



## **Sonoma Valley Fire District**

630 Second Street West, Sonoma CA 95476 - 707-996-2102

### **PLAN CHECK STANDARD COMMENTS**

## **Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential**

### **Sec. 13-51. - Emergency Water Supply**

(a) All buildings shall have a permanent emergency water supply approved by the county fire warden/fire marshal, which shall be installed, maintained, and available for use as follows:

1. Except as otherwise provided in subsection (a)(3), where water is provided by a public water system, the permanent emergency water supply shall be installed and available for use prior to the completion of road construction.
2. Except as otherwise provided in subsection (a)(3), where water is provided by a water system other than a public water system, the permanent emergency water supply shall be installed and available for use prior to the commencement of construction of any permanent structure.
3. When authorized by the county fire warden/fire marshal, an interim emergency water supply acceptable to the county fire warden/fire marshal may be substituted for the permanent emergency water supply, provided the permanent emergency water supply is installed and available for use prior to the issuance of an occupancy permit or final inspection.
4. When authorized by the county fire warden/fire marshal and local fire chief, the emergency water supply requirements may be waived when sufficient evidence is provided to meet the intent of Title 14 of the Natural Resources Code, Division 1.5, Article 4 - Emergency Water Standards.

### **PUBLIC OR COMMUNITY WATER SYSTEM - URBAN PARCEL**

If the water supply to the parcel is provided by a public or community water system (urban parcel), the emergency water supply for residential buildings shall consist of a permanent hydrant located on the road within two hundred fifty feet (250') of the driveway or as provided in Appendix C of the California Fire Code, measured from where the driveway intersects with the public or private road. Distance measurements shall be determined by hose lay along the road, not horizontal distance.

### **PRIVATE WATER SYSTEM (WELL) - NON-URBAN PARCEL**

If the water supply to the parcel is provided by a private water well (non-urban parcel), an emergency water storage of not less than two thousand five hundred-gallon capacity shall be provided. A single two thousand five hundred-gallon tank may serve more than one building on the same parcel, provided all hydrants are located in accordance with Section 13-52. When multiple tanks are utilized to achieve the required volume of water, the connection between the tanks shall be an approved minimum four-inch (4") diameter water line.

Water tanks for emergency water supply placed inside the minimum setback requirement of Section 13-55 shall be constructed of non-combustible material. A flammable vegetation clearance of not less than twenty feet (20') shall be maintained around all poly-plastic or similar water tanks.

*(Ord. No. 6318, § 1, 8-11-2020)*

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#### Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential Sec. 13-52. - Hydrants

(a) All buildings shall be protected by hydrants. The location, number, and type of hydrants for any building shall be as required and approved by the county fire warden/fire marshal or the director of permit and resource management.

(b) All hydrants for non-urban parcels shall comply with the following requirements:

1. Hydrant outlets shall be a minimum of eighteen inches (18") and a maximum of twenty-four inches (24") above grade, eight feet (8') from flammable vegetation, no closer than six feet (6') nor farther than twelve feet (12') from the edge of the road or driveway, and in a location where emergency fire equipment using it will not block the road. The hydrant serving any residential building shall be located at a turnout or turnaround, along the driveway to the building, or along the road that intersects with the driveway. The hydrant serving any residential building shall be connected to the emergency water supply by an approved minimum four-inch (4") diameter water line.
2. All hydrants shall be located between sixty feet (60') and one hundred fifty feet (150') from the residential building. The fire hydrant shall be installed so that a fire engine utilizing the hydrant may maintain a minimum distance of sixty feet (60') from the residential building. Distance measurements shall be determined by hose lay along a road or driveway, not horizontal distance.

#### Exceptions:

1. The distance to the hydrant, on a **non-urban parcel** with exclusively residential buildings on it, may exceed one hundred fifty feet (150') by one hundred fifty feet (150') for each additional five hundred (500) gallons of water storage capacity up to a maximum of two thousand five hundred and fifty feet (2,550') from the residential building as allowed by Table 13-52a.

All hydrants shall have at least one (1) two and one-half-inch outlet with male National Hose Threads and a cap. On water systems of greater than ten thousand five hundred (10,500) gallons, there shall also be at least one (1) four and one-half-inch outlet with male National Hose Threads and a four and one-half-inch by two and one-half-inch reducer with a cap.

