Introduced by: Mayor Cleworth Date: February 28, 2011

ORDINANCE NO. 5835

AN ORDINANCE TO AMEND FGC SECTIONS 30-31 AND 30-32, ADOPTING THE 2009 INTERNATIONAL FIRE CODE WITH AMENDMENTS, AND SETTING AN EFFECTIVE DATE

WHEREAS, the Building Code Review and Appeals Commission reviewed the 2009 International Fire Code and the amendments thereto and recommended adoption of the 2009 International Fire Code; and

WHEREAS, the City Council now desires to accept the recommendations of the Building Code Review and Appeals Commission; and

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF FAIRBANKS, ALASKA, as follows:

<u>Section 1</u>. Fairbanks Code of Ordinance Sections 30-31 and 30-32 are hereby repealed and re-enacted as follows:

ARTICLE II INTERNATIONAL FIRE CODE

Sec 30-31 Adoption.

The International Fire Code, **2009** Edition, including all appendix chapters as published by the International Code Council is hereby adopted.

Sec 30-32 Amendments.

Section 105 Permits.

Section105.6 Operational Permits is amended by deleting all required operational permits except:

105.6.15 Explosives and Fire Works

105.6.44 Temporary membrane Structures, Tents, and Canopies

Section 105.7 Construction Permits is amended by deleting all the required construction permits except:

105.7.1 Automatic fire extinguishing systems
105.7.4 Fire alarm and detection systems & related equipment
105.7.5 Fire pumps & related equipment
105.7.12 Standpipe systems
105.7.13 Temporary membrane structures, tents, and canopies

Ordinance No. 5835 Page 1 of 12 A permit is required to operate an air-supported temporary membrane structure or tent having an area in excess of 200 square feet (19 m2), or a canopy in excess of 400 square feet (37 m2).

Exceptions:

- 1. Tents used exclusively for recreational camping purposes.
- 2. Fabric canopies and awnings open on all sides which comply with all the following:
 - 2.1 Individual canopies shall have a maximum size of 700 square feet (65 m2).
 - 2.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm) shall not exceed 700 square feet (65 m2) total.
 - 2.3 A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

Section 105 Permits is amended by adding the following new sections

- 105.7.1.1 A person and/or company designing, installing, testing, or maintaining automatic fire extinguishing systems are required to be NICET certified and provide a current permit issued by the State Fire Marshal's Office.
- 105.7.3.1 A person and/or company designing, installing, testing, or maintaining fire alarm and detection systems and related equipment are required to be NICET certified and provide a current permit issued by the State Fire Marshal's Office.

Section 106 Inspection. Add subsection 106.5 as follows:

106.5 All buildings and structures subject to the authority of this code are subject to inspection pursuant to a duly adopted inspection program. All inspections provided will subject the owner and/or operator to payment of fees as set forth in Code of Ordinances Section 30-1.

Section 201.3 Terms Defined in Other Codes.

Where terms are not defined in this code and are defined in the International Building Code, International Fuel Gas Code, International Mechanical Code or **Uniform Plumbing Code**, as adopted by the and amended by the City of Fairbanks, such terms shall have the meanings ascribed to them as in those codes.

Where reference to any electrical code is made in this code, it shall be taken to mean the National Electrical Code as adopted and amended by the City of Fairbanks.

Section 202-C Definitions and Abbreviations. Amend the definitions as follow:

Educational Group E, Day care revise to read: "The use of a building or structure, or portion of the building or structure, for education, supervision, or personal care services for more than five children who are older than two and one-half years of age, including children related to the staff, shall be classified as a Group E occupancy.";

Educational Group E Day care

Create a new definition for Family Child Care Homes to read as follows:

A family child care home is a licensed facility that is located within a single- family home in which personal care services are provided by the owner or tenant that normally occupies the residence on a twenty four basis.

Add the following exception to this section "Exception: Family child care homes operated in a primary residence (R-3) and operating between the hours of 6:00 a.m. and 10:00 p.m. may accommodate a total of twelve children, provided that no more than 5 children are under the age of 2 ½ years, without conforming to the requirements of a Group E occupancy except for (1) smoke alarms as described in Subsection 907.2.10; (2) general means of egress requirements of Section 1003, including emergency escape and rescue openings, as required by Section 1029, in napping or sleeping rooms; (3) accessibility requirements as outlined in Chapter 11; (4) portable fire extinguisher requirements as described in Section 906 and (5) CO detection as required in IFC Section 908.7.

