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## **Construction Project Fire Inspection and Review Guide**

*This is not a comprehensive checklist but is intended to be a general guide. Consult Florida Statute 633, Florida Administrative Code 69A, and the current edition of the Florida Fire Prevention Code and Florida adopted codes and standards for detailed checklists and guidance for specific inspections.*

*Note that every inspection is different and not all items on this checklist apply in every situation.*

### **BUILDING EXTERIOR**

- \_\_\_ Verify that exit discharge is to public way or at least 10 ft. from building.
- \_\_\_ Verify building address in approved location (visible from street).
- \_\_\_ Verify approved Knox Box in approved location.
- \_\_\_ Verify approved fire department access roads, lanes, turn-a-rounds.
- \_\_\_ Verify fire lane marking and no parking signs where required.
- \_\_\_ Verify threshold at doors, sidewalk and elevation changes (1/4" max).
- \_\_\_ Verify contrasting stripes (yellow/red) at elevation changes (loading docks, sidewalks, steps).
- \_\_\_ Verify approved guards & railings in place at elevation changes (30" above grade, landings, etc.).
- \_\_\_ Verify slope of ramps and requirement for handrails, guards, curbs as required.
- \_\_\_ Verify electrical shunt trip in approved location and labeled.
- \_\_\_ Verify exterior ground fault circuit interrupter electrical outlets connected and working properly.
- \_\_\_ Verify roof level exhaust fans are labeled as to the room/area of origin. (for lab spaces)

### **FIRE WATER UNDERGROUND AND EXTERIOR**

- \_\_\_ Verify required fire water for site is available, accessible, and operational with required connections.
- \_\_\_ Verify site plan depicting underground piping and equipment (hydrants, backflow, FDC, etc.).
- \_\_\_ Verify documentation of flow test results for fire hydrants (new and existing).

- \_\_\_ Witness flush of underground piping to fire hydrants, fire sprinkler riser & F.D.C. (min/5 minutes)
- \_\_\_ Verify new fire hydrants installed properly (self-draining/GPM flow rate & color coding/compatible threads).
- \_\_\_ Verify fire hydrant steamer and pony connections are aligned in approved direction (towards street).
- \_\_\_ Verify 15 ft. unobstructed area in front & sides of fire hydrants (measured on center of hydrant).
- \_\_\_ Verify location, access and clearance of FDC (placement & distance from hydrant).
- \_\_\_ Verify Fire Department Connection thread (2 1/2" NTS connection).
- \_\_\_ Check requirement for Post Indicator Valve (36" min/max from grade) and/or D.S. & Y, valve.
- \_\_\_ Install approved insulation on aboveground fire water piping (provide certification from engineer attesting to approved temperature rating of insulation).
- \_\_\_ Verify freeze plug device in place at back flow prevention device (insure no obstructions).

#### **BUILDING INTERIOR / LIFE SAFETY**

- \_\_\_ Verify approved plans, specifications, fire alarm system and fire sprinkler system (on site).
- \_\_\_ Verify means of egress clear and minimum width maintained.
- \_\_\_ Verify occupant load sign in applicable rooms at approved locations (over 50 or more persons).
- \_\_\_ Verify two or more means of egress for assembly rooms (50 + occupant load).
- \_\_\_ Verify Radio Enhancement Communication requirements satisfied.
- \_\_\_ Verify portable fire extinguisher locations, type and signage. (75 ft. travel distance/typical).
- \_\_\_ Verify approved travel distances, common path of travel and dead-end corridors.
- \_\_\_ Verify approved emergency evacuation signs in place where required.
- \_\_\_ Verify signs in approved locations for roof access, fire alarm control panel, "no exit", etc.
- \_\_\_ Verify location and arrangement of exit signs.
- \_\_\_ Verify location, brightness and activation of emergency lighting.

