing showing gas pipe type, size, length and shut off location.

- ☐ **Accessibility Details** – Provide accessibility details on all plumbing elements and facilities (restrooms, bathing rooms, locker rooms, drinking fountains, etc.)

- ☐ **Fire Sprinkler and Alarm System Details** – See Fire Protection Systems Plan Review Checklist.

Fire protection system documents are typically submitted by a fire protection subcontractor after the main set of building plans are accepted for review.



Building Plan Review Submittal Requirements and Checklist for Remodel Construction

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Remodel Construction Plans

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Plans must contain the following minimum contents. This list is not intended to be all-inclusive of every detail required on a set of Remodel Construction Plans. Rather, it is provided to give an overview of the basic plan contents needed for the review of plan sets.

- ☐ **Cover Sheet** – Include general project information, such as: project title, address, location map, etc.



Cover sheet may include the code analysis of the proposed building and state type of construction. State occupancy classification, occupancy loads, exiting requirements, fire sprinklers and fire alarms. Cover sheet must have a legend of symbols and abbreviations used throughout the plan set.

☐ **Code Analysis Info** – as applicable

- ✓ List codes and editions used for the building design
- ✓ Occupancy Type
- ✓ Construction Type. New and Existing (if applicable)
- ✓ Special use and occupancy requirements (IBC Chapter 4 and IFC)
- ✓ Total square footage
- ✓ Fire protection systems being installed
- ✓ Occupant load
- ✓ Occupant load factor per occupancy type
- ✓ Code required width of exits based on occupancy type compared to what is provided
- ✓ Fire-rated assemblies required/proposed
- ✓ Smoke barriers required/proposed
- ✓ Smoke partitions required/proposed
- ✓ Travel distances allowed for occupancy type
- ✓ Corridor ratings
- ✓ Accessibility requirements met
- ✓ Elevator installed-electric or hydraulic
- ✓ Fire walls, ratings, and UL Design (Provide copy of UL documents)
- ✓ Fire barriers and ratings
- ✓ Fire partitions and ratings
- ✓ Fire Doors, ratings, and UL Design (Provide copy of UL documents)
- ✓ Fire Windows, ratings, and UL Design (Provide copy of UL documents)

☐ **Life Safety Plan** – as applicable

- ✓ Overall floor layout where remodel is located
- ✓ Occupant travel distance in feet
- ✓ The location of all fire walls and their rating. Provide the UL design cut sheet
- ✓ The location of all fire barriers and their rating. Provide the UL design cut sheet
- ✓ The location of all fire partitions and their rating. Provide the UL design cut sheet
- ✓ The location of all draft stopping
- ✓ The location of all fire extinguishers
- ✓ The location of all load bearing walls and their rating
- ✓ Indicate the direction of swing for all doors
- ✓ Location of all rated doors and their rating specifications
- ✓ Location of all rated windows and their rating specifications
- ✓ Location of all Rescue Windows
- ✓ Occupant load per room including the occupant load factor and square footage per room
- ✓ Occupants per exit door and its occupant load factor
- ✓ Dead end corridors



- ☐ **Floor Plans** – Dimensioned floor plans showing all walls, structural elements, exits, windows, fire assemblies, separations, room/space identification, and related information. All floor plans must be provided with a directional indicator (North) and a numerical scale.
- ☐ **Building and Wall Sections** – Show dimension of all heights, materials of construction, non-rated and fire-rated assemblies, and fire-rated penetrations. Provide the UL design numbers
- ☐ **Architectural Details** – Building sections, wall sections, door and window information, reflective ceiling, interior finishes, and accessibility requirements.
- ☐ **Mechanical Details** – Provide dimensioned mechanical plans showing duct layouts and sizes, fire, smoke, and combination fire/smoke dampers. Location of mechanical units on roof, ground, or other. Provide cross-section of roof showing mechanical units and parapet walls. Provide a detailed schedule of all mechanical equipment and sizes.
- ☐ **Electrical Details** – Show the size and location of the main electrical service equipment and all sub-panels. Show the location of all outlets, switches, light fixtures (interior and exterior), exit signs, emergency lighting, and any special outlets. Identify the locations of all required GFCI and AFCI (dormitories and dwelling units) protected outlets and light fixtures
- ☐ **Plumbing Details** – List each individual fixture and indicate whether each fixture is connected to water, direct waste, and/or indirect waste in a fixture table.

Gas Plan (if applicable) Provide gas demand schedule showing individual and total appliance BTU/CFH demands. Provide plan view or isometric drawing showing gas pipe type, size, length and shut off location.
- ☐ **Accessibility Details** – Provide accessibility details on all plumbing elements and facilities (restrooms, bathing rooms, locker rooms, drinking fountains, etc.
- ☐ **Fire Sprinkler and Alarm System Details** – See Fire Protection Systems Plan Review Checklists. Fire protection system documents are typically submitted by a fire protection subcontractor after the main set of building plans are accepted for review.



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

This **Sprinkler Plan Review Worksheet** must be completed as part of your Sprinkler Plan Review Submittal Requirements. **A separate and individual work sheet must be sent in for each individual "Remote Area Design".** Please send a completed form (with appropriate signatures) to Safebuildings@wrtfd.org.

PROPERTY INFORMATION

Building Name:

Building Address:

Owner's Name:

Owner's Address:

Owner's Phone Contact:

Owner's Email:

Owner's Fax:

SYSTEM DESIGNER/CONTRACTOR

Company Name:

Company Address:

Contact Person (Designer):

Phone #:

Fax #:

Email:

System Designed by NICET Level 3 or 4? ☐ Yes ☐ No

NICET Level 3 or 4 Registration # & Name:

System Designed by Registered Engineer? ☐ Yes ☐ No

Name of System Designed by Registered Engineer *(stamp included)*:

GENERAL

This proposal represents:

☐ A new system being installed in the building

☐ Modifications to an existing system

☐ Extension of an existing system

☐ Other _____?

NFPA Standard used in the system design and proposed installation:

☐ NFPA 13 (2010 Edition- 675 IAC 28-1-5)

☐ NFPA 13R (2010 Edition- 675 IAC 28-1-6)

☐ NFPA 13D (_____ Edition)?

Type of Sprinkler System(s): *(Check all that apply)*

☐ Wet

☐ Dry

☐ Anti-Freeze

☐ Pre-Action

☐ Deluge

☐ Pre-Engineered or 13D System

All sprinkler head "specification sheets and UL Listings" provided in application? ☐ Yes ☐ No

Sprinklers omitted in any area? ☐ Yes ☐ No

If yes, allowed per:

☐ Yes

☐ No

☐ N/A

NFPA 13 Omitted Area(s)?

(Specifically identify omitted areas in narrative space below)

☐ Yes

☐ No

☐ N/A

NFPA 13R Omitted Area(s)?

(Specifically identify omitted areas in narrative space below)

Narrative of specific omitted area(s) along with specific NFPA 13/13R code requirement:

.....

.....



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

Number of Floors (including Basement)?

Standpipe/Hose Connection Required? ☐ Yes ☐ No

Fire Pump Required or Provided? ☐ Yes ☐ No
(If yes, complete detailed "FIRE PUMP INFORMATION" Section below)

Fire Department Connections (FDC) located "remote from building" and within 50 feet of hydrant?
☐ Yes ☐ No If No, provide narrative explaining below:

Existing FDC located directly on Exterior Wall? (**Buildings with existing sprinklers, undergoing Renovation Only**)
☐ Yes ☐ No ☐ NA

Post Indicator Valve (PIV) located remote from the building?
☐ Yes ☐ No ☐ NA If No, explain below:

Sprinkler System valves controlling the water supply, pumps ... critical air pressures, and water-flow switches are electronically supervised per IBC 903.4?
☐ Yes ☐ No

Means through a test header or other connections downstream of the backflow prevention device available for full flow test per NFPA 25: 13.6.2.1 & NFPA 13: 8.17.4.6.1 (2011& 2010 Editions respectively)?
☐ Yes ☐ No

OCCUPANCY CLASSIFICATION

Fire sprinkler occupancy hazard classification:

☐ Light Hazard ☐ Ordinary Hazard Group 1 ☐ Ordinary Hazard Group 2 ☐ Storage
☐ Extra Hazard Group 1 ☐ Extra Hazard Group 2 ☐ Special Occupancy (**see note below**)

(Note- Special Occupancy Requirements for the system (Flammable/combustible liquids, oxidizers, etc.)

FLOW TEST INFORMATION

Date of Flow Test? Company who performed?

Static Pressure: Residual Pressure:

Flow in gallons: Coefficient Factor Used:

STORAGE INFORMATION (if applicable)

If Storage Information "Not Applicable", skip this section and go to DESIGN SPECIFICATIONS Section Below

If a storage occupancy, commodity classification:

☐ Class I ☐ Class II ☐ Class III ☐ Class IV
☐ Group A ☐ Group B ☐ Group C

PRESENCE OF HIGH-PILED and/or RACK STORAGE

Packaging & Storage Configuration

Encapsulation of Pallet Loads? ☐ Yes ☐ No Rack or Pallet Storage? ☐ Rack ☐ Pallet

Aisle Width Dimension? Flue Space Dimension?