A Day Care occupancy which operates between the hours of 10:00 p.m. and 6:00 am shall be equipped with an approved automatic sprinkler system throughout, designed and installed in accordance with IFC Section 903.3 and NFPA Standard 13D or an approved equivalent system as approved by the Fire Chief; emergency escape and rescue openings, as required by Section 1026, in napping or sleeping rooms; portable fire extinguisher requirements as described in Section 906, smoke detection as required in Subsection 907.2.10 and CO detection as required in IFC Section 908.7;

Institutional Group I-1 Revised this section by deleting the last sentence of the paragraph and replacing with the following:

A facility such as above, housing more then 2 and not more than 16 persons, shall be classified as Group R-4.

Institutional Group I-2 is revised to read: "A facility such as one described above with five or fewer persons including persons related to the staff shall be classified as Group R-3."

Institutional Group I-2 is revised to read: "A child care facility that provides care on a 24-hour basis to more than five children who are 2 ½ years of age or less, including children related to the staff, shall be classified as Group I-2."

Institutional Group I-4, day care facilities is revised to read: "A facility within this occupancy classification with five or fewer persons, including persons related to the staff, shall be classified as a Group R-3.";

Nursing Homes. Delete the definition and revise as follows:

Nursing homes are long-term care facilities on a 24 hour basis, including both Intermediate care facilities and skilled nursing facilities, serving more than two persons and any of the persons are incapable of self-preservation.

Residential Group R, R-4. Delete this paragraph in its entirety and replace as follows:

Residential occupancies shall include buildings arranged for occupancy as Residential Care/Assisted Living Facilities including more than 2 and no more than 16 persons, excluding staff shall be classified as Group R-4. Occupants of a residential care/assisted living facility are capable of responding to an emergency situation without physical assistance from the staff. Occupancies which include individuals who are not capable of responding to an emergency situation or incapable of self preservation shall be classified as an I occupancy. R-4 occupancies shall be sprinklered throughout as required by section 903.3.1.3.

Townhouse. Delete the definition and replace as follows:

Townhouse. A single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from foundation to roof and with a yard or public way on at least two sides. Each townhouse shall be considered a separate building as recognized by a recorded lot line between such units. Each townhouse unit shall be provided with separate water, sewer, heating and electrical services.

Section 308.3 Delete this section and add the following:

Open flame. A person shall not utilize or allow to be utilized an open flame in connection with a public meeting or gathering for the purposes of deliberation, worship, entertainment, amusement, instruction, education, recreation, awaiting transportation, or similar purposes in assembly or educational occupancies with out consultation and coordination with the fire chief. Written authorization is required if approved.

Section 308.3.1 is revised by deleting this section and adding the following:

Charcoal burners and other open-flame cooking & heating devices shall not be operated on combustible balconies or decks, or within 10 feet (3048 mm) of combustible construction.

Section 405 is revised by the addition of a subsection:

405.10 False alarms: False alarms may not be counted as a fire drill for the purposes of Section 405. EMERGENCY EVACUATION DRILLS.

Section 408.3 is revised by the addition of a subsection as follow:

408.3.5 False alarms. False alarms may not be counted as a fire drill for the purposes of this section.

Section 507.5.4 (Obstructions) is revised by deleting this paragraph and adding the following:

Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections (FDC) or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants. No vehicle shall be parked within 15 feet of the front and ten feet of the side of a fire hydrant, fire department connection or fire protection control valve on private or public property.

Section 901.3 Permits is revised by deleting this section and adding the following:

Permits shall be required as set forth in Section 105.7. "Certification" Any company installing and or performing maintenance on sprinkler systems shall have at least one individual on site who holds a permit issued by the State Fire Marshal's Office.

Section 901 General is revised by adding a new subsection to read as follows:

901.10 Damage protection. When exposed to probable vehicular damage due to proximity to alleys, driveways or parking areas; standpipes, post indicator valves and sprinkler system or standpipe system connections, shall be protected in an approved manner as outlined by IFC (International Fire Code) or GHU (Golden Heart Utilities) standards.

Section 901.6.2 is revised by deleting this section and adding the following:

Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and shall be copied to the fire code official within 30 days.

