REPORT TO COUNCIL
City of Sacramento

915 I Street, Sacramento, CA 95814-2671

Consent
February 19, 2008

Honorable Mayor and
Members of the City Council:

Title: PFP Ordinance: Amendments to City Code Chapter 15.36 Relating to Fire Code

Location/Council District: Citywide

Recommendation: 1) Review an Ordinance adopting by reference Title 24, Part 9 of the California Code of Regulations and the 2006 edition of the International Fire Code with local amendments; and 2) Pass for publication the Ordinance title as required by Sacramento City Charter § 32(c) to be adopted on February 26, 2008.

Contact: Troy Malaspino, Assistant Chief, 808-1620

Presenters: Not Applicable

Department: Fire

Division: Prevention

Organization Number: 2521

Description/ Analysis:

Issue: Establishment of a citywide fire code that prescribes requirements consistent with nationally recognized good practices for providing a reasonable level of life safety and property protection from the hazards of fire, dangerous conditions in new and existing buildings, and to provide safety to firefighters and emergency responders during emergency operations.

Policy Considerations: The proposed ordinance is consistent with the city's operating principle to promote safety, livability and economic vitality. Additionally, the ordinance is consistent with the Development Oversight Commission's recommendations for a regional approach to code implementation, up-to-date codes, and streamlining of local amendments.

Commission/Committee Action: On November 6, 2007, the Law and Legislation Committee approved staff's recommendation to adopt the 2007 California Fire, provisions of the 2006 International Fire Code, and a regionally common set of local amendments, and directed staff to forward the ordinance to the City Council for review and adoption.

Environmental Considerations: This report concerns administrative activities that do not constitute a "project" under CEQA and the State CEQA Guidelines, California Code of Regulations, Title 14, Sections 15061(b)(3) and 15378(b).

Rationale for Recommendation: As an integral part of local efforts to provide a reasonable level of life safety and property protection from the hazards of fire, and to provide safety to firefighters and emergency responders during emergency operations, the ordinance provides the following:

- Adoption of the 2007 California Fire Code
- Adoption of provisions of the 2006 International Fire Code that were not adopted by the state, related to general fire safety and enforcement
- Adoption of a regionally common set of local amendments

Local amendments were developed in cooperation with the region's fire agencies. Adoption of these amendments affords the following benefits:

- Streamlining and clarity by reducing approximately 67% of previous local amendments
- Region-wide consistency of code

Financial Considerations: The City of Sacramento will incur no additional financial expenditures enforcing these provisions. New buildings between 3,599 square feet and 4,999 square feet in size will incur additional costs (about $5.00 per sq. ft.) related to installation of fire sprinkler systems. However, those costs are offset by savings in the required water-flow infrastructure. Additional costs may be incurred related to installation, maintenance, and testing of bi-directional amplifiers for new buildings that impede emergency radio communications.

Emerging Small Business Development (ESBD): Not applicable.

Respectfully Submitted by: _____
TROY MALASPINO
Assistant Chief

Approved by: _____
RAY S. JONES
Fire Chief

Recommendation Approved:

for RAY KERRIDGE
City Manager

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Attachment 1

Background:

By state law, California's Building Standards Commission must adopt regulations concerning building and fire safety while local agencies are allowed to adopt amendments to that code for the purpose of mitigating several factors unique to their locale. In 2007, the California Building Standards Commission adopted a new California State Fire Code based on the 2006 International Fire Code (IFC). That new code was implemented on January 1, 2008. To be consistent with that implementation, the attached ordinance repeals existing city fire codes and amendments, and adopts:

- The 2007 California Fire Code (CFC);
- Portions of the 2006 IFC that were not adopted by the state, and
- Local amendments to the CFC

A copy of the 2007 California Fire Code is available for viewing at the City Clerk's Office.
Those portions of the 2006 International Fire Code not adopted by the state include sections concerning local code enforcement and general fire safety (i.e. trash, vegetation, etc.). These sections are not normally adopted by the state, nor are they within the state's jurisdiction.

The local amendments were developed in cooperation with county fire agencies and are virtually identical to those in the proposed 2008 Sacramento County Fire Code. All of the proposed amendments were adopted previously in the 2001 Sacramento County Fire Code, and have been enforced in the County for the last six years. Additionally, the City has been responsible for enforcing the 2001 Sacramento County Fire Code with the same amendments in the areas of the county it contracts for fire protection (i.e. Fruitridge, Pacific, and Natomas).

Due to the vast differences in code numbering and often confusing locations of similar requirements, this report does not provide a "strikethrough" or "working" copy of past local city amendments. Instead, Attachment 2, Table 1 is provided to compare previous local amendments to the proposed amendments in the ordinance. In summary, some of the more significant changes from the city's previous fire code amendments are:

- Reduction of fire sprinkler requirement from 4,999 square feet to 3,599 square feet (except single and two-family dwellings),
- Addition of external door and room for fire sprinkler riser or fire alarm panel
- More than one road required for subdivisions containing over 40 dwelling units
- Greater water credit for Early Suppression Fast Response type sprinkler systems
- Testing and improvements for new buildings impeding the 800 MHz emergency radio system

Outreach began in October with city agencies, including Development Services, General Services, Utilities, and Historic Preservation. To date, no city agency has expressed objection to the amendments. Reports have been presented to the Development Oversight Commission and the Building, the Fire Codes Advisory and Appeal Board, and the Law and Legislation Committee with approval. Presentations to the business and development community were conducted in December and January and include the following partners and customers:

- North State Building Industry Association
- American Institute of Architects, Central Valley
- Sacramento Rental Housing Association
- Building Owners Management Association
- Association of Commercial Real Estate
- National Association of Industrial and Office Properties
- American Fire Sprinkler Association, Sacramento Valley Chapter

These organizations most closely represent the portion of the development community impacted by changes in the fire code.

Attachment 2

Table 1

Comparison of non-administrative amendment requirements

Section	NEW AMENDMENTS	CURRENT AMENDMENTS
401.3.1.1	References City DSD standard for addressing	Established FD standard for address signage/illumination
503.1.1	Requires access roads for FD response - requires more than one road in subdivisions >40 dwelling units	Same access requirements except for the additional road for >40 dwelling units
505.1	Gives more options for water supplies in remote areas	Same except for options
903.1.1	Requires sprinklers for bldg >3,599 sq. ft. & warehouses >2999 sq. ft. Houses still exempted. ***Compliant with County Fire Code***	Required sprinklers in bldgs >4999 sq ft. except houses
903.2.7.1	Requires sprinklers in Group U occupancies if less than 6 ft from a residence	Same
903.2.13.1	Requires marinas to be sprinklered	Same
903.6.1.3	Requires exterior door access and room to sprinkler riser and fire alarm panel location. ***Compliant with County Fire Code***	Not in fire code
907.2.3	Requires private education facilities to be sprinklered	Same
907.15	Requires Central Station Monitoring of Fire Alarm Systems. Other type systems allowed by Alternate Means Request.	Not in fire code
907.15.2	Clarifies multi-zone monitoring and how it alarms. Required as industry practice has changed.	Not in fire code
907.16.1	New - Requires two phone lines for DACTs	Not in fire code
2211.7.2.3.4	Requires gas detection for working on LPG vehicles	Not in fire code
3404.2.14.1	Forbids disassembly of underground tanks in the city	Same
2703.10.3.7	Forbids vehicles carrying hazardous materials from parking on residential streets	Not in fire code
Appendix B	Sets fireflow requirements and sprinkler credits - Exception #2 is new, allowing greater credit for ESFR type systems	Same except for Exception #2
Appendix C	Clarifies hydrant considerations and upgrades for old hydrants. Number of hydrants required and spacing remains same	Same number and spacing table
Appendix I	Adopts nationally recognized standards for fire protection systems. **Does not adopt standards for staffing, equipment, or vehicles.**	Same
15.36.080	Requires testing and improvements in buildings impeding 800 mHz radio systems.	Not in fire code

Attachment 3

ORDINANCE NO.