In-Rack Sprinklers? ☐ Yes ☐ No ESFR Sprinklers? ☐ Yes ☐ No

"High Piled" Combustible Storage over 12 feet high? ☐ Yes ☐ No

"High Hazard Commodity" Storage over 6 feet high? (i.e., Group A Plastics, Idle Pallets, etc.) ☐ Yes ☐ No



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

Maximum HEIGHT of Storage Planned? ____ Feet ____ Inches LENGTH of Aisle Width Planned? ____ Feet ____ Inches

Where are Auxiliary Drains and Low Point Drains located? _____

Presence of "Solid Shelving"? ☐ Yes ☐ No Presence of "Hazardous Materials"? ☐ Yes ☐ No

Presence of other "Special Storage"? ☐ Yes ☐ No Presence of "Antifreeze/ Auxiliary Systems"? ☐ Yes ☐ No

DESIGN SPECIFICATIONS

Type of System:

☐ Hydraulically Calculated ☐ Pipe Schedule (for areas 5,000 square feet or less and existing systems only)

Water Supply for system determined by:

☐ Area/Density Curves ☐ Room Design Method

Requirements for All Hydraulically Calculated Systems (*Area/Density Method*):

What is the "Design Area" of Water Application specified?

What is the minimum rate of Water Application "Density" specified?

Please specify what type (if any) sprinkler "density adjustments" have been calculated?

Check "All" that Apply:

☐ Quick Response Sprinklers ☐ Sloped Ceilings greater than 2 in 12 ☐ Dry Pipe & Double-lock Pre-Action Systems
☐ High Temperature Sprinklers ☐ Multiple Adjustments ☐ "Actual Ceiling Height" (____ Ft. and inches)

What is the maximum "area" per individual sprinkler specified (*per NFPA 13 or specific listing*)?

How many sprinklers are required in the "Design Area"? (*per specific listing or NFPA*)

Formula: (Number of Sprinklers Required) = (Design Area of Sprinkler Application) ÷ (Coverage per Sprinkler Head)

Provide mathematical equation here: _____

What is the actual formula numbers used to verify Remote Area "Size and Shape"?

Formula: 1.2v Design Area= Minimum Length of Rectangle

Provide mathematical equation here: _____

What is the Maximum Number of Sprinkler Heads per Branch Line?

Formula: 1.2v Design Area = # of Heads on Branch Line
 "S" (Ft measured along Branch Line)

Provide mathematical equation here: _____



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

What is "In Rack" Demand, Storage Applications (if applicable)?

GPM

What is the Hose Stream demand (Inside & Outside)?

GPM

What is the total required water required for the sprinkler system (including hose demand)?

Are there any "combined sprinkler & standpipe" systems in the building, and if so, what are the minimum "pressure" requirements as outlined in NFPA 14?

What limitations (dimension, flow and pressure) on extended coverage or other listed special sprinklers? (if applicable)

Additional Requirements (*Room Design Method*)

Design Density of Sprinkler meets 11-3.1.3 (NFPA 13 2010 Edition) (minimum of .10 gpm/s.f.)? ☐ Yes ☐ No

Based upon the room that creates the greatest water demand (including corridors/hallways)? ☐ Yes ☐ No

Room enclosure walls must have a fire rating equivalent to required water supply duration based upon the hazard?

☐ Yes ☐ No

Protection of Openings Provided per design criteria below?

☐ Yes ☐ No **Light Hazard:** Automatic or Self-Closing Doors **or** include room sprinklers plus (2) sprinklers in communicating space.

☐ Yes ☐ No **Ordinary & Extra Hazard:** Automatic or Self-Closing Doors (*Required*) & Wall Rating (*Not ceiling*) equivalent to appropriate enclosure rating.

☐ Yes ☐ No **If using Corridor for the Room Design Method (*must meet all of the following*):**

- Only applicable if one row of sprinklers are installed in Corridor.
- Calculate 5 sprinklers if openings are protected.
- Calculate 7 sprinklers if openings are not protected.

☐ Yes ☐ No Room Design Compartment sprinklers under a flat, smooth, horizontal ceiling?

Additional Requirements (*NFPA 13 R Systems- Residential Sprinklers*)

☐ Yes ☐ No Building is not more than 4 stories in height?

☐ Yes ☐ No Listed Residential Sprinklers shall be used in all residential portions (*dwelling*) of building (per UL 1626)?

Exception: Listed Quick Response sprinklers may be used provided no more than 4 sprinkler heads are located within compartment or dwelling

☐ Yes ☐ No Standard or Quick Response Sprinklers shall be used in areas outside the dwelling unit

Exception: Residential Sprinklers shall be permitted in adjoining corridors or lobbies, provided with flat, smooth ceilings, and ceiling heights not exceeding 10 feet.

Design Discharge Criteria (based upon these two criteria: **Inside & Outside Dwelling**):

☐ Yes ☐ No **Inside Dwelling Unit**

- Residential Sprinkler Heads Only (*very small units may use QR Heads*)
- GPM not less than 18 gpm per single operating sprinkler and 13 gpm for multiple sprinklers within a compartment (per NFPA), or per specific listing.



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

☐ Yes ☐ No

- Density Required at 4 most hydraulically demanding at a density of (.05 gpm/sq.ft.)
- Water Supply Duration 30 minutes

Outside Dwelling Unit

- Per NFPA 13 Criteria (*QR & QR Extended Coverage Sprinklers Allowed*)
- Exceptions

Compartmented areas less than 500 sq.ft. (with all of the following)

30-minute fire rated construction

Protected with Standard or QR sprinklers not exceeding 130 s.f./sprinkler, and

Openings from the compartment protected or (less than 50 s.f. with "lintel" at least 8 in.)

Discharge Density for hazard per NFPA 13

SPRINKLER COMPONENTS: Is the following information provided on plans/specifications?

☐ Yes ☐ No

Provide complete catalog cut sheets for all equipment and materials used?

☐ Yes ☐ No

Hydraulic data nameplate (for hydraulically designed systems)?

☐ Yes ☐ No

Hydraulic reference points shown on the plan that corresponds with comparable reference points on the hydraulic calculation sheets?

☐ Yes ☐ No

Most demanding area is **highlighted on plans** and provided in hydraulic calculations?

☐ Yes ☐ No

Pipe sizes and lengths shown on the plan correspond with the sizes and lengths shown on the hydraulic calculation sheets?

☐ Yes ☐ No

Relative elevations of sprinklers, junction points, and supply or reference points?

☐ Yes ☐ No

Proved details and section view outlining all ceiling information on plans.

(Including Ceiling Height, Soffits, Obstructions, etc.)?

☐ Yes ☐ No

Pressure loss for backflow preventer and/or meter included in hydraulic calculations?

☐ Yes ☐ No

Hanger types and locations show on plans?

☐ Yes ☐ No

☐ N/A Provide a 2 ½ standpipe hose outlet at the highest landing of the stairways with access to the

roof, and on the roof where stairways do not access the roof with an additional 2 ½ hose connection? (if applicable)

☐ Yes ☐ No

☐ N/A Provide floor control valves at each floor in multi-story buildings? (if applicable)

☐ Yes ☐ No

☐ N/A Approximate capacity (in gallons) of each dry pipe system? (if applicable)

☐ Yes ☐ No

A General Information Sign to be provided on System Riser per *Section NFPA 13(2010):24.6?*

FIRE PUMP INFORMATION (if applicable)

If Fire Pump "Not Applicable", skip this section.

Manufacturer:

Type: ☐ Diesel ☐ Electric

Rated PSI:

Rated GPM:

Rated HP:

Controller Type:

Dedicated Electrical Service Provided?

☐ Yes ☐ No ☐ Unknown

Provide a standby or emergency power supply to the fire pump with an automatic power transfer switch controller?

☐ Yes ☐ No



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

Provide details and catalog cut sheets on the fire pump controller?

☐ Yes

☐ No

Fire Pump Booster pump connection provided with pressure device or switch to control operation when pressure to pump suction drops per IAC 327 IAC 8-10-3?

☐ Yes

☐ No

☐ Unknown

Fire Pump Booster pump provided with audible or visual alarm to provide warning when flow occurs per IAC 327 IAC 8-10-3?

☐ Yes

☐ No

☐ Unknown

Fire Pump Booster pump provided with a control valve on the booster pump discharge to automatically throttle the flow as necessary to maintain a minimum of ten (10) pounds per square inch per IAC 327 IAC 8-10-3?

☐ Yes

☐ No

☐ Unknown

Fire Pump Room fire-resistive-rated to 2 hour? *(or 1 hour with sprinklers)* **per NFPA 20**

☐ Yes

☐ No

☐ Unknown

Designer or Owner:

☐ I certify that the information provided in this document is true and accurate.

(Printed Name)

(Signature)

(Date)

(Company Name)

(Email and Phone Contact)

[illegible]



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

This **Commercial Cooking Exhaust Hood, Duct & Exhaust Fan** worksheet is has been created to assure all documentation has been submitted to assist you in assuring proper plans and documentations has been submitted and reviewed by the White River Township Fire Department Fire Prevention Division to help streamline your project. It is required to be included as part of the Commercial Kitchen Hood Plan Review Submittal. Please send a copy of this completed form to Safebuildings@wrtfd.org with appropriate signatures.