901.6.2.1 "Records" is revised by deleting this section and adding the following:

Initial records shall include the name of the installation contractor, type of components installed, and manufacturer of the components, location and number of components

installed per floor. Records shall also include the manufacturers' operation and maintenance instruction manuals. Such records shall be maintained on the premises. A copy of all inspection and service reports shall be sent to the Fairbanks Fire Prevention Office.

Section 903.2.3 Group E. Delete this section in its entirety and replace as follows:

An automatic sprinkler system shall be provided throughout all Group E occupancies. An automatic sprinkler system shall also be provided for every portion of educational buildings below the level of exit discharge. Day care uses that are licensed to care for more than 5 persons between the hours of 10 p.m. and 6 a.m. shall be equipped with an automatic sprinkler system designed and installed in accordance with Section 903.3.1.3, or an approved equivalent system.

Exceptions 1. Buildings with E occupancies having an occupant load of 49 or less. 2. Day care uses not otherwise required to have automatic sprinkler systems by other provision of the code.

903.2.12 Other hazards is revised by adding the following subsection:

903.2.11.7 Pit sprinklers. Sprinklers shall be installed in the bottom of all new and existing elevator pits below the lowest projection of the elevator car but no higher than 24" from the bottom of the pit.

Section 903.3.1.1 is revised by adding a new Subsection:

903.3.1.1.2 Elevator Hoist ways and Machine Rooms. When the provisions of this code require the installation of automatic sprinkler systems, the installation in elevator hoist ways and machine rooms must occur as described in N.F.P.A. 13, (Elevator Hoist ways and Machine Rooms) and adopted by reference, and the American Society for Mechanical Engineers (A.S.M.E.) A17.1 Safety Code for Elevators and Escalators (as adopted by the State of Alaska Dept of Labor Standards and Safety) and adopted by reference.

Exception: Sprinklers are not required in an elevator machine room where the machine room is:

- (1) separated from the remainder of the building as described in I.B.C. Section 3006.4;
- (2) smoke detection is provided in accordance with N.F.P.A. 72 and adopted by reference; and,
- (3) notification of alarm activation is received at an approved central station alarm.

Section 903.4.2 Alarms. Amend this section by adding the following sentence to the paragraph:

Buildings equipped with a sprinkler system without an alarm system shall have at least one notification device (horn/strobe) located inside the building in a commonly occupied area(s) to alert occupants of a sprinkler activation.

Section 907.2.3 Group E is revised by adding a second paragraph to read:

Rooms used for sleeping or napping purposes within a day care use of Group E occupancy must be provided with smoke alarms that comply with Section 907.2.11.2 and CO (carbon monoxide) detection as required Section 908.7.

Section 907.17 Acceptance Test is revised by adding a new sentence to read:

907.8 Acceptance tests.

Upon completion of the installation of the fire alarm system, alarm notification appliances and circuits, alarm-initiating devices and circuits, supervisory-signal initiating devices and circuits, signaling line circuits, and primary and secondary power supplies shall be tested in accordance with NFPA 72. A copy of the acceptance test certificate must be forwarded to the fire department by the firm conducting the test within 30 days of the completion of the installation.

Section 907.9.5 Maintenance, Inspection and Testing is revised by changing the last sentence to reads:

The building owner shall be responsible for ensuring that the fire and life safety systems are maintained in an operable condition at all times. Service personnel shall meet the qualification requirements of NFPA 72 for maintaining, inspecting and testing such systems. A written record shall be maintained and shall be **delivered within 30 days** to the fire code official.

Section 908 Emergency Alarm Systems is revised by the addition of a new section 908.7 and sub sections 908.7.1, 908.7.2

908.7 Carbon monoxide detectors. The provisions of this section shall apply to Group I-1, R-2, R-3 and R-4 occupancies. At least one (1) carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) detector shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms. Carbon monoxide detectors shall be listed and installed in accordance with their listing. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed.

Exceptions:

1. Carbon monoxide detectors are not required in dwelling units and structures with no combustion (carbon base fuel) type appliances and with no attached garage or parking of vehicles in close proximity.

