

# Fire Protection Plan Summit Estates

PDS2019-TM-5635

APN 237-090-0500

Prepared for the County of San Diego  
and the Escondido Fire Department



July 10, 2019

Revised April 23, 2020

Applicant: IMG Construction Management  
19782 Macarthur Blvd.  
Irvine, CA 92612

Original Prepared & Certified By: David C. Bacon

David C. Bacon, President

**FIREWISE** 2000, Inc.

1320 Scenic Drive

Escondido, CA. 92029

Telephone: (760) 745-3947

Revision Prepared and Certified by: \_\_\_\_\_

Melvin A. Johnson

Certified CEQA Wildfire Consultant

**Firewise** 2000, LLC

1320 Scenic Drive

Escondido, CA 92029

760-745-3947

**Summit Estates  
Fire Protection Plan**

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**Summit Estates**  
**FIRE PROTECTION PLAN**  
**PDS2019-TM-5635**  
**APN 237-090-0500**  
**July 10, 2019**  
**Revised April 23, 2020**

**EXECUTIVE SUMMARY**

This Fire Protection Plan (FPP) evaluates the proposed Summit Estates development to ensure it does not unnecessarily expose people or structures to fire risks and hazards. The FPP identifies and prioritizes the measures necessary to adequately mitigate those impacts. The FPP has considered the property location, topography, geology, combustible vegetation (fuel types), climatic conditions and fire history. It considers water supply, access, structure ignitability and fire resistive building materials, fire protection systems and equipment, impacts to existing emergency services, defensible space and vegetation management.

This FPP also lists fuel modification requirements to mitigate the exposure of people or structures from a significant risk of loss, injury or death from wildland fires. Zone 1 will be an irrigated landscaped zone and is commonly called the defensible space zone for fire suppression forces and protects structures from radiant and convective heat. This landscaped zone is permanently irrigated and consists of fire resistant and maintained plantings. Zone 2 is the area beyond Zone 1, including manufactured slopes and excludes all prohibited highly combustible native vegetation, but permits plantings with very specific criteria and reduces the existing native vegetation by 50%. A Homeowners Association (HOA) will be responsible to the Escondido Fire Department Fire Marshal for the completion of all designated Fuel Modification Treatments in common areas. Individual homeowners will be responsible for the maintenance of fuel treatments on their individual properties.

Finally, this plan and its requirements will be incorporated by reference into the final project Conditions of Approval to ensure compliance with codes/regulations and significance standards.



## 1.0 INTRODUCTION

This Fire Protection Plan (FPP) has been prepared for the Summit Estates Project. The purpose of the FPP is to assess the potential impacts resulting from wildland fire hazards and identify the measures necessary to adequately mitigate those impacts. As part of the assessment, the plan has considered the property location, topography, geology, combustible vegetation (fuel types) climatic conditions, and fire history. The plan addresses water supply, access (including secondary/emergency access where applicable), structural ignitability and fire resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. The plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect one or more at-risk communities and essential infrastructures. The plan recommends measures that property owners will take to reduce the probability of ignition of structures throughout the area addressed by the plan.

### General Information

**Project Manager:** Oscar Uranga, IMG Construction Management

**Approving Departments:**

**Fire Authority:** Escondido Fire Department/ (Contracted through Rincon Del Diablo Fire Protection District)

**Engineering:** San Diego County Department of Planning & Development Services

**Water:** Escondido Mutual Water Company

The FPP will be submitted to and approved by the City of Escondido Fire Department (EFD) and the San Diego County Department of Land Use and Planning (SDCDLUP) and is based upon current requirements, as of the date of this report, of the City of Escondido and San Diego County regarding Wildland Fire Protection Plans, including: pertinent local Fire Ordinance No. 2016-09; International Urban-Wildland Interface Code, including pertinent local Fire Ordinances; California Code of Regulations Title 24, Part 9, and Title 14, section 1280; The California Fire Code and Local Amendments including Appendices to Chapters 1 & 4 and Appendices B, F & H; Chapter 7A-California Building Code; the California State and Local Responsibility Area Fire Hazard Severity Zone Map; California Government Code, sections 51175 through 51189; California Public Resources Codes sections 4201 through 4204; and the National Fire Protection Association Standard 13-D.

The Summit Estates Fire Protection Plan (FPP) has two main objectives. First, the Summit Estates FPP provides fuel treatment guidelines for homeowners and any homeowner association. Second, the FPP provides features for the developer, architect, builder, and the Escondido Fire Department to improve the relative safety of the homes and homeowners from approaching wildfire. Appendices attached to this FPP provide additional information that shall be considered a part of this FPP.

This Fire Protection Plan includes:

- A wildland fire hazard rating assessment and expected fire behavior of both on-site and off-site native vegetative fuels.
- A long-term perimeter vegetative fuel modification treatment and maintenance plan to minimize the potential loss of any structure due to wildland fires.
- A long-term interior open space fuel modification treatment plan and “Firewise Landscaping” criteria to be utilized around the planned structures.
- “Ignition-Resistive Building Features” that will be required for all structures.

The term “Firewise” contained within this document is a term used to describe an approach which emphasizes community responsibility for planning in the design of a fire safe community as well as

effective emergency response, and individual responsibility for safer home design and construction, landscaping, and maintenance of fuel treatment areas. “The Firewise USA program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses.”



**Figure 1 Overhead View of Summit Estates**

## **1.1 Project Location, Description and Environmental Setting**

### ***1.1.1 Project Location***

The proposed Summit Estates project is located northeasterly of the intersection of Summit Drive and Mary Lane in a rural area of southern Escondido in San Diego County. The site is in hilly terrain approximately fifteen (15) miles inland from the Pacific Ocean. The general area has been developed with numerous single-family homes, and a small residential development to the north. Several open spaces occur along Summit Drive. South on Mary Lane several developed neighborhoods are located within the City of Escondido.

Access to the Summit Estates site will be from Summit Drive south of the intersection with Mary Lane on the southwestern property boundary. Highway 78 is less than two miles east of the site using Summit Drive. Traveling southwest on Mary Lane, a two-lane rural road, leads to South Bear Valley Parkway, a four-lane improved City Street with quick access to Interstate 15.

The eastern portion of the property is a riparian habitat with a seasonal creek flowing through a steep creek-bed. A 50-foot buffer zone will be maintained to reduce any impact on the area. Slopes rising from the creek gradually decrease in steepness rising to the

west. Three drainage/sediment basins will be developed to reduce runoff from the development.

### ***1.1.2 Project Description***

The project site covers approximately 23 acres of which only approximately 20 acres will be impacted by the development. The remaining land, nearly 3 acres, will be dedicated to a riparian habitat including a season creek drainage. A buffer zone of 50 feet will be created to reduce environmental impacts on the creek. The proposal calls for 20 homes built on lots averaging 1.15 of an acre. Homes sizes are proposed to fall within 2000 to 4500 square feet. An access road will be developed between lots 11 and 12 to provide access for a water retention Basin A. Each of the water retention basins will be maintained to Zone 1 and 2 Fuel Modification standards. The developer will be upgrading Summit drive to current County of San Diego Department of Public Works current road standards. Utilities will all be undergrounded. An existing City of Escondido water easement currently runs over the northern portion of the property. A new easement will be dedicated to the City of Escondido for the development of a new pressure reducing station for a proposed water line improvement project near the intersection of Summit Drive and Mary Lane.

### ***1.1.3 Environmental Setting***

#### **1.1.3.1 Dates of Site Inspections/Visits Conducted**

Two site visits were conducted during May & June 2019, as well as numerous phone calls to determine pertinent information concerning the environmental setting.

<b><u>Site Visit &amp; Purpose</u></b>	<b><u>Date</u></b>
#1 Initial Field Visit Evaluate lot layout and primary and secondary access road locations	May 28, 2019
#2 Field Visit Evaluate vegetation, topography, road conditions, and fire access	June 13, 2019

#### **1.1.3.2 Topography**

The project site is mostly surrounded by developed land ranging from single-family homes to large estate lots. Several new vineyards have been planted in the surrounding areas as avocado and citrus trees have been removed. The topography of the development site is dominated by moderate slopes in most areas with steeper slopes rising from the creek on the east side of the project. The elevation increases 65 feet from 790 feet along Summit Drive to a high point of 855 feet at the top of the hill. There is a 200-foot elevation gain from a low point in the creek to the top of the hill, moving in a westerly direction. Ridgelines throughout the area are broken up by numerous saddles and intersecting drainages.

### 1.1.3.3 Climate

The climate within the project area is characterized as a Mediterranean type climate with generally mild, wet (14 -16 inches per year) winters, with the bulk of the annual precipitation falling between January and March. Long, hot and very dry summer seasons frequently occur with occasional, multi-year droughts.

The most critical wind pattern to the project area is an off-shore wind coming out of the north/northeast, typically referred to as a Santa Ana wind. Such wind conditions are usually associated with strong (> 60-MPH), hot, dry winds with very low (< 15%) relative humidity. Santa Ana winds originate over the dry desert land and can occur anytime of the year; however, they generally occur in the late fall (September through November) when non-irrigated vegetation is at its lowest moisture content.

The typical prevailing summer time wind pattern is out of the south or southwest and normally is of a much lower velocity (5-12 MPH with occasional gusts to 30-MPH) and is associated with higher relative humidity readings (> 30% and frequently more than 60%) due to a moist air on-shore flow from the ocean.

All other (northwest, south, west) wind directions may be occasionally strong and gusty. However, they are generally associated with cooler moist air and have higher relative humidity (> 40%). They are considered a serious wildland fire weather condition when wind speeds reach > 20-MPH.

Fire agencies throughout the western United States rely on a sophisticated system of Remote Automated Weather Stations (RAWS) to monitor weather conditions and aid in the forecasting of fire danger. The closest RAWS to the project is the San Pasqual Valley RAWS. The data acquired from RAWS is important to modeling wildland fire behavior. ***FIREWISE 2000, Inc.*** determined that the San Pasqual Valley RAWS is relatively new, having only been in operation since October of 2009. Another RAWS that was evaluated was the Valley Center RAWS. This RAWS is located north of the Project. The Valley Center RAWS site captured significant weather data during the major southern California fires of October 2007 with winds gust exceeding 40 mph and relative humidities less than 10%. Note: in late October, strong winds, low relative humidity are indicators of a Santa Ana wind event.

### 1.1.3.4 On-Site Vegetation

There is no significant on-site native wildland vegetation on many of the parcels due to the repeated disking and mowing of the annual vegetation for several years. Following many years of repeated mowing, the dominant fuel type is a dry weather grass. A few scattered trees and bushes remain along the





**Photo #1 Creek Bottom Fuels**

***Photo #2 Wild Mustard Field***

eastern slope. The fuels in the creek are a mixture of native species including oaks and willow trees and non-native trees such as eucalyptus and palms (See Photos #1 & 2).

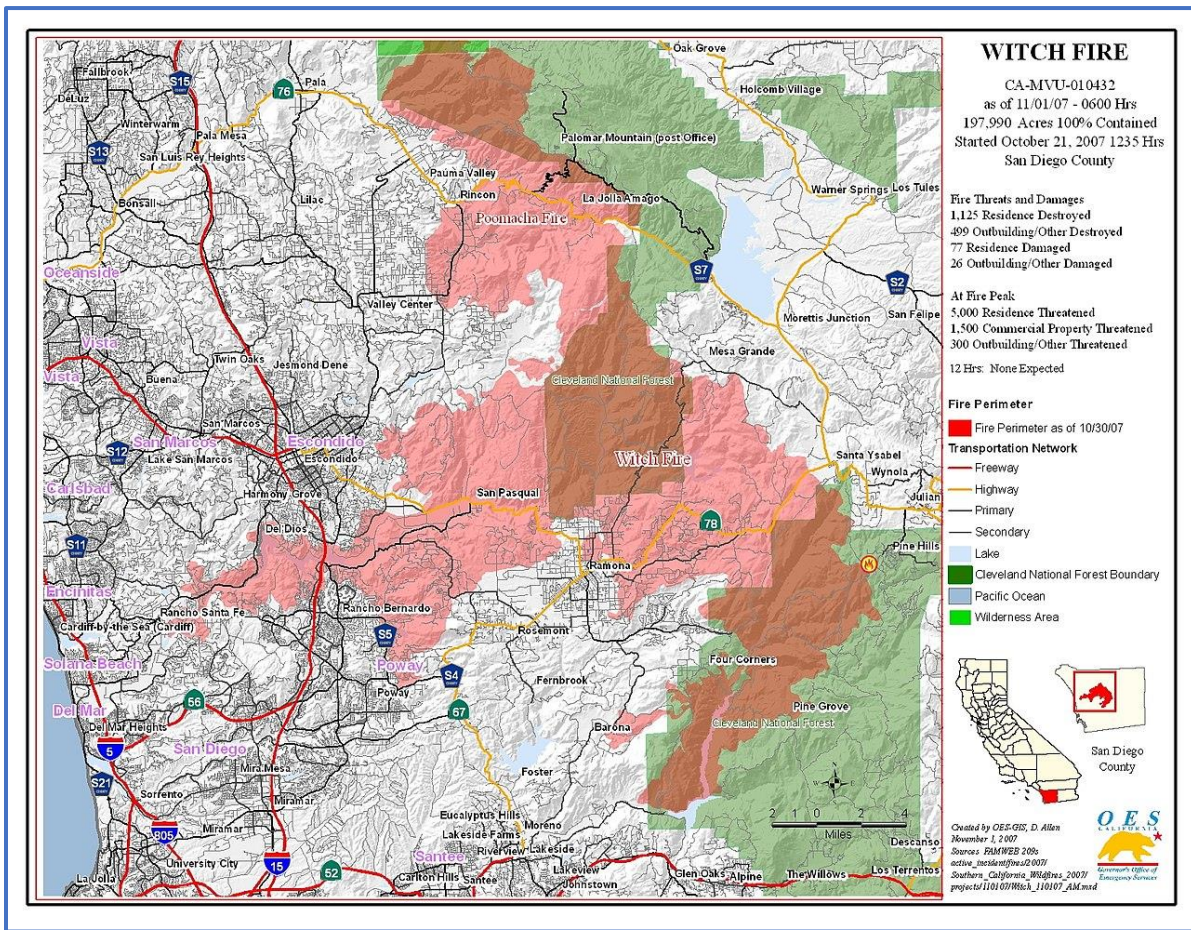
#### **1.1.3.5 Fire History**

The available data suggests that in the second half of the 20<sup>th</sup> Century the frequency of small fires increased in southern California while their average size decreased. This was due primarily to human caused fires and rapid-fire suppression. In San Diego County, this has resulted in an increased rate of burning in low elevation coastal scrubland, especially the coastal sage scrub formation near the urban development areas. It also indicates over 600 large fires of over 100 acres in the foothills and mountains from 1910-1999. Recently however several years of drought have contributed to major fires (in excess of 50,000 acres) that have swept through San Diego County resulting in large losses of property and damaged watershed.