Adopted by the Sacramento City Council

Date Adopted

AN ORDINANCE ADOPTING BY REFERENCE TITLE 24, PART 9 OF THE CALIFORNIA CODE OF REGULATIONS, AND THE 2006 EDITION OF THE INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS.

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1.

In connection with the local amendments enacted within Section 15.36.070, and pursuant to Health and Safety Code Sections 17958.5, 17958.7 and 18941.5, the City Council finds and determines that:

A. The changes to the requirements published in the California Building Standards Code and other regulations adopted by the State of California are reasonably necessary because of local climatic, topographical or geological conditions.

B. Under this adopting ordinance, specific amendments have been established which are more restrictive in nature than those adopted by the State of California under the State Buildings Standards Code, State Housing & Community Development Codes, commonly referred to as Title 24 and Title 25 of the California Code of Regulations. These amendments to the California Fire Code 2007 Edition are reasonably necessary to address the fire problems, concerns and future direction by which the city can establish and maintain an environment that will afford a level of fire and life safety to all who live and work within the City.

C. The International Code Council has assumed responsibility for the International Fire Code and International Fire Code Standards. The International Code Council provided a means for participation by all code enforcement officials from throughout the country, as well as industry representatives, consultants, and other private parties with an interest in the International Fire Code.

D. The International Fire Code, being the 2006 edition thereof, published by the International Code Council is a nationally recognized compilation of proposed rules, regulations and standards.

E. Said International Fire Code has been printed and published as a Code in book form within the meaning of Section 50022.1 of the Government Code of the State of California.

F. Under the provisions of Section 18941.5 of the Health and Safety Code, local amendments may be made based on climatic, topographical and geological conditions. The findings of fact contained herein address each of these conditions and present the local situation, which either singularly or in combination, caused the amendments enacted within Section 15.36.070 to be adopted.

G. CLIMATIC

1. Climate is one of the greatest impacts to fire behavior and other major emergency events because it cannot be controlled. The drying out of wood shakes and wild land fuels in the summer months allows for easy ignition.

2. The building of homes within weed-covered rural areas and the combustible weeds on vacant urban lots, coupled with windy conditions, is a recipe for disaster. Sacramento has four distinct seasons: summer, winter, fall, and spring. The distinction of these seasons are an attraction to the area and one reason why significant population growth has occurred. The population growth has impacted emergency service levels causing a strain on emergency services, and the result is increased response times.

3. Sacramento has significant variations in weather patterns. Summers are arid and warm, winters are cool to freezing, fall and spring can bring any combination of weather pattern together. It is this cyclical uncertainty that allows weather events such as the rapid melting of the snow pack that causes flooding in the low-lying valley areas of Sacramento. As rivers rise and fall with the runoff, access to common areas of recreation and boating is affected. The doubling of average rainfall called an "El Nino" event has occurred from time to time and does cause the grass to mature and grow in excess of six feet high before it dries out. Ten square feet of land with this type of fuel is equivalent to the explosive force of one gallon of gasoline.

4. Average yearly rainfall is approximately 19 inches. This rainfall normally occurs from October to April. Low-level fog (Tule fog) is present throughout the winter months, which brings visibility to almost zero feet. The fog delays emergency responders and has caused numerous vehicle accidents including the December 11, 1997, Interstate 5 incident in Elk Grove that involved 36 vehicles and caused 31 casualties including 5 fatalities. The fog can also cause freezing and slick roadways.

5. During the summer months there is generally no measurable precipitation. Temperatures for this dry period range from 70 to 112 degrees Fahrenheit and are frequently accompanied by light to gusty Delta winds. The relative humidity during summer months range from 2 to 30 %, which is arid. The city contains many acres of grasslands, which, in conjunction with the dry and windy conditions, create a hazardous situation that has lead to extensive grass and brush fires in recent years. More development is extending from the urban core into the grass-covered areas. Wind-driven fires have led to serious consequences in similar areas of the state.

6. In the past, several consecutive years of drought conditions have occurred, thus reducing the available water supply. Ground water as well as surface supplies have all been affected. The drought conditions have led to lower water tables, reduced fire flow testing, water contamination, and water conservation efforts. Additionally, demands on water systems have increased due to extreme population growth. These impacts have negatively impacted water use and availability for the fire service. The degradation of water systems reduces the quality of fixed fire protection, as well as fire suppression activities. Some water purveyors have reduced the standard pressure maintained within their systems. This change will make many fire protection systems ineffective and corrective measures such as adding pressure, and increasing, necessary booster pumps will be required at great cost to the community.

H. TOPOGRAPHICAL

1. Sacramento is bisected by several topographical features, including major rivers, minor rivers and creeks, aqueducts, lakes, sloughs, natural parkways, open space, bridges/overpasses, freeways, railroad tracks including light rail, drainage canals, sprawling industrial facilities such as Proctor and Gamble, and a former Armed Services Depot. Traffic has to be channeled around several of these topographical features and limitations, which creates traffic congestion and delays emergency response. These features are located between many of the fire stations located within Sacramento. With the OSHA "two in-two out" rule requiring two fire fighters ready to make fire attack only when two others are present, it is imperative that no delays affect the timely response of fire fighters.

2. Heavy traffic congestion on the City's major streets already acts as a barrier to timely response for fire and emergency vehicles. Some roadways are expected to double their traffic flow within the next ten years. In the event of an accident or other emergency at one of the key points of intersection between a road and river or freeway, sections of the City could be isolated or response time could be sufficiently slowed so as

to increase the risk of injury or damage.

3. Preservation of wetland areas, natural parkways, riparian corridors along rivers/streams, vernal pools, open space and endangered species habitat have all contributed to access problems as well as exemption from vegetation abatement programs. These situations, though environmentally important, increase the demands on the fire service due to the extreme fire hazard created by fuel loading and limited access.

I. GEOLOGICAL

1. Sacramento is made of several unique communities. The seamless fire protection efforts provided through "automatic aid" agreements allow for each community to support each other, but this also reduces coverage of fire stations during first-response and multiple-response incidents. A first alarm assignment draws two fire engines and one ladder truck, emptying up to three fire stations. A home as little as 1,500 sq. ft can draw a second alarm assignment in some instances. This could take out of service as much as six fire stations. This situation would cause a "move-up" of other fire stations to cover the empty stations. Thus, many fire stations could ultimately be affected for a second alarm assignment/dispatch. If the situation is exacerbated, for example, through simultaneous calls or events, long term commitments to emergencies, station brown outs, or out of service emergency vehicles, extended response times will occur.

2. Located at the confluence of two major rivers within California's Central Valley, the City of Sacramento has experienced seasonal flooding. Intricate levee systems were created to hold back floodwaters, however development has moved into areas that have the potential for flooding. Flooding and the resultant water intrusion into buildings can incapacitate building fire protection systems, in addition to taxing the emergency response capabilities should evacuation and rescue become necessary.