Applicable Codes / Editions	Indiana Building Code 2014, Indiana Fire Code 2014, Indiana Mechanical Code 2014
PROPERTY INFORMATION	
Building Name:	
Building Address:	
Owner's Name:	
Owner's Address:	
Owner's Email :	
Owner's Phone #:	
SYSTEM DESIGNER/CONTRACTOR	
Company Name:	
Company Address:	
Contact Person (Designer):	
Phone #:	
System Designed by Registered Engineer? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Name of System Designed by Registered Engineer (<i>stamp included</i>):	
KITCHEN EXHAUST SYSTEM INSTALLER	
Company Name:	
Company Address:	
Contact Person:	
Phone #:	
1. DESIGN REQUIREMENTS	
Are you <u>exempt</u> from Kitchen Exhaust Hood & Suppression Requirements? (Table-507.2)	
Yes No <input type="checkbox"/> <input type="checkbox"/> (<i>If no, proceed to Section 2</i>) (<i>If yes, complete remainder of Section 1</i>)	
Check <i>all</i> that apply a) Is your establishment regulated by the Board of Health under 410 IAC 7-24? <input type="checkbox"/> Yes? <input type="checkbox"/> No?	



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

b) Are you using "Commercial Grade" or "Residential Grade (Domestic)" Appliances?

- ☐ "Residential Grade" Cooking Appliances?
☐ "Commercial Grade" Cooking Appliances?
☐ **Both** , "Residential Grade" & "Commercial Grade" Cooking Appliances?

c) What type of cooking process will you be utilizing? (**check all that apply**)

- ☐ "Warming" of food?
☐ "Cooking" of food?
☐ "Frying" of food?

2. TYPE OF HOOD

"Type I" or "Type II" Hood(s)?

Yes No N/A

- ☐ ☐ ☐ **Type I Hood** - Collecting and removal of grease and smoke (IMC 507.2.1)
☐ ☐ ☐ **Type I Hood (Solid Fuel)** - Collecting and removal of grease and smoke
(*Separate or "Independent" Hood Provided?*) (IMC 506.3.5)

Yes No N/A

- ☐ ☐ ☐ **Type II Hood** - Collecting and removal of steam, vapor, heat, or odors. (IMC 507.2.2)

(**Not required for:** countertop electrically heated appliances such as:

Toasters, steam tables, popcorn poppers, hot dog cookers, coffee makers, rice cookers, egg cookers, and holding/warming oven.

(**Additional heat and moisture loads generated by such appliances shall be accounted for in the design of the HVAC System**)(IMC 507.2.2)

Manufacturer of Hood

Mfg., Make & model of kitchen hood

3. STYLE OF EXHAUST HOOD

Style of Exhaust Hood(s)

Check ***all*** that apply

- | | | |
|--|---|---|
| <input type="checkbox"/> Wall Mounted Canopy | <input type="checkbox"/> Single Island Canopy | <input type="checkbox"/> Double Island Canopy |
| <input type="checkbox"/> Eyebrow | <input type="checkbox"/> Back Shelf | <input type="checkbox"/> Pass Over |



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

4. LISTED & "LABELED" REQUIREMENTS

Yes No

- ☐ ☐ Designed per UL 710 Standard- Exhaust Hoods for Commercial Cooking Equipment?
- ☐ ☐ Hood provided with an attached label, symbol, or other identifying mark of the "listed" organization engaged in product evaluation?
- ☐ ☐ Hood "**listing card**" provided with application?
- ☐ ☐ **Detailed Information** provided on Cooking Appliances provided (see Item # 8 below)
- ☐ ☐ If hood is **not listed** per UL 710 Standards, **Complete Section # 5 below.**

5. Unlisted & "Unlabeled" Hood Requirements

(Skip this section if not applicable)

Yes No N/A

- ☐ ☐ ☐ Designed per IMC 507.13 Requirements?
- ☐ ☐ ☐ Detailed Information provided on Cooking Appliances "Duty Ratings"

6. Size, Location, and Outlet requirements of Hood(s)

Yes No

- ☐ ☐ Detailed Drawing provided in application?
- ☐ ☐ Amount of Linear Feet of Hood used in design, provided? _____ (feet)
- ☐ ☐ 6 inch hood "overhang" from cooking appliances provided? (IMC 507.12)
- ☐ ☐ Each "exhaust outlet" does not serve more than a 12-foot section of hood? (IMC 507.15)
- ☐ ☐ Maximum Distance from Cooking Surface(s) to lip of hood, per manufacturer's instructions provided?
_____ (inches)
- Canopy Hoods (4 feet maximum distance) (IMC 507.12)
- Non-Canopy Hoods (3 feet maximum distance) (IMC 507.14)

7. Detailed Diagram of Cooking Equipment under hood & Appliance Type Information

Yes No N/A

- ☐ ☐ Detailed Drawings showing dimensional **location(s)** of Cooking Equipment under hood in application?
- ☐ ☐ Detailed "Appliance Type" **specification sheets** "cut sheets" provided in submittal? (IMC 202)
- Check *all* that apply**
- ☐ High-heat appliance(s) (flue temp. less than 2,000 F.)
- ☐ Low-heat appliance(s) residential appliances (flue temp. less than 1,000 F.)
- ☐ Medium-heat appliance(s) (flue temp. more than 1,000 F., but less than 2,000 F.)



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Yes No N/A

- ☐ ☐ Hood Front Face Length of Hood (in linear feet) "details" provided in Section 6?
- ☐ ☐ ☐ Electric Cooking Equipment designed to UL 197 Standards?
- ☐ ☐ ☐ Gas Cooking Equipment designed to UL 795 or ANSI Z83 Standards?
- ☐ ☐ ☐ Wood Fired Cooking Equipment designed to UL 2162 Standards?

8. Appliance Duty Rating Classification(s) ("**Listed**" Hood Classification provided by Mfg)(IMC 507.13)

Yes No N/A

- ☐ ☐ ☐ **Extra Heavy Duty** -*Must have "separate" exhaust hood (per IMC 507.2.4)*
- ☐ ☐ ☐ **Heavy Duty**
- ☐ ☐ ☐ **Medium Duty**
- ☐ ☐ ☐ **Light Duty**

9. Appliance Duty Rating Classification(s) ("ASHRAE Standard 154")

Yes No N/A

- ☐ ☐ ☐ **Extra Heavy Duty** (Solid Fuel- Charcoal, Briquettes, or Wood)
- *Must have "separate" exhaust hood (per IMC 507.2.4)*
- ☐ ☐ ☐ **Heavy Duty**
- *Electric & Gas Broilers, Electric & Gas Conveyor Boilers, Gas Open-Burner Ranges (with or without oven), Electric & Gas Wok Ranges, Salamanders*
- ☐ ☐ ☐ **Medium Duty**
- *Electric & Gas Ranges (with or without oven), Electric & Gas Griddles, Electric & Gas Fryers (including donut fryers), Electric & Gas Pasta Cookers, Electric & Gas Conveyor Pizza Ovens, Electric & Gas Rotisseries*
- ☐ ☐ ☐ **Light Duty**
- *Gas & Electric Ovens, Electric & Gas Steam-Jacketed Kettles, Electric & Gas Steamers, Electric & Gas Cheesemelters.*

10. Ductless Hoods (***Skip this section if not applicable***)

Yes No N/A

- ☐ ☐ ☐ Designed in accordance with UL 710B Standards?
- ☐ ☐ ☐ Listed Information provided in application?
- ☐ ☐ ☐ Manufacturer's information provided in application?



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11. Hood Material and Gage

Type I Hoods

Yes No N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Minimum 20 Gage- Stainless Steel, provided? (IMC 507.4) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | External hood joints, seams and penetrations welded, & sealed grease-tight? (IMC 507.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Internal hood joints, seams, penetrations, filter support frames and other appendages attached inside the hood sealed grease-tight? (IMC 507.7.1) |

Type II Hoods

Yes No N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Minimum 24 Gage- Stainless Steel, provided? (IMC 507.5) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Joints, seams, and penetrations water tight? (IMC 507.7.2) |

12. Hood Supports (IMC 507.6)

Yes No

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Type I Hoods secured in place by non-combustible supports? (IMC 507.6) |
| <input type="checkbox"/> | <input type="checkbox"/> | All hoods shall be adequate for the applied load of the hood, unsupported ductwork, and possible weight of personnel working in or on the hood? (IMC 507.6) |

13. Hood Clearance to Combustible Materials (IMC 507.9)

Yes No N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18 inches to combustible material, provided? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A non-combustible wall or panel, with a smooth, cleanable, and corrosion-resistant surface, provided? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 0 inches to non-combustible materials, detailed "installation specifications" provided with submittal? |

14. Grease Filters (IMC 507.11 & Table-507.11)

Yes No

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Grease filters designed to meet UL 1046 Standards? (<i>No Mesh Filters Permitted</i>) |
| <input type="checkbox"/> | <input type="checkbox"/> | Tight-Fitting & Readily Removable without the use of tools? (IMC 507.11.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | Drip tray provided beneath lower edge of filters and pitched to collect grease? (IMC 507.11.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | Grease gutters provided to allow access for cleaning? (IMC 507.8) |
| <input type="checkbox"/> | <input type="checkbox"/> | Filters installed at an angle not less than 45 degrees from horizontal? (IMC 507.11.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | Drip tray provided beneath lower edge of filters and pitched to collect grease? (507.11.1) |



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15. Suppression Piping Penetrations into Hood (IMC 507.7.1 & 509.1)

Yes No

- ☐ ☐ Shall have liquid tight continuous external weld or be sealed by labeled device.

