MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: Mayor and Town Council

CC: Jeremy Dennis, Town Manager

FROM: Cara Silver, Town Attorney

DATE: August 31, 2022

RE: Summary of Portola Valley's Response to Cal Fire's Mapping Initiative and State Wildfire Hazard Legislation

I. Introduction

The purpose of this memo is (1) to summarize the California Department of Forestry and Fire Protection mapping process for fire severity zones and State legislation applicable to such zones and (2) analyze whether the Town's decision not to adopt the 2008 Cal Fire map had any practical consequences in the area of fire safety. This memo also describes the Town's local legislative actions to address local fire hazard as well as the Town's current actions to comply with the State's mandate to update its Safety Element in conjunction with the Housing Element of the General Plan. While this memo focuses on the Town's actions, it is important to note that the Woodside Fire Protection District (WFPD) is the legal entity responsible for providing fire protection and prevention services within the Town and has been a longstanding partner in this area.

State laws and regulations in this area are rapidly changing and this memo represents our current understanding of the applicable laws. This analysis is subject to change with new legislation or interpretive rulings. This memo is concurrently being released to the community given the wide interest on this topic, though it should not be construed by individual residents as legal advice.

II. Executive Summary

In 2008, California Department of Forestry and Fire Protection (Cal Fire) published a fire hazard map designating a small portion of the Town of Portola Valley (Town) as a Very High Fire Hazard Severity Zone (VHFHSZ). Under State law, properties located in the VHFHSZ must comply with more stringent defensible space requirements and stricter building requirements known as Chapter 7A of the Building Code. At the time, Town

staff recommended the Town Council adopt the Cal Fire map; however, residents raised concerns that the Town's formal adoption of the map would decrease property values and impact insurability of homes, with little perceived benefit. On May 13, 2009, in response to resident concerns and as a community compromise, the Town Council took several actions: (1) elected not to adopt the 2008 Cal Fire map; (2) adopted the latest version of the fire protective building codes drafted for Wildland Urban Interface fire areas (known as Chapter 7A of the Building Code) and applied them town-wide; (3) commissioned Ray Moritz, a well-regarded arborist, to conduct a local vegetative survey and hazard assessment that was subsequently incorporated into the Town's Safety Element; and (4) directed staff to use the detailed Moritz report to implement vegetation management plans.

Some members of the community have recently questioned whether the Council's earlier decision not to adopt the 2008 Cal Fire map impacted fire safety in Town. A close analysis shows that to date the Council's decision has not diminished the Town's overall fire resiliency. This is because over the years the Town and WFPD have adopted local regulations which are equal to, and in most cases exceed, the otherwise applicable State regulations had the Town adopted the 2008 Cal Fire map. The reason why the Town's approach has resulted in more fire safety is twofold. First, the local regulations governing defensible space and WUI fire area building standards apply broadly to the entire Town, rather than being limited to the small portion designated as a VHFHSZ by the 2008 map. In fact, had the Town adopted the 2008 map and confined its local regulations to only the VHFHSZ as required by State law, over 75% of the Town would not be covered by the more protective local fire standards.

Second, on December 8, 2021, upon the recommendation of the Wildfire Preparedness Committee, the Town Council also adopted a set of building standards known as the "Home Hardening Ordinance" that in fact exceeded Chapter 7A.[1] The Town's local home hardening ordinance prescribes more ignition resistant building materials and regulates major remodels in addition to new construction. In addition, the Town Council, in collaboration with WFPD, also recently adopted a Fire Safety Checklist applicable to ADUs and SB 9 units. Similar to the town-wide application of Chapter 7A and defensible space, the Home Hardening Ordinance and the Fire Safety Checklist apply town-wide.

The Town's historic practice of exceeding the State minimum requirements is expected to continue. For example, the California Building Standards Commission publishes uniform building (including fire) code updates on a three year cycle, with the next update scheduled for January 1, 2023. In connection with this update, WFPD is expected to make a recommendation to the Town for adoption of a new building separation standard. In keeping with past policy, it is expected that any new fire standards would also apply town-wide.

Cal Fire is in the process of updating its statewide fire hazard maps. The updated maps were originally expected to be published in 2019, but now are expected in late 2022.

[1] Portola Valley's Home Hardening Ordinance was cited as a model ordinance in the Office of Planning and Research," Wildland-Urban Interface Planning Guide: Examples and Best Practices for California Communities", pp. 19-20, August 2022.