3. The neighborhoods within the City have a propensity to be distinct in many ways due to geographical and geological features such as freeways, rivers, etc. Neighborhoods such as the Pocket Area, Natomas, and River Park each have factors limiting access to them. Some neighborhoods are more subject to urbanization than others, and some are targets for revitalization. Intensive use of land in urban areas means bigger buildings, which create complex problems for fire safety.

4. Based on topographical and geological conditions, the local amendments enacted within Section 15.36.070 are reasonable and necessary pursuant to Health and Safety Code section 18941.5. While it is clearly understood that the adoption of such amendments may not prevent the incidence of

fire, these amendments attempt to reduce the severity and potential loss of life and property, and enhance protection of the environment.

5. California Health and Safety Code section 17958.7 requires that the modifications or change be expressly marked and identified as to which each finding refers. The following table provides the code sections that have been modified which are "building standards" as defined in Health and Safety Code Section 18909, and the associated conditions for modification due to local climatic, geological and topographical reasons.

Section Number	**Local Climatic/** **Geological/Topographical Condition**
503.1.1	1A, B, C, E & F; 2A, B, C; 3A, B & C
505.1	1A, B, C, D, E & F; 3C
903.1.1	1A, B, C, D, E & F; 2A, B, C; 3A, C
903.2.7.1	1A, B, C, D, E & F; 2A, B, C; 3A, C
903.2.13.1	1E & F, 2A & B; 3C
903.6.1.3	2A & B; 3C
907.2.3	1B; 2A & B; 3C
1107.9	2A & B; 3C
2211.7.2.3.4	2A & B; 3C
3404.2.9.1.1	2A & B; 3C
Appendix B	1A, B, C, E, &F; 2A & B; 3A & C
Appendix C	1A, B, C, E, &F; 2A & B; 3A & C

SECTION 2

Chapter 15.36 of the Sacramento City Code is hereby repealed in its entirety and reenacted as follows:

Chapter 15.36

California and International Fire Codes

15.36.010 ADOPTION OF CALIFORNIA AND INTERNATIONAL CODES. In order to prescribe regulations governing conditions hazardous to life and property from fire or explosion, the City Council adopted (a) the 2007 version of Title 24, Part 9 of the California Code of Regulations, known as the California Fire Code, incorporating portions of the 2006 edition of the International Fire Code published by the International Code Council;(b) those provisions of the 2006 edition of the International Fire Code that were not incorporated into the current California Fire Code; and (c) local amendments relating to local climatic, topographical and geologic conditions that are set forth in this chapter. Copies of these codes shall remain on file with the City Clerk or the Fire Marshal.

15.36.020 SHORT TITLE. The California and International Codes, together with the amendments relating to local climatic, topographical and geologic conditions set forth in this chapter, described and adopted in Section 15.36.010 shall be known and may be cited as the "fire prevention code" of the city.

15.36.030 DEFINITIONS.

(a) "Municipality " shall mean the City of Sacramento
(b) "Chief" or "Fire Code Official" shall mean the Fire Chief of the City of Sacramento or the Fire Chief's designated representative.
(c) "Code" shall mean this chapter, including the fire prevention code.

15.36.040 PENALTIES. Any responsible party violating the provisions of this section or any other provisions of this chapter shall be guilty of a misdemeanor for each day such violation continues. Any responsible party violating the provisions of this section or any other provisions of this title shall also be liable for civil penalties of not less than two hundred fifty dollars ($250.00) or more than twenty-five thousand dollars ($25,000.00) for each day the violation continues. The city attorney may bring a civil action to enforce any provision of this title.

B. Administrative Penalties. In addition to criminal sanctions, civil penalties as provided in this chapter, and other remedies set forth in this code, administrative penalties may be imposed pursuant to Chapter 1.28 of the Sacramento City Code against any responsible party, whether owner, lessee, sublessor or sublessee or occupant of any premises in violation of any of the provisions of this title. Imposition, enforcement, collection and administrative

review of administrative penalties imposed shall be conducted pursuant to Chapter 1.28 of the Sacramento City Code.

C. Reasonable Period to Correct Violations. No administrative penalty shall be imposed for violations of city building, plumbing, electrical, or structural codes or provisions of the zoning ordinance unless the owner has been provided a reasonable period of time to correct the violation before imposition of the penalty, except in those cases in which there is an immediate danger to health or safety. The reasonable period for purposes of this title shall be thirty (30) days from service of any notice issued pursuant to this title.

D. Definitions. For purposes of this section, the term "responsible party" shall refer to any person, business, company or entity, and the parent or legal guardian of any person under the age of eighteen (18) years, who has done any act for which an administrative penalty may be imposed.

E. The increased civil penalties, imposition of administrative penalties, and modification of the crime classification from an infraction to a misdemeanor shall apply to all violations where a notice and order or other official notice from the city has not been sent to the person in violation prior to the effective date of the ordinance codified in this chapter. The civil penalties and crime classification as provided in the City Code prior to the effective date of the ordinance codified in this chapter shall continue to apply to all violations where a notice and order or other official notice of violation was sent by the city prior to the effective date of this ordinance. Nothing shall prohibit the imposition of administrative penalties for continuing violations.

15.36.050 LOCAL AMENDMENTS TO THE 2007 CALIFORNIA FIRE CODE (TITLE 24, PART 9 CALIFORNIA CODE OF REGULATIONS) AND THE 2006 EDITION OF THE INTERNATIONAL FIRE CODE. The City Council amends the 2007 California Fire Code and the 2006 edition of the International Fire Code as follows:

A. CHAPTER 1 – ADMINISTRATION

1. SECTION 103 – DEPARTMENT OF FIRE PREVENTION is amended by adding the following:

a. **103.5 Administrative Costs.** When a test or inspection is scheduled and the contractor fails to perform to the satisfaction of the authority having jurisdiction, the authority having jurisdiction may bill the contractor for actual time spent at the test/inspection site as well as administrative costs.

2. SECTION 104 – GENERAL AUTHORITY AND RESPONSIBILITIES is amended by adding the following:

a. **104.2.1 Inspection Record Card.** Work requiring Fire Department inspection and approval shall have available on site an inspection record card and approved set of fire plans to allow the Chief to conveniently make the required entries thereon regarding inspection of work.

b. **104.3.2 Citations and Administrative Penalties.** The Chief may issue citations for infractions or misdemeanor violations of this Chapter and may impose administrative penalties pursuant to City Code Section 1.28.010C or any successor provision.

c. **104.7.2.1 Contract Inspector.** The Chief or his/her designated representatives may require the owner or the person in possession or control of the building or premises to provide, without charge to the fire department, a special inspector ("Contract Inspector"), when the department has no technical expertise available to conduct the required inspections. The Contract Inspector shall be a qualified person who shall demonstrate his/her competence to the satisfaction of the Chief, for inspection of a particular type of construction, operations, fire extinguishing or detection system, or process.
Duties and responsibilities of the Contract Inspector shall include but not be limited to the following:
(a) The Contract Inspector shall observe the work assigned for conformance with the approved design drawings and specifications.
(b) The Contract Inspector shall furnish inspection reports to the Chief, building official, and other designated persons as required by the Chief. All discrepancies shall be brought to the immediate attention of the contractor for correction, then if uncorrected, to the proper design authority, Chief, and to the building official.
(c) The Contract Inspector shall submit a final signed report stating whether the work requiring inspection was, to the best of his/her knowledge, in conformance with the approved plans and specifications and the applicable workmanship provision of this code.