The Witch Fire in October of 2007 burned over 197,990 acres, caused the evacuation of over 500,000 people and caused two civilian fatalities. Combining with the Guejito Fire within the first day, the fires destroyed over 70 homes in the City of Escondido. The fires rate of spread was stopped east of the development site due to a change in slope and fuel type, less than one mile east.

#### **1.1.3.6 On-site and Off-site Land Uses**

The existing parcel of land proposed for development are currently in both a natural state and partially developed. There is no evidence of previous agricultural activity and the surrounding land is either rural residential developed and undeveloped land or protected open space.



## 2.0 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

The Summit Estates FPP evaluates the potential adverse environmental effects that the Summit Estates residential development may have from wildland fire and proposes appropriate mitigations for any adverse impacts to ensure that this development does not unnecessarily expose people or structures to a significant risk of loss, injury or death in regard wildland fire. The following guidelines for the determination of significance are used:

### 1. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project is partially bordered by existing development and where wildlands are adjacent to the project, fuel modification and other requirements outlined in this FPP reduce the exposure of people or structures to a less than significant risk of loss, injury or death involving wildland fires.



**2. Would the project result in inadequate emergency access?**

The improvement in the width and design of Summit Drive along with the roads throughout the project being built to upgraded county standards will provide improved emergency access to the project area and neighboring residences.

**3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance service ratios, response times or other performance objectives for fire protection?**

The Escondido Fire Department (EFD) through a contract with the Rincon Del Diablo Fire Protection District will provide fire and EMS services to the development. The existing facilities are more than adequate to provide acceptable emergency service and response times.

**4. Would the project have enough water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

There is enough water available provided by the Escondido Mutual Water District as outlined in the Water Availability Form (see Appendix 'H').

**3.0 ANTICIPATED FIRE BEHAVIOR IN THE VICINITY**

The fire behavior calculations (See Section 4.6 and Appendix 'G' for details of the Fire Behavior Modeling) in Table 3.1 predict a maximum rate of spread of 225.4 feet/minute in the coastal sage fuel model under Santa Ana winds at 60 mph. The 60-mph wind is the expected maximum velocity on the property. Moving at a rapid rate of spread through coastal sage, the potential for wildfire exposure to the homes on the top of the slope due to ember production, radiant heat and direct flame contact is very high. Under the same weather conditions, the same fire will move at a much slower rate of spread with a greatly decreased intensity as shown in Table 3.2.

Fires burning on the same slope with more typical southwest winds show similar results; lower rates of spread, flame lengths and fire intensity in treated fuel than in the native fuel types that have been untreated. Converting the SCAL 18 fuels to a much lower intensity host fuel type such as Grass 1 has increased the safety and survivability for the homeowners and structures.

**TABLE 3.1**  
**A Comparison of Fire Conditions Under 60 mph Northeast Wind Conditions**  
**Untreated Versus Treated Fuels**  
**SCAL 18 vs. GR1- Grass**

<u><b>Untreated Fuels SCAL18</b></u>		<u><b>After Fuel Treatment GR1</b></u>	
<b>Rate of Spread</b>	<b>225.4 ft/min</b>	<b>Rate of Spread</b>	<b>41.4 ft/min</b>
<b>Fireline Intensity</b>	<b>16,376 BTU/ft/sec</b>	<b>Fireline Intensity</b>	<b>67 BTU/ft/sec</b>
<b>Flame Length</b>	<b>39.1 Feet</b>	<b>Flame Length</b>	<b>3.1 Feet</b>

Under the same weather conditions, according to Table 3.2, a fire in grass will have a much-reduced rate of spread, 41.4 feet/minute. Moving at a rapid rate of spread through coastal sage, the potential for wildfire exposure to the homes on the top of the slope due to ember production and direct flame contact is much greater than a wildfire burning in Fuel Modification Zones 1 & 2 where the fuels have been treated.

**TABLE 3.2**  
**A Comparison of Fire Conditions Under 12 mph Southwest Wind Conditions**  
**Untreated Versus Treated Fuels**  
**SCAL 18 vs. GR1- Grass**

<u><b>Untreated Fuels SCAL18</b></u>		<u><b>After Fuel Treatment GR1</b></u>	
<b>Rate of Spread</b>	<b>46.0 ft/min</b>	<b>Rate of Spread</b>	<b>20.7 ft/min</b>
<b>Fireline Intensity</b>	<b>3,226 BTU/ft/sec</b>	<b>Fireline Intensity</b>	<b>34 BTU/ft/sec</b>
<b>Flame Length</b>	<b>18.8 Feet</b>	<b>Flame Length</b>	<b>2.3 Feet</b>

One or more of the following factors start structure ignitions from wildfires: “a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment”.

During periods of high fire intensity and strong, dry winds, convective firebrands have the capability of being transported over great distances. “Ignition Resistant Building Materials” will be used in the construction of the structures within Summit Estates to reduce the potential of firebrands entering the homes or catching exterior components on fire. Accordingly, wind driven embers and radiant heat issues are addressed in this FPP.



## **4.0 ANALYSIS OF PROJECT EFFECTS**

The project demonstrates compliance, or offers the “*same practical effect*”, with applicable fire regulations, including but not limited to the California Fire Code, California Code of Regulations, San Diego County Fire Code and the Escondido Fire Code.

The comprehensive Fire Protection Plan and the project design are consistent with the San Diego County DPLU recommendations including fuel modification.

The project meets the emergency response objectives identified in the Public Facilities Element of the County General Plan or offers Same Practical Effect.

### **4.1 Adequate Emergency Services**

The Summit Estates Project is within the response area of the Escondido Fire Department (EFD). The nearest fire station is Fire Station #4 at 3300 S. Bear Valley Parkway. Three (3) firefighters staff the station covering a Type I structure firefighting engine. For wildland fires, the crew may staff a Type III fire engine designed for wildland firefighting and off-road driving.



Normal response time for Engine 134 to the project site is approximately four (4) minutes based on computer modeling with a travel distance two (2) miles. The next closest engine is located at Fire Station #2, 421 N. Midway Drive. Staffing at Station #2 is five (5) personnel covering an engine and a paramedic ambulance. The engine personnel also cross-staff a Type III engine. The response from Fire Station #2 to the Summit Estates Project is approximately 3.8 miles and takes nine minutes. Further engine coverage to the area would be from Fire Station #5, 2319 Felicita Road. The response from Fire Station #5 to the Summit Estates Project is approximately five (5) miles and takes nine (9) minutes. Fire Station #5 is also staffed with an engine company and paramedic ambulance. The travel time for fire emergency response meets the County General Plan requirement of five minutes.

The Escondido Fire Department staffs seven (7) engine companies, one truck company and 5 paramedic ambulances daily, in addition, automatic and mutual aid resources are available from fire agencies throughout San Diego County. On high or extreme wildland fire danger days there often may be multiple fire starts with multiple engine companies deployed on other incidents. First alarm wildland dispatch will include a minimum of four engines, both structure and wildland, a Battalion Chief and paramedic ambulance. For structure fires, 3 engines, 1 truck, 1 paramedic ambulance and a Battalion Chief are dispatched on the first alarm.

Despite the relatively close proximity of the nearest fire station, there is no assurance that Engine Company 134 will be in its station when a wildfire threatens the Summit Estates Project from an ignition outside the community. Engines may respond from other stations further away or from other incidents. The goal of this FPP therefore is to make the houses in the Summit Estates Development as safe as possible until such time as firefighting equipment arrives and/or residents can be evacuated. With the implementation of the fuel modification, ignition resistant construction measures, and other mitigation measures described in this FPP, the Summit Estates Project will be provided with a higher degree of protection from wildfire than many existing homes in San Diego County.

#### **4.2 Fire Access**

The Summit Estates project is accessed via Summit Drive at Mary Lane, both existing public streets. Roads within the project may be constructed of asphalt if the slope does not exceed 14.9%. Roads with slopes ranging between 15% and 20% will require brushed concrete. All roads within the development and the fire access roads will be all-weather approved paved surfaces capable of supporting fire apparatus weighing not less than 75,000 pounds. Hammerheads or other approved turnaround methods will be required at each of the cul-de-sac or dead-end road. The hammerheads will be constructed to meet County of San Diego Fire Code Standard 503.2.6. Road maintenance will initially be the responsibility of the project developer. When the Summit Estates Homeowners Association is established, road upkeep and maintenance will become the financial responsibility of the HOA.

No gates are planned in this development. However, any future gates that may be installed, including gates on private driveways or roadways, shall be set back 30 feet from the roadway, be automatic, and be equipped with approved emergency key-operated switches overriding all command functions and opening the gate (s). gates shall also be equipped with an emergency tract control-activating strobe light sensor (s) or other devices approved by the Fire Marshal, which will activate the gate on the approach of emergency apparatus. A battery back-up or manual mechanical disconnect in case of power failure is required in case of power failure. Gates shall allow automatic egress without the use of codes or remote devices (e.g. the use of pressure pads, metal detector or infrared sensors).

Roadways within the development will also be constructed to County standards and will include hammerheads or turn-arounds at the end of each street to facilitate fire apparatus turn movement. A single street access will be constructed off Summit Drive, southeast of the intersection of Mary Lane. The project's street frontage along Summit Drive will be constructed to County of San Diego DPW standards.

Road name signs shall comply with County of San Diego Department of Public Works Design Standard #DS-13. Signs, postings, red curbs and white stencils shall conform to the requirements of Section 22500.1 of the California Vehicle Code and shall be maintained in perpetuity. "Blue dot" markers shall be installed on the pavement to indicate the location of each fire hydrant. Signs or notices shall always be maintained in a clean and legible condition and replaced or repaired when necessary to provide adequate visibility.

#### **4.3 Water**

The Summit Estates Project water supply will be provided by the Escondido Mutual Water District. An extension of the public water system with new a new 8" water main. The water main will be constructed in a loop system with 1" water meters for each home. The required fire flow for the project is 2500 gpm, per Section 903.4.2.2, of the San Diego Consolidated Fire Code requirements, at pressures required to supply fire sprinklers and provide 20 PSI residual pressure at hydrants during periods of maximum peak domestic demand. A letter from the City of Escondido provides documentation that the required fire flow is available.

Fire hydrants shall be accessible to fire department apparatus by roads meeting the requirements of Section 902.2 of the County Fire Code. Fire hydrants along roadways shall be located at intervals as located and approved by the EFD Fire Marshal.

The design of the water system shall be submitted to the City of Escondido Engineering Department for approval prior to issuance of a building permit for any parcel created by the subdivision. The water supply system and fire hydrants shall be installed, tested and approved by the EFD Fire Marshal prior to bring any combustible building materials onto the development.

#### **4.4 Ignition-Resistant Construction and Fire Protection Systems**

All structures shall comply with the ignition-resistant construction requirements: Wildland-Urban Interface areas of Chapter 7A and 7B of the County Building Code (see APPENDIX 'E'). All habitable structures shall have automatic residential fire sprinklers per San Diego County Code. The fire sprinkler system for interior fire protection shall meet the requirements of National Fire Protection Standard (NFPA) 13D, those of the County of San Diego and to the satisfaction of the EFD. The EFD shall review and approve fire sprinkler installations prior to the issuance of an occupancy permit. Each homeowner shall inspect and maintain their ignition resistant construction features listed in APPENDICES 'D' and 'E'.

The eventual homeowners (HOA) in the Summit Estates project will be required to maintain the exterior of their property to Zone 1 and Zone 2 Fuel Modification standards as outlined in Section 4.7 and will keep the roof and rain gutters free of leaves, needles and other combustible debris. All firewood and other combustible materials must be properly stored away from the structure so that embers falling on or near the structure have no suitable host. The homeowners must keep all doors and windows tightly closed whenever a wildland fire is reported in the near vicinity. The integrity of the garage doors must be maintained to reduce the chances of embers being blown underneath and starting a fire in the garage area.

**4.4.1 Structure Setbacks from Protected Land** - Minimum setback from property lines abutting national forests, open space preserves, and designated riparian areas is 100 feet.

**4.4.2 Setbacks from Slopes** - Single story structures shall have a minimum setback of fifteen (15) feet, measured horizontally, from the top of slopes to the farthest projection of the roof. A single-story structure shall be less than twelve (12) feet above grade. A two-story structure shall have a minimum setback of thirty (30) feet, measured horizontally, from the top of slopes to the furthest projection of the roof. Structures greater than two-stories in height may be required to have a greater slope setback to be determined by the EFD Fire Marshal.

#### **4.5 Defensible Space and Vegetation Management**

##### **4.5.1 Off-Site Fire Hazard and Risk Assessment**

The wildland area immediately to the northeast is primarily vegetated with native and non-native annual grasses. Hills and slopes further North and East are covered with moderate stands of coastal sage scrub, typically one-to-three feet high and a moderate grass load. Vegetation consists of black sage, California sagebrush, common buckwheat, blue blossom Ceanothus, laurel sumac, lemonade berry, cactus, and toyon. A high percentage of the plants have developed an abundance of dead material which is typical of Coastal Sage Scrub plants since the last fire occurrence many years ago, this is especially true of the black sage and sumac plants. The most representative plant community is Coastal Sage Scrub commonly referred to as Southern California Fuel Model 18 - sage/buckwheat for fire behavior planning purposes.

Plant succession and the climax plant communities must be assessed when considering the wildland fire hazard of a particular property. The vegetation described below is the most likely climax plant community that will exist without human intervention and the one utilized for planning purposes.

Currently, off-site fuels have been severely modified due to the impacts of irrigation and development and fuel treatments. Should neighboring property owners discontinue irrigation and their fuels treatment projects on their properties, the climax vegetation will over time return to Southern California Fuel Model 18, Coastal Sage Scrub. The dominant fuels in Coastal Sage/Scrub include, Coastal Sage Scrub, Buckwheat, and Mulefat Scrub. Fuel loading could exceed four-to-five tons per acre for 1-hour fuels and less than 0.8 tons/acre for 10-hour fuels. Other non-native material exists in creek bottoms, including palm trees, eucalyptus trees, wild mustard on hillsides and numerous invasive grass species.