Recent State law changes require towns to adopt the Cal Fire maps within 120 days of publication and no longer authorize towns to opt out. WFPD is also preparing its own fire map of the entire district. The WFPD map will update the Moritz map and is expected to be more refined than the upcoming Cal Fire map and incorporate updated fire science. Once the new maps are adopted, the Town may want to reconsider its current approach to broad regulations and elect to take a more targeted approach by regulating just the very high fire severity zones as contemplated by State law.

This memo also discusses how the Cal Fire maps integrate with the Safety Element. State law now requires towns to update their Safety Elements in conjunction with their Housing Elements (i.e. every eight years). Ideally, the updated Cal Fire maps would be released in time to complete these general plan element updates. Because the maps likely will not be released in time, the Town is using the 2008 Cal Fire map as a placeholder in the Safety Element. When selecting new housing sites the Housing Element does not limit its analysis to the 2008 Cal Fire map, but also considers the Moritz map as well as additional survey and expertise of the Town's fire consultant, Zeke Lunder of Deer Creek Resources. As has been repeatedly shared through the Housing and Safety Element update process, once the updated Cal Fire and WFPD maps are released, the Town will incorporate those maps into the planning documents and evaluate whether additional amendments to either element are needed.

Finally, this memo discusses the new Minimum State Fire Requirements which became applicable to VHFHSZ in LRAs on July 1, 2021 and which will impose new requirements regarding development on ridgelines and fire breaks effective January 1, 2023. WFPD will be taking the lead on implementing these requirements. Again, it is likely WFPD and the Town will implement a town-wide regulation rather than one narrowly focused on the VHFHSZ. The last section of this memo provides some options for the Town Council to consider when implementing these new regulations.

III. Background

A. Fire Hazard Severity Zones

California consists of three fire authority and regulatory regions: Federal, State, and Local Responsibility Areas. The federal government manages all fire protection in Federal Responsibility Areas, with no oversight from the state government. The California Department of Forestry and Fire Protection (Cal Fire) serves as the firefighting agency in State Responsibility Areas (SRA), which consists of State-owned lands and unincorporated communities. Local Responsibility Areas (LRA) include incorporated communities where local governments oversee local fire protection. State law establishes uniform defensible space and building code requirements in SRAs. In LRAs, State law historically has imposed some regulations, but has also given local communities latitude to adopt their own fire regulations.

1. State Responsibility Areas

Following the 1980 Panorama Fire in San Bernardino, the California State Legislature passed Public Resources Code Section 4201, which directed Cal Fire to develop Fire

Hazard Severity Zone (FHSZ) maps designating moderate, high, and very high FHSZs throughout all State Responsibility Areas. The first maps were released in 1985 and included moderate, high, and very high FHSZs. The first set of regulations applied only to SRAs and focused on defensible space around structures. Further, all new construction or major retrofits (>50%) in SRAs were required to meet the Chapter 7A building codes applicable to exterior design and construction of new buildings located within a Wildland Urban Interface Fire Area (WUI).

2. Local Responsibility Areas

After the 1991 Oakland Hills Fire, the state legislature passed AB 337, known as the Bates Bill[2], requiring Cal Fire to also prepare Very High Fire Hazard Severity Zones (VHFHSZ) maps for LRAs. Unlike in SRAs, Cal Fire was not required to map moderate or high FHSZ maps in LRAs. Accordingly, the final maps for LRAs only include VHFHSZ areas (with the exception of Orange County, which requested additional mapping of its moderate and high FHSZs).[3] Under State law, buildings constructed in areas identified as VHFHSZ are required to be built using fire-resistive features identified in the California Building Code, Chapter 7A.[4]

While State legislation requires Cal Fire to "periodically review"[5] and update the maps, Cal Fire has only released one set of updated maps since 1996.

Cal Fire prepared the first set of LRA fire maps in 1996 and released the second set of maps on a rolling basis between 2008-2011. The LRA maps constituted recommendations only, and towns retained local authority to adopt the maps or not.[6]

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[2] The Bates Bill was codified at Government Code § 51175 *et seq*.

[3] Cal Fire did publish "draft" moderate and high fire severity zones for some LRAs; however, these maps were never finalized and never intended to have regulatory effect. For example, the 2008 draft map showing moderate and high fire zones for San Mateo County shows a portion of the town mapped as High Fire while the final map for Portola Valley shows that same portion as Very High.