3. SECTION 105 – PERMITS is amended by adding the following:

a. **105.4.1.1 Plans.** Complete plans, specifications, and information for new construction, remodeling, fill-in projects, or additions to buildings shall be submitted for review prior to construction to the Chief or his/her designated representatives having jurisdiction. Plan approval shall be required prior to issuance of a fire department Inspection Record Card for those instances where such card may be required.

b. **105.6.47 Apartments**. An operational permit is required for apartments and/or complexes exceeding three units in total.

c. **105.6.48 Artists Live/Work** An operational permit is required for use of an artist live/work facility.

d. **105.6.49 Day Cares**. An operational permit is required for use of day care facilities.

e. **105.6.50 Fire Alarm Systems**. An operational permit is required to use or operate a fire alarm system in a commercial building.

f. **105.6.51 Helistops and Heliports**. An operational permit is required to use or operate a helistop, heliport, rooftop emergency landing area, or undesignated helistop.

g. **105.6.52 Hotels and Motels**. An operational permit is required for use of a hotel or motel.

h. **105.6.53 Institutions**. An operational permit is required for use of an institution as defined by CCR Title 24.

i. **105.6.54 Marinas**. An operational permit is required for use of a marina.

j. **105.6.55 Radioactive Materials**. An operational permit is required for use or storage of any amount of materials capable of producing beta or gamma radiation.

4. SECTION 106 – INSPECTIONS is amended by adding the following:

a. **106.2.2 Inspection Record Card.** Work requiring Fire Department approval may commence, but the person doing the work shall have posted or otherwise made available an inspection record card such as to allow the Chief to conveniently make the required entries thereon regarding inspection of the work. Work shall not be covered until the required inspections are completed. This card shall remain posted or remain otherwise available by the permit holder until the Chief has granted final approval.

5. SECTION 109 – VIOLATIONS is amended by adding the following:

a. **109.2.3.1 Citations.** The Chief, or his/her duly authorized representative, may issue citations for infractions or misdemeanor violations of this chapter pursuant to Section 13871 of the Health and Safety Code of the State of California and Chapter 5c (commencing with Section 853.6) of Title 3 of Part 2 of the Penal Code of the State of California.

B. CHAPTER 2 - DEFINITIONS

1. SECTION 202 – GENERAL DEFINITIONS is amended by adding the following:

a. **ELECTRONIC MONITORING SYSTEM** shall mean an approved method to electronically detect and transmit to an approved alarm service provider's Type A (listed) Central Station, information indicating that the automatic fire sprinkler system or electronic fire detection system has been activated and shall have the ability to relay the alarm to the (a) Sacramento Regional Fire/EMS Communications Center; or (b) to the Sacramento International Airport Communication Center in an approved manner.

b. **FALSE ALARM** shall mean the giving, signaling or transmission to any public fire station or company or to any officer or employee thereof, whether by telephone, spoken word or otherwise, information to the effect that there is a fire, medical emergency, rescue request, or other need for emergency service at or near the place indicated by the person giving, signaling, or transmitting such information, and there is found to be no need for emergency services.

c. **QUALIFIED ATTENDANT** shall mean an individual that has been trained in the proper methods of the handling, storage and dispensing of any material, product or substance regulated by the code. These shall include, but not be limited to ammonia, chlorine, cryogenic fluids, flammable and combustible liquids and gases. Said attendant must be able to demonstrate to the satisfaction of the Chief that he or she possesses adequate knowledge in the subject area.

C. CHAPTER 4 – EMERGENCY PLANNING AND PREPAREDNESS

1. SECTION 401 – GENERAL is amended by adding the following:

a. **401.3.1.1. Cost Recovery.** All costs incurred by the Fire Department related to any response to a false alarm may be charged to that person causing the transmission of the false alarm, or to that person's firm or corporation.

D. CHAPTER 5 – FIRE SERVICE FEATURES

1. SECTION 503 - FIRE APPARATUS ACCESS ROADS is modified to read as follows:

a. **503.1.1 Required Access**. Fire apparatus access roads shall be provided in accordance with Sections 501 and 503 for every facility, building or portion of a building including residential subdivisions in excess

of 40 dwelling units hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet from fire apparatus access as measured by an approved route around the exterior of the building or facility. See also Section 504 for personnel access to buildings.

EXCEPTIONS:
1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of Sections 503.1.1 and 503.2 may be modified by the chief.
2. When access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades or other similar conditions, the chief is authorized to require additional fire protection.
3. When there are not more than two Group R, Division 3, or Group U Occupancies, the requirements of Sections 503.1.1 and 503.2 may be modified by the chief.
More than one fire apparatus road shall be provided in residential subdivisions in excess of 40 dwelling units and/or when it is determined by the chief that access by a single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

For high-piled combustible storage, see Section 2306.6

For required access during construction, alteration or demolition of a building, see Section 1410.1

2. SECTION 505 - PREMISE IDENTIFICATION is amended as follows:

a. Section 505.1 "Address Numbers" is modified to read as follows:

505.1 Address Numbers. Approved numbers or addresses shall be placed prior to occupying on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Said numbers shall contrast with their background. In setting requirements for addressing, the Chief may be guided by the standard published by the City of Sacramento Development Services "Building Addressing".

b. Section 505.1 "Address Numbers" is added to read as follows:

i. **505.1.1 Multiple tenant buildings.** Multiple tenant spaces serviced by vehicular access to the rear through any driveway, alleyway,

or parking lot shall have numbers or addresses placed prior to occupancy on all new and existing buildings as to be plainly visible and legible from the rear access way when deemed necessary by the Chief. Multiple tenant spaces serviced by rear access through a corridor, exit court, or exit yard shall have approved numbers or addresses displayed on the rear of the tenant space, when deemed necessary by the Chief.
Multiple tenant spaces that front on interior walkways or pedestrian malls shall have approved numbers or addresses placed over the entrance door in all new and existing buildings. An illuminated annunciator or directory board shall be required at every entrance where deemed necessary by the Chief.

ii.. **505.1.2 Illumination.** Addressing shall be illuminated at night in all new buildings. Signs shall be internally or externally illuminated. When the luminance or the face of a sign is from an external source, it shall have an intensity of not less than 5.0 foot-candles. Internally illuminated signs shall provide equivalent luminance.

3. SECTION 508 – FIRE PROTECTION WATER SUPPLIES is amended as follows:

a. Section 508. Fire Hydrant Systems is modified to read as follows:

508.5.1 Where required.
Where any portion of the facility or building hereafter constructed or moved into or within the jurisdiction is in excess of 150 feet from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Chief. See Section 508.5.

EXCEPTIONS:
1. Group R, Division 3 Occupancies provided with an automatic fire sprinkler system approved by the adopted NFPA Standard in areas not provided with a public water supply.
2. Group U Occupancies.
3. Water Supplies for Suburban and Rural Fire Fighting. Where the standards of this code cannot be met for development in rural areas, a fire sprinkler system or pressurized water system acceptable to the AHJ shall be acceptable to meet the water supplies required. Such proposals shall also be subject to the following:
    a. The structure is beyond 3,000 feet of any existing adequate sized water system. Structures within 3000 feet of an existing adequate sized water system, but beyond a

water purveyor service area, will be reviewed on an individual basis.
b. When public or private water becomes available, connection to such a system shall be required.

