



*County of Sonoma*  
**FIRE & EMERGENCY SERVICES DEPARTMENT**

FIRE SERVICES \* EMERGENCY MANAGEMENT \* HAZARDOUS MATERIALS



ORDINANCE NO. #6049

**SRA PARCEL / 327 CRC REQUIRED**  
**Job Copy**

**FIRE SPRINKLERS REQUIRED**  
**File Copy**

**Permit# 14-3015**

To: Permits and Resource Management Department  
Plan Review Division, Applicant

From: Steve Mosiurchak  
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Date: 9-3-2014                      Address: 9795 W SUMMIT TR RIN

Scope: NEW SFD W/ATT'D 2ND UNIT & GARAGE

~~This proposal is in reasonable compliance with State and Local Fire and Building Codes as adopted by the County of Sonoma and APPROVED with the following conditions:~~

This proposal will require a **re-submittal and is not compliance** with State and Local Fire and Building Codes as adopted by the County of Sonoma for the following conditions. **ITEMS MARKED ARE REQUIRED TO BE CORRECTED** all others listed are approved and required per scope of work

**Sec. 13-29. Availability of emergency access.**

All buildings shall be accessible to emergency fire equipment by a road or driveway constructed to within one hundred fifty (150) feet of any portion of an exterior wall of the first story of the building or such closer distance as the Director of Permit and Resource Management deems necessary to provide adequate access for emergency fire equipment. All buildings located on slopes of greater than five percent (15%) shall also include such additional fire protection measures under Section 13-63, as the County Fire Chief deems necessary to mitigate access constraints.

**Sec. 13-30. Road and driveway surfaces.**

**Include surface type based on slope**

All roads and driveways shall have all-weather driving surfaces. All structural sections shall be constructed so as to meet or exceed the following standards:

(a) On level areas and grades of less than five percent (5%), roads and driveways shall have a gravel surface. The structural section of the road or driveway shall be at least one foot (1') of compacted Class 2 Aggregate Base.

(b) On grades of between five percent (5%) and ten percent (10%), roads and driveways shall have a double seal coat surface. The structural section of the road or driveway shall have an armor coat surface, constructed according to CalTrans Standard Specifications Section 37, Bituminous Seal Double Application, and the base portion of the road or driveway shall be at least one foot (1') of compacted Class 2 Aggregate Base.

(c) On grades of greater than ten percent (10%), roads and driveways shall have an asphalt concrete surface. The structural section of the road or driveway shall be asphalt concrete of at least two tenths of one foot (0.2') thick. The base portion of the structural section shall be at least five tenths of one foot (0.5') of compacted Class 2 Aggregate Base.

(d) In lieu of the prescriptive structural sections required by subsections (a), (b) and (c), a design of the section may be prepared by a licensed civil engineer using a soils investigation that provides soil R-value and expansion index. Alternatively, the engineer may use an R-value of 5 and waive the soil report unless a soil engineering report is required because of specific site conditions. The traffic index to be used for the design shall be not less than 3.5.

### **Sec. 13-31. Road and driveway grades.**

#### **Provide a note on the plan indicating the following information**

(a) No road or driveway shall have a maximum grade in excess of fifteen percent (15%), without the approval of the County Fire Chief. In granting such approval, the County Fire Chief may require such additional fire protection measures under Section 13-63 as he or she deems necessary to mitigate access constraints. A road or driveway may include grades up to twenty percent (20%) for distances not exceeding three hundred feet (300') within any one thousand feet (1,000') of road or driveway.

(b) A vertical curve shall be required for any road or driveway when the algebraic difference in grade exceeds three percent (3%) for driveways, and two percent (2%) for private roads. The length of any vertical curve shall not be less than fifty feet (50').

(c) The maximum surface cross slope shall be five percent (5%) for all surface types unless a greater cross slope is required to meet super elevation requirements. The minimum surface cross slope for all surface types shall be two percent (2%).

(d) Turnarounds shall have a maximum longitudinal slope of eight percent (8%). The longitudinal slope is defined as the slope corresponding to the long axis of a vehicle as it travels into, out of, and through a turnaround. This slope shall be maintained beginning and ending at the point of tangency of the edge of pavement curves for the turnaround. The cross slope perpendicular to the longitudinal slope shall not exceed five percent (5%).