A four-home residential development is located on the northwestern boundary and is well protected by fuel treatments including a gravel road and extensive mowing and thinning of vegetation. The eastern property boundary is dominated by a seasonal wetland and creek drainage with steep, south and southeastern facing slopes that covers approximately two (2) acres. The southeastern and western boundaries of the development include several homes on rural lots bordering Summit Drive.

In summary, any wind or topography driven wildfire burning under Santa Ana wind conditions, with winds from the north and northeast, will create a high wildland fire hazard for the Summit Estates area, as is typical of most areas in San Diego County. Also, a typical day with a southwesterly wind pattern will create a low to moderate wildfire hazard to the development. Many of the lots are protected from any direct wildland fire flame impingement threat by existing development. However, any wind or topography driven wildfire burning under a Santa Ana wind pattern through areas to the north or east will create a wildland fire hazard to all the structures in the proposed development due to falling embers.



**Photo # 3 Neighboring Fuel Treatment Area**

The goal of any FPP is to prevent the loss of lives, homes, and personal property when wildfires do occur with the challenge of allowing well planned home sites interspersed with fully functioning mixed chaparral habitats. This goal is accomplished by requiring communities to be built with fire resistant materials and properly designed and maintained fuel modification treatments that will safely mitigate the High Fire Hazard to insignificant levels. Therefore, the proposed fuel modification treatments, “Firewise” landscaping, and the use of ignition resistant building construction standards will mitigate the potential loss of any of the buildings and structures due to direct fire impingement, wind driven embers or radiant heat around the perimeter of the houses.

#### **4.5.2 On-Site Fire Hazard and Risk Assessment**

Currently, the Summit Estates project site is occupied by a single home at the top of the hill, which will be removed during project construction. The southern portion of the project site is on a slight southwestern facing slope. Moving northward the slope increases quickly and then drops off to the east into a small, annual creek drainage. Residential development borders the site to the west and northwest along Summit Drive. The housing development on the northern project boundary includes both Zone 1 and Zone 2 fuel modification zones.

The south and southeastern borders of the project have single family homes on rural lots east a variety of fuel clearance on each individual property. The dominant land feature on the eastern perimeter is the seasonal creek. The fuels in the creek bottom are overgrown with large amounts of dead and down fuel under the tree canopy. Fuels in the creek include oak, willow and pepper trees, sumac, cactus and wild mustard.

The Summit Estates development will include 20 single family homes sites, the home sites average 1.15 acres. Three water control basins will be constructed covering nearly three (3) acres. A wetlands area flowing through a seasonal creek will be retained in its natural state. A 50-foot buffer zone will surround the creek drainage to further reduce human-impact on the creek. Total acreage dedicated to the wetlands and buffer zone will be nearly two (2) acres.

Lots 1,2,8,9, and 20 share a common boundary with the Palma Vista Court development on the north side of the development. The Palma Court properties have well maintained defensible space and include a 16-foot gravel service road along the boundary. Lots 9-11 have the potential to be impacted by fire in the creek bottom east of the lots where both native and non-native fuels have accumulated over time. Fuels on the hillside have been greatly modified for several years and now are limited to grasses and heavy accumulations of wild mustard with a few scattered trees. Lots 12-15 are bordered by rural homesites to the south where vegetation has been allowed to accumulate on several of these sites.



**Photo #4 Creek Bottom Fuels**

Summit Drive provides the western border for the project site. Numerous homes on rural lots are located on this section of Summit Drive, west of parcels 16-20. Summit Drive will be improved to County of San Diego road standards. South of lots 11-15 are rural residential homes with a various degree of clearance and defensible space. Access to these existing homes is off Summit Drive east of the Summit Estates development. The 20 home sites will have septic systems and leach fields, leach field soils will be planted with fire resistant plantings currently on the County of San Diego's Recommended Plant List.

All structures will be set back from the top of slopes, either natural or manufactured a minimum of 15 feet horizontally for single story homes and 30 feet horizontally for two-story homes. Measurements shall be taken from the top of the slope to the furthest projection of the roof. Fuel abatement measures within the Summit Estates project will be necessary to eliminate any potential heavy accumulations of fuel. Measures will be taken only where needed to achieve the 100' defensible space around each lot. (See sections 4.7 and 5.0)

The most notable wildland fire threat to this proposed development is from firebrands/burning embers from both off-site and on-site highly flammable native and non-native vegetation, particularly from the northern and eastern boundary areas as embers from these areas are likely during strong winds to travel over a mile.

#### **4.6 Vegetative Fuels Assessment/Fire Behavior**

"Can wildland fire behavior really be predicted? That depends on how accurate you expect the answer to be. The minute-by-minute movement of a wildland fire will probably never be totally predictable—certainly not from weather conditions forecast many hours before the fire. Nevertheless, practice and experienced judgement in assessing the fire environment, coupled with a systematic method of calculating fire behavior, yields surprisingly good results (Rothermel 1983)".

The BEHAVE Plus Fire Behavior Prediction and Fuel Modeling System—Burn Subsystem by Patricia L. Andrews and Collin D. Bevins, is one of the best systematic methods for predicting wildland fire behavior. The current generation of Behave Plus is 5.0.5 and has been designed for



use on a personal computer. The BEHAVE Plus fire model describes a wildfire spreading through surface fuels, which are the burnable materials within six (6') feet off the ground and contiguous to the ground. Regardless of the limitations expressed, experienced wildland fire managers can use the BEHAVE Plus modeling system to project the expected fire intensity, rate-of-spread and flame lengths with a reasonable degree of certainty for use in Fire Protection Planning purposes. Of these three fire behavior projections, flame length is the most critical in determining structure protection requirements. The FIREWISE 2000, Inc. evaluation team used the computer based BEHAVE Plus 5.0.5: Fire Behavior Prediction and Fuel Modeling System to make the fire behavior assessments for the Summit Estates Project.

Comparisons of computer calculations to observed fire behavior by FIREWISE 2000, Inc. wildland fire staff has validated the modeling system for use in wildland planning. Key components of this FPP are the projections of expected wildland fire behavior for the existing native and non-native fuels. Below are the fire behavior calculations for the area surrounding the Summit Estates project followed by appropriate mitigation measures.

Four fire scenarios are presented in the tables below: two (2) scenarios based on “worst case” San Diego County fire weather assumptions with 60 mph east winds, and two scenarios with typical 12 mph west-southwest winds. Fuel Models SCAL 18 and GR-1 were used in calculating fire behavior. Each table displays the expected Rate of Fire Spread (expressed in feet per minute), Fireline Intensity (expressed in British Thermal Units per foot per second) and Flame Length (expressed in feet) for two (2) separate BEHAVE Plus fire behavior predictions. The tables also include the calculation inputs used in the BEHAVE Plus program which were obtained from project site observations and fuel moisture levels typically observed during the local fire season.

<b>Table 4.6.1</b> <b><u>Fire Scenario # 1</u></b> <b><i>(Late Fire Season With 60 MPH Northeast And East Santa Ana Wind Conditions)</i></b> <b>Fire Approaching from the East</b>	
<b>Fire Behavior Calculation Input Data</b>  <ul style="list-style-type: none"> <li>• 25 percent slope</li> <li>• 60 mph 20-foot wind speed</li> <li>• 90° aspect from north</li> <li>• 45° wind direction from north</li> </ul>	<b>Anticipated Fuel Moistures</b>  <ul style="list-style-type: none"> <li>* 1-Hour Fine Fuel Moisture of.....2%</li> <li>* 10-Hour Fuel Moisture of.....3%</li> <li>* 100-Hour Fuel Moisture of.....5%</li> <li>* Live Herbaceous Fuel Moisture of.....30%</li> <li>* Live Woody Fuel Moisture of.....50%</li> </ul>
<b>Expected Fire Behavior</b> <b>Fuel Model SCAL 18 - Sage/Buckwheat</b>	
Rate of Spread - 225.4 feet/minute (1.25 mph)	
Fireline Intensity - 16,376 BTU's/foot/second	
Flame Length - 39.1 feet in length	
<b>Expected Fire Behavior in Treated Fuels</b> <b>Fuel Model gr1 – Short Sparse Dry Climate Grass</b>	
Rate of Spread - 41.4 feet/minute	
Fireline Intensity - 67 BTU's/foot/second	
Flame Length - 3.1 feet in length	

<b>Table 4.6.2</b> <b><i>Fire Scenario # 2</i></b> <b>(Typical 12 MPH Southwest Wind Conditions)</b> <b>Fire Approaching from the East</b>	
<b>Fire Behavior Calculation Input Data</b> <ul style="list-style-type: none"> <li>• 25 percent slope</li> <li>• 12 mph 20-foot wind speed</li> <li>• 90° aspect from north</li> <li>• 225° wind direction from north</li> </ul>	<b>Anticipated Fuel Moistures</b> <ul style="list-style-type: none"> <li>* 1-Hour Fine Fuel Moisture of .....2%</li> <li>* 10-Hour Fuel Moisture of.....3%</li> <li>* 100-Hour Fuel Moisture of .....5%</li> <li>* Live Herbaceous Fuel Moisture of.....30%</li> <li>* Live Woody Fuel Moisture of.....60%</li> </ul>
<b>Expected Fire Behavior</b> <b>Fuel Model SCAL 18 - Sage/Buckwheat</b>	
Rate of Spread - 46 feet/minute	
Fireline Intensity - 3,326 BTU's/foot/second	
Flame Length - 18.8 feet in length	
<b>Expected Fire Behavior in Treated Fuels</b> <b>Fuel Model gr1 – Short Sparse Dry Climate Grass</b>	
Rate of Spread - 20.7 feet/minute	
Fireline Intensity - 34 BTU's/foot/second	
Flame Length - 2.3 feet in length	

The fire behavior calculations in Tables 4.6.1 & 4.6.2 predict a maximum rate of spread greatly reduced under the typical south and southwesterly wind conditions in the coastal sage fuel model with a lesser reduction in grass fuel model 1. The slope and the wind direction are no longer in full alignment and the woody live fuel moisture increased due to increased relative humidity, the rate of spread, fire intensity and flame length will be much less severe.

#### **4.7 Required Fuel Modification Zones for Buildings, Structures and Access Roads**

Projects located in Hazardous Fire Areas shall include Fuel Treatment Zone(s) surrounding all structures that are greater than 250 square feet in size. The San Diego County Fire Code stipulates that the Fuel Treatment Zone(s) be a minimum of 100-foot area surrounding and extending in all directions from all structures, in which flammable vegetation or other combustible growth is cleared away or modified, **except for:**

- Single specimens of trees or other vegetation that are well-pruned and maintained
- Grass and other vegetation located more than 50 feet from the structure and less than 18 inches in height above the ground
- All ornamental landscaping that is consistent with the customized County Wildland Interface plant list (See APPENDIX 'A')

Maintenance of fuel treatment zones is highly important. Latham (1989) found that ember ignitions of surface fuels were primarily a function of ground fuels, especially litter depth. Also important to ignition of a ground fuel is moisture content, size of the litter material as well as the mineral content of the dead vegetation. To the benefit of the eventual homeowners, surface fires burn with less intensity and spread more slowly than an aerial fuel.

Below are the detailed definitions and required treatments for the Fuel Modification Zones within the project. See Fuel Treatment Map, Section 5.3, for all fuel treatments. There are two basic fuel modification zones required for the Summit Estates subdivision, an irrigated zone 50 feet in width;

and a 50% thinning zone including the removal of target species 50 feet in width, for a total of 100 feet of fuel treatment on these lots. In many cases, the required fuel treatments are interlinked to adjacent homes both within and adjacent to the project. This results in a total of 100 feet of fuel treatment on all sides of all lots. In addition, the edge of roadways and driveways must be fuel treated to prevent ignition starts and to provide relatively safe ingress and egress should a wildfire occur. Each of these zones is described below in greater detail.

All distances in this plan are measured horizontally. These distances are depicted on the Fuel Treatment Map included herein as Exhibit 1. Prior to construction on any building site, all roads (primary and secondary) for this development shall be accepted by the Escondido Fire Marshal.

The responsibility for the fuel modification maintenance defined below shall remain with the current owners and any subsequent owners, and as such shall run with the land. In the event the project is repossessed or sold, the unit/agency holding title to Summit Estates property will be responsible for such maintenance. Fuel Modification Zones will be the responsibility of the individual homeowners on their respective lots and the responsibility of the Summit Estates HOA in common areas. Since actual house locations have not been sited as of the date of this FPP, Zone 1 shall consist of the entire building lot followed by either Zone 1 or Zone 2 outside of each lot with a few exceptions (See Fuel Treatment Map -Section 5.3).

**Fuel Modification Zone 1A (Homeowner Responsibility - (Shown as Tan on the Summit Estates Fuel Treatment Map)**

**Defined**

Zone 1A in San Diego County comprises the first 50 feet around a structure (front, back and side yards) and is commonly called the defensible space zone. It is an irrigated zone and shall be free of all combustible construction and materials. Flammable native vegetation shall be removed and replanted with drought tolerant, fire resistive, irrigated and non-irrigated plantings from the San Diego County Approved plantings list. (see Appendix A).

**Required Landscaping:**

Zone 1A will be cleared of all existing native vegetation and replanted with drought tolerant and irrigated fire-resistant lawns, ground covers or shrubs. Landscaping shall be irrigated and primarily consist of fire resistant, maintained native or ornamental plantings usually less than 18 inches in height. However, this zone may contain occasional fire-resistant trees, and single well-spaced ornamental shrubs up to 48 inches in height, intermixed with ground covers and lawn. Shrubs and groundcovers may be located no closer than 5 feet from the structure provided these plants will not carry fire to the structure. Non-flammable concrete patios, driveways, swimming pools, walkways, boulders, rock, and gravel can be used to break up fuel continuity within Zone 1A.

Plants in this Zone need to be fire resistant and should not include any pyrophytes that are high in oils and resins such as pines, eucalyptus, cedar, cypress or juniper species. Thick, succulent or leathery leaf species with high moisture content are the most “fire resistant”. Refer to APPENDIX ‘A’ County of San Diego’s Desirable Plant List and APPENDIX ‘B’ for prohibited plants for plant selection.

Any retained trees and all newly planted trees must be sited so that when they reach maturity the tips of their branches are at least 10 feet away from any structure, 20 feet from the crown of an adjacent tree, and must have a minimum of 6 feet of vertical separation from low growing irrigated vegetation beneath the canopy of the tree.