[4] Government Code § 51182.

[5] Government Code § 51181.

[6] Up until 2019, towns were permitted to exclude or add areas to the very high fire designation upon making certain statutory findings. Specifically, the pre-2019 legislation provided in relevant part:

> (a) A local agency shall designate, by ordinance, very high fire hazard severity zones in its jurisdiction within 120 days of receiving recommendations from the director pursuant to subdivisions (b) and (c) of Section 51178. A local agency shall be exempt from this requirement if ordinances of the local agency, adopted on or before December 31, 1992, impose standards that are equivalent to, or more restrictive than, the standards imposed by this chapter.
>
> (b) A local agency may, at its discretion, exclude from the requirements of Section 51182 an area identified as a very high fire hazard severity zone by the director within the jurisdiction of the

Under the Bates Bill, if a town elected to adopt the VHFHSZ map, the town must also adopt Chapter 7A Building Codes and defensible space requirements for properties within such areas.[7] If a Town elected not to adopt the Cal Fire map, no further action was required.

Figure 1 below describes the differences between SRAs and LRAs as of 2018.

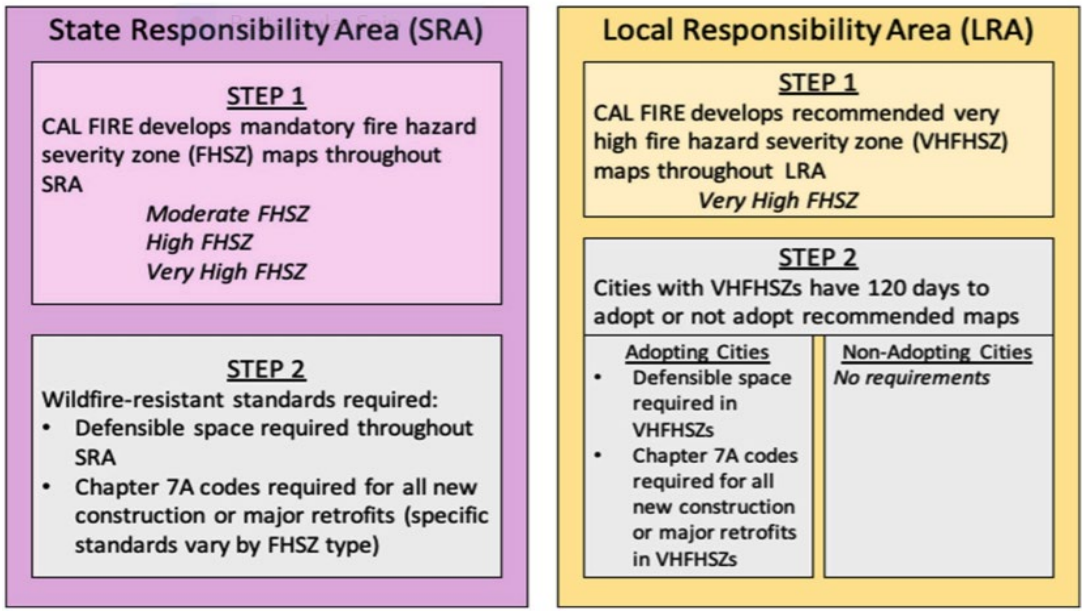

Figure 1

3. SB 1260 Amendments

Effective January 1, 2019, SB 1260 redefined the VHFHSZ program in LRAs as a "state-mandated local program." The new legislation curtailed local agencies' ability to make findings opting out of the program and required cities to adopt the VHFHSZ maps within 120 days of receiving them from Cal Fire.[8] For towns which had not adopted the

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local agency, following a finding supported by substantial evidence in the record that the requirements of Section 51182 are not necessary for effective fire protection within the area.

(c) A local agency may, at its discretion, include areas within the jurisdiction of the local agency, not identified as very high fire hazard severity zones by the director, as very high fire hazard severity zones following a finding supported by substantial evidence in the record that the requirements of Section 51182 are necessary for effective fire protection within the area.

[7] The defensible space requirement would not have impacted Portola Valley because WFPD's local regulation was already consistent with the State requirement which was 30 feet at the time. Later, WFPD increased this requirement to 100 feet again to align with the State standard for VHFHSZs.

