



GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov

Date: January 27, 2025

To: Town of Oro Valley – Parks and Recreation

From: Jennifer Akins, Fire Marshal – Golder Ranch Fire District

Subject: Vistoso Trails Nature Preserve Wildfire Risk Assessment

On January 22, 2025, members of the Golder Ranch Fire District (GRFD), Town of Oro Valley, and Arizona Department of Forestry and Fire Management met at the Vistoso Trails Nature Preserve to conduct a wildfire risk assessment. The assessment covered three categories: fire prevention, fuel hazards, and wildfire emergency response. Below are the assessment findings.

Fire Prevention:

The Golder Ranch Fire District enforces the International Fire Code (IFC). The purpose of this code is to establish the minimum requirements consistent with nationally recognized practices for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises. Additionally, it provides a reasonable level of safety to firefighters and emergency responders during emergency operations.

GRFD does not enforce the removal of natural vegetation throughout the desert, washes, etc. In relation to waste accumulation and vegetation, GRFD is permitted to enforce the following:

- Removal of waste trash, construction debris and other natural materials, such as grass clippings and shrubbery cuttings
 - *see Photo 4* for debris that shall be removed from the premises (2018 IFC Section 304.1)
- Removal of DISORDERLY accumulation of wastepaper, wood, hay, straw, weeds, litter, combustible or flammable waste or rubbish of any type

GRFD utilizes the Wildfire Hazard Rating Form from Appendix C of the International Wildland Urban Interface Code which rates subdivision design points, vegetation, topography, roofing material, fire protection, building construction, and utilities. This form was utilized during the Vistoso Trails Nature Preserve wildfire assessment. Upon completion of the wildfire assessment, it was determined that the structures adjacent to the Vistoso Trails Nature Preserve are rated as low hazard, *see Exhibit A for sample rating*. The factors that contributed to the low rating are:

- Building construction: tile roofs with non-combustible stucco siding
- Underground utilities
- Access throughout subdivisions: twenty-foot-wide asphalt roads with cul-de-sac turnarounds
 - secondary roadway access throughout subdivision available
- 1,000 GPM fire flow (water from hydrants) available
- Topography: flat terrain
- Fuel: low to medium fuel loads

See Exhibit B for Firewise recommendations.



GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov

Fuel Hazards:

Approximately six miles of the Vistoso Trails Nature Preserve was assessed during the site visit. The following observations were noted by members of the Department of Forestry and Fire Management:

- Flat terrain
- Sonoran fuel, *see Photo 3*
- Sparse/patchy desert scrub
 - Lack of continuous crowns throughout fuel, *see Photo 2*
- Low to moderate fuel hazards
 - Pockets of moderate fuel hazards surrounded by non-combustible areas, *see Photo 5*

Wildfire Emergency Response:

The Golder Ranch Fire District incorporates a highly trained and experienced Wildland Team that is available and in service at all times. The following observations were noted by members of the Golder Ranch Fire District Wildland Team:

- Access available – vehicle and pedestrian
- Parking and staging areas available
- Firefighter access to nature preserve, *see Photo 1*
- Water available: approximately 120 fire hydrants adjacent to the nature preserve, *see Photo 6*
- Low to moderate fuels resulting in short lived fire

Conclusion:

Upon completion of the Vistoso Trails Nature Preserve Wildfire Risk Assessment, it was determined that the area is maintained with a reasonable level of life safety and property protection from the hazards of fire. The existing low to medium fuel hazards, efforts made in fire prevention, and the availability of the Golder Ranch Fire District Wildland Team contribute to this determination. In the instance of a wildland fire emergency, the area is projected to result in a low to medium intensity fire that the Golder Ranch Fire District Wildland Team is capable of managing.

Feel free to reach out if you have any questions or comments regarding this assessment.

Thank you,

A handwritten signature in black ink, appearing to read "Jennifer Akins".