## **DOORS / MEAN OF EGRESS**

- \_\_\_ Verify fire door rating (U.L.) (exit corridor/mechanical/electrical rooms) where applicable.
- \_\_\_ Verify magnetic door release and delayed access devices (disengage upon activation of fire alarm).
- \_\_\_ Verify proper swing of doors (corridors, mechanical, custodial, etc.)
- \_\_\_ Verify fire rated door and jam U.L. labels are not painted over.
- \_\_\_ Verify If door is rated that rating on door matches view window rating.
- \_\_\_ Verify required exit doors open without use of key or special knowledge.
- \_\_\_ Verify self-closing hardware on doors where required,
- \_\_\_ Verify label/placard on doors to roof access (1" high). Verify 15 lb. force maximum to release door latches.
- \_\_\_ Verify 30 lb. force maximum to set doors in motion (to open).
- \_\_\_ Verify no "hold open" devices (wedges or flip down devices) on doors required to stay closed.
- \_\_\_ Verify room exit doors open in direction of egress (assembly).
- \_\_\_ Maintain minimum clear width along stairway of 44" and/or as per approved plan.
- \_\_\_ Verify compliance of roll-up doors (U.L. listing) (approved testing upon installation).
- \_\_\_ Verify door coordinator hardware operates in an approved manner (labs, etc.).
- \_\_\_ Verify doors are positive latching.
- \_\_\_ Verify operation of sliding door breakaway feature (i.e., power failure).
- \_\_\_ Verify I.D. placard in place at "push/pull" devices for magnetic release/access control doors.
- \_\_\_ Verify door opening hardware installed where applicable (panic bars).
- \_\_\_ Verify Tactile Signage in new construction.

## **STAIRWAYS / RAMPS / HANDRAILS / GUARDS**

- \_\_\_ Verify stairway tread depth (11"), riser height (7"), handrails/guards, clearance on landing,
- \_\_\_ Verify need for handrail at ramp (if applicable) (greater than 1 in, in 20ft. slope).

- \_\_\_ Verify handrail diameter (1-1/4"-2" dia. & 2-1/4" max. gap) and 12" straight. extension at top.
- \_\_\_ Verify newel post returns to wall or floor.
- \_\_\_ Verify top/horizontal guard height not less than 42 inch.
- \_\_\_ Verify if stairway complies with riser (full panel) and tread (non-grated) requirements.
- \_\_\_ Verify need for intermediate handrails.
- \_\_\_ Verify handrail height (34-38 " min/new).
- \_\_\_ Verify clear width of landing (handrail to standpipe riser). Cannot be less than 1/2 of overall width of stairway.

#### **FIRE RATING / PENETRATIONS**

- \_\_\_ Verify steel is protected (reapply U.L fire resistant material where missing).
- \_\_\_ Verify fire rating of mechanical rooms, elevator shafts, stairway enclosures & mechanical chases.
- \_\_\_ Verify fire rating of applicable exit corridors (1 hr. exit corridors where required).
- \_\_\_ Verify fire rating of building/tenant separation partitions/walls, etc.,
- \_\_\_ Verify all penetrations in fire rated partition/walls are sealed (U.L). (fire riser/electrical room/exterior Mechanical room/elevator equipment room/fire pump room).
- \_\_\_ Verify stencil fire rating on all applicable partition/walls (paint on "no decals").
- \_\_\_ Verify fire wrapping of electrical wall outlet boxes where applicable.
- \_\_\_ Verify specifications for fire caulk, U.L. penetration devices, etc.
- \_\_\_ Verify fire resistant rating for telephone equipment mounting surface (wood).
- \_\_\_ Verify fire rating of separation wall between atrium and office/classroom spaces.
- \_\_\_ Verify approved U.L. assemblies where required (grid ceiling, floor pipe collars, etc.)
- \_\_\_ Verify construction of "Smoke Barriers" (where applicable) (stencil same on walls/above ceiling).
- \_\_\_ Verify approved access doors installed in mechanical chases (where applicable).

## **INTERIOR FINISH**

- \_\_\_ Verify interior finish material specifications (carpeting, wood, fabric, curtains).
- \_\_\_ Verify labels and fire resistant treatment date on curtains (stages/places of assembly).
- \_\_\_ Verify certificate of flame resistant treatment where applicable.

## **ELECTRICAL**

- \_\_\_ Verify circuit breaker legends are in electrical service panels.
- \_\_\_ Verify ground fault circuit interrupter electrical outlets at wet locations.
- \_\_\_ Verify approved blank devices in place in empty electrical circuit breaker slots (service panel).
- \_\_\_ Verify electrical junction boxes have approved covers.
- \_\_\_ Verify location of electrical shunt trip and/or main disconnect.