### **Sec. 13-32. Road and driveway horizontal curves and intersections.**

#### **Include the minimum radius of 40-0R per (c)**

(a) No road or driveway shall have a horizontal inside radius of curvature of less than fifty feet (50'). If the roadway or driveway width is less than twenty-four feet (24'), then additional roadway or driveway widths shall be required as follows:

(1) Four feet (4') of additional width for curves with a horizontal inside radius of fifty feet (50') to one hundred feet (100') and a central angle greater than forty-five (45°) degrees; and

(2) Two feet (2') of additional width for curves with a horizontal inside radius of one hundred feet (100') to two hundred feet (200') and a central angle greater than forty-five (45°) degrees.

The road shall have the full width widening beginning at the point of tangency of the curve requiring the widening to the end point of tangency of that curve or subsequent curves requiring widening (if reverse curves are used). A five-to-one (5:1) taper shall be used to transition from the base width into and out of the widened width.

(b) Unless otherwise approved by the County Fire Chief, where a private road, with a throat width equal to or greater than eighteen feet (18') as measured thirty feet (30') from the edge of pavement, intersects a public road, the edge of pavement radius shall begin with a line a minimum of twelve feet (12') from and parallel to the physical centerline of the public road and a minimum radius of twenty-five feet (25') shall be provided from this point to the point of tangency with the edge of pavement of the private road. A taper of not less than ten-to-one (10:1) shall be provided along the public road when the public road is less than twenty-four feet (24') wide.

(c) Where a private road, with a throat width measuring equal to or greater than twelve feet (12') and less than eighteen feet (18') or a driveway with a throat width equal to or greater than ten feet (10') as measured thirty feet (30') from the edge of pavement, intersects a public or private road, the edge of pavement radius shall begin with a line a minimum of twelve feet (12') from and parallel to the physical centerline of the public or private road and a minimum radius of twenty-five feet (25') shall be provided from this point to the point of tangency with the edge of pavement of the private road or driveway. A taper of not less than ten-to-one (10:1) shall be provided along the public or private road when the public or private road is less than twenty-four feet (24') wide. In lieu of a ten-to-one (10:1) taper connecting private road or driveway to private road only, a radius of forty feet (40') may be used.

(d) Where a driveway, with a throat width measuring equal to or greater than ten feet (10') and less than eighteen feet (18') as measured thirty feet (30') from the edge of pavement, intersects a private road, the edge of pavement shall be a minimum radius of forty

feet (40'). Any driveway with a throat width greater than eighteen feet (18'), as measured thirty feet (30') from the edge of the pavement, that intersects a private road, shall comply with the private road/public road requirements set forth in subsection (b) of this section.

(e) Road and driveway horizontal curves and intersections may be reduced when proven by scientific method of a recognized vehicle modeling program. The method shall be performed based on the length, width, wheel base and turning radius of a standard Type 1 Fire Apparatus.

### **Sec. 13-37. Driveways.**

#### **The access driveway is greater than 150-0 in length and is required to have a turnaround shown per code (d)**

In addition to meeting the applicable standards in the preceding sections, all driveways shall comply with the following requirements:

(a) All driveways shall be constructed to provide a minimum of one (1) twelve foot (12') traffic lane and an unobstructed vertical clearance of fifteen feet (15') along the entire length of the driveway.

(b) All driveways exceeding one hundred fifty feet (150') in length shall have a turnout constructed at approximately the midpoint of the driveway. Any driveway exceeding eight hundred feet (800') in length shall have turnouts constructed approximately every four hundred feet (400') along the entire length of the driveway. driveway structure required to have a turnout shall have a turnout that is a minimum of twenty feet (20') wide, including the roadway and the turnout and thirty feet (30') long with a minimum taper of twenty-five feet (25') on each end. The length of the turnout shall be measured along the roadway or driveway centerline.