Jennifer Akins
Fire Marshal
Golder Ranch Fire District
520-818-1017



GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov



Photo 1 – Firefighter and Fire Flow Access



Photo 2 – Sparse/Patchy Desert Scrub



GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov



Photo 3 – Sonoran Fuel



Photo 4 – Shrubbery Cuttings



GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov



Photo 5 – Moderate Fuels

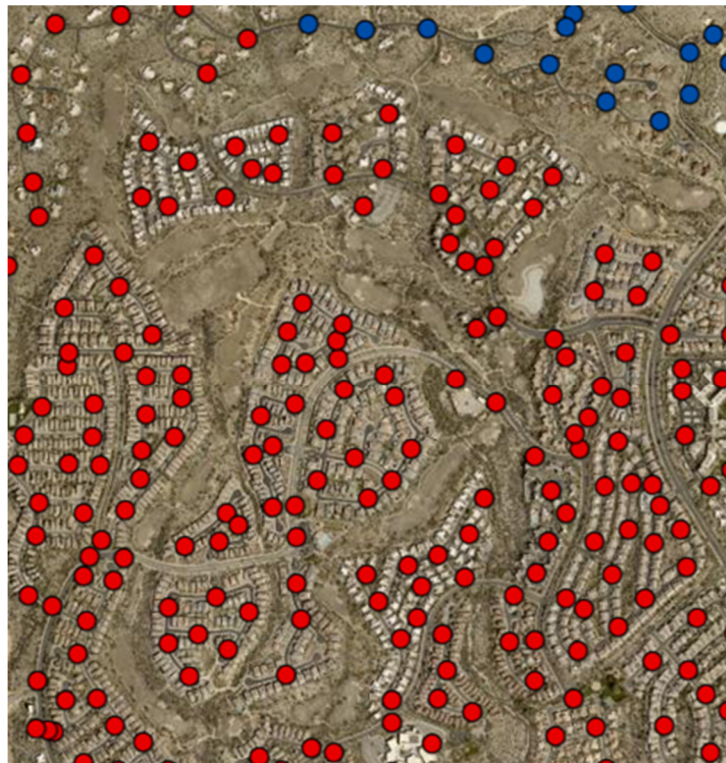


Photo 6 – Blue/Red Circles Indicate Fire Hydrant Locations Surrounding Vistoso Trails Nature Preserve

GOLDER RANCH FIRE DISTRICT

www.grfdaz.gov

Wildfire Hazard Rating Form

Rater Name: AKINS Overall Rating: _____ Date: 1 / 22 / 2025

Name: SAMPLE RATING

Address: RANCHO VISTOSO Phone: _____

International Wildland Urban Interface Code

APPENDIX C FIRE HAZARD SEVERITY FORM

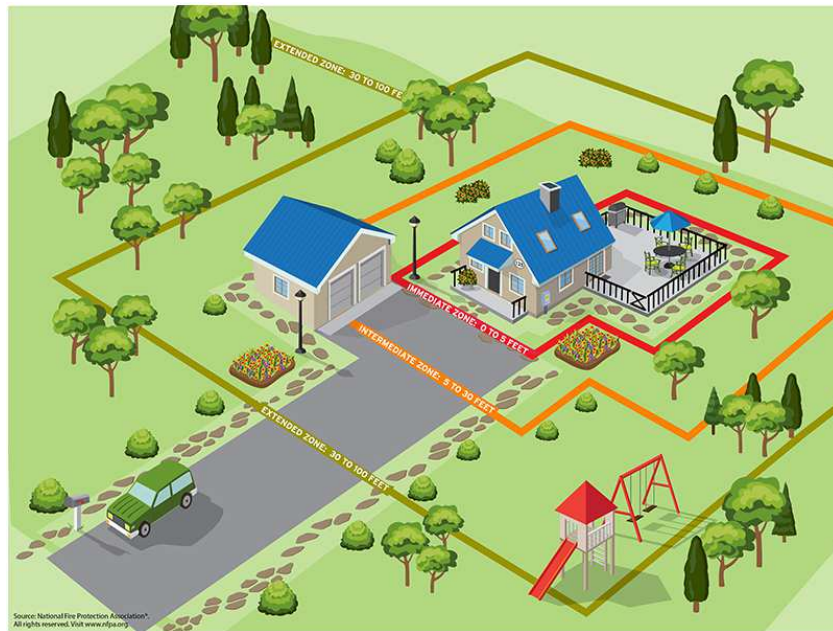
The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