## **FIRE ALARM**

- \_\_\_ Verify approved plans for fire alarm system (on site).
- \_\_\_ Verify fire alarm control panel and remote panel at approved locations.
- \_\_\_ Verify fire alarm horn/strobe and manual pull station heights and locations.
- \_\_\_ Verify approved wiring pulled to all detection and initiation devices.
- \_\_\_ Verify approved surge protection in place for fire alarm control panel.
- \_\_\_ Verify all fire alarm devices, fire pump, etc., send correct address to panel.
- \_\_\_ Verify approved fire alarm panel address map at approved location.
- \_\_\_ Witness test of fire alarm system and devices.
- \_\_\_ Verify location of notification and manual pull stations devices.
- \_\_\_ Verify audibility and visual intensity of fire alarm horn/strobe devices.
- \_\_\_ Verify testing of fire sprinkler flow indicators, tampers and supervisory at valves.
- \_\_\_ Verify all devices are labeled with proper address (at alarm test).
- \_\_\_ Verify documentation for detector smoke sensitivity tests if applicable.

- \_\_\_ Label on exterior of door to Fire Alarm Control Panel room.
- \_\_\_ Verify FACP electrical breaker location written on FACP.
- \_\_\_ Verify fire alarm control panel on separate, red, lock-out breaker.
- \_\_\_ Verify fire alarm inspection/maintenance record and tag in place (at panel).
- \_\_\_ Verify smoke detector above FA panels.
- \_\_\_ Verify that no audible notification devices are located in stairways.
- \_\_\_ Verify fire alarm junction boxes & conduit are marked per FA design guidelines.
- \_\_\_ Verify class B wiring.
- \_\_\_ Verify testing of beam detectors (where applicable).
- \_\_\_ Receive fire alarm system certificate of installation and as-built plans (NFPA 72) to close out permit

#### **FIRE DAMPERS**

- \_\_\_ Witness test (drop test) of manual, tension & mechanical fire dampers.
- \_\_\_ Verify fire dampers are installed in accordance with manufacturer specifications.
- \_\_\_ Verify no obstructions in damper channel (screws, etc.).
- \_\_\_ Verify approved access doors installed at damper installations (sized for easy access to damper).

#### **H.V.A.C.**

- \_\_\_ Verify testing of HVAC duct detectors and supervisory only.
- \_\_\_ Verify duct detector indicates at proper location (at FACP, ceiling/wall at HVAC unit).
- \_\_\_ Verify directional arrows on ductwork at duct detector (direction of airflow).
- \_\_\_ Verify alignment of duct detector smoke pick-up tubes in ductwork.

## **FIRE SPRINKLER SYSTEM**

- \_\_\_ Receive "as built" plans upon completion to close out permit.
- \_\_\_ Witness hydro test of fire sprinkler system main & branch lines (all floors).  
(200 psi @ 2hrs, / 50 psi. above street pressure for small renovations).
- \_\_\_ Verify main drain test data is on Certificated of Completion.
- \_\_\_ Verify control valves installed for isolation of each floor in building.
- \_\_\_ Verify witnessed operational test of all flow switches, tampers and supervised valves.
- \_\_\_ Verify piping hanger location and spacing secured properly to ceiling/beam.
- \_\_\_ At least one hanger per section of pipe and one hanger within 3' of end of branch line.
- \_\_\_ Verify weld stamps for pre-fabricated and on-site weld points. (Provide certification).
- \_\_\_ Verify location of fire inspectors test valve/drain (to be drained to building exterior).
- \_\_\_ Verify sprinkler head coverage under all ductworks > than 4 ft.
- \_\_\_ Verify hydraulic calculation nameplate on fire sprinkler risers.
- \_\_\_ Verify approved sprinkler head coverage.
- \_\_\_ Verify location of fire department connection (Placard at F.D.C.)
- \_\_\_ Verify that HVAC duct and electrical conduit is not in contact with sprinkler piping.
- \_\_\_ Verify approved P.S.I. gauges at approved locations (top of riser, etc.)
- \_\_\_ Verify that all auxiliary drains to discharge to building exterior. If discharging to a janitor's sink, calculations shall verify capacity
- \_\_\_ Verify site glass at inspector's test valve (where discharge of water cannot be seen).
- \_\_\_ Verify no obstructions to sprinkler heads (painters tape/exit lights/light fixtures).
- \_\_\_ Verify location of spare sprinkler head storage box and wrench (minimum 3 of each type head).
- \_\_\_ Verify installation of dry pendent fire sprinkler heads (exterior locations/food coolers, etc.).
- \_\_\_ Verify fire sprinkler head guards (where designated/required).
- \_\_\_ Add fire sprinkler head (where designated) (under stairway concealed areas).
- \_\_\_ Verify correct sprinkler heads and placement (required window protection).