- 2. Carbon monoxide detectors are not required in Group I-1 and R-2 occupancies where all combustion (carbon base fuel) equipment is located within a mechanical room separated from the rest of the building by construction capable of resisting the passage of smoke; and/or the structure has an attached garage and is ventilated by an approved automatic carbon monoxide exhaust system designed in accordance with the mechanical code.
- **908.7.1 Interconnection**. In new construction, all carbon monoxide detectors located within a single dwelling unit shall be interconnected in such a manner that actuation of one alarm shall activate all of the alarms within the individual dwelling units.
- **908.7.2 Power source**. In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without disconnecting switch other than those required for over current protection. Carbon monoxide detectors shall be permitted to be cord-and-plug type with battery backup, or battery powered in existing construction.

Section 1003.1 General Means of Egress Applicability is revised by adding an exception to read as follows:

Exception: Stairs or ladders used only to attend equipment are not considered elements of the means of egress system.

Section 1003.6 (Means of Egress) is revised by the addition of the sentence:

No kiosks, merchandise or similar obstruction shall be placed in such a way to restrict the minimum clear width required by the International Building Code.

Section 1008.1.9.3 Locks or Latches. Add Exception 6 as follows:

6. In Groups B, F, M and S occupancies, a single thumb turn may be used in exit doors, where the occupant load is 100 or less, in conjunction with an approved lock set when the thumb turn requires no more than one-half turn to unlock. Hardware height shall comply with Section 1008.1.8.2. This exception does not apply when panic hardware is required or installed.

Section 1008.1.9.3.1 Manual security bar for limited use. Create a new subsection and title to read as follows:

Manual security bar for limited use. Assembly occupancies such as restaurants, taverns and lounges and B,F,M,S occupancies with an occupant load of less than 100 may utilize a manual security bar for the second required exit when the building is not occupied by the public. The

security bar shall be pre-approved by the fire marshal before installation. The bar must be easily removed and shall not be provided with padlocks, chains or other locking devices requiring special tools or knowledge. The bar shall be identified by a contrasting color. The exit door shall be provided with a sign stating, "This door to remain unlocked during business hours." The use of this provision may be revoked by the fire marshal for non compliance.

Assembly occupancies with an occupant load of 300 or less which are provided with an approved sprinkler system thorough out may install a security bar on the second required exit as specified above. The conditions and approval of the security bar installation shall be kept on file with the fire marshal. The use of this provision may be revoked by the fire marshal for noncompliance.

Section 1008.1.9.7 Delayed egress locks is revised by changing item number 3 to read as follows:

3. The door locks shall have the capability of being unlocked by a signal from a location approved by the code official.

Section 1009.4.2 Stair treads and risers. Amend section by adding an exception #8 to read as follows:

Stairs or ladders used only to attend equipment are exempt from the requirements of Section 1009.

Section 1021.5 Exits from Basements. Create a new subsection and title to read as follows:

Basements in all occupancies except Group R-3 shall be provided with a minimum of at least two independent exits.

Exceptions:

- 1. Basements used exclusively for the service of the building.
- 2. Basements used exclusively for storage purposes and limited to 750 square feet.
- 3. Basements used for private offices, maintenance rooms or laundry rooms and similar uses limited to an aggregate floor area of 500 square feet, provided a hard wired smoke detector is installed in the basement and interconnected to a smoke detector located on the level of discharge as approved by the City Fire Marshal.

- 4. Basements used for private offices, maintenance rooms or laundry rooms and similar uses which are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 750 square feet, provided a hard wired smoke detector is installed in the basement and interconnected to a smoke detector on the level of exit discharge as approved by the City Fire Marshal.
- 5. Buildings which are sprinklered through out and contain a basement may have one exit provided:
 - 5.1 Basements are used exclusively for storage purposes and limited to 1500 square feet.
 - 5.2 Basements are used for private offices, maintenance rooms, or laundry rooms and similar uses limited to an aggregate floor area of 1000 square feet.
 - 5.3 Basements are used for private offices, maintenance rooms or laundry rooms and similar uses and are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 1500 square feet.

Section 1029.1 General. Revise this section by deleting exceptions 1 thru 4.

Section 1029.2 Minimum size. Delete the exception.

Section 1030 Maintenance of the means of egress is revised by adding the following section:

Section 1030.9 Protection from falling snow and ice. Where the accumulation of snow and/or ice on a structure creates a hazardous condition, the areas below the accumulation shall be protected from falling snow and/or ice. These areas shall include (but not be limited to) building entrances and exits, pedestrian, driveways, public right-of-way and utility locations for gas meters, fire department connections, and electrical meters, services and disconnects.