**Required Maintenance:**

The lots shall be maintained year-round by the individual property owner(s) or HOA within their property boundary (lot lines) as required by this FPP or the EFD. Shrubs and trees are to be annually maintained free of dead material. Trees will be maintained so that their crown cover will be more than ten (10) feet from any structure. All tree crowns will be separated by twenty (20) feet or more on steep slopes and maintained to keep a separation of 6 feet between the ground fuels (shrubs and groundcovers) and the lower limbs. Any trees within Zone 1 should be irrigated, limbed up to 6-feet from the ground, pruned of dead wood, grass understory weed-whipped, and leaf drop removed to prevent large accumulations of dead material under the trees. All trees must be maintained to the current ANSI A300 standards [Tree, Shrub, and Other Woody Plant Maintenance —Standard Practices (Pruning)] ([www.treecareindustry.org/public/gov\\_standards\\_a300.htm](http://www.treecareindustry.org/public/gov_standards_a300.htm)).

**Fuel Modification Zone 1B (HOA Responsibility) - (Shown as Yellow on the Fuel Treatment Map)**

Zone 1B is an irrigated zone that includes manufactured slopes and common areas where the HOA maintains the landscape to Zone 1A criteria.

**Fuel Modification Zone 2 (HOA Responsibility) - (Shown as Blue on the Fuel Treatment Map) Defined:**

Zone 2 is the area between 50 and 100 feet from each structure beginning at the outer edge of Zone 1A. It is permanently irrigated, partially, or non-irrigated, depending upon the plant species selected, and includes all natural and manufactured slopes. The intent is to achieve and maintain an overall 50percent reduction of the canopy cover spacing and the original fuel loading and 100 percent removal of all dead and dying plant material and removal of all prohibited and invasive species. Irrigation shall not be required for natural slopes when there is a danger of slope failure.

**Required Landscaping:**

All exotic and flammable native plants (see San Diego County prohibited plant list in APPENDIX 'B') shall be removed with the resulting 50 feet of treated area permanently irrigated, temporarily irrigated, or non-irrigated with the exception of areas where existing trees are to be retained. The area will be replanted with low growing (maximum 12 inches in height) and low fuel volume ground cover vegetation or native grasses and occasional well-spaced (separated by a minimum of twenty [20] feet), low growing (maximum height 15 feet) fire resistant trees (see APPENDIX 'A').

**Required Maintenance:**

The creek and the 50-foot buffer zone to the east of lots 10 through 14 will remain in a natural state. These areas fall outside of both Zones 1 & 2, 100 foot from any developed structure.

San Diego County codes require that all any existing or planted trees located within Zone 2 be pruned to 6 feet above ground level and irrigated. Surface vegetation shall not exceed 8 inches in height. Low growing plants and shrubs will be maintained to a height of 18" or less. This action is necessary to make sure that any wildland fire pushed by high winds toward the development through any trees and shrubs in Zone 2 will unlikely become a crown fire. The removal of understory vegetation will reduce the potential for a ground fire to move from the ground to the shrubs into the tops of trees like a ladder, which will also reduce fire intensity and ember production. Irrigation will maintain high moisture content in the trees and shrubs plantings. If water for irrigation is limited, use more of the available water in Zone 1 rather than in Zone 2. Maintenance will be ongoing throughout the year as needed. Native annual and perennial grasses will be allowed to grow and produce seed during the winter and spring. As grasses begin to cure (dry out), they will be cut to 4 inches or less in height.

**Road/Driveway/Drainage Basin Access Road, – Lot Owner or HOA Maintained (Shown as Red on the Fuel Treatment Map)**

**Required Maintenance:**

Twenty feet on each side of the private roads shall be maintained to Zone 2 criteria as outlined in Section 5.2. Each lot owner or the HOA shall be responsible for that portion of the road that is within or borders their lot. The access road between Lots 11 and 12 which leads to Basin 1 will also be maintained to Zone 2 requirements. Any trees planted along any road within the Summit Estates development will require a vertical clearance of 13 feet 6 inches.

**Zone Markers (See Appendix 'F')**

All exterior boundaries of Fuel Management Zone 2 shall be permanently marked on the ground for guiding annual fuel management maintenance and inspection operations. The most reliable markers are steel fence posts with a baked on painted finish. The upper half of the above ground portion of the fence post is then painted a bright “day glow” orange to improve visibility. These Fuel Treatment Zone markers must be spaced so that the markers on each side of an installed marker can be seen from that marker.

#### **4.8 Cumulative Impact Analysis**

The combination of San Diego County’s weather, fuel, and terrain has often contributed to intense, uncontrolled wildland fires. This was evident in the devastating Cedar, Paradise and Otay Fires of October 2003 and the most recent Witch Creek and Rice Fires of November 2007.

Typically, the areas of greatest concern are adjacent to urbanized areas or where residences are intermixed with wildlands. As the population of San Diego County increases and the Wildland Urban Interface (WUI) expands, fire hazards and risks will continue to be encountered. Increased vehicular access for this residential subdivision by way of improving existing roads may increase human activities in the immediate area and therefore increase the risk of property loss, injury, or death within the interface with wildlands.

The developer of the Summit Estates project will mitigate the potential increase in human traffic by the following measures:

- Utilities, including existing overhead power lines, will be undergrounded reducing the occurrence of wildland fire ignitions starting from the accidental touching or falling of electrical wires. During Santa Ana weather conditions, strong, gusty winds have been cited as the cause of numerous wildland fires in San Diego County within the last twenty years.
- A reduction of highly flammable wildland fuels will be an annual requirement of the Summit Estates Homeowners Association. The creation of a defensible space surrounding each home will reduce the potential for off-site embers causing new fires within the development and also reduce the potential for on-site ignitions developing the potential to spread to off-site areas with reduced fuel loading, ember production and fireline intensity.
- Firefighter safety will be improved by creating a wetlands buffer zone between the season creek basin and the homes in the development. The buffer zone will reduce fire intensity and provide quick access to a safety zone by reducing fuel loading in the buffer zone.
- The potential for vehicle accidents at the intersection of Mary Lane and Summit Drive will be reduced by planned road improvements at the current intersection.
- Current off-site and on-site sediment flowing downhill into the potential wetlands area will be reduced by the creation of three soil/water retention basins reducing short- and long-term damage to the biologically sensitive area.

- Nearly three acres will be dedicated to a riparian habitat including a season creek drainage. This area will improve the biodiversity of the area by providing needed wildlife habitat.
- An easement will be dedicated to the City of Escondido for the development of a new pressure reducing station for a proposed water line improvement project near the intersection of Summit Drive and Mary Lane.

The approval of this proposal, the already approved developments in the area, dedicated open space, and future development proposals will increase the concern of wildland fires as the area becomes more urbanized. At present, the density of development in the hilly South Escondido portion of San Diego County, is relatively low and includes a significant number of properties compliant with the fuel modification and weed abatement requirements of the County of San Diego.

## **5.0 MITIGATION MEASURES AND DESIGN CONSIDERATIONS**

The descriptions and required treatments for Fuel Modification Zones are described below. All distances in this report are measured horizontally and are depicted on the Fuel Treatment Map included herein. The responsibility for the fuel modification maintenance defined below shall remain with the current owners and any subsequent owners, and as such shall run with the land. In the event the project is repossessed or sold, the unit/agency holding title to the Summit Estates Property will be responsible for such maintenance. Fuel Modification Zones will become the responsibility of the Homeowners Association (HOA) when organized. Should the property owner or HOA not voluntarily maintain the property according to the fuel treatment guidelines in the FPP, the Escondido Fire Department will provide written notice of abatement and require completion of the removal of annual grasses, and dead and down fuels accumulated on the site. Rather than specifying a specific time-period, the Escondido Fire Department will require abatement as needed.

### **5.1 Construction Standards**

The structures within the Summit Estates Project shall be designed and constructed with ignition resistant construction standards and design features as per the current San Diego County Building Code. For a summary description of these construction requirements see APPENDIX 'E'.

All combustible building materials, decks, balconies, patios, covers, gazebos and fences will be permanently prohibited in Zone 1. These structures may be allowed if constructed with Fire Resistive materials as per the San Diego County Fire Code and the San Diego County Consolidated Fire Code. The owners of these lots are not restricted from having concrete patios, concrete walkways or a swimming pool within these zones, provided the lot is large enough. Refer to APPENDIX 'D' for photos and descriptions of non-combustible decks, patio covers, and railings.

### **5.2 Requirements for Inclusion into the CC&R's:**

1. Each lot owner is personally responsible for all fuel treatment measures within their properties. Where these zones extend onto an adjoining lot within the development, the HOA shall perform the work on the adjacent property.
2. The HOA shall not allow a lot owner to store any combustible materials beneath any projection, deck or overhang exposed to wildland fuels.
3. All property owners will be members of a Homeowners Association (HOA) and will financially support the annual maintenance of all required Fuel Modification Areas within the common areas of the subdivision.

4. All roadside fuel treatment within the subdivision is the maintenance responsibility of the HOA except for private driveways which are the maintenance responsibility of individual lot owners.
5. Each lot owner will be responsible to keep their roof area including gutters and downspouts free of combustible debris including leaves, limbs and similar materials.
6. The Summit Estates HOA will have the authority for enforcing required fuel treatment measures on all lots and restrictions on combustible structures in all restricted areas.
7. The HOA shall not allow **TRASH DUMPING OR DISPOSAL OF YARD TRIMMINGS IN THE FUEL TREATMENT ZONES.**
8. The Fuel Treatment Zones, as depicted on the Fire Protection Plan Map, shall be shown on the CC&R's and recorded against all lots. The HOA will be responsible for enforcing all required fuel modification treatments on all lots.
9. The Summit Estates HOA Board will be responsible to the Escondido Fire Department Fire Marshal for the completion of all required Fuel Modification Treatments prior to the annual fire season. This includes the perpetual management of invasive (exotics) and prohibited plant species in any fuel treatment zone within the development.
10. All individual yard landscaping plans, including additional structures, shall be approved by the HOA Board and will comply with the Fire Protection Plan. Any disputes relating to HOA Board approval of individual yard landscaping or fuel treatment, regarding interpretation of the Fire Protection Plan, will be decided by the Escondido Fire Department Fire Marshal. The Fire Marshal's decision will be final and binding on the landowner.
11. Trees shall be placed and maintained so that their crown cover at maturity will be more than ten (10) feet from any structure.
12. All plants will be in accordance with the customized San Diego County recommended plant list (See APPENDIX 'A'), or as approved by the County Fire Marshal.
13. Upon the sale of a lot to a new owner, a copy of the Fire Protection Plan shall be provided as a condition of the sale.
14. The Escondido Fire Department (EFD) will be designated as a third party beneficiary of a homeowners' association's duty to perform "Fire Prevention Maintenance" (as defined below) for all portions of the Association Property (or Common Area) that constitute Fuel Modification Zones and designated interior/manufactured slopes to be maintained by the homeowners' association, and of any owner's duty to comply with any Fuel Modification Zone restrictions applicable to their Lot. Additionally, the EFD shall have the right, but not the obligation, to enforce the homeowners' association's duty to perform such Fire Prevention Maintenance, and to enforce compliance by any owner with any Fuel Modification Zone restrictions applicable to their Lot. In furtherance of such right, the EFD shall be entitled to recover its costs of suit, including its actual attorneys' fees, if it

prevails in an enforcement action against the homeowners' association and/or an individual lot owner.

15. As used herein, "Fire Prevention Maintenance" shall mean the following:
  - A. All portions of the Association Property (or Common Area) that constitute Fuel Modification Zones or designated interior/manufactured slopes shall be regularly maintained by the homeowners association on a year-round basis in accordance with the Fire Protection Plan on file with the property manager for the development.
  - B. The irrigation system for Fuel Modification Zones or designated interior/manufactured slopes shall always be kept in good condition and proper working order .

### **5.3 Additional Requirements**

- Brush removal shall be completed prior to commencing any flammable construction. During construction at least 50 feet of clearance around the structures shall be kept free of all flammable vegetation as an interim fuel modification zone during construction of structures.
- If the landowner is aware of any state or federal listed species on their property, the U.S. Fish and Wildlife Service should be notified prior to the abatement.
- Any trimmings produced by thinning and pruning will be removed from the site, or, if left, shall be converted into mulch and evenly dispersed to a maximum depth of four inches. Such trimmings will not be located within 50 feet of structures.
- Any damaged or replacement windows, siding, roof coverings, and specific non-combustible wall will meet or exceed the original intent of the fire protection discussed in this plan.
- is plan and its requirements shall be incorporated by reference into the final project Conditions of Approval.

### **5.4 Fuel Protection Plan Map**

Attached to this FPP is the Fuel Treatment Map depicting the location of all proposed fuel treatment locations, lot lines, roads, and mitigation measures for the Summit Estates development.

## **6.0 CONCLUSION**

This FPP evaluated the adverse environmental effects that a proposed residential development may have from wildland fire and identified means to properly mitigate those impacts to ensure that this development does not unnecessarily expose people or structures to a significant risk of loss, injury or death involving wildland fires.

- The mitigation measures found in this Fire Protection Plan will reduce to “less than significant” the overall exposure to people or structures to a significant risk of loss, injury or death in regard wildland fire based on the Significance Guidelines found in Section 2.0
- The requirements of this FPP provide the fuel modification standards to mitigate the exposure of people or structures to a significant risk of loss, injury or death. Zone 1 consists of each lot including the level building pad and provides the defensible space zone for fire suppression forces and will protect structures from radiant and convective heat. This zone will be a landscaped zone that is permanently irrigated and consists of fire resistant and maintained plantings. Zone 2 is the next 50-100 feet from a structure, includes all manufactured slopes, and provides removal of 50

percent of the native vegetation at a minimum, including all prohibited highly combustible native vegetation, but permits plantings with very specific criteria.

- The development will have adequate emergency access in terms of access and construction standards for roadways and streets. EFD, CAL FIRE and nearby fire departments through mutual aid, will provide fire protection. Response times and the proximity of the development to the Wildland Urban Interface (WUI), with the subdivision being in close proximity to Very High Fire Hazard Severity Zones require fire sprinklers in all residences.
- Water supplies via pipelines, hydrants, and related requirements will provide adequate water for fire protection.