E. CHAPTER 9 – FIRE PROTECTION SYSTEMS is amended as follows:

1. SECTION 901 – GENERAL. Is amended by adding the following:

a. **901.4.3.1 Fire Appliances.** The Chief shall designate the type and number of fire appliances to be installed and maintained in and upon all buildings and premises within his/her jurisdiction. This shall be done according to the relative severity of probable fire, including the rapidity with which it may spread. Such appliances shall be of a type suitable for the probable class of fire associated with such buildings or premises and shall have the prior approval of the Chief. Extinguishers shall be installed on the hangers or in the brackets supplied, or mounted in approved fire extinguisher cabinets unless the extinguishers are of the wheeled type.

2. SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS is amended as follows:

a. Section 903.1 "General" is modified to read as follows:

903.1 General. Fire-extinguishing systems shall be installed in accordance with the Building Code and Section 903 and 904.

Fire hose threads used in connection with fire-extinguishing systems shall be National Standard hose thread or as approved.

The location of fire department hose connections shall be approved.

In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 23.

When required by the Chief, approved signs shall identify the building(s) or portions of buildings served by a fire department connection.

When required by the Fire Chief fire pumps shall be automatic.

b. Section 903.2 "Where required" is modified to read as follows:

903.2. For all occupancies except Group R-3 and U, an automatic sprinkler system shall be installed and equipped with an electronic monitoring system as follows:

i. In every story or basement of all buildings when the floor area exceeds 1,500 square feet and there is not provided at least 20 square feet of opening entirely above the adjoining ground level in each 50 lineal feet or fraction thereof of exterior wall in the story or basement on at least one side of the building. Openings shall have a minimum dimension of not less than 30 inches. Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

ii. When openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet from such openings, the story shall be provided with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of an exterior wall of the story.

iii. If any portion of a basement is located more than 75 feet from openings required in the California Building Code, the basement shall be provided with an approved automatic sprinkler system.

iv. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.

v.. In rooms where nitrate film is stored or handled. See also Section 306.2.

vi. In protected combustible fiber storage vaults as defined in Chapter 2. See also Chapter 29.

vii. In every new building where the total floor area exceeds 3,599 square feet or greater. Nothing in this subsection shall preclude the use of fire resistive substitutions otherwise permitted under IBC.

viii. An automatic fire sprinkler system shall be installed in any portion of a building where there is a change of occupancy that creates a greater fire or life safety hazard, and the floor area of that portion of the building, which is changed, exceeds 3,599 square feet.

ix. An automatic fire sprinkler system shall be installed in every building when there is an addition to the floor area in existence on the effective date of this ordinance of 20 percent or more within a 12-month period and the aggregate floor area of the building exceeds 3,599 square feet.

x. An automatic fire sprinkler system shall be installed in every new building of S-3 occupancy where the total floor area exceeds 2,999 sq ft. or greater.

xi. For the provisions of this section, area separation walls shall not apply to eliminate the installation of a sprinkler system.

xii. **EXCEPTIONS**:

a. Non-combustible, detached canopies open on four sides not exceeding the basic allowable square footage in UBC Table 5B used exclusively for the parking or storage of private or pleasure vehicles and non-combustible storage (includes fuel islands).

c. Section 903.2.10 is amended by adding the following:

i. **903.2.10.4 Group U Occupancies.** Group U occupancies located within 6 feet (1828.8 mm) of sprinklered Group R Occupancy shall have fire sprinklers installed.

ii. **903.2.10.5 Floats, Marinas and Piers.** A fire sprinkler system shall be provided for all covered floats, marinas, piers, and any/all other covered floating structures that are commercially operated and exceeds 3,599 sq. ft (334.48 m2).

d. Section 903.3 is modified to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. Where allowed in buildings of Group R, up to and including four stories in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13.

e. Section 903.7 "Valves" is amended by adding the following:

903.7 Valves. When required by the Chief, valves controlling sprinkler systems shall be maintained in an open position by locking the valve open in an approved manner.

f. SECTION 903.8 is amended by adding the following:

903.8 Fire control room. An approved fire control room shall be provided for all buildings protected by an automatic fire extinguishing system. Said room shall contain all system control valves, fire alarm control panels and other fire equipment required by the Chief. Fire control rooms shall be located within the building at a location approved by the Chief, and shall be provided with a means to access the room directly

from the exterior. Durable signage shall be provided on the exterior side of the access door to identify the fire control room.

EXCEPTION: Group R, Division 3 Occupancies.

3. Section 907. "Fire Alarm and Detection Systems" is modified to read as follows:

a. **907.2.3 Group E.** Group E Occupancies shall be provided with fire alarm systems in accordance with Section 907.2.3. Group E, Occupancies having an occupant load of 50 or more shall be provided with an approved automatic fire alarm system. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. When more than one fire alarm control unit is used, they shall be interconnected and shall operate all indicating devices. Group E Occupancies with an occupant load of 50 persons or less shall have an early-warning device as approved by the fire authority having jurisdiction. Every public, private or parochial school building having an occupant load of 50 or more students or more than one classroom shall have a fire alarm system using the California Uniform Fire Code Signal outlined in the California Education Code, Section 32000 to 32004.

b. Section 907.15 "Monitoring" is modified to read as follows:

907.15 Monitoring. Required alarm systems shall be monitored by an approved alarm service provider's Type A (listed) Central Station as established by Sacramento Regional Fire/EMS Communication Center.

The Central Station monitoring company or approved Alarm Company shall notify the authority having jurisdiction in writing, within 72 hours, of systems that are found not to be in compliance with applicable codes.

Receipt of supervisory signals by the monitoring company require the dispatch of a runner or maintenance person (arrival time not to exceed 1 hour), unless the condition can be restored to normal through the subscriber's efforts.

c. Section 907.15 "Monitoring" is amended by adding the following:

i. **907.15.1 Branch electrical circuits**. When providing a fire alarm circuit in a multiple occupancy type building (multiple metering), the circuit shall be energized from the house meter panel board. When a separate source of power (i.e. emergency generator) is provided the fire alarm circuit shall be energized from the emergency panel board.

ii. **907.15.2 Multi-building or zone monitoring.** When a Central Station is monitoring more than one zone or building with a single retransmitter, the Central Station shall identify the particular zone or building or both that is in alarm, where required by the Chief. Fire Alarm Panels installed at the protected premise shall be capable of differentiating between signals, including water flow, manual, and automatic activating components and transmitting distinctive fire alarm, supervisory and trouble signals.

iii. **907.15.3 Alarm transmission.** The activation of a fire sprinkler system, hood extinguishing system, special extinguishing system or a fire alarm/detection system shall cause the system to initiate a signal to the Central Station within 90 seconds. Retransmission from the Central Station to the Fire Dispatch Center shall not exceed 60 seconds.

EXCEPTION: Existing building without an alarm system which install hood extinguishing systems or special extinguishing systems need not be monitored.

d. Section 907.16.1 "Automatic telephone dialing devices" is added as follows:

907.16.1 Automatic telephone dialing devices. Two separate telephone lines (numbers) shall be provided from the protected premises to the Central Station, which use Digital Alarm Communicator Transmitter (DACT). All costs regarding the installation, maintenance, and continuous operation of those lines shall be the responsibility of the building owner.