<u>Chapter 45</u> (NFPA References) is revised by changing the referenced standards from the publication date listed to the following edition, and the standards are adopted by reference:

N.F.P.A. 10-2010 Portable Fire Extinguishers;

N.F.P.A. 13-2010 Installation of Sprinkler Systems;

N.F.P.A. 13D-2010 Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes:

N.F.P.A. 13R-2010 Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height;

N.F.P.A. 14-2010 Standpipe and Hose System;

N.F.P.A. 20-2010 Installation of Stationary Pumps for Fire Protection;

N.F.P.A 24-2010 Private Fire Service Mains

Ordinance No. 5835 Page 10 of 12

NFPA 25-2011 Inspection, Testing, and Maintenance of Water Base Fire Protection Systems N.F.P.A.72-2010 National Fire Alarm Code:

1.1 Appendix B Fire Flow Requirements for Buildings

Section B103- Modifications. Add new subsections B103.4 and B103.5 as follows:

B103.4 For buildings requiring a fire flow of 1,500 gallons per minute or less, located in areas not served by water mains, the Fire Chief may waive or reduce the fire flow requirements and/or may require a fire alarm system, if the cost of installing water mains or reservoirs exceeds 5% of the total cost of the structure(s) and improvement(s) as determined by the architect's or engineer's estimate.

B103.5 Table B105.1 is modified as follows for buildings located in areas not served by water mains.

- a. Floor areas for buildings may be increased by 100% of the basic floor area without an increase in fire flow, provided that an automatic, central station, or remote station supervised smoke or heat detection system is installed throughout the structure in accordance with NFPA 72. For the purposes of this subsection, such an installation may allow type V-B construction to be increased to 10,000 square feet in area.
- b. Separate fire areas within a building may be created by the construction of concrete or concrete block walls having minimum fire duration of two (2) hours, with no openings permitted, and extending to the outer edges of horizontal projecting elements. Full height parapets are required above the roof line.
- c. Sprinkler systems installed to reduce fire flow requirements (by 75% in accordance with the exception to section B105.2) and not otherwise required by the International Building or Fire Codes, 2009 editions, may be supplied from either pressure tanks or tanks with a listed fire pump, sized in accordance with the following criteria:

Classification	Design area (X 1500 sq. ft.)	Tank with fire pump	Pressure tank
Light Hazard	.10 gal/sq. ft.	2,000 gals	3,000 gals
Ord. Hazard 1	.15 gal/sq ft.	2,500 gals	3,750 gals
Ord. Hazard 2	.20 gal/sq ft.	3,000 gals	4,500 gals
Extra Hazard 1 & 2	NOT PERMITTED		*

d. Sprinkler systems specifically required by the 2009 editions of the International Building Code or Fire Code shall be installed in accordance with Chapter 9 of the International Fire Code 2009 edition. An approved water supply capable of providing ten minutes of the sprinkler system design discharge, not including hose stream allowances, shall be provided. The system must be monitored by an approved central or remote station alarm system. At such time that a water utility main is laid in front of, alongside of, or adjacent to the improved property, the owner of the property must connect the sprinkler system to the water utility main in an approved manner within one year and thirty days from the date such water service is declared available.

- e. A tract of land or subdivision which has been surveyed and divided into residential lots for purpose of sale shall meet fire flow requirements as determined by Section B105.1 of this Appendix.
- f. A tract of land, which, by means of incremental development, becomes similar to a tract of land or subdivision, which has been surveyed and divided into residential lots for purpose of sale. shall meet fire flow requirements as determined by Section B105.1 of this Appendix..
- g. Once an approved water main system is installed, subsequent additions to existing buildings, and all new construction, shall meet the required fire flow.
- h. Multiple structures on a single lot shall be individually evaluated for fire flow requirements.

Section 2. That the effective date of this Ordinance is the 12th day of March, 2011.

AYES:

Stiver, Matherly, Gatewood, Eberhart, Roberts

NAYS:

None

ABSTAIN: ABSENT:

Bratcher |

ADOPTED: March 7, 2011

ATTEST:

APPROVED AS TO FORM