Fire Code Plan Review

February 2010

Date of Review: ___________________________ BLD Number: ____________ - _______________
Name of Project: ___________________________ Address of Project: ___________________________
Designer Name: ___________________________ Designer’s Phone: ___________________________
Contractor Name (if known): ___________________ Contractor’s Phone: _______________________
Occupancy Classification: ____________________ New Building _____ Tenant Improvement. ______
Remodel _____ Addition _____ Site Work _____ FP System _____ Other _________________________
Codes and /or Standards used in Plan: __________________________
Reviewer: ___________________________________________ ___________________________

Reference numbers following worksheet statements represent an IFC code section unless otherwise specified.

Worksheet Legend: OK = acceptable N = need, not acceptable NA = not applicable

1. _____ Ensure a comprehensive code study is provided
2. _____ Occupancy type
3. _____ Square footage
4. _____ Number of stories
5. _____ Construction type
6. _____ Allowable area formula
7. _____ Occupant load determination (based on net or gross)
8. _____ Rooms are identified for use and/or process
9. _____ Fire protection systems: sprinklers___ fire alarm___ kitchen hood___ main/hydrant___ other__

Site Access:
1. _____ Fire access road complies with the plans, 503.1.1.
2. _____ Fire access road signage is required and plan details are provided and stripping (cross-hatching) may be necessary when determined by the fire official, 503.3
3. _____ Security gate, when provided, is detailed and the opening method complies with fire department policy, IFC 503.6.
4. _____ Emergency turn-around is in accordance with the plans, 503.2.5.
5. _____ Fire access road is designed to support an apparatus weighing 75,000 lb. gross vehicle weight, Appendix D102
6. _____ Fire access road is an all weather driving surface such as asphalt, concrete, chip-seal (oil matting) or similar, 503.2.3. Grass pavers with fire lane signage is permitted if a low concrete curb is provided along the edges to outline and identify the driving area
7. _____ Any portion of the building exterior wall shall be within 150 ft. of the fire access road, 503.1
8. _____ Grades are not to exceed 10 percent, 503.2.7 and Appendix D.
9. _____ As an alternate for grade exceeding 10 percent: Access grade shall not exceed 10 percent but if it does, the first portion of the grade shall be limited to 10 percent for a length of 200 ft. and then 15 percent to 20 percent for a maximum of 200 ft., repeat the cycle as necessary, 503.2.7 and Appendix D and IFC 102.7. .8.
10. _____ The dead-end fire access road(s) in excess of 150 ft. and shall be provided with a turn-around, 503.2.5.
11. _____ The turning radius for the emergency apparatus road(s) in accordance with local policy, 503.2.4.
12. _____ All fire access roads shall be constructed and maintained prior to and during construction, 1410.
Site Water:
1. _____ This project requires_____ GPM fire flow, a minimum of (number of hydrants) _____hydrants spaced an average of _____ feet, 508.1 and Appendices B and C.
2. _____ When a hydrant water flow report is required, the test shall be performed by the water purveyor. Existing reports may be used if a tested has been performed within ____ of the date of the permit.
3. _____ The most remote exterior portion of a non-sprinklered building is within 400 ft. or for a sprinklered building within 600 ft. of a hydrant, provide hydrant(s) in accordance with 508, Appendix C.
4. _____ Does the nearest hydrant, as shown on the site plan, exceed the allowable distance from the property? Appendix C. This is a different requirement than Item 3.
5. _____ Prior to the installation of private fire service water main/hydrants systems, plans shall be submitted for a permit, review, and approval, 901.2.
6. _____ As an alternate materials and method, the building may required to be protected throughout by an approved automatic sprinkler system if the required minimum water flow is not available, 104.7.

Emergency Plans:
1. _____ Required for some occupancies such as A, B, E, H, I, R and some M’s as based on specific criteria, 404.2. Obtain, review, and approve the plan prior to issuing a Certificate of Occupancy.

Exterior:
Address
1. _____ Large apartment complex, 5 or more buildings, large address map is detailed at each street entry point and large address placard is detailed to be approved for size and content (should include complex site layout, foot print of each building, address or ID for each building, at least 24 in. x 36 in.).