16. "Compensating Hoods" -make-up air delivered directly into Canopy Hood(s) (IMC 506.3.1.2)

"Fire Damper" Required for:

Yes No N/A

- ☐ ☐ ☐ Short-Circuit (Internal Supply Make Up Air) Damper, provided?
- ☐ ☐ ☐ Air Curtain or Down Face Damper (Internal Supply-MUA), provided?

17. ALL answers checked "NO", must be provided with a detailed written narrative below:

DESIGN REQUIREMENTS FOR DUCTS

1. Duct size and requirement(s)

Yes No

- ☐ ☐ Duct size dimensions and locations shown on plans submitted?
- ☐ ☐ Not interconnected with any other building ventilation or exhaust system?(IMC 506.3.5)
- ☐ ☐ Electrical wiring or wiring systems are not located within duct? (IMC 301.7)
- ☐ ☐ Designed per UL 1978 Standards ? (IMC 304.1 & 506.3.1.1, Exception 1)
- ☐ ☐ Designed per manufacturer's instructions? (IMC 304.1)
- ☐ ☐ A copy of the "manufacturer's installation instructions" included in plan application ? (IMC 304.1)



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- ☐ ☐ A copy of the “manufacturer’s installation instructions” provided to owner or representative and available on the job site at the time of inspection ? (IMC 304.1)

2. Exhaust Duct Velocity (*Need Specifications on Exhaust Fan to calculate*)

Yes No

- ☐ ☐ Sized to meet 500 feet per minute (fpm) minimum requirements? (IMC 506.3.4)

3. Construction “Type I Ducts” (*Not applicable for Type II Hoods*)

Designed per which one of the following:

Yes No

- ☐ ☐ .055 inch thick Steel (#16 manufacturer’s standard gauge)? (IMC 506.3.1.1)
- ☐ ☐ .044 inch thick (# 18 gauge Stainless Steel)? (IMC 506.3.1.1)
- ☐ ☐ Listed and labeled per UL 1978? (IMC 506.3.1.1)
- ☐ ☐ Labeled grease ducts installed according to mfg. recommendation provided?(IMC 304.1)
- ☐ ☐ All portions of the duct “leak tight” ? (IMC 506.3.3.1)
- ☐ ☐ “Grease Duct Test Leakage Test” to be performed in the presence of Code Official? (IMC 506.3.3.1)
- ☐ ☐ Ducts exposed to outside atmosphere protected against corrosion (IMC 506.2)?
- ☐ ☐ Duct-to-hood joints designed per Code? (IMC 506.3.2.2)
- ☐ ☐ Duct bracing & support shall not penetrate duct walls? (IMC 506.3.3)

4. Duct(s) penetrating fire-resistive construction: (IMC 506.3.10)

Yes No N/A

- ☐ ☐ ☐ Interior Floor(s) greater than 2 stories shall be in fire- rated shaft enclosures, with access openings on every floor?
- ☐ ☐ ☐ Exterior Wall penetrations allowed only in locations allowed as “unprotected openings” per the *Indiana Building Code*?
- ☐ ☐ ☐ Ducts **shall not** pass through Vertical Fire Barrier Walls or Fire Walls, unless:
- Protected by a shaft enclosure protected with a through-penetration fire stop system (TPFS) in accordance with ASTM E 814 & having a “F” and “T” rating equal to fire rating of the assembly? (IMC 506.3.10)
 - Having a “**pre-fabricated**” grease duct enclosure in accordance with UL 2221, and being protected with a TPFS system in accordance with ASTM E 814 & having a “F” and “T”? (IMC 506.3.10) Will provide a copy of the “manufacturer’s installation instructions” and “listing” (*cut sheet*) with application? (IMC 304.1)

5. Type I Duct(s) “Clearance to Combustibles”

Yes No N/A

- ☐ ☐ ☐ 18 inches to combustible material? (IMC 506.4, 506.5.4, & 506.3.1.2)



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- ☐ ☐ ☐ 0 inches to noncombustible material? (Listed Duct Wrap) (IMC 506.3.6)
☐ ☐ ☐ Fire-resistance Duct Wrap Materials "Listings" & "Manufacturers Installation Instructions" included with plan submittal? (IMC 304.1)
☐ ☐ ☐ Rated Shaft Enclosure provided? (IMC 506.3.11)

6. Access Panel Openings for Inspection and Maintenance of Grease Ducts

Yes No N/A

- ☐ ☐ ☐ Same material and thickness as duct?
☐ ☐ ☐ Provided with "tight-fitting" sliding or hinged doors? (IMC 506.3.8)
☐ ☐ ☐ Exhaust ducts in concealed locations, shall be indicated by permanent labels or tags installed in observable locations? (IMC 504.6.1)
☐ ☐ ☐ "Listed" Grease Tight Gasket and Sealant provided on openings? (IMC 506.3.8)
☐ ☐ ☐ Access doors shall not have fasteners that penetrate the duct, and operable without the use of a tool ? (IMC 506.3.8)
☐ ☐ ☐ To be installed according to mfg. instructions & copies of listing provided in application packet? (IMC 304.1)
☐ ☐ ☐ Sign posted on all access panels marked "Access Panel- Do Not obstruct"? (IMC 506.3.11)
☐ ☐ ☐ Horizontal Sections of Duct- access panels spaced not more than 20 feet apart? (IMC 506.3.9)
☐ ☐ ☐ Vertical Sections, access panels provided at the top of the vertical riser, and at each floor level in multi-story buildings? (IMC 506.3.11)
☐ ☐ ☐ Access Panel(s) provided at each changes of direction?
☐ ☐ ☐ **Minimum dimension** of "side openings" shall be 12 inches on each side? If can't provide minimum dimension, duct openings shall be located on the top of the duct (IMC 506.3.9)
☐ ☐ ☐ Cleanouts located on the top of duct, shall meet a minimum of 1 inch from the sides of the duct, and shall be readily accessible for maintenance? (IMC 506.3.9)
☐ ☐ ☐ At least one (1)- 20 inches by 20 inches "opening" located where ductwork is large enough to allow entry of personnel, with adequate supports? (IMC 506.3.8.1)
☐ ☐ ☐ Cleanouts located on the side of ducts, shall be greater than 1.5 inches above bottom of the duct, and not closer than 1 inch to the top of the duct? (IMC 506.3.9)

7. Prevention of Grease Accumulation in horizontal ducts (Slope Requirements)(IMC 506.3.7)

Yes No N/A

- ☐ ☐ ☐ Slope of ¼ inch per lineal foot toward hood or approved grease reservoir?
☐ ☐ ☐ Greater than 75 feet horizontal length, Slope of 1 inch per lineal foot toward hood?



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8. ALL answers checked "NO", must be provided with a detailed written narrative below:

DESIGN REQUIREMENTS FOR EXHAUST FAN(S)

Fan Specifications

Manufacturer: _____

Make & Model of Fan: _____

1. Listed and Labeled Fan

Yes No

- ☐ ☐ Designed per UL 762 Standard- Restaurant Exhaust Appliances? (IMC 506.5.1)
- ☐ ☐ Equipment or materials has been attached a label, symbol, or other identifying mark of the organization engaged in product evaluation? (IMC 506.5)

2. Hood Controls (Electrical)

Yes No

- ☐ ☐ Make-up fan(s) "**electrically interlocked**" to operate whenever cooking operations occur and automatically controlled to start and operate simultaneously with exhaust system?
(including "Kitchen" HVAC air supplied at no more than 20%) (IMC 507.2.1.1 & 508.1)
- ☐ ☐ Make-up fan "interlocked" with fire suppression system to shut down when suppression system activates? (IMC 508.1)
- ☐ ☐ Exhaust fans continue to operate after the fire extinguishment system activates & supply fans serving exhaust hood assemblies with integrated supply air plenums shall be shut off with the fire-extinguishing equipment is activated.
- ☐ ☐ Fire Alarm(*where required*) is activated upon automatic or manual activation of suppression system? (IFC 907.14)
- ☐ ☐ Gas and/or Electric Cooking Equipment located under hood shall shut down upon suppression activation (& shall require manual resetting prior to fuel or power restoration)? (IFC 904.11.2)



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3. Fan Selection

Minimum "**Exhaust Flow Requirements**" (*information required for **each** independent hood system*)

Yes No

- ☐ ☐ _____ **CFM/ linear foot** required (*per listing provided by manufacturer, or IMC 507.13*)
- ☐ ☐ Minimum Exhaust "Duct Velocity" Requirements (*500 fpm*)
- ☐ ☐ **Actual** Exhaust "Duct Velocity" per design _____ fpm.
- ☐ ☐ **Listed Information** "*cut sheet*" provided in application?
- ☐ ☐ **Manufacturer's installation instructions** provided in application?

Minimum "**Make-up Air Flow Requirements**". (IMC 508.1)

Yes No

- ☐ ☐ _____ **CFM** required (*per listing provided by manufacturer*)
- ☐ ☐ Maximum 20% of required CFM delivered through Kitchen HVAC, ("*interlocked*" to "*automatically*" *operate during cooking operations*). (IMC 505.2)
- ☐ ☐ Amount of make-up air supplied shall be approximately equal to the amount of exhaust air?