## **7.0 LIST OF PREPARERS, PERSONS & ORGANIZATIONS CONTACTED**

### **7.1 List of Preparers**

The principal author and preparer of the original Fire Protection Plan dated 07/10/2019 is David C. Bacon President Emeritus **FIREWISE 2000, Inc.**, a San Diego County DPLU Certified Wildland Fire Consultant. Other **FIREWISE 2000, Inc.** members contributed to the original plan with comments and peer review were Peter Montgomery, Wildland Fire Associate and Mel Johnson, Senior Wildland Fire Associate.

The principal author and preparer of this revised Fire Protection Plan is Melvin A. Johnson, Owner **FIREWISE 2000, LLC**, a San Diego County DPLU Certified Wildland Fire Consultant.

### **7.2 Persons and Organizations Contacted**

1. Oscar Uranga Principle, IMG Construction Management
2. Jon Arenz Senior Project Manager, Latitude 33 Planning & Engineering
3. Austin Baber Senior Design Engineer, Latitude 33 Planning & Engineering
4. LaVona Koretke Deputy Fire Marshal, Escondido Fire Department

## **8.0 DEFINITIONS**

For the purposes of this Fire Protection Plan, the following definitions apply to the terms used in this document. Where terms are not included, common usage of the terms shall apply.

**ASPECT** - Compass direction toward which a slope faces.

**AUTHORITY HAVING JURISDICTION (AHJ)** – An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

**CLIMAX VEGETATION** - The final stage in ecological plant succession in which a relatively constant environment is reached and species composition no longer changes in a directional fashion, but fluctuates about some mean, or average, community composition.

**COMBUSTIBLE** – Any material that, in the form in which it is used and under the conditions anticipated will ignite and burn or will add appreciable heat to an ambient fire.

**COMBUSTIBLE VEGETATION** – Means material that in its natural state will readily ignite, burn, and transmit fire from native or landscape plants to any structure or other vegetation. Combustible vegetation includes dry grass, brush, weeds, litter or other flammable vegetation that creates a fire hazard.

**DEFENSIBLE SPACE** – Is an area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

**EXTREME FIRE BEHAVIOR** – "Extreme" implies a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

**FIRE BEHAVIOR** – The way a fire reacts to the influences of fuel, weather and topography.

**FIRE HAZARD SEVERITY ZONES** – Are geographical areas designated pursuant to California Public Resources Code sections 4201 through 4204 and classified as Very High, High and Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code sections 51175 through 51189. The California Code of Regulations, Title 14, Section 1280 entitles maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

**FIRE RESISTIVE** – Construction designed to provide reasonable protection against fire.

**FIRE RESISTIVE PLANTS** – Plants that do not readily ignite from a flame or other ignition sources. These plants can be damaged or even killed by fire; however, their foliage and stems do not significantly contribute to the fuel and, therefore, the fire's intensity.

**FLAME LENGTH** – The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface); an indicator of fire intensity.

**FUEL MOISTURE** – The quantity of moisture in vegetative fuels expressed as a percentage of the weight when thoroughly dried at 212 degrees F.

**FUEL MODEL** – Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified. Fuel models are utilized in the BehavePlus Fire Model to aid in forecasting fire behavior.

**FUEL MODIFICATION** – Any manipulation or removal of fuels to reduce the likelihood of ignition or the resistance to fire control.

**GROUND FUELS** - All combustible materials such as grass, duff, loose surface litter, tree or shrub roots, rotting wood, leaves, peat, or sawdust that typically support combustion.

**LADDER FUELS** – Fuels which provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

**LIMITED BUILDING ZONE** – A protective buffer that surrounds a biological open space area. An LBZ would prohibit the building of structures that would require vegetation clearing within the protected open space for fuel management purposes.



**MITIGATION** – Action that moderates the severity of a fire hazard or risk.

**ONE-HOUR FUEL** - 1-hour fuels consist of those portions of vegetation that are < 0.625 cm (0.25 in.) in diameter. 1-hour fuels are the most important for carrying surface fires and their moisture content governs fire behavior.

**RADIANT HEAT** – Transfer of heat in straight lines through a gas or vacuum other than by heating of the intervening space.

**RELATIVE HUMIDITY** – A weather term, the amount of moisture in the air as a percentage of the maximum the air will hold at a given temperature. The amount of moisture in each parcel of air expressed as a percentage of the maximum amount that parcel of air could hold at the same air temperature.

**REMOTE AUTOMATED WEATHER STATION** – Is a combination of sensors, radios and related electronic equipment installed in wildland areas that are designed to monitor the weather and provide weather data that assists land management agencies with a variety of projects such as monitoring air quality, fire danger rating, and providing information for research applications.

**SHALL** - Indicates a mandatory requirement.

**RISK** – The measure of the probability of ignition and severity of adverse effects that result from an exposure to a wildland fire (direction flames, radiant heat, or firebrands (embers).

**SLOPE** – Is the variation of terrain from the horizontal; the number of feet, rise or fall per 100 feet, measured horizontally, expressed as a percentage.

**STANDPIPE** – A type of rigid water piping which is built into multi-story buildings in a vertical position, to which fire hoses can be connected, allowing manual application of water to a fire. Within buildings, standpipes thus serve the same purpose as fire hydrants.

**TEN-HOUR FUELS** – 10-hour fuels are those portions of plant material that are between (0.625 - 2.5 cm (0.25 to 1 in.) in diameter. Ten-hour fuels are readily consumed when dead fuel moistures are low.

**WILDFIRE** – Is any uncontrolled fire spreading through vegetative fuels that threaten to destroy life, property, or resources as defined in Public Resources Code sections 4103 and 4104.

**WILDFIRE EXPOSURE** – One or a combination of radiant heat, convective heat, direct flame contact and embers being projected by vegetation fire to a structure and its immediate environment.

**WILDLAND-URBAN INTERFACE** – The line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

## 9.0 REFERENCES

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2. *Behave Plus Fire Modeling System, Version 5.0.5*, General Technical Report RMRS-GRT-106WWW Revised. July 2008. Patricia L. Andrews, Collin D. Bevins, Robert Seli. United States Department of Agriculture - Forest Service, Rocky Mountain Research Station, Missoula, Montana.



3. National Fire Protection Association - NFPA 1144 *Standard for Reducing Structure Ignition Hazards from Wildfire*.
4. National Fire Protection Association - NFPA 13 Standard for the Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes, 13-R & 13-D
5. California Code of Regulations, Title 14, section 1280 and Title 24 Part 9
6. California Public Resources Codes sections 4201 through 4204
7. California Government Code, sections 51175 through 51189
8. California Fire Code including Local Amendments and Appendices to Chapters 1 & 4 and Appendices B, F & H
9. International Wildland-Urban Interface Code
10. International Fire Code
11. *County of San Diego. Plant List and Acceptable Plants for a Defensible Space in Fire Prone Areas. Department of Planning and Land Use, December 1998*
12. *County of San Diego Consolidated Fire Code*
13. *County of San Diego. Plant List and Acceptable Plants for a Defensible Space in Fire Prone Areas. Department of Planning and Land Use, December 15, 1998.*
14. *Chapter 7A-California Building Code*
15. *The California State and Local Responsibility Area Fire Hazard Severity Zone Map*
16. City of Escondido Fire Department Requirements *Ordinance No. 2016-09*
17. Escondido Weed Abatement *Standards*
18. Escondido Fire Prevention Requirements
19. Escondido Wildland/Urban Interface Standard Development Guidelines
20. *County of San Diego. Guidelines for Determining Significance and Report Format and Content Requirements Wildland Fire and Fire Protection. Land Use and Environment Group - Department of Planning and Land Use and the Department of Public Works. December 19, 2008. 19 pages.*
21. Western Region Climate Center. *Historic Climate Data from Remote Automated Weather Stations. RAWS USA Climate Archive. Reno, NV. Data for all Remote Automated Weather Stations is available at the following web site: <http://www.raws.dri.edu/index.html>*

# **APPENDIX 'A'**

## **Recommended Plant List**

# APPENDIX 'A'

## COUNTY OF SAN DIEGO ACCEPTABLE PLANTS FOR DEFENSIBLE SPACE IN FIRE PRONE AREAS

**ALL NATIVE PLANTS ON THE FOLLOWING LIST** are drought-tolerant in the climate zone they are found. Those that grow best in riparian areas, as indicated by the "R", are generally the least drought-tolerant plants on the list.

**SPECIAL NOTE:** When planting, it is necessary to water deeply to encourage the plant roots to seek natural moisture in the soil. This watering should continue for at least three years to allow the plants to naturalize. More water should be provided in summer and less (if any) in the winter. These plants should be weaned off the supplemental irrigation and become less dependent on it over the establishment period.

No plant is totally fire resistant. The plants listed were chosen to due to their high-water content, minimum amount of flammable resins and/or low fuel volume.

### Definitions:

**Drought-Tolerant Plant Materials:** Trees, shrubs, groundcovers, and other vegetation capable of sustained growth and reproduction with only natural moisture. Occasional supplemental irrigation is necessary only in extreme drought situations.

**Establishment Period:** The time it takes for a plant to become drought resistant. This is usually a period of three years and is the time when supplemental irrigation is necessary.

**Native or Naturalizing Plant Species:** Plant species native to the region or introduced which, once established, are capable of sustaining growth and reproduction under local climatic conditions without supplemental irrigation.

***FIREWISE 2000 LLC* Note:** The plant list which follows was developed using the plants found on the San Diego County approved plant list. This list was then compared to those plants which are suitable for the climatic zone in which the project is located. Only those plants suitable for the project area are listed below. The list is therefore shorter than that provided by the County. By providing this custom list, plants that are likely to be killed or seriously damaged by frost or will not perform in hot dry conditions have been eliminated.

***FIREWISE 2000, LLC.*** believes that the planting of species suited to the site is essential to fire management goals and is an environmentally sound practice.

**San Diego County**  
**Customized Acceptable Plant List**  
**For the Summit Estates Project**

<b>No.</b>	<b><u>Type</u></b>	<b><u>Genus</u></b>	<b><u>Species</u></b>	<b><u>Common Name</u></b>
1	Annual	Lupinus spp.	nanus	Lupine
2	Groundcover	Achillea	millefolium	Yarrow
3	Groundcover	Aptenia	cordifolia	Aptenia
4	Groundcover	Arctostaphylos spp.		Manzanita
5	Groundcover	Cerastium	tomentosum	Snow-in-Summer
6	Groundcover	Coprosma	kirkii	Creeping Coprosma
7	Groundcover	Cotoneaster spp.		Redberry
8	Groundcover	Drosanthemum	hispidum	Rosea Ice Plant
9	Groundcover	Dudleya	brittonii	Britton's Chalk Dudleya
10	Groundcover	Dudleya	pulverulenta	Chalk Dudleya
11	Groundcover	Dudleya	virens	Island Live-Forever
12	Groundcover	Eschscholzia	californica	California Poppy
13	Groundcover	Ferocactus	viridescens	Coast Barrel Cactus
14	Groundcover	Gaillardia	grandiflora	Blanket Flower
15	Groundcover	Gazania spp.		Gazania
16	Groundcover	Helianthemum spp.		Sunrose
17	Groundcover	Lantana spp.		Lantana
18	Groundcover	Lasthenia	californica	Common Goldfields
19	Groundcover	Lasthenia	glabrata	Coastal Goldfields
20	Groundcover	Lupinus spp.		Lupine
21	Groundcover	Myoporum spp.		Myoporum
22	Groundcover	Pyracantha spp.		Firethorn
23	Groundcover	Rosmarinus	officinalis	Rosemary
24	Groundcover	Santolina	chamaecyparissus	Lavender Cotton
25	Groundcover	Santolina	virens	Santolina
26	Groundcover	Trifolium	frageriferum	O'Connor's Legume
27	Groundcover	Verbena	rigida	Verbena
28	Groundcover	Viguiera	laciniata	San Diego Sunflower
29	Groundcover	Vinca	major	Periwinkle
30	Groundcover	Vinca	minor	Dwarf Periwinkle
31	Perennial	Coreopsis	gigantea	Giant Coreopsis
32	Perennial	Coreopsis	grandiflora	Coreopsis
33	Perennial	Coreopsis	maritima	Sea Dahlia
34	Perennial	Coreopsis	verticillata	Coreopsis
35	Perennial	Heuchera	maxima	Island Coral Bells
36	Perennial	Iris	douglasiana	Douglas Iris
37	Perennial	Kniphofia	uvaria	Red-Hot Poker
38	Perennial	Lavandula spp.		Lavender
39	Perennial	Limonium	californicum perezii	Coastal Statice
40	Perennial	Limonium	californicum var. mexicanum	Coastal Statice
41	Perennial	Oenothera spp.		Primrose
42	Perennial	Penstemon spp.		Penstemon
43	Perennial	Satureja	douglasii	Yerba Buena
44	Perennial	Sisyrinchium	bellum	Blue-Eyed Grass

45	Perennial	Sisyrinchium	californicum	Golden-Eyed Grass
46	Perennial	Solanum	xantii	Purple Nightshade
47	Perennial	Zauschneria	'Catalina'	Catalina Fuschia
48	Perennial	Zauschneria	californica	California Fuschia
49	Perennial	Zauschneria	cana	Hoary California Fuschia
50	Shrub	Agave	americana	Desert Century Plant
51	Shrub	Agave	Amorpha fruticosa	False Indigobush
52	Shrub	Agave	deserti	Shaw's Century Plant
53	Shrub	Agave	shawii	NCN
54	Shrub	Agave		Century Plant
55	Shrub	Arctostaphylos spp		Manzanita
56	Shrub	Atriplex	canescens	Hoary Saltbush
57	Shrub	Baccharis	pilularis	Coyote Bush
58	Shrub	Baccharis	salicifolia	Mule Fat "R"
59	Shrub	Carissa	macrocarpa	Natal Plum
60	Shrub	Ceanothus spp.		California Lilac
61	Shrub	Cistus spp.		Rockrose
62	Shrub	Cneoridium	dumosum	Bush rue
63	Shrub	Comarostaphylis	diversifolia	Summer Holly
64	Shrub	Convolvulus	cneorum	Bush Morning Glory
65	Shrub	Dalea	attenuata v orcuttii	Orcutt's Delea
66	Shrub	Elaeagnus	pungens	Silverberry
67	Shrub	Encelia	californica	Coast Sunflower
68	Shrub	Encelia	farinosa	White Brittlebush
69	Shrub	Eriobotrya	deflexa	Bronze Loquat
70	Shrub	Eriophyllum	confertiflorum	Golden Yarrow
71	Shrub	Escallonia spp.		Escallonia
72	Shrub	Feijoa	sellowiana	Pineapple Guava
73	Shrub	Fremontodendron	californicum	Flannelbush
74	Shrub	Fremontodendron	mexicanum	Southern Flannelbush
75	Shrub	Galvezia	junceae	Baja Bush-Snapdragon
76	Shrub	Galvezia	speciosa	Island Bush-Snapdragon
77	Shrub	Garrya	elliptica	Coast Silktassel
78	Shrub	Garrya	flavescens	Ashy Silktassel
79	Shrub	Heteromeles	arbutifolia	Toyon
80	Shrub	Lantana spp.		Lantana
81	Shrub	Lotus	scoparius	Deerweed
82	Shrub	Mahonia spp.		Barberry
83	Shrub	Malacothamnus	clementinus	San Clemente Island Bush Mallow
84	Shrub	Malacothamnus	fasciculatus	Mesa Bushmallow
85	Shrub	Melaleuca spp.		Melaleuca
86	Shrub	Mimulus spp.		Monkeyflower
87	Shrub	Nolina	parryi	Parry's Nolina
88	Shrub	Photinia spp.		Photinia
89	Shrub	Pittosporum	crassifolium	NCN
90	Shrub	Pittosporum	rhombifolium	Queensland Pittosporum
91	Shrub	Pittosporum	tobira 'Wheeleri'	Wheeler's Dwarf
92	Shrub	Pittosporum	undulatum	Victorian Box
93	Shrub	Pittosporum	viridiflorum	Cape Pittosporum
94	Shrub	Plumbago	auriculata	Cape Plumbago