A. Subdivision Design Points		C. Topography	
	Ingress/Egress		8% or less <u>1 X</u>
1.	Two or more primary roads	<u>1 X</u>	More than 8%, but less than 20% <u>4</u>
	One road	<u>3</u>	20% or more, but less than 30% <u>7</u>
	One-way road in, one-way road out	<u>5</u>	30% or more <u>10</u>
2.	Width of Primary Road		
	20 feet (6096 mm) or more	<u>1 X</u>	
	Less than 20 feet (6096 mm)	<u>3</u>	
3.	Accessibility		
	Road grade 5% or less	<u>1 X</u>	
	Road grade more than 5%	<u>3</u>	
4.	Secondary Road Terminus		
	Loop roads, cul-de-sacs with an outside turning radius of 45 feet (13 716 mm) or greater	<u>1</u>	
	Cul-de-sac turnaround	<u>2 X</u>	
	Dead-end roads 200 feet (60 960 mm) or less in length	<u>3</u>	
	Dead-end roads greater than 200 feet (60 960 mm) in length	<u>5</u>	
5.	Street Signs		
	Present	<u>1 X</u>	
	Not present	<u>3</u>	
B. Vegetation (IWUIC Definitions)		D. Roofing Material	
1.	Fuel Types		Class A Fire Rated <u>1 X</u>
	Light	<u>1</u>	Class B Fire Rated <u>5</u>
	Medium	<u>5 X</u>	Class C Fire Rated <u>10</u>
	Heavy	<u>10</u>	Nonrated <u>20</u>
2.	Defensible Space		
	70% or more of site	<u>1</u>	
	30% or more, but less than 70% of site	<u>10 X</u>	
	Less than 30% of site	<u>20</u>	
		E. Fire Protection—Water Source	
			500 GPM (1892.5 L/min) hydrant within 1,000 feet (304.8 m) <u>1 X</u>
			Hydrant farther than 1,000 feet (304.8 m) or draft site <u>2</u>
			Water source 20 min. or less, round trip <u>5</u>
			Water source farther than 20 min., and 45 min. or less, round trip <u>7</u>
			Water source farther than 45 min., round trip <u>10</u>
		F. Existing Building Construction Materials	
			Noncombustible siding/deck <u>1 X</u>
			Noncombustible siding/combustible deck <u>5</u>
			Combustible siding and deck <u>10</u>
		G. Utilities (gas and/or electric)	
			All underground utilities <u>1 X</u>
			One underground, one above ground <u>3</u>
			All above ground <u>5</u>
		Total for Subdivision	
			Moderate Hazard <u>40-59</u>
			High Hazard <u>60-74</u>
			Extreme Hazard <u>75+</u>

total = 26 points

Circle One 40 (Low Hazard <40) (Moderate Hazard 40-59) (High Hazard 60-74) (Extreme Hazard 75+)

How to Be Firewise



Best Firewise Practices in Rural Communities

1. **Create Defensible Space:** Clear vegetation and debris from around your home to create a buffer zone that helps prevent wildfires from spreading.
2. **Maintain Landscaping:** Choose fire-resistant plants and maintain them regularly to reduce the risk of ignition.
3. **Manage Vegetation:** Regularly mow grass, prune trees, and remove dead vegetation to eliminate potential fuel sources for wildfires.
4. **Secure Structures:** Use fire-resistant building materials for roofs, siding, and decks to reduce the vulnerability of structures to ignition.
5. **Stay Informed:** Stay updated on local fire conditions and follow evacuation orders if necessary. Prepare an emergency evacuation plan for your family and pets.

By implementing these Firewise practices and participating in programs like FIREWISE USA, rural communities can enhance their resilience to wildfires and protect lives and property.

What is the Home Ignition Zone?

The Home Ignition Zone (HIZ) is a critical concept developed by Jack Cohen, a retired USDA Forest Service fire scientist in the late 1990s. It identifies three key areas around a home that influence its vulnerability to ignition during wildfires.

Immediate Zone (0-5 feet): This zone encompasses the home and the area immediately surrounding it. It's crucial to prioritize actions here due to its high vulnerability to embers. Steps include:

- Clearing roofs and gutters of debris
- Repairing or replacing damaged roofing materials
- Installing ember-resistant screens on vents
- Removing flammable materials from around the house

Intermediate Zone (5-30 feet): This area extends beyond the immediate surroundings of the home and focuses on landscaping and hardscaping strategies to reduce fire risk. Measures include:

- Creating fuel breaks using driveways, walkways, and decks
- Maintaining lawns and grass at a low height
- Pruning trees and removing vegetation to prevent fire from reaching tree crowns

Extended Zone (30-100 feet): This zone aims to interrupt the spread of fire and keep flames small and close to the ground. Actions involve:

- Removing ground litter and dead plant material
- Thinning out vegetation and small conifers
- Maintaining adequate spacing between trees based on distance from the home