All hydrants shall be a wet barrel hydrant or a draft hydrant as required by the delivery system and shall have suitable crash protection. The maximum height differential between the water source and the draft hydrant outlet shall be ten feet (10'). Draft hydrants shall be supplied by six-inch (6") minimum pipe size and be equipped with a four and one-half-inch National Hose male thread fitting with a cap.

Crash protection shall be per California Fire Code, Chapter Three, Section 312.2.

*(Ord. No. 6318, § 1, 8-11-2020)*



**PLAN CHECK STANDARD COMMENTS**

**Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential**

**PUBLIC FIRE HYDRANT EXCEPTION**

A public fire hydrant can be used for the emergency water supply as allowed by Table 13-52b, for non-urban parcels with exclusively residential buildings on them.

**IF THE HOME / DEVELOPMENT IS NOT ON A WELL THIS EXCEPTION IS NOT ALLOWED**

Note:

<sup>1</sup> This table applies only to parcels that have exclusively residential buildings on them.

Table 13-52b <sup>(1)</sup>  
 Exception to hydrant <sup>distance(2)</sup>

Distance is measured from driveway entrance to the public hydrant

EXPAND

Road Distance	Flow Rate	Minimum Residual Pressure
1 Mile	500 GPM	20 PSI
1.5 Miles <sup>(3)</sup>	1,000 GPM	20 PSI
1.75 Miles <sup>(3)</sup>	1,500 GPM	20 PSI
2 Miles <sup>(3)</sup>	2,000 GPM	20 PSI
3 Miles <sup>(3)</sup>	2,500 GPM	20 PSI

Notes:

<sup>(1)</sup> This table applies only to parcels that have exclusively residential buildings on them.

<sup>(2)</sup> Distances within these ranges can be prorated based on volume of flow available.

<sup>(3)</sup> This distance can be used when a letter is on file from the local fire chief and the department has a minimum of one (1) 500-gpm water tender in inventory.



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### **Sec. 13-53. - Signing of Water Sources**

Each hydrant or access to water for any residential or commercial building shall be identified as follows:

(a) If located along a driveway, a reflective blue marker, with a minimum dimension of three inches (3"), shall be located on the driveway address sign and mounted on a fire-retardant post. (b) If located along a road, either of the following is acceptable:

1. A reflective blue marker, with a minimum dimension of three inches (3"), shall be mounted on a fire-retardant post. The sign post shall be within three feet (3') of the hydrant, with the sign no less than three feet (3') nor greater than five feet (5') above ground, aimed toward headlights, in a horizontal position and visible from the driveway.
2. As specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

*(Ord. No. 6318, § 1, 8-11-2020)*

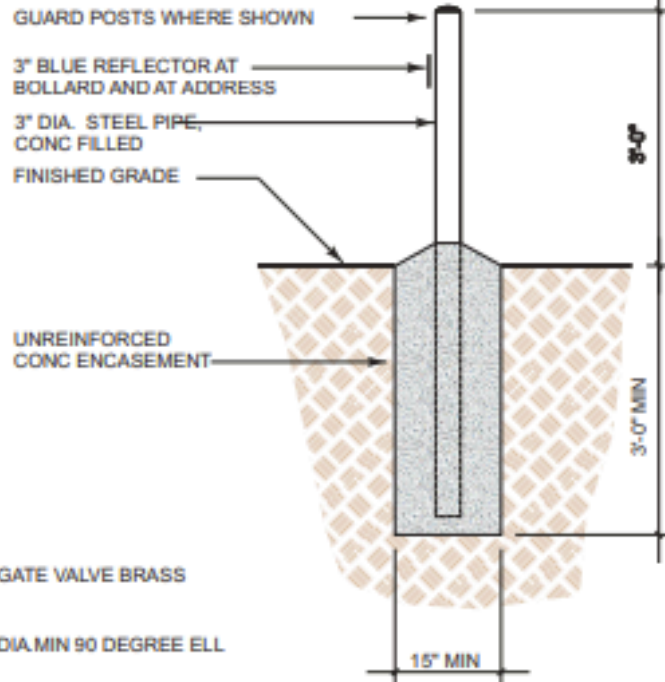
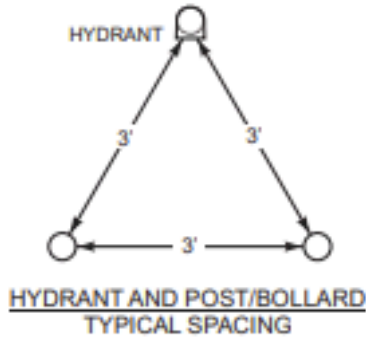
#### **State Law Reference:**

California Code of Regulations, Title 14 Natural Resources Code, Division 1.5, Chapter 7, Subchapter 2, Article 1-5, SRA Fire Safe Regulations, 1275.04.