Yes No

- ☐ ☐ Tempered Makeup air provided? (*makeup air shall not exceed 10 degrees F conditioned space air*)? (IMC 508.1.1)
- **Exception:** *Short-Circuit Make up air delivered within the hood cavity, need not be tempered, except as required per manufacturer's instructions.*

4. Termination of Fan

Yes No

- ☐ ☐ Roof-top Termination? (*If yes, Complete Section #5 below*)
- ☐ ☐ Wall Termination? (*If yes, Complete Section # 6 below*)

5. Roof-top Termination(s)

Yes No N/A

- ☐ ☐ ☐ Exhaust Outlets terminate more than 40 inches above roof? (IMC 506.3.13.1)
- ☐ ☐ ☐ Exhaust Outlets terminations shall not be directed towards nor impinge on any structure? (IMC 506.3.13.3)
- ☐ ☐ ☐ Provided with a grease drain system to a rainproof collection container or remote grease trap? (IMC 506.5.2)



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- ☐ ☐ ☐ Hinged Kit provided permit proper inspection and cleaning (IMC 506.5.3)
- ☐ ☐ ☐ Flexible weatherproof electrical cable to permit proper inspection and cleaning (IMC 506.5.3)

Clearance(s)

Yes No N/A

- ☐ ☐ ☐ **Minimum 10 feet of horizontal clearance to:**(IMC 506.3.13.3 & 508.1 & 401.4)
- Contiguous and/or adjacent buildings, property lines, and above adjoining grade level.
 - Air Intakes Openings : minimum of 10 feet horizontal & 3 feet above
- ☐ ☐ ☐ **Minimum of 5 feet of clearance from:** (IMC 506.3.13.3)
- Contiguous and/or adjacent buildings, air intakes, property lines, and above adjoining grade level, **when exhaust outlet discharges away from such locations.**

Safe Access (IMC 306.5):

Yes No N/A

- ☐ ☐ ☐ Equipment located on structures 16 feet in height or greater, require permanent ladders?
- ☐ ☐ ☐ Equipment located on sloped roofs" greater than 25 percent (3 in 12) at any height, are required to have a platform not less than 30 inches in any dimension and provided with guardrails not less than 42 inches above the platform? Access to equipment platforms shall not require walking on roofs have a slope greater than 33 percent (4 in 12)?
- ☐ ☐ ☐ Equipment located outside of roofline, shall be provided with safe access and work platform for service, repair, and maintenance.
- ☐ ☐ ☐ A receptacle outlet shall be provided at or near the equipment.

6. Wall Termination(s) (IMC 506.3.12.2)

Yes No N/A

- ☐ ☐ ☐ Exhaust Outlets terminations shall not be directed towards nor impinge on any structure? (IMC 506.3.13.3)
- ☐ ☐ ☐ Provided with a grease drain system to a rainproof collection container or remote grease trap? (IMC 506.5.2)
- ☐ ☐ ☐ Hinged Kit provided permit proper inspection and cleaning (IMC 506.5.3)
- ☐ ☐ ☐ Flexible weatherproof electrical cable to permit proper inspection and cleaning.

Clearance(s) (IMC 506.3.12)

Yes No N/A

- ☐ ☐ ☐ Permitted where does not create public nuisance or fire hazard?
- ☐ ☐ ☐ Shall not be located where "protected openings" are required per IBC?



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- ☐ ☐ ☐ Shall not be located within 3 feet of exterior openings (window, doors, HVAC)?
- ☐ ☐ ☐ **Minimum 10 feet of horizontal clearance to:** (IMC 506.3.13.3)
- Contiguous and/or adjacent buildings, property lines, and above adjoining grade level.

Air Intakes Openings : minimum of 10 feet horizontal & 3 feet above

- ☐ ☐ ☐ **Minimum of 5 feet of clearance from:** (IMC 506.3.13.3)
- Contiguous and/or adjacent buildings, air intakes, property lines, and above adjoining grade level, **when exhaust outlet discharges away from such locations.**
- ☐ ☐ ☐ **Minimum of 3 feet of clearance of exterior openings** (*windows, doors*)?

Safe Access (IMC 306.5):

Yes No N/A

- ☐ ☐ ☐ Equipment located outside of roofline, shall be provided with safe access and work surface for inspection and cleaning?
- ☐ ☐ ☐ A receptacle outlet shall be provided at or near the equipment (IMC 306.5.2)

7. ALL answers checked "NO", must be provided with a detailed written narrative below



DISCLAIMER: *The information presented above is the basic requirements for commercial construction and is not to be relied upon for the complete requirements for commercial construction. It is to your advantage to use a design professional or a professional contractor to assist you with those areas of construction with which you are unfamiliar. Unfamiliarity with the applicable codes may cause unplanned delays and unforeseen costs to comply with code regulations.*

Owner or General Contractor

(Printed Name)

(Signature)

(Date)

(Company Name)

(Email and Phone Contact)



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

This **Fire Alarm Plan Review Worksheet** is to be completed with your Fire Alarm Plan Review Submittal. Please contact us with any questions at Safebuildings@wrtfd.org or (317)888-8337.

PROPERTY INFORMATION

Building Name:

Building Address:

Owner's Name:

Owner's Address:

Owner's Phone Contact:

Owner's Email:

Owner's Fax:

SYSTEM DESIGNER/CONTRACTOR

Company Name:

Company Address:

Contact Person (Designer):

Phone #:

Fax #:

Email:

☐ Yes ☐ No

System designed by person who is experienced in the proper design, application, installation, and testing of fire alarm systems per *NFPA 72- 10.4.1 (2010 edition).and 675 IAC 12-6-9?*

☐ Yes ☐ No

System installer has proper qualifications to install and test fire alarm systems (i.e. NICET Fire Alarm Level 2, Factory Training and Certified, etc.) per *NFPA 72 -10.4.3 (2010 edition)?*

☐ Yes ☐ No

Copy of installer's current certification is provided with submittal?

GENERAL

Indicate if the installation of the proposed Fire Alarm System is (check all that apply):

☐ Required by State of Indiana Building Code

☐ Required by Insurance Provider

☐ Not Required, system voluntarily installed

☐ Other _____

NFPA Standard used in the system design and proposed installation:

☐ NFPA 72 (2010 Edition-675 IAC 28-1-28)

This proposal represents:

☐ A new system being installed in the building

☐ Modifications to an existing system

☐ Extension of an existing system

☐ Other _____?

Construction Type of Building (as defined by the Indiana Building Code):

☐ Type I ☐ Type II ☐ Type III ☐ Type IV (Heavy Timber) ☐ Type V ☐ Mixed

Occupancy(s) Classification of Building (as defined by the 2014 Indiana Building Code): **Check ALL that apply**

☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ B ☐ E ☐ F-1 ☐ F-2 ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5

☐ I-1 ☐ I-2 ☐ I-3 ☐ M ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4 ☐ S-1 ☐ S-2



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System required per 2014 IBC 907.2 through 907.2.23: (Check **all** that apply)

- ☐ **Group A** (manual fire alarm having an occupant load greater than 300)
- ☐ **Group B** (manual fire alarm having an occupant load greater than 500 or 100 above or below the lowest level of exit discharge)
- ☐ **Group E** (manual fire alarm system required unless occupant load is below 50)
- ☐ **Group F** (manual fire alarm system required when building is two (2) or more stories in height and occupant load is 500 above or below the lowest level of exit discharge)
- ☐ **Group H** (manual fire alarm required in Group H-5 and in occupancies used to manufacture organic coatings. Automatic smoke detection required for highly toxic gases, organic peroxides, and oxidizers in accordance with IFC Chapters 37, 39, and 40)
- ☐ **Group I** (manual fire alarm system required. Smoke detection required in Groups I-1, I-2, and I-3)
- ☐ **Group M** (manual fire alarm system when occupant load is greater than five hundred (500) or one hundred (100) above or below the lowest level of exit discharge)
- ☐ **Group R-1** (manual fire alarm system required, automatic fire alarm system required in interior corridors serving sleeping rooms, smoke alarms are required in sleeping rooms)
- ☐ **Group R-2** (manual fire alarm system required where sleeping units are located three (3) or more stories above the lowest level of exit discharge, any dwelling or sleeping unit is located below the highest level of exit discharge, or the building contains more than 16 dwelling units)

<input type="checkbox"/> Yes <input type="checkbox"/> No	Factory specifications are included for all devices and wiring to be installed with this system?
<input type="checkbox"/> Yes <input type="checkbox"/> No	A copy of the required Construction Design Release from the State of Indiana for the fire alarm system is included per 675 IAC 12-6-4 Sec. 4(b)(3)(G)?
<input type="checkbox"/> Yes <input type="checkbox"/> No	A Knox Box shall be installed on the exterior of the building where the fire alarm and/or sprinkler system is monitored or the non-monitored fire alarm system is equipped with an outside audible/visual signaling device per 2014 IFC 506.1. The location of the Knox Box shall be approved by the fire department prior to installation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	All rooms are labeled on floor plans that are consistent with final room numbers of each room?
<input type="checkbox"/> Yes <input type="checkbox"/> No	All rooms are labeled on floor plans are in accordance with their usage?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Equipment symbol legend is provided on plans?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Reflected ceiling plan shows location of all other equipment on ceiling? (<i>i.e., supply registers, return air grills, ceiling fans, etc.</i>) or anything else that would interfere with the proper operation of the detector?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Fire Alarm Control Panel noted on plans? (FACP)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Locations of all Remote Annunciators noted on plans? (RA)
<input type="checkbox"/> Yes <input type="checkbox"/> No	Locations of all devices are shown on floor plans?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Locations of all end-of-line resistors and/or end-of-line relays are shown on submitted drawings?