- \_\_\_ Verify approved "check valve" in place for F.D.C. (verify direction).
- \_\_\_ Verify "ball drip" installed at F.D.C. (low point).
- \_\_\_ No furniture to be moved into building until sprinkler system is tested and fully operational,
- \_\_\_ Verify roof manifolds in proper location & 2 1/2" discharges are aimed properly
- \_\_\_ Verify approved nameplates on risers and on control valves designating coverage.
- \_\_\_ Enclose underside of stairway and/or provide fire sprinkler coverage.
- \_\_\_ Verify approved coverage at ceiling offset (where applicable).
- \_\_\_ Verify installation of flexible sprinkler heads (min bend from center — 3"/6" total at bends)
- \_\_\_ Receive witnessed test of fire sprinkler "pre-action" systems (where applicable).
- \_\_\_ Verify window wash sprinkler heads installed properly and unobstructed (where applicable).
- \_\_\_ Verify dry pipe fire sprinkler system.
- \_\_\_ Verify pre-action system for computer server room
- \_\_\_ Verify words "Fire Riser" on exterior side of door to same
- \_\_\_ Verify final TAG is on Riser.

#### **STANDPIPES**

- \_\_\_ Verify fire standpipe in stairways (where applicable) and discharge locations
- \_\_\_ Verify standpipe discharge directed in approved direction for hose connection
- \_\_\_ Verify threads on standpipe discharges are compatible with local fire jurisdiction.
- \_\_\_ Verify proper gate valve in place.
- \_\_\_ Verify standpipes specifications (pipe diameter and manufacturer)
- \_\_\_ Verify standpipe risers are secured at floor levels (every other floor landing).
- \_\_\_ Verify correct gauge of pipe for specific application. (per hydraulic calculations).
- \_\_\_ Verify if approved reducer (2 1/3 to 1'A inch) appliance provided/installed,
- \_\_\_ Verify installation of approved pressure gauges at top of riser.

## **FIRE PUMPS**

- \_\_\_ Witness test of fire pump (where applicable) and pump certification documentation.
- \_\_\_ Receive pump start up report.
- \_\_\_ Receive pump test curve prior to testing.
- \_\_\_ Fire pump rooms to be separated by 2 hr. fire separation walls/partition.
- \_\_\_ Fire pump room temperature to be maintained at 40 degrees and above.
- \_\_\_ Verify emergency lighting provided in fire pump room. (Wall mounted/battery operated)
- \_\_\_ Fire pump room floor to be pitched for adequate drainage w/floor drain.
- \_\_\_ Verify tamper and supervisory devices in place for all valves.
- \_\_\_ Receive fire pump certification and field acceptance test records to close out permit.
- \_\_\_ Verify "power" to pump indicator light operating properly.
- \_\_\_ Verify installation of exterior water flow alarm bell (electric).
- \_\_\_ Verify approved enunciator panel with "pump run" – "loss of power" – "phase reversal" – "pump on".
- \_\_\_ Verify "pump run" – "loss of power" – "phase reversal" monitored by fire alarm panel.