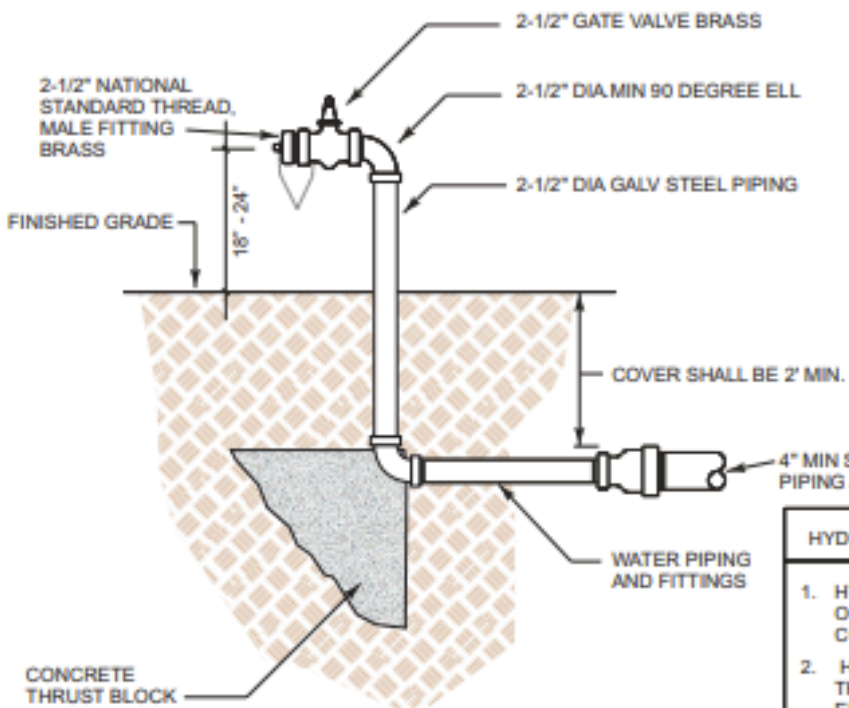


**PLAN CHECK STANDARD COMMENTS**

**Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential**



**GUARD POST/BOLLARD**  
 SEC. 13-52(e), 13-53



**FIRE DEPT. HYDRANT**  
 SEC. 13-52

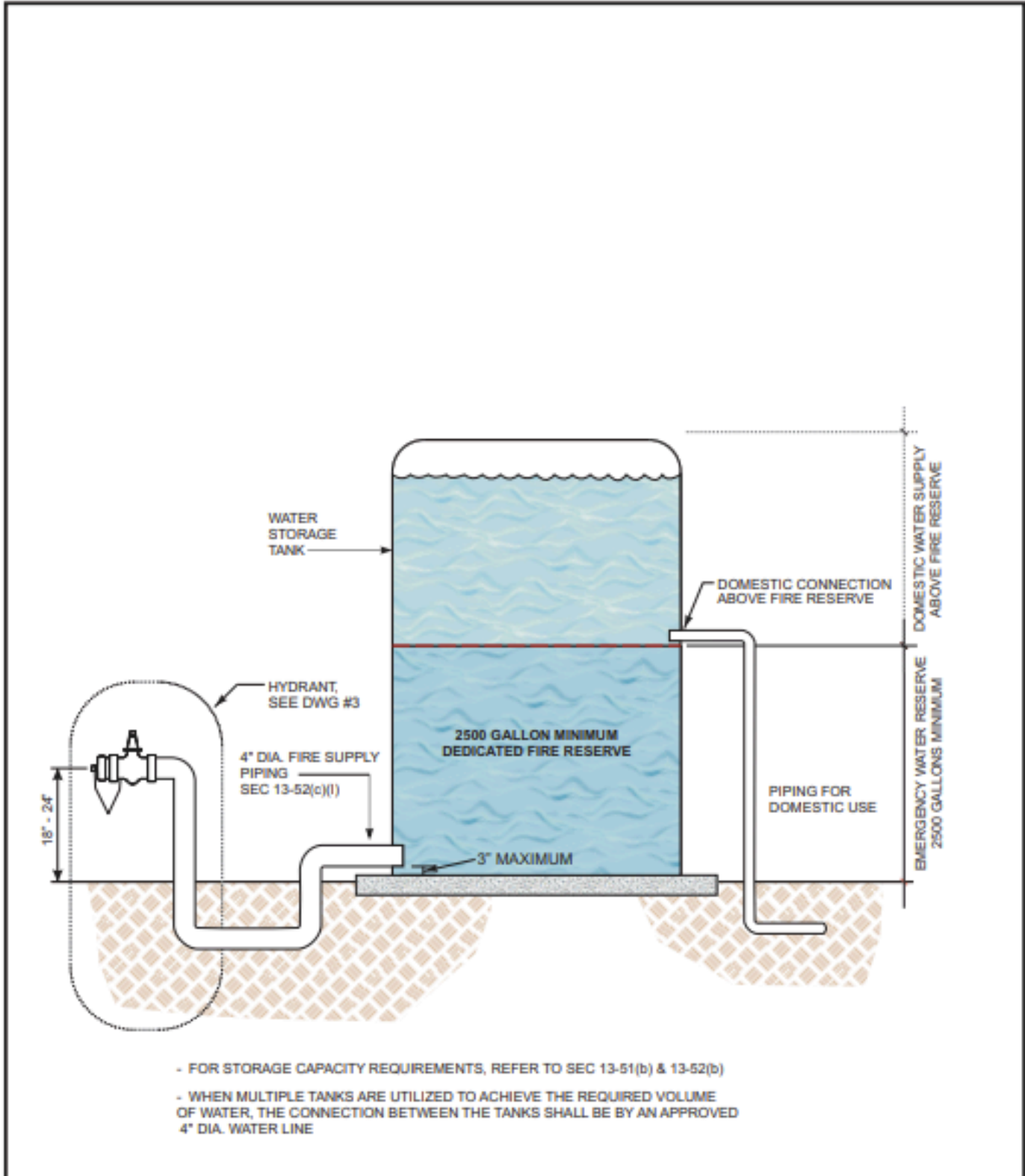
- HYDRANT INSTALLATION NOTES**
1. HYDRANT SHALL BE INSTALLED AND OPERATING PRIOR TO AND DURING CONSTRUCTION.
  2. HYDRANT SHALL BE INSTALLED NO CLOSER THAN 4' AND NO FURTHER THAN 12' FROM EDGE OF ROAD.
  3. WHERE HYDRANT IS PROVIDED AT ROAD OR DRIVEWAY LESS THAN 20' IN WIDTH, A TURNOUT SHALL BE PROVIDED AT HYDRANT LOCATION. SEE DRAWING 7.

<b>SEC 13-52 FIRE DEPT HYDRANT/GUARD POSTS</b>		<b>FIRE SAFE STANDARDS</b>	
<b>SONOMA COUNTY</b> <b>FIRE AND EMERGENCY SERVICES DEPARTMENT</b> <small>2300 COUNTY CENTER DR          Santa Rosa, California 95403          Telephone (707) 565-1152 Fax (707) 565-1172</small>		1/2" = 1'-0"	<b>F3</b>
		SCALE	
		01/19/17	
	REVISION DATE	DRAWING NO	



