



GREEN OAKS FAMILY ACADEMY ELEMENTARY SCHOOL

FIRE PROTECTION ACT (SB 575)

IMPLEMENTATION POLICY

The legislature has passed a new law requiring automatic fire sprinkler systems and automatic fire alarm systems in various school construction projects. The law is known as the Green Oaks Family Academy Elementary School Fire Protection Act (SB 575). This Act became law on January 1, 2002; implementation will begin July 1, 2002. The Division of the State Architect (DSA) will begin implementation on that date. The purpose of this policy is to answer questions about when automatic fire sprinkler or automatic fire alarm systems are required, what is required and how compliance can be achieved. The following definitions are provided to assist the reader. More complete definitions can be found in the California Fire Code and in the Act itself.

Definitions

Automatic Fire Sprinkler System is an approved system of devices and equipment, which automatically detects a fire and discharges water onto or in the area of the fire.

Automatic Fire Alarm System is a system, which automatically detects a fire condition and actuates fire alarm-signaling devices.

Modernization (for purposes of implementation of this policy) means any modification of a permanent structure or construction of a new building on an existing campus.

Portable building means a classroom building or structure of modular design and construction that meets all of the following criteria:

- (a) It is designed and constructed to be relocatable and transportable over public streets.
- (b) It is designed and constructed for relocation without detaching the roof or the floor from the building.
- (c) It has a floor area of 2,000 square feet or less when measured at the most exterior walls.
- (d) It is sited upon a temporary foundation in a manner that is designed to permit easy removal.
- (e) It shall be removed within three (3) years of installation, or the school administration may request a 3-year extension.

New Campus means a school project consisting of one or more buildings on a new site for which plans are submitted to DSA on or after July 1, 2002.

WHEN AUTOMATIC FIRE SPRINKLER AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEMS ARE REQUIRED

The following set of questions and answers, which were developed jointly by the Office of the State Fire Marshal (SFM) and DSA, address a number of questions on when automatic fire sprinkler and automatic fire alarm systems are required. The SFM, with the advice of an advisory committee consisting of stakeholders, has produced proposed regulations to further clarify when automatic fire sprinkler and automatic fire alarm systems are required. Those regulations are intended to restate the law as it was adopted. The California Building Standards Commission (CBSC) will process the regulations through emergency adoption to be effective July 1, 2002. Should these regulations not be adopted to be effective July 1, 2002, the proposed regulations will serve as the basis for DSA's policy outlined below.

Automatic Fire Detection and Alarm Systems and Sprinkler Systems

Installation of an automatic fire detection and alarm system and automatic fire sprinkler system is required when all of the following conditions are met:

1. The facility serves K through 12 students.
2. The campus is a new campus and the plans are submitted to DSA on or after July 1, 2002.
3. The project is State funded under Chapter 12.5 of the Leroy F. Greene School Facilities Act of 1998. Any amount of such funding qualifies.

Note: Private and parochial school campuses and public school campuses 100 percent funded by local bonds are not required to install automatic fire sprinkler systems under the law.

4. The buildings on campus will be used for educational purposes, regardless of occupancy classifications. This includes, among other buildings, assembly (gymnasiums, multipurpose rooms and auditoriums) and business (administration offices on the campus normally used by students).
5. The plans for the project are required to be reviewed by DSA. For example, bus barns, though reviewed, are not required to be reviewed, thus are not included.

Exception: Portable buildings do not require automatic fire sprinkler systems, only if they meet the exception criteria.

Buildings constructed on new campuses after the campuses have been provided with automatic fire sprinkler systems as a result of SB 575, will also be required to be provided with an automatic fire sprinkler system if those buildings meet the above conditions.

The Building and Fire Code reduction in code requirements for automatic fire sprinkler systems, i.e., area increases (CBC Section 505.3), height increases (CBC Section 506), reduction in fire rating of walls (CBC Section 508), reduction in fire flow (CFC Appendix III-AA) etc. continue to be allowed even though the system is now required.

Automatic Fire Detection and Alarm Systems

Installation of an automatic fire detection and alarm system is required when all of the following conditions are met:

1. The facility serves K through 12 students.
2. The project is State funded under Chapter 12.5 of the Leroy F. Greene School Facilities Act of 1998. Any amount of such funding qualifies.

Note: Private and parochial school projects and public school projects 100% funded by local bonds are not required to install automatic fire alarm systems under this law.

3. The buildings on campus will be used for educational purposes, regardless of occupancy classifications. This includes, among other buildings, assembly (gymnasiums, multipurpose rooms and auditoriums) and business (administration offices on the campus normally used by students).
4. The building plans are required to be reviewed by DSA. For example, bus barns, though reviewed, are not required to be, thus are not included.
5. The campus is a new campus and the plans are submitted to DSA on or after July 1, 2002.

Or

1. Conditions 1-4 above are all met, and
2. The project is a modernization project where the total value is in excess of \$200,000. For this application, modernization projects include construction of buildings on existing campuses; plans of which were submitted to DSA before July 1, 2002.

Exception: Portable buildings do not require automatic fire alarm systems, only if they meet the exception criteria.