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PRIMARY POWER SUPPLY

The dedicated branch circuit for the fire alarm system is supplied by means defined in NFPA 72 10.5.5.1 (2010 edition):

- ☐ Commercial light and power
☐ An engine-driven generator
☐ A combination of commercial light and power and an engine-driven generator.

☐ Yes ☐ No

Dedicated branch circuit will be mechanically protected with a "breaker lock" per NFPA72: 10.5.5.3 (2010 edition)?

☐ Yes ☐ No

The circuit breaker is painted **red** and circuit number on the electrical panel schedule is identified as "**FIRE ALARM CIRCUIT**" per NFPA 72: 10.5.5.2.3 (2010 edition)?

☐ Yes ☐ No

The panel number and circuit number are permanently labeled in the fire alarm control panel NFPA 72: 10.5.5.2.1 (2010 edition)?

SECONDARY POWER SUPPLY

☐ Yes ☐ No

Calculations are provided that prove the secondary power has sufficient capacity to operate the fire alarm system under quiescent load for a minimum of 24 hours and at the end of that 24 hours be able to operate all alarm notification appliances for a period of 5 minutes per NFPA 72 10.5.6.3.1 (2010 edition)?

☐ Yes ☐ No

If not located within the fire alarm control panel, the location of the batteries being utilized for secondary power shall be marked on the plans and permanently identified at the control unit per NFPA 72 10.5.8.4 & 10.5.9.2.5 (2010 edition)?

ALARM SYSTEM SUPERVISION

☐ Central Station System
 ☐ Proprietary Supervising Station System
 ☐ System not monitored (**2014 IBC 907**)

Name of Monitoring Station:

Contact:

Address:

Address:

Phone:

Fax:

E-mail:

☐ Yes ☐ No ☐ N/A

For sprinklered buildings, all valves controlling the water supply, pumps, tanks, water levels and temperatures, critical air pressures, and water-flow switches are electronically supervised per 2014 IBC 903.4

COMMUNICATION

DACT shall employ two (2) Transmission channels; one for the **primary channel** and a different transmission technology from the **secondary channel** per NFPA 72-26.6.3.2.1.4(A) (2010 Edition).

The **primary channel** to be provided is provided by (**only check one**): ***Note: VOIP NOT Accepted.**

- ☐ A telephone line (POTS)
 ☐ A cellular telephone connection
 ☐ A one-way radio system
☐ An internet alarm communicator
 ☐ A two-way RF multiplex system

The **secondary channel** to be provided by (**only check one...NOTE- Cannot be the same channel as the primary channel**)

- ☐ A telephone line (POTS)
 ☐ A cellular telephone connection
 ☐ A one-way radio system
☐ An internet alarm communicator
 ☐ A two-way RF multiplex system



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Type of System (check all that apply)

- ☐ Manual System
☐ Automatic Smoke and Fire Detection
☐ Manual and Automatic
☐ Addressable System
☐ Point Addressable System
☐ Analog Addressable System
☐ Conventional Zone System
☐ Wireless System

Wiring and Circuits

- | | |
|---|--|
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Fire alarm wiring installed in a plenum space is plenum rated per 2014 IMC 602.2.1.1? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | <u>Initiating device circuits</u> are indicated on the submitted drawings per NFPA: 72-10.17.1.1 & 23.4.2 (2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | <u>Signaling line circuits</u> are indicated on the submitted drawings per NFPA 72-10.17.1.1 & 23.4.2 & 23.4.3 (2010 edition)? |

Notification Appliances (Ch.18)

- | | |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | The total <u>sound pressure</u> between the ambient noise level and the fire alarm notification device shall not exceed 110 dBA per NFPA 72:18.4.1.2 (2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | The <u>sound level</u> is at least 15 dBA above the average ambient sound level per NFPA 72:18.4.3.5.1(2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | The <u>sound level</u> for sleeping rooms is at least 15 dBA above average ambient sound level or 75 dBA measured at the pillow, whichever is greater, and produce a "low frequency alarm signal" in accordance with NFPA 72:18.4.5 (2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | The visible characteristics (<i>light, color, and pulse</i>) are provided in accordance with NFPA 72: 18.5 & "room spacing" for wall mounting in accordance with T-18.5.4.3.1 (a) and the plans indicate the specific candela per each individual device? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | The visible characteristics (<i>light, color, and pulse</i>) are provided in accordance with NFPA 72: 18.5 & "room spacing" for ceiling mounting in accordance with T-18.5.4.3.1 (b) and the plans indicate the specific candela per each individual device? ? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | <u>Location of visible notification</u> devices installed in Corridors (if applicable) are provided in accordance with NFPA 72:18.5.4.4 (2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | <u>Location of visible notification</u> devices installed in Corridors (if applicable) are located not more than 15 ft. from the end of a corridor and with a separation not greater than 100 ft. between appliances in accordance with NFPA 72:18.5.4.4(2010 edition)? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Alarm notification devices are installed in all general usage area such as rest rooms, meeting rooms, hallways, lobbies, and any other area for common use per ADA 4.28 |



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Initiating Devices

Manual Fire Alarm Boxes (Pull Stations)

<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	No pull stations are installed per exceptions per 2014 IBC Section 907? (List Exceptions Taken and Skip to the next section).
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Manual fire alarm boxes are mounted not more than 5 feet from the entrance to each marked exit per 2014 IBC 907.4.2.1?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Manual fire alarm boxes are mounted so the travel distance to each pull station does not exceed two hundred feet (200') per 2014 IBC 907.4.2.1?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The height of pull station shall be a minimum of forty-two inches (42") and maximum of forty-eight (48") above the floor per 2014 IBC 907.4.2.2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Grouped exit egress doors greater than forty feet (40') in width are equipped with a manual fire alarm box on each side of the opening within five (5') of each side of the opening per NFPA 72:17.14.7 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Manual fire alarm boxes shall be red in color NFPA:72:17.14.1.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	When the fire alarm system is not monitored by a supervising station, a permanent sign must be affixed adjacent to each pull station that reads: WHEN ALARM SOUNDS- CALL FIRE DEPARTMENT per 2014 IBC 907.4.2.4?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	If a "tamper proof" cover is provided, it must be listed for use with the proposed fire alarm box per 2014 IBC 907.4.2.5?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	A single pull station is installed where the fire alarm system is only equipped with automatic detectors or waterflow switches and no other pull stations are installed per NFPA 72:23.8.5.1.2 (2010 edition)? Location:

SMOKE & HEAT DETECTOR COVERAGE (17.5)

<input type="checkbox"/> Yes <input type="checkbox"/> No	Total (Complete) Coverage- All rooms, halls, storage areas, basements, attics, lofts, spaces above suspended ceilings, and other subdivisions and accessible spaces (NFPA 72:17.5.3.1- 2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Partial Coverage- In accordance with appropriate prescriptive spacing and location criteria as required in the 2014 Indiana Building Code (NFPA 72:17.5.3.2- 2010 edition)? The Designer has consulted with the building owner and clearly communicated the limitations of Non-Complete Coverage?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Selective Coverage- Detection is not required by Code but installed to meet performance objectives of building owner (NFPA 72: 17.5.3.3-2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No	No smoke alarms are to be installed.

SLOPED CEILINGS & HIGH CEILINGS (Peaked and Shed) 17.6.3.4 & 17.6.3.5

<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Are detectors located in area of a "ceiling slope of <u>less than 30 degrees</u> (slope of more than 1 in 8)? (i.e., Shed Type) (If no, skip to next section) NFPA 72:17.6.3.4.1-2010?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Are detectors located in area of a "ceiling slope of <u>more than 30 degrees</u> (slope of more than 1 in 8)? (i.e., Peaked Type) (If no, skip to next section) 17.6.3.4.1.2-2010Ed?



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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Spacing and Location of detectors in “ Sloped Ceiling ” Areas in accordance with NFPA 72:17.6.3.4.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Spacing and Location of smoke/heat detectors in “ Peaked Type Ceiling ” Areas to be located no more than 4 inches and a maximum of 36 inches from the top of peak in accordance with NFPA 72:6.3.4 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Detectors located in “ High Ceiling ” Areas 10 to 30 feet high, heat detector spacing shall be in accordance with NFPA 72:17.6.3.5 (2010 edition)?
RAISED FLOORS and/or SUSPENDED CEILINGS (17.7.3.5)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Are detectors located in raised floor or suspended ceiling areas? (If no, skip to next section)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Detector spacing for <u>raised floors</u> shall be in accordance with NFPA 72:17.7.3.5.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Detector spacing for suspended ceilings shall be in accordance with NFPA 72:17.7.3.5.2 (2010 edition)?
Smoke Alarms (Residential Type Occupancies i.e., Apts, Hotels, Ass’t Living/Nursing Homes)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Single- or multiple-station smoke alarms for Group R-1 installed in all sleeping areas and in every room leading to the path of egress from the sleeping area to the door leading from the sleeping unit in accordance with 2014 IBC 907.2.11.1?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Single- or multiple-station smoke alarms for Group R-2, R-3, R-4 and I-1 installed in each room used for sleeping purposes, outside each sleeping area and in each story within a dwelling unit per 2014 IBC 907.2.11.2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Primary power for the smoke alarms from building power with a battery backup or connected to the emergency electrical system for Group R-1 per 2014 IBC 907.2.11.4?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All smoke alarms for Groups R-1, are interconnected per 2014 IBC 907.2.11.3?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Audible Appliances (<i>horns</i>) are installed in <u>sleeping areas</u> and produce a “ <i>low frequency alarm signal</i> ” in accordance with NFPA 72:18.4.5 (2010 edition)?
Smoke-Sensing Fire Detectors (17.7)	
Spot-Type Smoke Detectors	
<input type="checkbox"/> Yes <input type="checkbox"/> No	A smoke detector is installed at the Fire Alarm Control Panel (s) per NFPA 72:10-4.4 (2010 edition). No other spot-type smoke detectors are to be installed. Check Yes and <u>Skip to next section</u> .
<input type="checkbox"/> Yes <input type="checkbox"/> No	Ceiling mounted detectors on smooth ceilings are spaced at thirty (30) foot intervals per NFPA 72:17.7.3.2.3.1 or Figure A.17.6.3.1.1(g) (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Side wall detectors to be located between the ceiling and 12 inches down from the ceiling to the top of the detector? NFPA 72: 17.7.3.2.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Ceiling mounted detectors in solid joist and beam construction designed in accordance with NFPA 72:17.7.3.2.4.1 through 17.7.3.2.4.6 (2010 Edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Will smoke detectors be installed in the construction phase of the project (and if true) will be protected from construction debris, dirt and damage during construction (w/ protective covers), and cleaned and verified to function properly in accordance