**PLAN CHECK STANDARD COMMENTS**

**Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential**



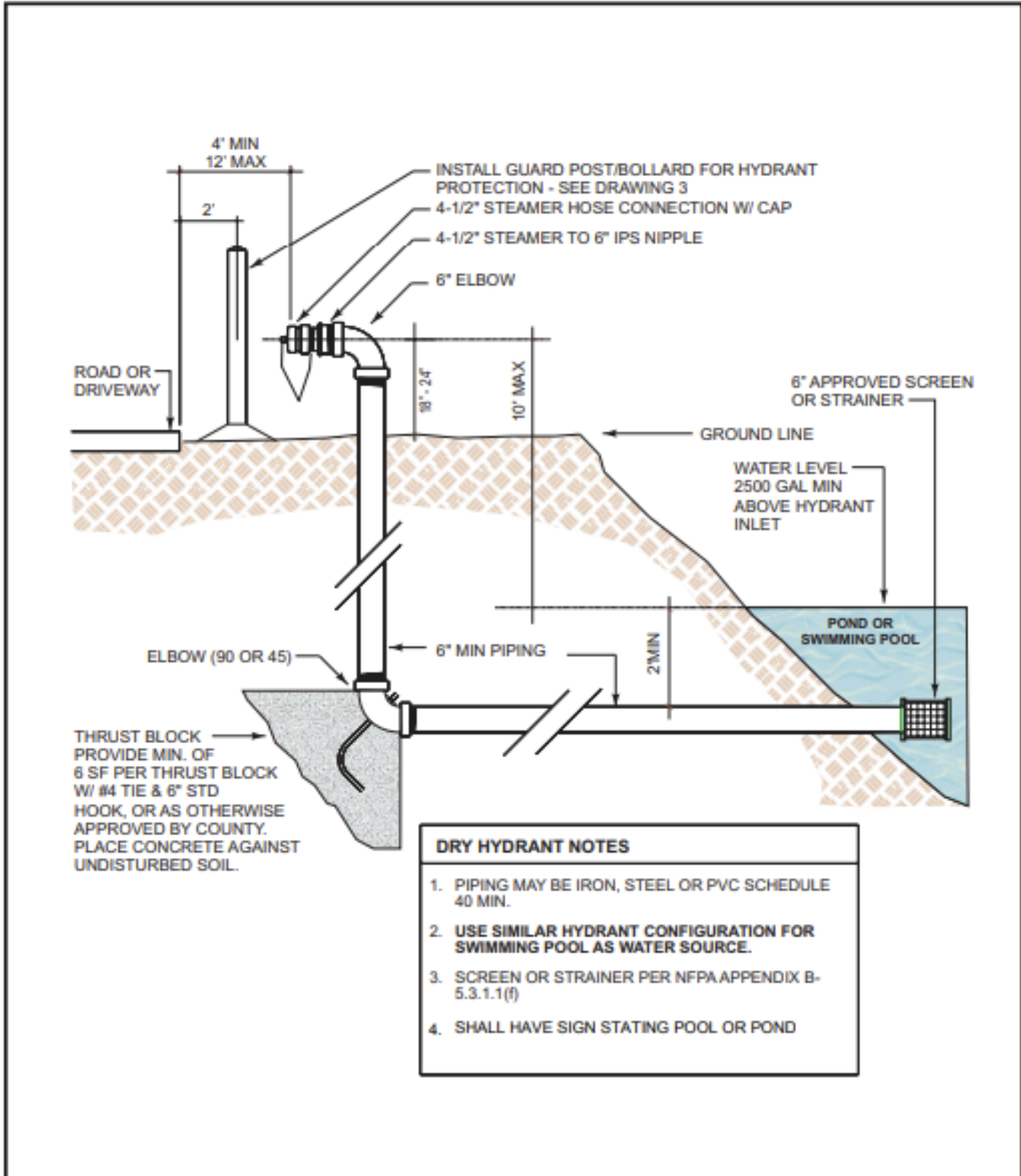
<b>SEC 13-51 EMERGENCY WATER SUPPLY</b>		<b>FIRE SAFE STANDARDS</b>	
<b>SONOMA COUNTY</b> <b>FIRE AND EMERGENCY SERVICES DEPARTMENT</b> <small>2300 COUNTY CENTER DR          Santa Rosa, California 95403          Telephone (707) 565-1152 Fax (707) 565-1172</small>		NOT TO SCALE	<b>F2</b>
		SCALE	
		01/19/17	
		REVISION DATE	
		DRAWING NO	





**PLAN CHECK STANDARD COMMENTS**

**Emergency Water Supply / Fire Hydrants - Unincorporated Sonoma County Residential**



- DRY HYDRANT NOTES**
1. PIPING MAY BE IRON, STEEL OR PVC SCHEDULE 40 MIN.
  2. USE SIMILAR HYDRANT CONFIGURATION FOR SWIMMING POOL AS WATER SOURCE.
  3. SCREEN OR STRAINER PER NFPA APPENDIX B-5.3.1.1(f)
  4. SHALL HAVE SIGN STATING POOL OR POND

<b>SEC 13-52(e) DRY OR DRAFT HYDRANT</b>		<b>FIRE SAFE STANDARDS</b>		
<b>SONOMA COUNTY</b> <b>FIRE AND EMERGENCY SERVICES DEPARTMENT</b> <small>2300 COUNTY CENTER DR          Santa Rosa, California 95403          Telephone (707) 565-1152 Fax (707) 565-1172</small>		<small>1/2" = 1'-0"</small> <b>SCALE</b>	<b>F4</b>	
		<small>01/19/17</small> <b>REVISION DATE</b>		<b>DRAWING NO</b>