(c) All driveways exceeding one hundred fifty feet (150') in length shall have a turnaround constructed at each residential building served by the driveway. All driveways exceeding one hundred fifty feet (150') in length shall have a turnaround constructed at each residential building served by the driveway. Additional turnarounds shall be provided when a driveway exceeds one thousand three hundred twenty feet (1,320') in length at a length approved by the fire code official.

(d) Any road or driveway structure required to have a turnaround may have either a hammerhead/T, a stub out, or terminus bulb. All turnarounds shall have a minimum turning radius of forty feet (bulbs shall be forty feet (40') from the center point of the bulb, hammerhead/T and stub out shall have entry and exit curves of no less than a forty foot (40') radius. If a hammerhead/T is used, the top-of the "T" shall be a minimum of sixty feet (60') in length. If a stub is used, then the length of the turnaround shall be forty feet (40'), as measured from the roadway or driveway edge. The minimum width of either a hammerhead/T or a stub out shall be equivalent to the roadway or driveway entering the turnaround.

### **Sec. 13-42. Visibility and legibility of road signs.**

#### **Include location of address sign as required by code**

All road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred feet (100'). All road signs shall indicate the road name and whether the road is public or private in each direction of vehicle travel in conformance with county road standards.

### **Sec. 13-47. Size of letters, numbers and symbols for addresses.**

(a) **Numbers for one and two- family dwellings.** Numbers for one and two- family dwellings shall be a minimum of 4 inches (101.6mm) high with a minimum stroke width of 0.5 inches (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means shall be used to identify the structure.

### **Sec. 13-48. Installation, location and visibility of addresses.**

(a) All buildings shall have a permanently posted address, which shall be placed on building and shall be plainly visible and legible from the road on which the address is located or the primary driveway. The numbers shall contrast with their background.

(b) All buildings shall have a permanently posted address, which shall be placed at each driveway entrance and shall be visible and legible from both directions of travel along the road on which the address is located.

**Exception:** An approved internally lighted building address device may be used when such building address device is located on the building and the building is located within thirty feet (30') of the edge of the road on which the address is located.

- (c) All address signs along one-way roads shall be visible from both the intended direction of travel and the opposite direction.
- (d) Where multiple addresses are required at a single driveway, such addresses shall be mounted on a single approved post.
- (e) Where a road provides access solely to a commercial building, the address sign shall be placed at the nearest road intersection providing access to the site.

**Sec. 13-56. Flammable vegetation clearance areas for roads and driveways.**

All roads and driveways shall have a flammable vegetation clearance area on each side of the road or driveway of not less than ten feet (10') unless otherwise authorized by the Director of Permit and Resource Management.

**Sec. 13-59.5. Defensible Space.**

(a) A Fire Protection Plan shall be required for any new residential or commercial building within a State Responsibility Area (SRA) or a Very High Severity Zone of a Local Responsibility Area (LRA). The plan shall be prepared by a qualified professional and shall be approved by the County Fire Chief. The plan shall include, at a minimum, defensible space zones, identification of vegetation types, replacement of non-native flammable vegetation with approved fire resistive vegetation, and a maintenance program for all vegetation. When required by the Code Official, the property owner shall record a covenant, in a form satisfactory to County Counsel, which ensures that the approved plan will be implemented and maintained.

(b) The fire protection plan shall be based upon a site-specific wildfire risk assessment that includes considerations of location, topography, aspect, flammable vegetation, climatic conditions and fire history. The plan shall address water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space and vegetation management.

- (c) A copy of the fire protection plan shall be retained by the property owner.
- (d) The cost of fire protection plan preparation and review shall be the responsibility of the applicant. All existing buildings shall meet the requirements of Public Resources Code (PRC 4291) for defensible space.
- (e) All existing buildings shall meet the requirements of the California Fire Code, Chapter 49, Section 4906 and 4907.

**Inspections:**

Prior to final approval, all State and Local Codes shall be verified by field inspection by a member of the Sonoma County Fire and Emergency Services Dept. The following Inspections are required:

**Schedule of Inspections:** 707-565-3551 using the automated system of the Building Department

- Fire Final (198)
- Sprinkler Final (770)
- Fire Access/Water Supply (121)