95	Shrub	Prunus	caroliniana	Carolina Laurel Cherry
96	Shrub	Prunus	ilicifolia	Hollyleaf Cherry
97	Shrub	Prunus	lyonii	Catalina Cherry
98	Shrub	Punica	granatum	Pomegranate
99	Shrub	Pyracantha spp.		Firethorn
100	Shrub	Quercus	dumosa	Scrub Oak
101	Shrub	Rhamus	alaternus	Italian Buckthorn
102	Shrub	Rhamus	californica	Coffeeberry
103	Shrub	Rhaphiolepis spp.		Rhaphiolepis
104	Shrub	Rhus	continus	Smoke Tree
105	Shrub	Rhus	integrifolia	Lemonade Berry
106	Shrub	Rhus	laurina	Laurel Sumac
107	Shrub	Rhus	ovata	Sugarbush
108	Shrub	Rhus	trilobata	Squawbush
109	Shrub	Romneya	coulteri	Matilija Poppy
110	Shrub	Rosa	californica	California Wild Rose
111	Shrub	Rosa	minutifolia	Baja California Wild Rose
112	Shrub	Salvia spp.		Sage
113	Shrub	Sambucus spp.		Elderberry
114	Shrub	Symphoricarpos	mollis	Creeping Snowberry
115	Shrub	Syringa	vulgaris	Lilac
116	Shrub	Tecomaria	capensis	Cape Honeysuckle
117	Shrub	Teucrium	fruticans	Bush Germander
118	Shrub	Verbena	lilacina	Lilac Verbena
119	Shrub	Xylosma	congestum	Shiny Xylosma
120	Shrub	Yucca	schidigera	Mojave Yucca
121	Shrub	Yucca	whipplei	Foothill Yucca
121	Tree	Acer	macrophyllum	Big Leaf Maple
122	Tree	Acer	saccharinum	Silver Maple
123	Tree	Alnus	rhombifolia	White Alder "R"
124	Tree	Arbutus	unedo	Strawberry Tree
125	Tree	Archontophoenix	cunninghamiana	King Palm
126	Tree	Brahea	armata	Blue Mexican Palm
127	Tree	Brahea	edulis	Guadalupe Palm
128	Tree	Ceratonia	siliqua	Carob
129	Tree	Cercis	occidentalis	Western Redbud
130	Tree	Cornus	stolonifera	Redtwig Dogwood
131	Tree	Eriobotrya	japonica	Loquat
132	Tree	Erythrina	caffra	Kaffirboom Coral Tree
133	Tree	Ginkgo	biloba "Fairmount"	Fairmount Maidenhair Tree
134	Tree	Juglans	californica	California Walnut
135	Tree	Lagerstroemia	indica	Crape Myrtle
136	Tree	Ligustrum	lucidum	Glossy Privet
137	Tree	Liquidambar	styraciflua	Sweet Gum
138	Tree	Liriodendron	tulipifera	Tulip Tree
139	Tree	Lyonothamnus	floribundus asplenifolius	Fernleaf Catalina Ironwood
140	Tree	Melaleuca spp.		Melaleuca
141	Tree	Myoporum spp.		Myoporum
142	Tree	Nerium	oleander	Oleander
143	Tree	Parkinsonia	aculeata	Mexican Palo Verde

144	Tree	Pistacia	chinensis	Chinese Pistache
145	Tree	Pistacia	vera	Pistachio Nut
146	Tree	Pittosporum	phillyreoides	Willow Pittosporum
147	Tree	Pittosporum	viridiflorum	Cape Pittosporum
148	Tree	Platanus	acerifolia	London Plane Tree
149	Tree	Platanus	racemosa	California Sycamore "R"
150	Tree	Populus	alba	White Poplar
151	Tree	Populus	fremontii	Western Cottonwood "R"
152	Tree	Populus	trichocarpa	Black Cottonwood "R"
153	Tree	Prunus	caroliniana	Carolina Laurel Cherry
154	Tree	Prunus	cersifera 'Newport'	Newport Purple-Leaf Plum
155	Tree	Prunus	ilicifolia	Hollyleaf Cherry
156	Tree	Prunus	lyonii	Catalina Cherry
157	Tree	Prunus	xblireiana	Flowering Plum
158	Tree	Quercus	agrifolia	Coast Live Oak
159	Tree	Quercus	engelmannii	Engelmann Oak
160	Tree	Quercus	suber	Cork Oak
161	Tree	Rhus	lancea	African Sumac
162	Tree	Salix spp.		Willow "R"
163	Tree	Tristania	conferta	Brisbane Box
164	Tree	Ulmus	parvifolia	Chinese Elm
165	Tree	Ulmus	pumila	Siberian Elm
166	Tree	Umbellularia	californica	California Bay Laurel "R"
167	Vine	Antigonon	leptopus	San Miguel Coral Vine
168	Vine	Distictis	buccinatoria	Blood-Red Trumpet Vine
169	Vine	Keckiella	cordifolia	Heart-Leaved Penstemon
170	Vine	Lonicera	japonica 'Halliana'	Hall's Honeysuckle
171	Vine	Lonicera	subspicata	Chaparral Honeysuckle
172	Vine	Solanum	jasminoides	Potato Vine

For plants to be used in fuel treatment Zones A or B that are not found on this list, acquire approval from your local fire department first before installing them. Only "firewise" plants can be used in these zones.

# **APPENDIX 'B'**

## **Prohibited/Invasive Plant List**



## UNDESIRABLE PLANT LIST

The following species are highly flammable and avoided when planting within the first 50 feet adjacent to a structure. The plants listed below are more susceptible to burning due to rough or peeling bark, production of large amounts of litter, vegetation that contains oils, resin, wax, or pitch, large amounts of dead material in the plant, or plantings with a high dead to live fuel ratio. Many of these species, if existing on the property and adequately maintained (pruning, thinning, irrigation, litter removal, and weeding) may remain if the potential for spreading a fire has been reduced or eliminated.

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<u>Abies species</u>	Fir Trees
<u>Acacia species</u>	Acacia (trees, shrubs, groundcovers)
<u>Adenostoma sparsifolium**</u>	Red Shanks
<u>Adenostoma fasciculatum**</u>	Chamise
<u>Agonis juniperina</u>	Juniper Myrtle
<u>Araucaria species</u>	Monkey Puzzle, Norfolk Island Pine
<u>Artemesia californica**</u>	California Sagebrush
<u>Bambusa species</u>	Bamboo
<u>Cedrus species</u>	Cedar
<u>Chamaecyparis species</u>	False Cypress
<u>Coprosma pumila</u>	Prostrate Coprosma
<u>Cryptomeria japonica</u>	Japanese Cryptomeria
<u>Cupressocyparis leylandii</u>	Leylandii Cypress
<u>Cupressus forbesii**</u>	Tecate Cypress
<u>Cupressus glabra</u>	Arizona Cypress
<u>Cupressus sempervirens</u>	Italian Cypress
<u>Dodonea viscosa</u>	Hopseed Bush
<u>Eriogonum fasciculatum**</u>	Common Buckwheat
<u>Eucalyptus species</u>	Eucalyptus
<u>Heterotheca grandiflora**</u>	Telegraph Plant
<u>Juniperus species</u>	Junipers
<u>Larix species</u>	Larch
<u>Lonicera japonica</u>	Japanese Honeysuckle
<u>Miscanthus species</u>	Eulalia Grass
<u>Muehlenbergia species**</u>	Deer Grass
<u>Palmae species</u>	Palms
<u>Picea species</u>	Spruce Trees
<u>Pickeringia Montana**</u>	Chaparral Pea
<u>Pinus species</u>	Pines
<u>Podocarpus species</u>	Fern Pine
<u>Pseudotsuga menziesii</u>	Douglas Fir
<u>Rosmarinus species</u>	Rosemary
<u>Salvia mellifera**</u>	Black Sage
<u>Taxodium species</u>	Cypress
<u>Taxus species</u>	Yew
<u>Thuja species</u>	Arborvitae
<u>Tsuga species</u>	Hemlock
<u>Urtica urens**</u>	Burning Nettle

\*\* San Diego County native species

## **APPENDIX 'B' References:**

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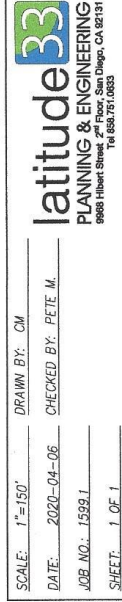
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County of Los Angeles Fire Department. 1998. Fuel Modification Plan Guidelines. Appendix I, Undesirable Plant List, and Appendix II, Undesirable Plant List.

## **APPENDIX 'C'**

### **Fuel Treatment Map & Photos**







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*Summit Estates from Summit Drive and Las Palma*

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*Las Palma, vegetation management  
and access road, North side of  
Summit Estates*

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*Southern view along Las Palma*

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*Las Palma Fuel Modification Zone 2 at left and below. Northern boundary with Summit Estates*

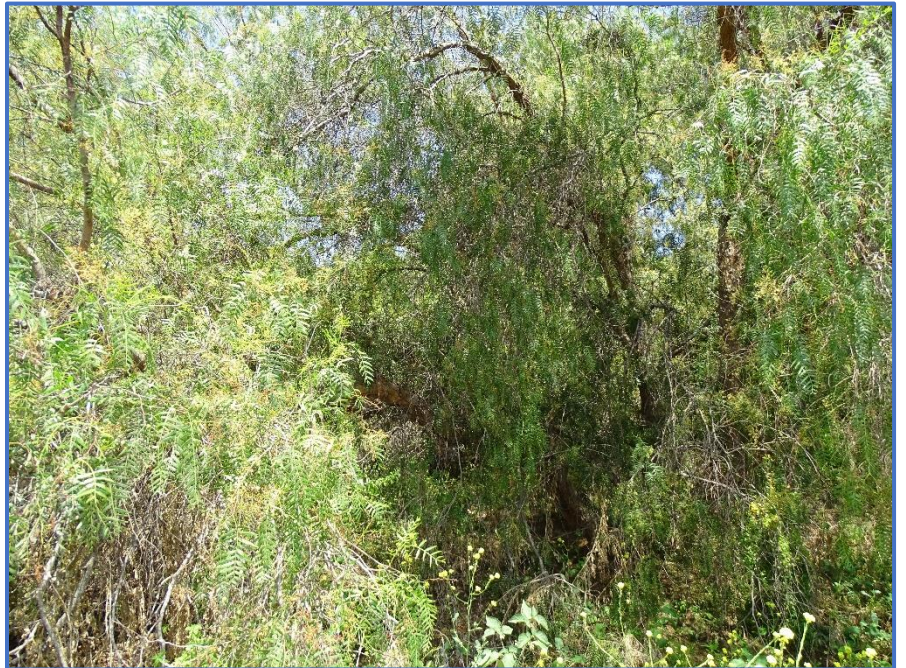




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*The next five slides taken along the wetlands, north to south on the western side of the creek.*

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*Above Fuel Modification Zone 2, Property is across creek, northeast property line  
Below heavy fuels in creek bottom, southeast boundary line*

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*Southeast property line, heading  
west to Summit Drive*

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*Eastern boundary looking south to Summit Drive*

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## **APPENDIX ‘D’**

### **Non-combustible & Ignition Resistant Building Materials**

# APPENDIX 'D'

## Non-Combustible & Ignition Resistant Building Materials For Balconies, Carports, Decks, Patio Covers and Floors

Examples of non-combustible & fire-resistant building materials for balconies, carports decks, patio covers, and floors are as follow:

### I. **NON-COMBUSTIBLE HEAVY GAGE ALUMINUM MATERIALS** - *Metals* *USA Building Products Group - Ultra-Lattice*



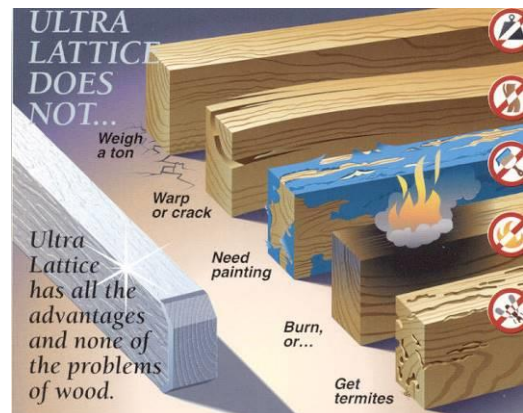
**Ultra-Lattice Stand Alone Patio Cover**



**Ultra-Lattice Attached Patio Cover**



**Ultra-Lattice Solid Patio Cover**



**Ultra-Lattice Vs. Wood**

## II. FRX Exterior Fire-Retardant Treated Wood

### Exterior Fire Retardant Treated (FRT) Wood

FRX® fire retardant treated wood may be used in exterior applications permitted by the codes where: public safety is critical, other materials would transfer heat or allow fires to spread, sprinkler systems cannot easily be installed, corrosive atmospheres necessitate excessive maintenance of other materials, or fire protection is inadequate or not readily available. The International Building, Residential and Urban-Wildland Interface Codes and regulations permit the use of fire-retardant treated wood in specific instances. See below for typical exterior uses and typical residential uses.