F. CHAPTER 11 AVIATION FACILITIES is amended as follows:

1. Section 1101 – GENERAL is amended as follows:

a. **Section 1101.3 Permits is modified to read:**

1101.3. Permits. For permits to operate an airport, heliport, helistop, aircraft refueling vehicle, application of flammable or combustible finishes, and hot work, see Section 105.6.

b. Section 1101.3.1 "Helicopter Use Permits" is amended by adding the following:

1101.3.1. Helicopter Use Permits. A permit is required for any person, firm or business landing a helicopter at a site other than an approved airport or heliport as described by Federal Aviation Administration F.A.R.

Part 77, for the purpose of advertising, promotions, lifting, or rides whether for public or private use. Sufficient information shall be provided to the Chief to allow determination of operational safety.

c. Section 1107.9 "Fueling at rooftop heliports" is amended by adding the following:

1107.9. Fueling at Rooftop Heliports. Refueling at rooftop heliports, helistops or emergency landing areas shall not be permitted.

G. CHAPTER 22 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES is amended as follows:

1. SECTION 2211 - REPAIR GARAGES is amended by adding the following:

2211.7.2.3.4 Gas Detection Systems. Repair garages used for the repair of LPG fueled vehicles shall be provided with an approved gas detection system.

H. CHAPTER 27 – HAZARDOUS MATERIALS – GENERAL PROVISIONS is amended as follows:

1. SECTION 2703 – GENERAL REQUIREMENTS is amended by adding the following:

2703.10.3.7 Parking and garaging. Vehicles containing hazardous materials in amounts that require placarding under state or federal law and possessing the physical hazards listed in Section 2701.2.2 shall not be left unattended on any residential street; nor in or within 500 feet of any residential area, apartment or hotel complex, educational, hospital or care facility at any time; or at any place that would, in the opinion of the Chief, present a life or safety hazard.

I. CHAPTER 33 – EXPLOSIVES AND FIREWORKS is amended as follows:

1. SECTION 3301 - GENERAL is amended as follows:

a. Section 3301.1.1 "General" is added as follows:

3301.1.1.1 General. Storage, use and handling of fireworks shall be in accordance with local and state regulations.

b. Section 3301.7 "Seizure"is modified to read:

3301.7 Seizure of Fireworks. The Chief is authorized to seize, take, remove or cause to be removed at the expense of the owner all stocks of fireworks offered or exposed for sale, stored or held in violation of local, state, or federal regulations.

2. SECTION 3308 - FIREWORKS DISPLAY is amended as follows:

a. Section 3308.1 "General" is modified to read:

3308.1 General. Fireworks and temporary storage, use and handling of pyrotechnic special effects material used in motion pictures, television, and theatrical and group entertainment productions shall be in accordance with this article and local and state regulations.

b. Section 3308.1.1 "General" is added as follows:

3308.1.1 General. Fireworks displays shall be in accordance with local and state regulations.

c. Section 3308.2 Permit Application" is modified to read:

3308.2 Permit Application. Permits are required to conduct a fireworks display as required by local and state regulations. Permit application shall be made not less that 14 days prior to the scheduled date of the display. The permit application shall include a diagram of the grounds on which the display is to be held showing the point at which the fireworks are to be discharged; the location of buildings, highways and other lines of communication; the lines behind which the audiences will be restrained; and the location of nearby trees, telegraph or telephone lines and other overhead obstructions. At the time of permit application, the Chief shall be consulted regarding requirements for standby personnel and fire apparatus.

d. Section 3308.3 is amended by adding the following:

3308.3.1 General. Temporary storage, use and handling of pyrotechnic special effects material used in motion picture, television, theatrical and group entertainment productions shall be in accordance with local and state regulations. Permanent storage of pyrotechnical special effects materials shall be in accordance with Section 3308.

e. Section 3308.11 "Sales" is added as follows:

3308.11 Sales. Permits are required for the sale and display of "Safe and Sane" approved fireworks as permitted and regulated by Chapter 8.48 of the Sacramento City Code as presently constituted, and as hereinafter amended.

f. Section 3308.11.1 "Storage" is added as follows:

3308.11.1 Storage. Storage of fireworks is prohibited except by special permits as required by local and state regulations.

g. Section 3308.11.2 "Pyrotechnic special effects material" is added as follows:

3308.11.2 Pyrotechnic special effects material. A permit is required to manufacture, compound, store or use pyrotechnic special effects material as required by local and state regulations. A permit for use shall be granted only to a licensed pyrotechnic operator.

J. CHAPTER 34 FLAMMABLE AND COMBUSTIBLE LIQUIDS is amended as follows:

1. Section 3404.2.14.1 Removal and Disposal of Tanks is amended by adding subsection 7 as follows:

7. Tank(s) shall not be disassembled by any removal method at the site.

K. CHAPTER 45 – REFERENCED STANDARDS is amended by modifying the following to read:

NFPA – National Fire Protection Association

All NFPA Standards shall be adopted except:

11C	13E	13R	297	473	550	902	1001	1002	1003	1021
	1031	1033	1035	1041	1201	1221	1402	1404	1405	1410
	1500	1561	1581	1901	1911	1914	1931	1932	1971	1975
	1981	1982	1983	1999	1710	1720				

L. APPENDICES - Appendices B and C are adopted;

1. APPENDIX B is amended as follows:

a. SECTION B105- FIRE-FLOW REQUIREMENTS FOR BUILDINGS is amended by modifying the following to read:

B105.2 Buildings other than One- and Two-Family Dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.
EXCEPTION:

1. A reduction in required fire flow of up to 50 percent, as approved by the Chief, is allowed when the building is provided with an automatic sprinkler system approved pursuant to the adopted NFPA Standards. The resulting fire flow shall not be less than 1500 gallons per minute (5677.5 L/min.). Reduction of fire flow does not apply to number of fire hydrants required or duration of fire flow required.

2. A reduction in required fire flow of up to 75 percent, as approved by the Chief, for warehouse buildings of Type I, Type II, and Type III-N construction and provided with early suppression fast response fire sprinkler systems. Reduction of fire flow does not apply to number of fire hydrants required or duration of fire flow required.

2. APPENDIX C is amended as follows:

a. SECTION C104 - CONSIDERATION OF EXISTING FIRE HYDRANTS is amended as follows:

i. **SECTION C104 - Existing Fire Hydrants is modified to read:**

C104.1 Existing fire hydrants on public streets are allowed to be considered as available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstructions of such roads.

ii. **SECTION C104 - Existing Fire Hydrants is added as follows:**

C104.2 Existing single outlet 2 1/2 inch hydrants shall be changed to an approved steamer style hydrant, when a tentative subdivision or parcel map, merge of lots, change of use or change in intensity of use of an existing building, expansion of an existing structure, or construction increases the required fire flow.

C104.3 Where water main improvements are required to meet GPM flow and the existing water main has a single 2 1/2 inch outlet fire hydrant, an upgrade of hydrants will be required.

C104.4 Existing hydrants affected by right of way improvements shall be moved to an approved location at no cost to the fire authority.

b. TABLE NO. C105.1, NUMBER AND DISTRIBUTION OF FIRE HYDRANTS is modified to read as follows:

TABLE NO. C105.1

NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

FIRE FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS [1,3,& 4] (Ft.)	MAXIMUM DISTANCE FROM HYDRANT TO ANY POINT ON STREET OR ROADWAY FRONTAGE[3] (Ft.)
1750 or less	1	300	150
2000-2250	2	300	150
2500	3	300	150
3000	3	300	150
3500-4000	4	300	150
4500-5000	5	300	150
5500	6	300	150
6000	6	250	150
6500-7000	7	250	150
7500 or more	8 or more[2]	200	120

[1]Reduce by 150 feet for dead-end streets or roadways.