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	with their listing by conducting sensitivity testing in accordance with NFPA 72:17.7.1.11 (2010 edition) prior to obtaining Certificate of Occupancy Permit?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Detectors installed in high air movement areas are spaced per NFPA 72 Table 17.7.6.3.3.1 & Figure 17.7.6.3.3.1 in accordance with NFPA 72:17.7.6.3.3 (2010 edition)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Smoke detectors in "High-Rack Storage" (exceeding 12 ft. in height) shall be in accordance with NFPA 72:17.7.6.2 (2010 edition)?
Air Sampling Type Smoke Detectors (17.7.3.6)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	No air sampling type smoke detectors are to be installed. <i>Skip to next section.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The location of each sampling port is noted on the plans and spaced and located per spacing of spot-type detectors in accordance with NFPA 72:17.7.3.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Documentation is provided that shows the maximum air sample transport time does not exceed 120 seconds in accordance with NFPA 72:7.6.3.6.2 and manufacturer's listings (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p>System piping for air sampling detectors shall be labeled as "SMOKE DETECTOR SAMPLING TUBE—DO NOT DISTURB" (17.7.3.6.8) at the following locations:</p> <ul style="list-style-type: none"> <input type="checkbox"/> At changes in direction or branches of piping <input type="checkbox"/> At each side of penetrations of walls, floors, or other barriers <input type="checkbox"/> At intervals on piping that provide visibility within the space, but no greater than 20 feet
Projected Beam-Type Smoke Detectors (17.7.3.7)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	No projected beam-type smoke detectors are to be installed. <i>Skip to next section.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Detectors are located in accordance with the manufacturer's published instructions in accordance with NFPA 72:17.7.3.7.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Documentation is provided showing the effects of stratification have been evaluated in the locating of detectors in accordance with NFPA 72:17.7.3.7.2 (2010 edition)
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The beam length is shown on the plans and it does not exceed the maximum length permitted by the manufacture in accordance with NFPA 72:7.3.7.3 (2010 edition)?
Duct Smoke Detectors (17.7.5.4.2)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	No duct smoke detectors are to be installed. <i>Skip to next section.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Location and Installation of Detectors in Air Duct Systems designed per NFPA 72:17.7.5.5 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Duct smoke detectors are installed in HVAC units that have a return air capacity greater than two thousand (2000) cfm's per 2014 IMC 606.2.1?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Duct smoke detectors are not installed, and the buildings smoke detectors provide protection for the area covered by HVAC system per exception to 2014 IMC 606.2.1?



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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Duct smoke detectors are installed where multiple HVAC systems share common supply or return air ducts or plenums with a design capacity greater than two thousand (2000) cfm's per 2014 IMC 606.2.2?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Duct smoke detectors are installed in each story of the return system that serves two (2) or more stories with a design capacity greater than fifteen thousand (15,000) cfm's per 2014 IMC 606.2.3?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Upon activation, the duct smoke detector will shut down the operation of the HVAC unit that it serves per 2014 IMC 606.4?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The duct smoke detector is connected to the fire alarm system per 2014 IMC 606.4.1 and the activation of the detector initiates an audible and visual signal at a constantly attended location?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The duct detector does not activate an audible and visual signal at a constantly attended location but activates the buildings alarm notification devices per 2014 IBC 907.3.1 exception 1?
<input type="checkbox"/> Yes <input type="checkbox"/> No	Access is provided to each duct detector for periodic inspection, maintenance, and testing per 2014 IMC 606.3?
Heat-Sensing Fire Detectors (17.6)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	No heat detectors are to be installed. <i>Skip to next section.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	RTI (<u>Response Time Index</u>) & Set-Point <u>Temperature</u> listing documentation for spot-type heat detectors included with plan submittal in accordance with NFPA 72:17.6.1.4 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Heat-sensing fire detectors shall be marked with their listed operating temperature and/or where the alarm threshold is field adjustable be marked with their RTI per NFPA 72:17.6.2.2.2 & 3 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Side wall detectors are mounted between four (4) to twelve (12) inches from the top of the detector to the ceiling per NFPA 72-17.6.6.3.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Ceiling mounted detectors are not installed within four (4) inches of a sidewall to the nearest edge of the detector per NFPA 72-17.6.6.3.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The heat detector is mounted on the bottom of the joist in solid joist construction per NFPA 72:17.6.3.2.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The heat detectors are located on the bottom of a beam where the beam is projecting less than 12 inches in depth from below the ceiling and less than 96 inches (8 ft.) on center per NFPA 72:17.6.3.3.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Spacing of heat detectors for Beam (17.6.3.2) and Solid Joist Construction (17.6.3.3) are designed in accordance with NFPA 72 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Line-type heat detectors that are mounted on the ceiling or sidewall are not more than 20 inches from the ceiling per NFPA 72:17.6.3.1.3.2 (2010 edition)?
Radiant Energy –Sensing Fire Detectors Detection (17.8)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	No radiant energy-sensing fire detectors are to be installed. <i>Skip to next section. (Flame Detectors, Spark/Ember Detectors, or Video Image Flame Detection)</i>



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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Documentation is provided showing that the type and quantity of detectors is in accordance with NFPA 72:17.8.2 and 17.8.2.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Documentation is provided showing the spacing of detectors in accordance with NFPA 72:17.8.3 / 17.8.4 / 17.8.5 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Line-type detection to be installed in accordance with NFPA:17.6.3.1.3.2 (2010 edition)?
Fire Suppression Systems	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	There is no sprinkler or suppression system to be installed. <i>Skip to next section.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The activation of an automatic fire suppression system shall activate the fire alarm system per NFPA 72:17.13 (2010 edition) and 2014 IBC 904.3.5. This shall include any of the following: Wet-chemical system, Dry-chemical system, Foam systems, Carbon dioxide systems, Halon systems, Clean-agent systems, and Commercial cooking systems?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Activation of the automatic sprinkler system activates the fire alarm system per 2014 IBC 903.4.?
The following are monitored for the sprinkler system per 2014 IBC 903.4:	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All valves controlling water supply
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Water tank level
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Water tank temperature
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Low air pressure
Fire Pump Controllers	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The Alarm and Signal Devices on the controller for the fire pump or motor shall activate the fire alarm as required by NFPA 20 7-4.7 (a) (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The loss of <u>any</u> phase at the line terminals of the motor contactor for the fire pump is monitored per NFPA 20 7-4.7(b) (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<u>Phase reversal</u> of line terminals to the motor contactor for the fire pump is monitored per NFPA 20 7-4.7(c) (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The <u>alternate source of power</u> to the fire pump controller is monitored and shall indicate the alarm circuit when the alternate source of power is supplying power to the fire pump controller per NFPA 20 7-4.7(d) (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	A "pump running signal" on the fire pump shall be permitted to be a supervisory or alarm signal per NFPA 72: 23.8.5.9.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Signals, other than "pump running" on the fire pump shall be supervisory signals per NFPA 72:23.8.5.9.2 (2010 edition)?
Door Release Service (17.7.5.6)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	There is no door release service to be installed. <i>Skip to next section.</i>