Vehicle Impact
1. _____ Guard posts are detailed on the plans for hydrants, tanks, generators, gas meters, etc. subject to vehicular damage, 312.1.
2. _____ Guard post details comply with IFC 312.2; 4 in. diameter steel posts, filled with concrete, spaced up to 4 ft. from other posts, set 3 ft. deep, located 3 ft. or more from object, 312.2.
3. _____ Other approved barriers comply based on details of location and specification data sheets, 312.3.

Hydrants, private
1. _____ Flush and pressure test criteria are on the plans, proper port height and that the direction of the ports to enable fire engine hook-up are detailed, 508.4.
2. _____ Specification data sheet is provided to verify model and brand of hydrant complies with city and fire department specifications.

Water Mains/Hydrants, private
1. _____ Required in accordance with IFC 508, Appendices B and C, designed in accordance with NFPA 24.

Fire Department Connection for Sprinkler and/or Standpipes
1. _____ Location is in accordance with fire department policy and IFC 912, design is in accordance with NFPA 13 and/or 14.

Exit System:
Exit Signs and Emergency Lights
1. _____ Internal or external illuminated exit signs are provided, IFC 1011.2.
2. _____ Exit signs are at directional changes in hallways, visible from any direction of egress travel, and where necessary, IFC 1011.1. (Exception: main exterior exit doors that are obviously an exit and rooms or areas only requiring one exit).
3. _____ Exit signs are flush or perpendicular to mounting surface as required for occupant to read signage.
4. _____ Battery backup or emergency power is provided; emergency lighting for occupancies and rooms required when there are two or more exits, IFC 1006.3.
5. _____ Signage detail is provided for the landing areas of vertical stairways more than 3 stories. Signage states location-East, West, etc., terminus-roof access or not, floor number, and floors served by stairs, and is 5 ft. above the floor landing 1020.1.6. Signs shall be an approved legible permanent design.

**Hardware**

1. _____ Manually operated flush or bolt locks are not permitted on egress doors, IFC 1008.1.8.4.
2. _____ Panic hardware required for each door in means of egress for Group A and E occupancies with 50 or more occupants and any Group H 1008.1.9.

**Occupant load**

1. Occupant load calculations are provided for the rooms and assembly areas, and occupant load signs are processed for assembly areas, 1004.

**Egress Width and Doorways**

1. _____ Egress width calculations are provided for egress paths and assembly areas, 1005.
2. _____ Doorways are of adequate width for the occupant load.
3. _____ The number of doors for each room or area complies with 1015, Table 1015.1, and 1019.

**Travel Distance**

1. _____ Travel distance for the occupancy is in accordance with 1016, Table 1016.1, Table 1019.2.

**Fire Extinguishers:**

1. _____ Type, size, mounting height, and travel distance are appropriate for the hazard and are detailed on the plans, 906.
2. _____ Room use or type of hazard and/or process is detailed on the plans.
3. _____ For a hazardous type business, 50 ft. travel distance or 30 ft. depending on the size of the extinguisher, check the plans.

**Fire Protection Systems:**

**Automatic Sprinkler Systems**

1. _____ Required in accordance with IFC 903? Designed in accordance with NFPA 13.
2. _____ Room use or type of hazard/process is detailed on the plans.
3. _____ Valves, pipe, hanger, and sprinkler data sheets and hydraulic calculations are provided.
4. _____ The location of the fire department connection is in accordance with IFC 912 and the design is in compliance with NFPA 13.
5. _____ Standpipes in accordance with IFC 905?
6. _____ Fire Pumps

**Fire Alarms**

1. _____ Required in accordance with IFC 907? Design per NFPA 72.
2. _____ Room use or type of hazard and/or process is detailed on the plans.

**Kitchen Hood System**

1. _____ Required in accordance with IFC 904.2.1? Design is in accordance with the manufacturer’s design and installation manual.

**Emergency Alarm**

1. _____ Required in accordance with IFC 908.

**Use and Process Specifics:**

**Group R Occupancies**

1. _____ Smoke detectors are located in sleeping rooms, hallway and adjacent room if vaulted ceiling, also at the top of stairs and lower level, 907.3.2.

**Assembly Use**

1. _____ Occupant loads certificates for assembly rooms are created, 1004.3.
2. _____ Exit door hardware; panic hardware is on all exit doors except main entry, no other security bolt hardware allowed with panic hardware, 1008.1.9.
3. _____ Data sheets for fire-resistive decorative materials are provided, 804, 806, 807.