#### Typical Exterior Uses

- Balconies
- Decks



Homeowners  
and  
Residential  
Architects:  
See this 2-  
minute video  
and the  
diagram  
below.



For information on fire retardant treated wood for exterior uses, visit [www.frxwood.com](http://www.frxwood.com).



## Decking (SFM Standard 12-7A-4)

- III. **TREX COMPANY, INC** –“Trex Accents<sup>®</sup>: Fire Defense<sup>™</sup>” wood and polyethylene composite deck board, nominal 5/4” thick x 5-1/2” width, nominal density of 0.036 lb./in<sup>3</sup>.

## Trex Accents<sup>®</sup>: Fire Defense<sup>™</sup>

### The perfect blend of beauty and brawn.

Trex's #1 selling platform, Trex Accents<sup>®</sup>, exceeds the strict fire regulations set by the State of California and San Diego County.



- Offers superior safety performance:
  - Exceeds ASTM E84 Class B Flame Spread.
  - Exceeds 12-7A-4 Part A (underflame) and Part B (Burning Brand).
- Self-extinguishing even under extreme fire exposure.
- Approved for use by the California State Fire Marshal's Office and San Diego County. Read the California Department of Forestry and Fire Protection, Office of the State Fire Marshal [WILDLAND URBAN INTERFACE \(WUI\) PRODUCTS Report](#). (PDF)



#### IV. SOLID “WOOD” DECKING

◆Company Name: Various Manufacturers

**Product Description:** Solid “Wood” decking: “Redwood”, “Western Red Cedar”, “Incense Cedar”, “Port Orford Cedar”, and “Alaska Yellow Cedar”.

Sizes: Minimum nominal 2” thickness (American Softwood Lumber Standard PS 20).

Lumber grades: Construction Common and better grades for Redwood, 3 Common and better grades for Cedars, and commercial decking or better grades for both Redwood and Cedars.

**Special Instructions:** Solid wood decking shall be installed over solid wood joists spacing 24” or less on center.

## **APPENDIX 'E'**

### **Ignition-Resistant Building Requirements**

# APPENDIX 'E'

As of the date of this FPP, the following is a list of ignition resistant construction requirements for buildings located in an Wildland Urban Interface Fire Area under the 2016 California Fire Code (CFC), Chapter 7A of the California Building Code (CBC) and the California Residential Code (CRC) R337. However the requirements listed below are not all inclusive and all exterior building construction including roofs, eaves, exterior walls, doors, windows, decks, and other attachments must meet all of the CBC Chapter 7A ignition resistance requirements, CRC R337, CFC and local requirements in force at the time of building permit application. See the current applicable codes for a detailed description of these requirements and any exceptions.

1. All structures will be built with a Class A Roof Assembly, including a Class A roof covering, Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.
2. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be fire stopped with approved materials or have one layer of No. 72 ASTM cap sheet installed over the combustible decking.
3. When provided, exposed valley flashings shall be not less than 0.019-inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.
4. All rain gutters, down spouts and gutter hardware shall be constructed from metal or other noncombustible material to prevent wildfire ignition along eave assemblies .
5. Gutters shall be provided with the means to prevent the accumulation of leaf litter and debris that contribute to roof edge ignition.
6. All chimney, flue or stovepipe openings will have an approved spark arrester. An approved spark arrester is defined as a device constructed of nonflammable materials, 12-gauge minimum thicknesses or other material found satisfactory by the Fire Protection District, having ½-inch perforations for arresting burning carbon or sparks. It shall be installed to be visible for the purposes of inspection and maintenance.
7. The exterior walls surface materials shall be non-combustible or ignition resistant. In all construction, exterior walls shall extend from the top of the foundation to the roof and terminate at 2-inch nominal solid blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.
8. All eaves, fascias and soffits will be enclosed (boxed) with non-combustible materials. This shall apply to the entire perimeter of each structure. Eaves of heavy timber construction are not required to be enclosed if attic venting is not installed in the eaves. For the purposes of this section heavy timber construction shall consist of a minimum of 4x6 rafter ties and 2x decking.

9. Paper-faced insulation shall be prohibited in attics or ventilated spaces.
10. All residential structures will have automatic interior fire sprinklers installed according to the National Fire Protection Association (NFPA) 13D - *Standard for the Installation of Sprinkler Systems in One and Two-family Homes and Manufactured Homes* . Fire sprinklers are not required in unattached non-habitable structures greater than 50 feet from the residence.
11. Roof vents, dormer vents, gable vents, foundation ventilation openings, ventilation openings in vertical walls, or other similar ventilation openings shall be louvered and covered with 1/8-inch, noncombustible, corrosion-resistant metal mesh or other approved material that offers equivalent protection. Turbine attic vents shall be equipped to allow, one-way direction rotation only; they shall not free spin in both directions.
12. Attic or foundation ventilation louvers or ventilation openings in vertical walls shall not exceed 144 square inches per opening and shall be covered with 1/8-inch mesh corrosion-resistant metal screening or other approved material that offers equivalent protection. Attic ventilation shall also comply with the requirements of the Uniform Building Code (U.B.C.). Ventilation louvers and openings may be incorporated as part of access assemblies.
13. No attic ventilation openings or ventilation louvers shall be permitted in soffits, in eave overhangs, between rafters at eaves, or in other overhanging areas.
14. All side yard fence and gate assemblies (fences, gate and gate posts) when attached to the home shall be of non-combustible material. The first five feet of fences and other items attached to a structure shall be of non-combustible material.
15. All projections (exterior balconies, decks, patio covers, unenclosed roofs and floors, and similar architectural appendages and projections) or structures less than five feet from a building shall be of non-combustible material, one-hour fire resistive construction on the underside, heavy timber construction or pressure-treated exterior fire-retardant wood. When such appendages and projections are attached to exterior fire-resistive walls, they shall be constructed to maintain same fire-resistant standards as the exterior walls of the structure.
16. Accessory structures attached to buildings with habitable spaces and projections shall be in accordance with the Building Code. When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas and exterior wall construction in accordance with Chapter 7A of the Building Code.
17. Detached accessory structures located less than 50 feet from a building containing habitable space shall be constructed in accordance with Chapter 7A of the Building Code.
18. Exterior doors shall be approved non-combustible construction, solid core wood and shall conform to the performance requirements of standard SFM 12-7A-1 or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 1<sup>3</sup>/<sub>8</sub> inches thick with interior field panel thickness no less than 1<sup>1</sup>/<sub>4</sub> inches thick, or shall have a fire-resistance rating of not less than 20 minutes when tested according to ASTM E2074.

19. All glass or other transparent, translucent or opaque glazing materials including skylights shall be constructed multi-layered glazed panels one layer of which must be tempered glass.
20. Vinyl window assemblies are deemed acceptable if the windows have the following characteristics:
  - Frame and sash are comprised of vinyl material with welded corners
  - Metal reinforcements in the interlock area
  - Glazed with insulating glass, annealed or tempered (one layer of which must be tempered glass).
  - Frame and sash profiles are certified in AAMA Lineal Certification Program
  - Certified and labeled to ANSI/AAMA/NWDA 101/LS2-97 for Structural Requirements

### **City of Escondido General Requirements**

1. All awnings attached to any structure shall meet the 15-foot structure setback requirement and be identified as fire rated. Additionally, the awning shall be contained in a metal, self-enclosing or box-protected cover.
2. Portable awnings shall have UL Approved Fire-Retardant Rating and be no closer than 20 feet from any combustible structures.
3. The following requirements apply to both pool heating and power supply. Solar panels located less than 20 feet to a combustible structure shall have a metal frame, otherwise the size and type of materials of the entire solar panel system will determine the separation distance to combustible structures. All solar panels placed on a roof top shall comply with the Class "A" roof assembly and materials requirements.
4. Trash enclosures or trash storage shall be located at least 10 feet or more from any structure. Trash enclosures trellis or roof should be non-combustible or made of heavy timber.
5. Small storage buildings shall be located at least 20 feet from any structure.
6. Clearance to combustibles shall be kept a minimum of 10 feet from any propane tanks or containers.

### **AUXILIARY STRUCTURES: PAVILIONS, TRELLISES, ARBORS, PERGOLAS, CABANAS, PALAPAS, AND PLAYGROUND EQUIPMENT**

Auxiliary Structures are evaluated for a fire event (i.e., type of combustible materials, size of structure, distance from house and intended use). In addition, if structure is more than 50% covered, a Class A noncombustible roof is required.

### **ATTACHED, AUXILIARY STRUCTURE TO HOME, i.e., Overhead covers and decking not enclosed on three sides:**

- a. 100-foot Fuel Modification Zone extends from the attached structure perimeter.
- b. Maximize the use of non-combustible material. Columns must be non-combustible masonry and/or stucco or pre-cast concrete.
- c. Nominal timber size requirements (4"x 6") for fire resistive construction will be required.
- d. Attached structure may not extend into the pre-determined, structure setbacks.
- e. Any covered area shall be required to be protected with fire sprinkler system when the dimension from the wall of the structure to the edge of the covered area exceeds ten feet.

**DETACHED, AUXILLARY STRUCTURES LESS THAN 250 SQUARE FEET**, i.e., small playground equipment, gazebos, shed, trellis, palapas and arbor:

1. When structure is 250 square feet or less, the 100-foot Fuel Modification Zone extends from the house outwards, not the auxiliary structure.
2. The structures shall be a minimum of 20 feet from other combustible structures.
3. Maximize the use of non-combustible material. Columns must be non-combustible Masonry and/or stucco or pre-cast concrete.
4. Nominal timber size requirements (4"x 6") for fire resistive construction will be required
5. Structure may not extend into the fuel modification setbacks from top of slope.
6. The canvas awnings for playground equipment shall be identified and maintained, annually, as fire retardant.
7. Structures enclosed on three or more sides may require an automatic fire sprinkler system.
8. All palapas with thatched roof shall be at a minimum 30 feet from any combustible structure. Roofing materials shall be applied with a fire-retardant chemical. Proof of application and UL rating of fire-retardant chemical shall be provided to Fire District prior to installation of palapas.

**DETACHED AUXILLARY STRUCTURES GREATER THAN 250 SQUARE FEET**, i.e., large playground equipment (e.g., *King Kong Clubhouse*), guesthouse, cabana, palapas and pool house)

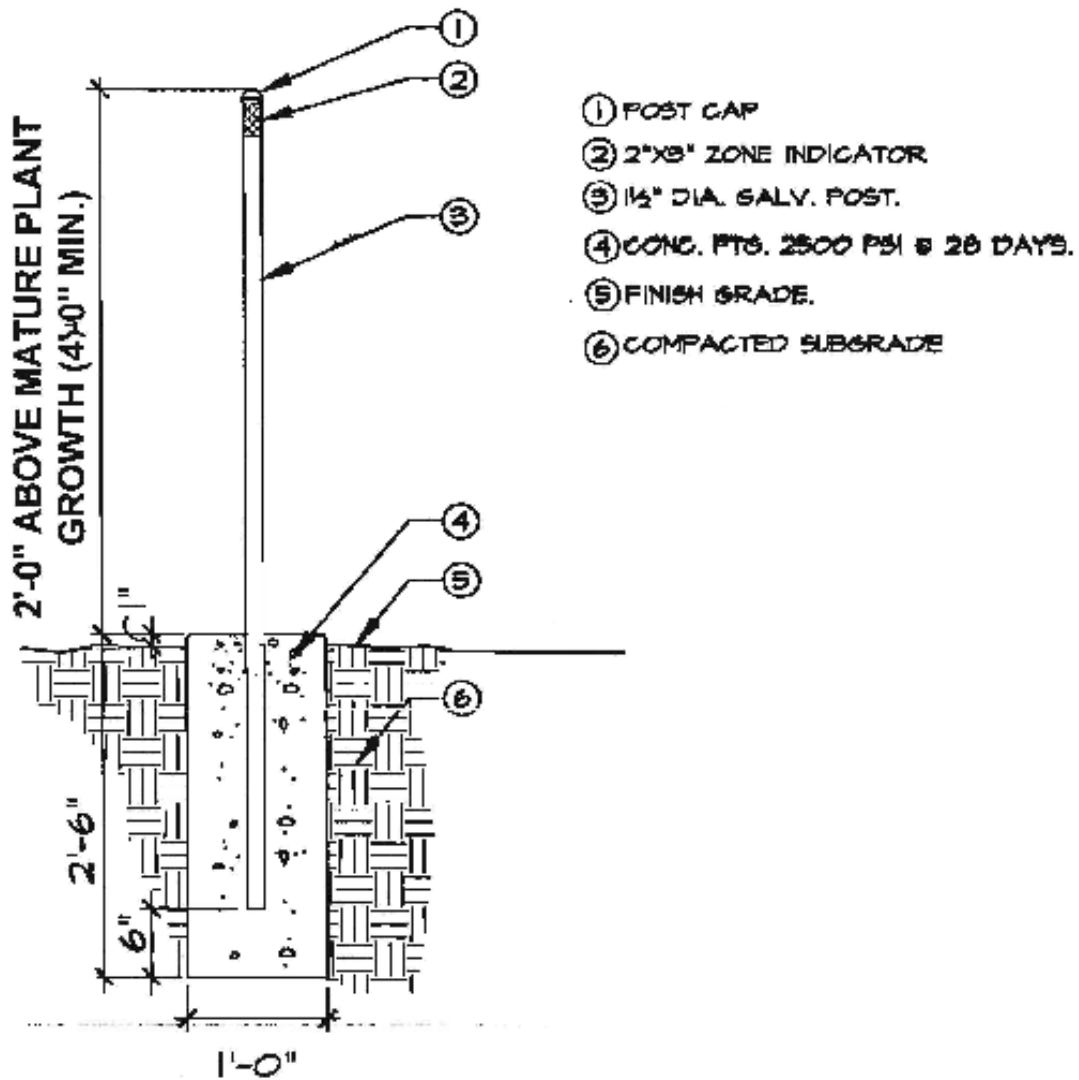
1. When structure is 250 square feet or greater, the 100-foot Fuel Modification Zone extends from the auxiliary structure.
  2. The structures shall be a minimum of 30 feet from other combustible structures, unless otherwise permissible by local zoning requirements.
  3. Maximize the use of non-combustible material. Columns must be non-combustible Masonry and/or stucco or pre-cast concrete.
  4. Nominal timber size requirements (4"x 6") for fire resistive construction will be required.
  5. Structure may not extend into the fuel modification setbacks from top of slope.
  6. The canvas awnings for playground equipment shall be identified and maintained, annually, as fire retardant.
  7. Structures enclosed on three or more sides may require an automatic fire sprinkler system.
- 10-30-2007 – cfh/ms.