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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Smoke detectors installed and spaced as required by 17.7.3 protecting a room, corridor, and/or enclosed space accomplish door release in accordance with NFPA 72:17.7.5.6.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Where smoke door is accomplished directly from the smoke detector, the detector shall be listed for releasing service in accordance with NFPA 72:17.7.5.6.3 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Location and spacing of smoke detectors are installed in accordance with NFPA 72:17.7.5.6.5.1 through 17.7.5.6.6.2 (2010 edition)?
Elevator Recall for Fire Fighters' Service (21.3)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	There are no elevators to be installed. <i>Skip to end.</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Smoke detectors or other automatic fire detection devices installed and utilized for elevator recall are connected to the building fire alarm system in accordance with NFPA 72:21.3.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Buildings not equipped with a fire alarm system shall have a dedicated fire alarm system control unit and the control unit shall be permanently marked as " ELEVATOR RECALL CONTROL AND SUPERVISOR PANEL " the control unit is shown on the submitted drawings in accordance with NFPA 72:21.3.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lobby smoke detectors are located within 21 feet of the centerline of each elevator door within the elevator bank under control of the detector in accordance with NFPA 72:21.3.5 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Smoke detectors are NOT installed in <u>unsprinklered</u> elevator hoistways unless they are installed to activate smoke relief equipment in accordance with NFPA 72:21.3.6 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Other automatic fire detection is installed for elevator recall because ambient conditions prohibit the installation of smoke detectors in accordance with NFPA 72:21.3.7 shall be "specifically intended" for these types of spaces (2010 edition) ...i.e., <i>heat detectors with sufficient RTI and Temperature ratings?</i>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Any detector, when actuated that has initiated fire fighters recall shall also be annunciated at the Fire Alarm Control Unit(s) and remote annunciator(s) per NFPA 72:21.3.8 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Activated detectors in the elevator hoistway and machine room alert emergency personnel at the control unit and remote annunciators that the elevators are no longer safe to use in accordance with NFPA 72-21.3.9 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	The activation of smoke detectors for <i>Elevator Recall</i> shall be provided in accordance with NFPA 72: 21.3.12.1 & 21.3.12.2 (2010 edition)?
Elevator Shutdown	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Heat detectors installed to shut down elevator power prior to sprinkler operation are listed with a lower temperature rating and higher sensitivity as compared to the sprinkler in accordance with NFPA 72:21.4.1 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Heat detectors installed to shut down elevator power are installed within 2 feet of each sprinkler head in accordance with the requirements of Chapter 17 or alternative



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	engineering methods are used as specified in Annex B in accordance with NFPA 72:21.4.2 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pressure or waterflow switches are used to shut down elevator power and the switches are not equipped with time-delay functions in accordance with NFPA 72:21.4.3 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Control circuits for elevator shutdown shall be monitored for the presence of operating voltage and the loss of voltage shall initiate a supervisory signal at the control unit and required remote annunciators in accordance with NFPA 72:21.4.4 (2010 edition)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initiating devices installed per 21.4.2 and 21.4.3 shall be monitored for integrity by the fire alarm control unit in accordance with NFPA 72:21.4.5 (2010 edition)?

ALL answers checked "NO", must be provided with a detailed written narrative below.



Written narrative providing “intent” and “system description”

Ex. “Install 3 additional smoke detectors for newly installed meeting room”

DISCLAIMER: *The information presented above is the basic requirements for commercial construction and is not to be relied upon for the complete requirements for commercial construction. It is to your advantage to use a design professional or a professional contractor to assist you with those areas of construction with which you are unfamiliar. Unfamiliarity with the applicable codes may cause unplanned delays and unforeseen costs to comply with code regulations.*

Owner or General Contractor

(Printed Name)

(Signature)

(Date)

(Company Name)

(Email and Phone Contact)



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

This **Commercial Kitchen Automatic Fire Suppression Worksheet** has been created to assure all documentation has been submitted to assist you in assuring proper plans and documentations has been submitted and reviewed by the White River Township Fire Department Fire Prevention Division to help streamline your project. It is required to be included as part of the Commercial Kitchen Hood Plan Review Submittal.

Please send a copy of this completed form to Safebuildings@wrtfd.org with appropriate signatures.

Project Information

Business Name:

Address:

Phone Number:

Email:

New or Existing Restaurant:

New or Existing Hood:

Owner/Occupant:

Printed Name:

Signature:

Address:

Phone Number:

Email:

System Designer:

Printed Name:

Signature:

Address:

Phone Number:

Email:

System Installer:

Printed Name:

Signature:

Address:

Phone Number:

Email:



WHITE RIVER TOWNSHIP FIRE DEPARTMENT

Design Requirements	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. Has a Construction Design Release (CDR) from the State of Indiana been issued for your project? A CDR is required for a new Class 1 Structure or the remodel of a Class 1 Structure per 675 IAC 12-6-3 and 12-6-4.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. Is the system designed to meet NFPA 17A Standard-2002 Edition (Wet Chemical Extinguishing Systems- UL 300)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. Documentation provided by manufacturer included in application that certifies <u>designer</u> has acquired instruction necessary to safely design Pre-Engineered Wet Chemical Systems (NFPA 17A)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4. You have submitted your plans to the appropriate Building Department?
Drawings (All of the following indicated)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	5. Type and location of appliances
<input type="checkbox"/> Yes <input type="checkbox"/> No	6. Means to ensure appliances correctly positioned
	7. Fuel type: Gas <input type="checkbox"/> Electric <input type="checkbox"/>
<input type="checkbox"/> Yes <input type="checkbox"/> No	8. Fuel Gas piping size and location
<input type="checkbox"/> Yes <input type="checkbox"/> No	9. Location of fuel shut off devices (Mechanical / Electric gas valves)
<input type="checkbox"/> Yes <input type="checkbox"/> No	10. Location of actuation control box
<input type="checkbox"/> Yes <input type="checkbox"/> No	11. Chemical container location
<input type="checkbox"/> Yes <input type="checkbox"/> No	12. Nozzle location and piping (all supply and branch piping indicated))
<input type="checkbox"/> Yes <input type="checkbox"/> No	13. Nozzle flow points and total system flow points identified
<input type="checkbox"/> Yes <input type="checkbox"/> No	14. Automatic Detection system (detector locations indicated)
<input type="checkbox"/> Yes <input type="checkbox"/> No	15. Quantity and temperature of all fusible links identified
<input type="checkbox"/> Yes <input type="checkbox"/> No	16. Manual pull station location(s)
<input type="checkbox"/> Yes <input type="checkbox"/> No	17. Plenum and duct size(s) indicated
System Information	
18. Manufacturer of system to be installed:	
19. Model Number of system:	
20. Chemical Agent size (gallons):	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	21. System shall be designed in accordance with manufacturer's instructions?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	22. Designed on the basis of the flow and extinguishing characteristics of the chemical agent?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	23. Nozzles shall be placed in accordance with manufacturer's instructions?
System Installation	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	24. Documentation provided by manufacturer included in application that certifies <u>installer</u> has acquired instruction necessary to safely install Pre-Engineered Wet Chemical Systems (NFPA 17A)?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	25. Is this suppression system pre-owned or "used"?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	26. Agent container shall be readily accessible for inspection
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	27. Agent container location not more than 8 feet above floor



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System Actuation provided with:	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	28. Both Automatic and Manual activation?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	29. Both Automatic and Manual activation shall activate the Fire Alarm System (when applicable)
Automatic Activation	
At least one (1) fusible link or heat detector shall be installed:	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	30. Within 12 inches of the exhaust duct opening?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	31. At each branch "duct-to common duct" opening?
Manual Activation	
(Manual pull station provided in accordance with mfg. instruction, for each individual system, and to be located at or near egress from the cooking area)	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	32. Minimum of 10 feet and a maximum of 20 feet from the kitchen exhaust system and not less than 42 inches or more than 48 inches above the floor?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	33. Provided with signage that clearly identifies system, (zone) coverage?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	34. Shall require a maximum force of 40 lbs?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	35. Shall require a maximum movement of 14 inches (or per mfg. instructions)?
"Automatic" Shutoff Devices	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	36. All sources of fuel and electric power that produces heat to appliances under the hood shall shut down upon activation of suppression system?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	37. Makeup Air and/or Return Air shall shut down upon activation of suppression system?
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	38. Hood System Exhaust Air shall NOT shut down upon activation of suppression system, and must remain operational?
Portable Fire Extinguishers provided:	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	39. Class K "portable" fire extinguisher(s) for wet chemical systems
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	40. Portable Extinguisher "placard" or sign must be placed near the extinguisher that states the "automatic fire extinguishing system shall be activated prior to using the portable fire extinguisher".
INFORMATION	
Required Inspections	
Pre-Drywall	
a. Kitchen Duct "light test" & "Duct Access Panels" with fire department.	
b. 1 st Layer of "Duct Wrap" to meet clearance to combustibles.	
c. 2 nd Layer of "Duct Wrap" to meet clearance to combustibles. (Note: this can be performed as a portion of the actual Above Ceiling Inspection)	
Kitchen Hood Suppression Final Inspection	
Kitchen Hood Suppression Systems that interface with the Fire Alarm System must have a qualified fire alarm system installer present during Hood Fire Suppression Final.	
Kitchen Hood Suppression Systems that interface with the Buildings HVAC System must have a qualified mechanical system installer present during Hood Suppression Final.	
Fire Suppression System Final Inspection	
Perform full function testing of Kitchen Hood Fire Suppression System.	



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DISCLAIMER: The information presented above is the basic requirements for commercial construction and is not to be relied upon for the complete requirements for commercial construction. It is to your advantage to use a design professional or a professional contractor to assist you with those areas of construction with which you are unfamiliar. Unfamiliarity with the building codes may cause unplanned delays and unforeseen costs to comply with building code regulations. **Plan ahead!**

Owner or General Contractor

☐ I certify that the information provided in this document is true and accurate.

(Printed Name)

(Signature)

(Date)

(Company Name)

(Email and Phone Contact)



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All answers checked "NO", must be provided with a detailed written narrative below:



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This example illustrates the minimum information required for plan submittal for a type I hood fire suppression system.

Fire Plan Review and Inspection Guidelines

This example illustrates the minimum information required for plan submittal for a Type I hood fire suppression system.