[2]One Hydrant for each 1000 gpm or fraction thereof.

[3]Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants should be provided at not less than 1000 foot (305 m) spacing to provide for transportation hazards. In addition, there shall be at least one hydrant at each intersection.

[4]Average spacing between hydrants may be extended to 500 feet on streets serving one and two family dwellings.

c. SECTION C106, HYDRANT TYPE is added as follows:

SECTION C106 - HYDRANT TYPE

The Chief shall approve the type of fire hydrants to be installed in public right of way or on private property prior to any such installation.

d. SECTION C107, HYDRANTS - BOTH SIDES OF A STREET is added as follows:

SECTION C107 - HYDRANTS - BOTH SIDES OF A STREET

Hydrants shall be required on both sides of the street whenever one or more of the following conditions exist:

1. Streets have median center dividers that make access to hydrants difficult, cause time delay, or create undue hazard or both.

2. When there are four or more lanes of traffic.

3. Width of street in excess of 88 feet.

4. The existing street being widened or having a raised median center divider in the future pursuant to the General Plan Roadway Improvement Plans for the City of Sacramento.

3. **APPENDIX I:** EMERGENCY ACCESS GATES AND BARRIERS is added as follows:

(See IFC Section 503.6)

SECTION 1 - SCOPE

Where a new gate or barrier is installed on a fire access roadway, it shall be authorized by the Chief and meet the minimum requirements of Appendix H. Private driveways on lightly traveled streets as determined by the City of Sacramento, Department of Transportation or the appropriate public works agency having jurisdiction, serving one single-family residence may be exempt from the scope of this document. Approval of automatic gates or barriers is subject to the owner accepting responsibility for any future programming requirements by the authority having jurisdiction.

SECTION 2 - DEFINITIONS

For the purposes of APPENDIX H, certain terms are defined as follows:

100% CONCURRANCE OF PROPERTY OWNERS will consist of a signed, notarized copy of Appendix H - Form 1, Emergency Access Gates and Barriers, by each property owner served by the gate;

AUTHORITY HAVING JURISDICTION is any agency having statutory authority to enforce federal, state, county, city, or district laws, ordinances or standards;

GATES AND BARRIERS – shall mean a gate, crossbar, door or other obstructive device which is utilized for the purpose of restricting, controlling or obstructing entry or exit by motor vehicles or pedestrians to or from a private roadway and which is not manned on a twenty-four hour, seven day per week basis by a person capable of providing immediate access to a police or fire safety vehicle or person;

PRIVATE STREET OR ROADWAY – shall mean any roadway (not dedicated as public right-of-way) that is owned and maintained by abutting property owners, or association of property owners that is utilized for the purpose of providing vehicular or pedestrian access to a subdivision, apartment complex, condominiums or other residential development or wild land, excluding off-street parking areas, driveways, and driveways to off-street parking areas.

PRIVATE DRIVEWAY -- A private way for vehicular travel that provides access from an off-street parking area to a public or private drive.

ULTIMATE EDGE OF RIGHT-0F-WAY is the line furthest from the centerline of the street that has been approved by the County and recorded on the parcel map for existing or future street improvements.

SECTION 3 - PERMIT
A permit issued by the fire authority having jurisdiction to design and install any secured access gate system shall be obtained and approved in writing prior to installation.

SECTION 4 - REQUIRED SUBMITTAL LOCATIONS
a. Applications to install gates or barriers shall be submitted to the City of Sacramento, Fire Prevention Office, 300 Richards Bl, , Sacramento, CA 95815; (916) 808-1300

SECTION 5 - SUBMITTALS
5.1 Approved verification of 100% Concurrence of Property Owners.
The applicant shall provide, with the gate application, verification that all existing property owners served by gate installation agree to its installation and operation. Each property owner shall provide a signed copy of the agreement noted as Appendix ~~I~~, Form 1 – Emergency Access Gates and Barriers (at the end of this document). In addition, the applicant shall provide a copy of the amended "Road Maintenance Agreement" identifying the addition of the gates and operating systems. Where there is only one property owner, Appendix H, Form 1 – Emergency Access Gates and the property owner and the gate contractor must sign Barriers.

SECTION 6 - MINIMUM REQUIREMENTS

6.1 Vehicle Gates

6.1.1 Access

a. All gates shall be UL 325 compliant.

b. Gates shall not be installed within a required turning radius of a fire access roadway.

c. Access for single direction traffic shall be unobstructed 16 feet wide and 13', 6" high.

d. Access for bi-directional traffic shall be unobstructed 20' wide and 13', 6" inches high.

e. Swinging gates for single direction traffic shall swing in the direction of vehicle travel.

f. Swinging gates for bi-directional traffic shall swing into the property being entered.

h. All gates shall be accessible from the driving lane nearest the edge of the street by turning radii of at least 35' inside and 55' outside.

i. After passing through a gate, the nearest curb of any cross street shall be no less than 40 feet.

6.1.2 Operation of Gates

a. Electrically operated gates shall be equipped with the following approved fire department methods for entry and exit:

1. Key override switch (Knox®), and
2. Radio operated controller (Click2Enter© or other approved equipment), or

Exception: Radio controlled exit may be waived by installation of a "free exit" loop.

b. Gates requiring radio-controlled access shall be provided with an approved 2 inch by 2 inch, blue, reflective marker visible to approaching traffic. It shall be located in the center of the exit gate.

c. Wiring for electrical gates shall be provided by AC current, underground installation. An electrical permit is required by the Sacramento Building Department.

d. Electrically operated gates shall fail to the open position when the power is off. They shall remain open until power is restored.

e. Knox® Company authorization forms are required for orders of key switches, boxes and padlocks. The forms may be obtained by calling the Sacramento Fire Department.

6.1.2.1 Manual gates or barriers may be approved on a case-by-case basis for nighttime security of business property or access to wild lands.

a. They shall be constructed in a manner that reflects good construction practices acceptable to the fire authority having jurisdiction.

b. They shall be accessible by means of an approved fire department padlock (Knox®) or by the installation of an approved key box (Knox®).

c. Approved manual gates or barriers across emergency access roadways shall be provided with an 18-gauge metal sign in the center of and on both sides of the gate that shall read, "FIRE LANE- NO PARKING". Letters shall be red on a white background and be a minimum of 3" high with a ½" stroke.

d. For nighttime security only, gates to close off a fire lane, in order to minimize dumping and vandalism shall be approved with (Knox®) padlock access. Gates to be closed during business hours are required to be electronically operated.

6.1.4 Prohibitions

a. No gate shall be installed where access requires the use of a proximity reader or card.

b. Direction-limiting devices, such as fixed tire spikes, are prohibited.

c. The total number of vehicle access control devices or systems, through which emergency vehicles must pass to reach any address shall **not** exceed one.

d. No commercial property owner shall install fences and gates where more than one gate must be opened in order to reach within 150 feet of the rear portion of any building.

6.2 Pedestrian Gates

All vehicle gates obstructing pedestrian access to a public way (street) shall have an approved pedestrian gate installed within 10 feet of the vehicle gate.

a. Gates shall be handicap accessible and comply with exit door requirements of the Uniform Building Code.

b. An approved key box (Knox®) shall be installed at least 48" above grade on the outside of the gate. It shall be provided with a key to open the pedestrian gate.

c. No pedestrian gate shall be located in the median between two vehicle gates.

