



## **AGRICULTURAL BUILDING GENERAL REQUIREMENTS**

The purpose of this document is to provide information about general Fire Code requirements for new Agricultural Buildings constructed in Agricultural zones of Stanislaus County. It is intended to be general information only and may not address every situation that could arise. Contact Stanislaus County Fire Prevention Bureau at 209-552-3700 or your local fire district if you have questions or need additional information.

Only non-residential buildings used to directly support agricultural operations conducted on the same piece of property qualify as "Agricultural Buildings". Buildings used to support a business, including a business that is agriculturally based, may be classified either as a Commercial Building or as an Agricultural Building. A building to store and repair farm equipment used for a custom harvesting business is considered a Commercial Building. A building used to store, and repair farm equipment used only on that specific farm is classified as an Agricultural Building. The Chief Building Official will be the final authority in determining which buildings are classified as Agricultural Buildings and which are Commercial Buildings.

### **Fire Fees**

Two types of fees are collected during development. The first are Fire Protection Facility Fees that are collected to finance fire protection facilities. These fees differ based on the fire district that the project is located in (not all fire districts have Fire Protection Facility Fees) and the size and type of building being constructed. These fees are collected at the time that the Building Permit is issued. The fire protection facility fees go directly to the fire districts.

The second fee is for providing services directly related to the project (for example, plan check and site inspection). Fees for these services are based on the costs for providing the service. In County areas, Fire Marshal plan check fees are \$110.00 per hour. The fee for inspecting new projects is based on the size and use of the building. For example, inspection fees for agricultural buildings ("U" occupancies) up to 10,000 square feet range from \$106.00 to \$158.00. These fees are also collected at the time the building permit is issued.

### **Access Roadway Requirements**

An access roadway must be provided so that fire apparatus can get within 150' of any part of a structure. Access roadways must be 20' wide with a vertical clearance of 13'6" and capable of supporting vehicles weighing 75,000 pounds. Dead end roads more than 150' long have special turn around requirements. More detailed information can be found in the CFC 503 Appendix D. Exceptions may be granted to projects that include fewer than three occupancies but should be approved by the Stanislaus County Fire Prevention Bureau or local fire department in advance. On-Site Water Requirements for areas not served by a municipal water system

An approved on-site water supply for fire suppression is required for many new projects located in rural areas where municipal water systems do not exist. This water supply must be accessible from an approved access roadway that is at least 20' wide with a vertical clearance of 13'6". On-site water supplies may include tanks, cisterns, swimming pools, and ponds but must be accessible and available year around regardless of weather or drought conditions. A dry fire hydrant or other approved access must be located not less than 100' from the building being protected. The maximum distance will be determined by the local fire chief. Some structures are exempt from providing on-site water storage.

Because of the expense that may be associated with providing an approved water supply it is strongly recommended that the proposed water supply be approved by the Fire Marshal and local fire department prior to submitting plans. Some factors may be increased or decreased based on the specific site and use.

National Fire Protection Association (NFPA) Standard #1142 Chapters 4 and 5 are used to calculate the amount of on-site water supply that is required for structures where no municipal water supply is available.

The following formula is used:

<b>GALLONS OF ON-SITE WATER NEEDED =</b> Volume of structure ÷ Occupancy Hazard Classification X Construction Classification
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NOTE:

Volume of Structure = Total volume of structure in cubic feet

#### Occupancy Hazard Classification

- **3** for severe hazard uses such as cereal or flour mills, explosives storage, feed and grist mills, hay storage, saw mills, and wood storage.
- **4** for high hazard uses such as auditoriums, commercial barns and commercial stables, department stores, feed stores, freight terminals, paper and pulp mills and processing, full-service repair garages, retail stores, and warehouses.
- **5** for moderate hazard uses such as amusement occupancies, clothing manufacturing, cold storage warehouses, farm storage (corn cribs, dairy barns, equipment sheds, hatcheries), machine and metalworking shops, plant nurseries, restaurants, and unoccupied buildings.
- **6** for low hazard uses such as beverage manufacturing plants, brick manufacturing plants, canneries, cement plants, churches, dairy products manufacturing, gasoline and minor repair service stations, horse stables, offices, parking garages, slaughterhouses, and wineries.
- **7** for light hazard uses such as apartments, colleges and schools, dwellings, hospitals, hotels and motels, nursing and convalescent homes, offices, and prisons.

#### Construction Classification

- I Metal or non-combustible = .50
- II Metal or non-combustible = .75
- III Ordinary = 1.00
- IV Heavy timber = .75
- V Wood and wood frame = 1.50
- VB Single family dwelling = 1 (NFPA 1142 section 6.2.2)

For example, a Type II building measuring 100' long by 50' wide by 20' high used as a dairy barn would require 15,000 gallons of stored water ( $100 \times 50 \times 20 \div 5 \times .75 = 15,000$ ). This number may be increased or decreased depending upon other circumstances such as exposures (another structure) within 50 feet of proposed new structure, installation of sprinkler system.

#### **Automatic Fire Sprinklers**

Automatic fire sprinklers are not generally required in agricultural buildings but may be used to reduce water supply or fire access requirements