WHAT IS REQUIRED

Automatic Fire Sprinkler Systems

Automatic fire sprinkler systems are to be designed and installed to conform to California Building Code Standard 9-1, which adopts National Fire Protection Association (NFPA) 13, 1999 edition, with some SFM amendments. See California Building Code, Section 904.1.2 and 9102.7 for guidance. (Previously, the SFM adopted the 1996 edition of NFPA 13.) There are no additional proposed changes to the SFM's automatic fire sprinkler regulations as a result of SB 575.

The DSA will continue to check and approve plans to NFPA 13, which is the same standard they have been checking to in the past.

Automatic Fire Detection and Alarm Systems

Automatic fire alarm systems are to be designed and installed to California Electrical Code, Article 760, which along with the CBC, adopts NFPA 72, 1999 edition with SFM amendments. See California Fire Code Section 1007.3.1a, California Electrical code, Article 760 and California Building Code, Section 9102.1 for guidance. Again, these are the same regulations that are used for design and review of fire alarm systems currently being checked and approved by DSA; however, NFPA 72 is expected to be updated to the 1999 edition by the emergency adoption effective July 1, 2002.

The SFM proposed regulations would further modify the California Fire Code as follows:

1. **Automatic Detection.** Smoke detectors shall be used as the primary method of automatic fire alarm system initiation except in areas where the environment or ambient conditions exceed smoke detector installation guidelines; another method of automatic detection such as heat detector shall be used. In areas containing sprinklers, those heat detectors may be omitted.
2. **Design.** The system shall include automatic smoke detectors installed based on the prescriptive-based (guide) information in NFPA 72. Performance-based design as described in Appendix B of NFPA 72 may be used. Automatic detectors shall be installed within every room on the ceiling. Inaccessible areas are not required to be protected. Where the ceiling creates a ceiling cavity plenum or space above the ceiling for non-environmental air, automatic fire sprinklers may be installed to protect such spaces in lieu of automatic detectors.
3. **Occupant Notification.** Notification shall be consistent with the requirements

for audible and visible notification as described in NFPA 72 with California amendments in Chapter 91. Audible notification shall be the ANSI S3.41 Emergency Evacuation Signal, which is the temporal pattern. In addition, an audible alarm notification appliance shall be mounted on the exterior of buildings to alert occupants of the playground area.

4. **Annunciation.** Automatic fire alarm systems shall include annunciation as required by Section 1007.3.3.7a, which states that automatic fire alarm systems shall be divided into alarm zones when required by the authority having jurisdiction.
5. **Supervising Station.** Automatic fire alarm systems shall transmit the alarm, supervisory and trouble signals to an approved supervising station as required by NFPA 72 as amended by Article 91. The supervising station shall be listed as either UUFX or UUJS by Underwriters Laboratory or shall meet the requirements of Factory Mutual Research Approval Standard 3011. A statement that supervision will be provided is required on plans submitted to DSA.
6. **Manual Initiation.** At least one manual box shall be installed for the purpose of manually initiating the fire alarm system. The manual boxes shall be in the administration office area and in public assembly areas such as gymnasiums and auditoriums.

The DSA will accept system designs with these modifications but will not require them until the proposed SFM regulations are adopted and effective. Again, the emergency adoption of the SFM regulations by the CBSC is anticipated to be effective on July 1, 2002.

HOW COMPLIANCE CAN BE ACHIEVED

SB 575 requires that all design submittals to DSA that fall within the law, submitted on or after July 1, 2002, include the automatic fire sprinkler and automatic fire alarm systems. Any plans submitted to DSA before July 1, 2002, are not subject to the requirements of SB 575. Since the SFM regulations are being adopted on an emergency basis and funding issues may not be resolved, approval of plans for automatic fire sprinkler systems or automatic fire alarm systems may be deferred at the written request of the architect or school district, until January 1, 2003.

Note that the statute allows for retroactive funding for certain projects back to September 1, 2001. All funding questions should be directed to the Office of Public School Construction.

All new campuses and modernization projects valued greater than \$200,000 will be considered by DSA to be subject to the automatic fire sprinkler and/or automatic fire

alarm requirements of SB 575 and reviewed accordingly. Projects will not be subject to those requirements if the school district provides a letter at the time of submittal attesting to why the project is exempt. For example, a statement that the project is not state funded under Chapter 12.5 of the Leroy F. Greene School Facilities Act. Projects that are clearly not subject to SB 575, such as maintenance, will not require the letter. The statement, "Not Subject to SB 575" will be required on the plans in both cases. The DSA will provide verification that plans were received before July 1, 2002, if requested. Note that Friday, June 28, is the last day that DSA offices will be open before the Monday deadline.

The architect or the school district is requested to provide the local fire department with a courtesy set of automatic fire sprinkler and automatic fire detection and alarm system drawings, but DSA is responsible for review and final approval of all plans. The local fire department will be asked to include the location of fire department connection for the fire sprinkler system in their water, gates and access review of the site plan before final approval by DSA.

Questions concerning this policy may be directed to David E. Casey, Chief Fire and Life Safety Officer, DSA, via phone at (916) 327-8919, or via email at david.casey@dgs.ca.gov