## **ELEVATOR**

- \_\_\_ Verify smoke and/or heat detector in place for elevator recall.
- \_\_\_ Verify approved signs in elevator lobby (all levels) ("in event of fire do not use elevator").
- \_\_\_ Verify fire sprinkler heads at top/bottom of shaft (where required).
- \_\_\_ Verify smoke/heat detector at top/bottom of shaft (where required).
- \_\_\_ Verify emergency elevator door key at approved location (box @ elevator, in elevator mechanical room, at 24 hr. attended desk location; or in Fire Dept. key box).
- \_\_\_ Witness test of elevator recall to approved floor level.

- \_\_\_ Verify hydraulic fluid specifications (flammable or not).
- \_\_\_ Verify approved elevator certification certificate displayed inside elevator (original),
- \_\_\_ Verify visual fire alarm device in elevator (if required).
- \_\_\_ Verify fire fighter override devices operating properly.
- \_\_\_ Verify emergency elevator phone transmits to approved monitoring agency.
- \_\_\_ Verify operation of elevator shunt trip device (elevator installer).
- \_\_\_ Verify operation of interior elevator car alarm bell.

#### **COOKING HOOD / SUPPRESSION SYSTEM**

- \_\_\_ Witnessed test of hood/range fire suppression system.
- \_\_\_ Verify "K" class fire extinguisher in approved location.
- \_\_\_ Verify automatic suppression system is connected to building fire alarm system.
- \_\_\_ Verify label on hood system indicating "exhaust fan must be operating while cooking".
- \_\_\_ Verify automatic gas shut-off valve activation.
- \_\_\_ Verify manual pull station in approved location and sealed.
- \_\_\_ Verify approved filters in place in cooking hood.
- \_\_\_ Verify approved exhaust duct in place (gauge, clean-out doors, clearances)

#### **LABS AND FUME HOODS**

- \_\_\_ Verify placards at lab entrances (lab class, hazards, contact information).
- \_\_\_ Verify fume hood certification (annual) as applicable.
- \_\_\_ Verify test of welded hood exhaust ductwork.
- \_\_\_ Verify required fire blankets are mounted in approved locations.
- \_\_\_ Verify positive/negative pressure requirements for lab spaces (where applicable/NFPA 45).
- \_\_\_ Verify smoke tightness of outside wall (each floor level) (per U.L.) (labs with negative pressure)

- \_\_\_ Verify all compressed gas and utility product piping is labeled and color coded where applicable.
- \_\_\_ Verify labeling of emergency gas shut-off valves and/or isolation cabinets with approved placards.
- \_\_\_ Verify installation of NFPA 704 hazard chemical placards (diamonds) where applicable.
- \_\_\_ Verify approved areas/rooms for storage of compressed gas cylinders.

#### **EMERGENCY GENERATOR**

- \_\_\_ Receive shop drawings for the generator to show compliance with NFPA 110.
- \_\_\_ Provide witnessed test report of emergency generator (maintenance records, load test results).
- \_\_\_ Verify emergency shunt trip for generator (approved location and labeled).
- \_\_\_ Verify AST installation and functionality.
- \_\_\_ Verify capacity of fuel supply container (if indoors verify fire rating requirements).
- \_\_\_ Verify specification of fuel supply tank (double wall/encapsulated).
- \_\_\_ Verify approved NFPA704 labels if freestanding tank (diesel, gasoline).
- \_\_\_ Verify generator panel locations.
- \_\_\_ Verify generator is grounded per NEC.
- \_\_\_ Verify generator exhaust does not interfere with exit discharge, means of egress, or air intakes.

#### **SMOKE EVACUATION SYSTEM**

- \_\_\_ Verify documentation reviewed for compliance.
- \_\_\_ Verify C.F.M. (cubic feet per minute) specifications.
- \_\_\_ Verify detailed instructions on panel for manual operation and shutdown.
- \_\_\_ Verify required doors open automatically upon activation of exhaust fans.
- \_\_\_ Verify smoke detectors and/or fire sprinkler heads are installed per plan (for smoke exhaust start-up).

- \_\_\_ **Verify test and balance report is completed including required minimum air flows at both sides of doors.**
- \_\_\_ **Verify automatic door and fan activation upon activation of atrium detection devices or general alarm.**
- \_\_\_ **Verify activation of smoke evacuation system on standby emergency power.**
- \_\_\_ **Verify approved test and maintenance program/records in place.**