Exception: Private driveways serving one single-family residence are exempt from this requirement.

SECTION 7 - INSTALLATION APPROVAL

The fire authority having jurisdiction shall inspect all gates for proper installation and operation prior to activation or use.

SECTION 8 - ADDITIONAL REQUIREMENTS

Because of the delays caused by vehicle access control devices or systems, additional fire protection requirements may be applied based on other access limitations, such as narrow or winding streets, or dead-end streets without an approved turnaround available for fire apparatus.

Other than the obstruction and the reduced width controlled within this standard, no other requirement of the fire authority having jurisdiction shall be adversely affected by the placement of any vehicle access control device or system in any required fire apparatus access road.

Fire department approval does not waive any requirement by other authorities having jurisdiction.

15.36.060 PUBLIC SAFETY RADIO COMMUNICATIONS. The following requirements may be imposed at the time of application for a Building Permit. All Building Permit applications filed after the adoption of this ordinance shall be subject to compliance with its terms and conditions.

(A) **General.** Except as otherwise provided, no person shall erect, construct, change the use of or provide an addition of more than 20% to, any building or structure or any part thereof, or cause the same to be done, that fails to support adequate radio coverage for the Sacramento Regional Radio Communications System (SRRCS), including but not limited to firefighters and police officers. For purposes of this section, adequate radio coverage shall include all of the following: (1) a minimum signal strength of -95 dBm available in 90% of the area of each floor of the building when transmitted from the closest Sacramento Regional Radio Communications System site; (2) a minimum signal strength of -95 dBm received at the closest Sacramento Regional Radio Communications System site when transmitted from 90% of the area of each floor of the building; (3) the frequency range that much be supported shall be the current band of frequencies used by either the City or County sub-systems; and (4) a 100% reliability factor. When measuring the performance of a bi-directional amplifier, signal strength measurements are based on one input signal adequate to obtain a maximum continuous operating output level.

(B) **Amplifications Systems Allowed.** Buildings and structures that cannot support the required level of radio coverage shall be equipped with either a radiating cable system or an internal multiple antenna system with FCC type accepted bi-directional amplifiers as needed. If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operating on an independent battery and/or generator system for a period of at least 12 hours without external power input. The battery system shall automatically charge in the presence of an external power input. If used,

bi-directional amplifiers shall include filters to reduce adjacent frequency interference. These filters shall be tuned to so that they will be 35 db below the SRRCS frequencies.

(C) **Testing Procedures.**

1. Acceptance Test Procedure. When an in-building radio system is required, and upon completion of installation, it will be the building owner's responsibility to have the radio system tested to ensure that two-way coverage on each floor of the building is a minimum of 90%. Each floor of the building shall be divided into a grid of approximately 20 equal areas. A maximum of two non-adjacent areas will be allowed to fail the test. In the event that three of the areas fail the test, in order to be more statistically accurate, the floor may be divided into 40 equal areas. In that event, a maximum of four non-adjacent areas will be allowed to fail the test. After the 40 area test, if the system continues to fail, the building owner shall have the system altered to meet 90% coverage requirement. The test shall be conducted using a Motorola MTS2000, XTS2500, XTS5000 or equivalent portable radio, talking through the Sacramento Regional Radio Communications System as specified by the authority having jurisdiction. A spot located approximately in the center of a grid area will be selected for the test, then the radio will be keyed to verify two-way communications to and from the outside of the building through the SRRCS. Once the spot has been selected, prospecting for a better spot within the grid area will not be permitted. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified each year during the annual tests. In the event that the measurement results become lost, the building owner will be required to rerun the acceptance test to re-establish the gain values.

As part of the installation, a spectrum analyzer or other suitable test equipment shall be utilized to insure that spurious oscillations are not being generated by the subject bi-directional amplifier (BDA) due to coupling (lack of sufficient isolation) between the input and output systems. This test will be conducted at time of installation and subsequent annual inspections.

2. Annual Tests. When an in-building radio system is required, the building owner shall test all active components of the system, including but not limited to amplifiers, power supplies and backup batteries, a minimum of once every 12 months. Amplifiers shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance. Backup batteries and power supplies shall be tested under load for a period of one hour to verify that they will properly operate during an actual power outage. If within the one hour test period, in the opinion of the testing technician, the battery exhibits symptoms of failure; the test shall be extended for additional one hour periods until the testing technician confirms the integrity of the battery. All other active components shall be checked to determine that they are operating within the manufacture's

specifications for the intended purpose.

3. Five-Year Tests. In addition to the annual test, the building owner shall perform a radio coverage test a minimum of once every five years to ensure that radio system continues to meet the requirements of the original acceptance test. The procedure set forth above shall apply to these tests.

4. Qualifications of Testing Personnel. All tests shall be conducted, documented and signed by a person in possession of a current FCC license, or a current technician certification (minimum Associate level) issued by the Electronics Technicians Association. All original test records shall be retained on the inspected premises by the building owner and copies of the records shall be submitted to the Sacramento Fire Department via the "Self Help Inspection Process".

5. Field Testing: Police and Fire personnel, after providing reasonable notice to the owner or his representative, shall have the right to enter onto the property to conduct field-testing to be certain that the required level of radio coverage is present.

(D) **Permits:** A permit fee of $100.00 shall be submitted to the Sacramento Fire Department along with copies of all test records.

(E) **Implementation:** Although not a condition of occupancy, the building shall be in compliance of this ordinance within 90 days of occupancy.

(F) **Penalties:** Pursuant to 8.040.080 of the SCC, a violation of this ordinance is a misdemeanor criminal offense and a civil penalty up to $25,000.00 per day (for each and every day that the violation exists) can be imposed.

(G) **Exemptions:** This section shall not apply to buildings less than 5,000 square feet or buildings zoned for Residential 1& 2 Family Units.

(H) ***Required Path Availability of SRRCS Microwave System & Mitigation Issues:***

The SRRCS Microwave System is designed for a minimum of 99.999% availability which takes into consideration existing structures along the microwave system transmission path, obstruction from natural terrain, and environmental factors.

If the City determines that mitigation efforts are required, prior to the issuance of final permits or occupancy of the building, the building owner shall mitigate the new building or structure's blockage or obstruction of the SRRCS Microwave System paths so as to restore a minimum of 99.999% system availability by either (1) providing a new microwave relay site/equipment at another site; (2) relocating existing microwave relay/site equipment or (3) pay an impact fee to be

determined by the City to cover any work required to restore the SRRCS Microwave System's availability. Prior to commencing any mitigation work, the building owner shall submit a detailed mitigation plan to the City for approval.

15.365.070. ADOPTION OF ORDINANCE. Adoption of this ordinance repealing and reenacting Sacramento City Code Chapter 15.36 is not intended to and does not affect any administrative, civil, or criminal prosecutions or proceedings brought, or to be brought, pursuant to Chapter 15.36 or other provisions of the Sacramento City Code, or pursuant to applicable federal, state, or local laws, to enforce provisions of Chapter 15.36 as they existed prior to the effective date of this ordinance. The provisions of Chapter 15.36, as they exist prior to the effective date of this ordinance, shall continue to be operative and effective with regard to any acts occurring prior to the effective date of this ordinance.