# **APPENDIX 'F'**

## **Zone Marker Detail**



# ZONE MARKER DETAILS



## **APPENDIX 'G'**

### **Behave Plus 5.0.5 Fire Behavior Calculations**

**Inputs: SURFACE**

Description	Untreated SCAL 18 North Northeast Wind
-------------	--

**Fuel/Vegetation, Surface/Understory**

Fuel Model	SCAL18
------------	--------

**Fuel Moisture**

1-h Moisture	%	2
10-h Moisture	%	3
100-h Moisture	%	5
Live Herbaceous Moisture	%	30
Live Woody Moisture	%	50

**Weather**

20-ft Wind Speed	mi/h	60.
Wind Adjustment Factor		0.3
Wind Direction (from north)	deg	45

**Terrain**

Slope Steepness	%	25
Aspect	deg	90

**Run Option Notes**

Maximum reliable effective wind speed limit IS imposed [SURFACE].

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always  
for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

**Output Variables**

Surface Rate of Spread (maximum) (ft/min) [SURFACE]

Fireline Intensity (Btu/ft/s) [SURFACE]

Flame Length (ft) [SURFACE]

(continued on next page)



### Untreated SCAL 18 North Northeast Wind

Surface Rate of Spread (maximum)	225.4 ft/min
Fireline Intensity	16376 Btu/ft/s
Flame Length	39.1 ft



**Inputs: SURFACE**Description Summit Estates Treated North Northeast Winds**Fuel/Vegetation, Surface/Understory**Fuel Model gr1**Fuel Moisture**1-h Moisture % 210-h Moisture % 3100-h Moisture % 5Live Herbaceous Moisture % 30Live Woody Moisture % 50**Weather**20-ft Wind Speed mi/h 60.Wind Adjustment Factor 0.3Wind Direction (from north) deg 45**Terrain**Slope Steepness % 25Aspect deg 90**Run Option Notes**

Maximum reliable effective wind speed limit IS imposed [SURFACE].

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always  
for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

**Output Variables**

Surface Rate of Spread (maximum) (ft/min) [SURFACE]

Fireline Intensity (Btu/ft/s) [SURFACE]

Flame Length (ft) [SURFACE]

(continued on next page)



### Summit Estates Treated North Northeast Winds

Surface Rate of Spread (maximum)	41.4 ft/min
Fireline Intensity	67 Btu/ft/s
Flame Length	3.1 ft



**Inputs: SURFACE**

Description		Untreated SCAL 18 Southwest Wind
<b>Fuel/Vegetation, Surface/Understory</b>		
Fuel Model		SCAL18
<b>Fuel Moisture</b>		
1-h Moisture	%	2
10-h Moisture	%	3
100-h Moisture	%	5
Live Herbaceous Moisture	%	30
Live Woody Moisture	%	60
<b>Weather</b>		
20-ft Wind Speed	mi/h	12
Wind Adjustment Factor		0.3
Wind Direction (from north)	deg	225
<b>Terrain</b>		
Slope Steepness	%	25
Aspect	deg	90

**Run Option Notes**

Maximum reliable effective wind speed limit IS imposed [SURFACE].  
Calculations are only for the direction of maximum spread [SURFACE].  
Fireline intensity, flame length, and spread distance are always  
for the direction of the spread calculations [SURFACE].  
Wind and spread directions are degrees clockwise from north [SURFACE].  
Wind direction is the direction from which the wind is blowing [SURFACE].

**Output Variables**

Surface Rate of Spread (maximum) (ft/min) [SURFACE]  
Fireline Intensity (Btu/ft/s) [SURFACE]  
Flame Length (ft) [SURFACE]

(continued on next page)





### Untreated SCAL 18 Southwest Wind

Surface Rate of Spread (maximum)	46.0 ft/min
Fireline Intensity	3326 Btu/ft/s
Flame Length	18.8 ft

**Inputs: SURFACE**Description Summit Estates Treated GR1 Southwest Wind**Fuel/Vegetation, Surface/Understory**Fuel Model gr1**Fuel Moisture**

1-h Moisture	%	<u>2</u>
10-h Moisture	%	<u>3</u>
100-h Moisture	%	<u>5</u>
Live Herbaceous Moisture	%	<u>30</u>
Live Woody Moisture	%	<u>60</u>

**Weather**

20-ft Wind Speed	mi/h	<u>12</u>
Wind Adjustment Factor		<u>0.3</u>
Wind Direction (from north)	deg	<u>225</u>

**Terrain**

Slope Steepness	%	<u>25</u>
Aspect	deg	<u>90</u>

**Run Option Notes**

Maximum reliable effective wind speed limit IS imposed [SURFACE].  
Calculations are only for the direction of maximum spread [SURFACE].  
Fireline intensity, flame length, and spread distance are always  
for the direction of the spread calculations [SURFACE].  
Wind and spread directions are degrees clockwise from north [SURFACE].  
Wind direction is the direction from which the wind is blowing [SURFACE].

**Output Variables**

Surface Rate of Spread (maximum) (ft/min) [SURFACE]  
Fireline Intensity (Btu/ft/s) [SURFACE]  
Flame Length (ft) [SURFACE]

(continued on next page)





### Summit Estates Treated GR1 Southwest Wind

Surface Rate of Spread (maximum)	20.7 ft/min
Fireline Intensity	34 Btu/ft/s
Flame Length	2.3 ft

## **APPENDIX 'H'**

### **Project Facility Availability Forms For Water and Fire**



County of San Diego, Planning & Development Services  
**PROJECT FACILITY AVAILABILITY - WATER**  
**ZONING DIVISION**

Please type or use pen		W
Owner's Name: <u>2510 Summit LLC care of OSCAR URANGA</u> Phone: _____ Owner's Mailing Address: <u>19782 MacArthur Blvd Suite 300</u> Street: _____ City: <u>Truine</u> State: <u>CA</u> Zip: <u>92046</u>		ORG: _____ ADCT: _____ ACT: _____ TASK: _____ DATE: _____ AMT \$: _____ DISTRICT CASHIER'S USE ONLY
<b>SECTION 1: PROJECT DESCRIPTION</b> <span style="float: right;"><b>TO BE COMPLETED BY APPLICANT</b></span>		
A. <input checked="" type="checkbox"/> Major Subdivision (TM) <input type="checkbox"/> Specific Plan or Specific Plan Amendment <input type="checkbox"/> Minor Subdivision (TPM) <input type="checkbox"/> Certificate of Compliance <input type="checkbox"/> Boundary Adjustment <input type="checkbox"/> Rezone (Reclassification) from _____ to _____ Zone <input type="checkbox"/> Major Use Permit (MUP), purpose: <input type="checkbox"/> Time Extension, Case No. _____ <input type="checkbox"/> Expired Map, Case No. _____ <input type="checkbox"/> Other _____		Assessor's Parcel Number(s) (Add extra if necessary) <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <u>237-090-0500</u> </div>
B. <input checked="" type="checkbox"/> Residential ..... Total number of dwelling units <u>23</u> <input type="checkbox"/> Commercial ..... Gross floor area _____ <input type="checkbox"/> Industrial ..... Gross floor area _____ <input type="checkbox"/> Other ..... Gross floor area _____		Thomas Guide Page _____ Grid _____ Project address: <u>2510 Summit Drive</u> Street: _____ <u>North County Metro</u> Zip: <u>92025</u> Community Planning Area/Subregion _____
C. <input checked="" type="checkbox"/> Total Project acreage <u>23</u> Total number of lots <u>23</u> D. Is the project proposing the use of groundwater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - one well Is the project proposing the use of reclaimed water? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Owner/Applicant agrees to pay all necessary construction costs, develop all field required easements to extend service to the project and COMPLETE ALL CONDITIONS REQUIRED BY THE DISTRICT.		
Applicant's Signature: <u>[Signature]</u> Date: <u>2/24/19</u> Address: <u>19782 MacArthur Blvd Suite 300 Truine</u> Phone: <u>949 733 4102</u>		
(On completion of above, present to the district that provides water protection to complete Section 2 below.)		
<b>SECTION 2: FACILITY AVAILABILITY</b> <span style="float: right;"><b>TO BE COMPLETED BY DISTRICT</b></span>		
District Name: <u>City of Escondido</u> Service area: <u>A-3</u>		
A. <input checked="" type="checkbox"/> Project is in the district. <input type="checkbox"/> Project is not in the district but is within its Sphere of Influence boundary, owner must apply for annexation. <input type="checkbox"/> Project is not in the district and is not within its Sphere of Influence boundary. <input checked="" type="checkbox"/> The project is not located entirely within the district and a potential boundary issue exists with the _____ District.		
B. <input checked="" type="checkbox"/> Facilities to serve the project <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT reasonably expected to be available within the next 5 years based on the capital facility plans of the district. Explain in space below or on attached <u>2</u> (Number of sheets) <input type="checkbox"/> Project will not be served for the following reason(s): _____		
C. <input checked="" type="checkbox"/> District conditions are attached. Number of sheets attached: <u>2</u> <input type="checkbox"/> District has specific water reclamation conditions which are attached. Number of sheets attached: _____ <input type="checkbox"/> District will submit conditions at a later date.		
D. <input checked="" type="checkbox"/> How far will the pipeline(s) have to be extended to serve the project? <u>See attached.</u>		
The Project Facility Availability Form is valid until final discretionary action is later presented to the application for the proposed project or until it is withdrawn, unless a shorter expiration date is otherwise noted.		
Authorized Signature: <u>[Signature]</u> Print Name: <u>Stephanie Roman Phillips</u> Print Title: <u>Associate Engineer</u> Phone: <u>(760) 650-5687</u> Date: <u>04.04.19</u>		
NOTE: THIS DOCUMENT IS NOT A COMMITMENT OF SERVICE OR FACILITIES BY THE DISTRICT On completion of Section 2 and 3 by the District, applicant is to submit this form with application to: Planning & Development Services - Zoning Counter, 5510 Overland Ave, Suite 110, San Diego, CA 92123		





County of San Diego, Planning & Development Services  
**PROJECT FACILITY AVAILABILITY - FIRE**  
**ZONING DIVISION**

Please type or use pen

2510 Summit, LLC care of Oscar Uranga Owner's Name 19782 MacArthur Blvd, Suite 300 Owner's Mailing Address Irvine, Ca 92646 City State Zip	9499334103 Phone Street City State Zip	ORG _____ ACCT _____ ACT _____ TASK _____ DATE _____ AMT \$ _____ DISTRICT CASHIER'S USE ONLY
---	---	---

**SECTION 1. PROJECT DESCRIPTION** **TO BE COMPLETED BY APPLICANT**

A. ☒ Major Subdivision (TM) ☐ Specific Plan or Specific Plan Amendment  
☐ Minor Subdivision (TPM) ☐ Certificate of Compliance:  
☐ Boundary Adjustment  
☐ Rezone (Reclassification) from \_\_\_\_\_ to \_\_\_\_\_ zone.  
☐ Major Use Permit (MUP), purpose: \_\_\_\_\_  
☐ Time Extension...Case No. \_\_\_\_\_  
☐ Expired Map... Case No. \_\_\_\_\_  
☐ Other \_\_\_\_\_

B. ☒ Residential ..... Total number of dwelling units 23  
☐ Commercial ..... Gross floor area \_\_\_\_\_  
☐ Industrial ..... Gross floor area \_\_\_\_\_  
☐ Other ..... Gross floor area \_\_\_\_\_

C. Total Project acreage 23.6 Total lots 23 Smallest proposed lot .8AC

Assessor's Parcel Number(s)  
(Add extra if necessary)


Thomas Guide. Page \_\_\_\_\_ Grid \_\_\_\_\_  
2510 Summit Drive  
Project address \_\_\_\_\_ Street \_\_\_\_\_  
Metro North  
Community Planning Area/Subregion \_\_\_\_\_ Zip \_\_\_\_\_

OWNER/APPLICANT AGREES TO COMPLETE ALL CONDITIONS REQUIRED BY THE DISTRICT.

Applicant's Signature: \_\_\_\_\_ Date: 7/1/19  
Address: 19782 MacArthur Blvd, suite 300 Irvine CA 92646 Phone: 949 933 4103  
(On completion of above, present to the district that provides fire protection to complete Section 2 and 3 below.)

**SECTION 2: FACILITY AVAILABILITY** **TO BE COMPLETED BY DISTRICT**

District Name: Escondido Fire Department  
Indicate the location and distance of the primary fire station that will serve the proposed project:  
Sta 413501 Bear Valley Way 1.9 miles 4 mins

A. ☒ Project is in the District and eligible for service.  
☐ Project is not in the District but is within its Sphere of Influence boundary, owner must apply for annexation.  
☐ Project is not in the District and not within its Sphere of Influence boundary.

B. ☒ Based on the capacity and capability of the District's existing and planned facilities, fire protection facilities are currently adequate or will be adequate to serve the proposed project. The expected emergency travel time to the proposed project is \_\_\_\_\_ minutes.

C. ☐ Fire protection facilities are not expected to be adequate to serve the proposed development within the next five years.  
☒ District conditions are attached. Number of sheets attached: 4  
☐ District will submit conditions at a later date.

**SECTION 3. FUELBREAK REQUIREMENTS**

Note: The fuelbreak requirements prescribed by the fire district for the proposed project do not authorize any clearing prior to project approval by Planning & Development Services. Expires after 1 year of date 12/2/19

☒ Within the proposed project 100 feet of clearing will be required around all structures.  
☐ The proposed project is located in a hazardous wildland fire area, and additional fuelbreak requirements may apply. Environmental mitigation requirements should be coordinated with the fire district to ensure that these requirements will not pose fire hazards.

This Project Facility Availability Form is valid until final discretionary action is taken pursuant to the application for the proposed project or until it is withdrawn, unless a shorter expiration date is otherwise noted.

Authorized Signature: Lavonkaethe Fire Prevention Specialist II 8/2/19  
Print Name and Title  
Phone 760-835-5415  
On completion of Section 2 and 3 by the District, applicant is to submit this form with application to:  
Planning & Development Services - Zoning Counter, 5510 Overland Ave, Suite 110, San Diego, CA 92123