[8] SB 1260 amended Government Code Section 51179 by removing local agencies' discretion to adopt the Cal Fire map. Specifically, this bill removed subsection (b) providing "(b) A local agency may, at its discretion, exclude from the requirements of Section 51182 an area identified

2008 era maps, there was no retroactive requirements to do so. At the time SB 1260 was signed by the Governor, the updated set of Cal Fire maps was planned for release in 2019. To date, Cal Fire has not yet released the new maps, with the latest publication estimate being late 2022.

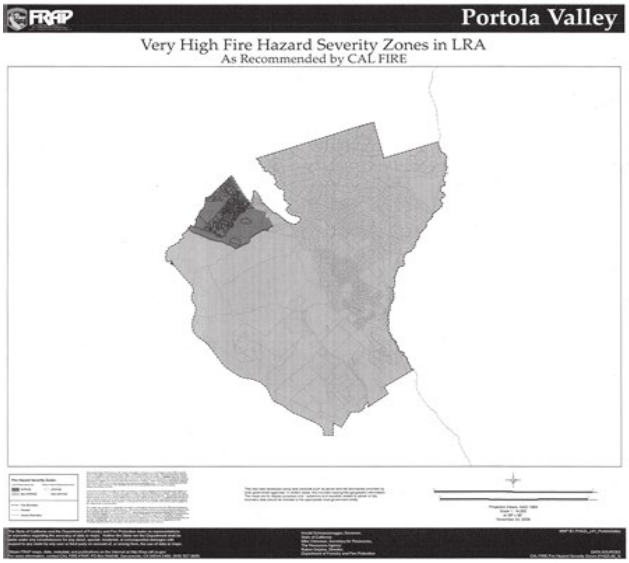
B. Portola Valley Fire Maps

Beginning in 2008, there were several fire maps prepared for the Town.[9]

1. Cal Fire Maps

In April 2008, Cal Fire published its first draft fire map for Portola Valley. This map did not contain a VHFHSZ in Portola Valley. Thereafter, the Woodside Fire Protection District objected to the draft Cal Fire map and urged Cal Fire to revise its map to include more VHFHSZs in Portola Valley. In May 2008, Cal Fire released a second draft fire map containing a large VHFHSZ in Portola Valley. Faced with two different maps, the Town requested consultant Ray Moritz, who was under contract with the Town to prepare a detailed fuel hazard assessment for the Town, to work with WFPD and Cal Fire to resolve the differences. The Moritz study employed a more refined analysis of the existing vegetation than the data used by Cal Fire and WFPD.

On November 23, 2008, Cal Fire published a third revised fire map reducing the VHFHSZ area in Portola Valley to a portion of the northwest quadrant of the Town (largely consisting of the Wayside Highlands). See Figure 2 below.



as a very high fire hazard severity zone by the director within the jurisdiction of the local agency, following a finding supported by substantial evidence in the record that the requirements of Section 51182 are not necessary for effective fire protection within the area." This bill retained however local authority to designate additional VHFHSZs if the town could make findings based on substantial evidence that those additional zones were needed to implement the defensible space and Chapter 7A building code requirements.

[9] See February 25, 2009 Town Council staff report for further background on mapping process. (Attachment A.)

Figure 2

This third draft fire map represented a consensus between Cal Fire, WFPD and the Town's consultant Ray Moritz of the most extreme fire hazard areas in Portola Valley at the time. On February 25, 2009, the Town Council conducted a hearing on Cal Fire's updated map. (The staff report is attached as Attachment A.) According to the record, Town Staff recommended adopting the November 23, 2008 Cal Fire map, but many residents appeared at the hearing and urged the Council not to adopt the map. The residents' concerns largely focused on the impacts the designation would have on their ability to secure and maintain property insurance. Instead of adopting the updated Cal Fire map as recommended by staff, the Council directed staff to explore other options including the adoption of the Moritz map.

2. Moritz Vegetation Assessment

The Moritz Vegetation Assessment and map were finalized in October 2008. (See Attachment B.) The Moritz Assessment had four purposes as outlined in the 2008 report:

> First, it will form an important part of the new Safety Element to be developed by the town as a part of the town's General Plan. This will help fulfill a requirement of the state planning law.
> Second, it will provide a basis for the establishment of programs and measures by the town and the Woodside Fire Protection District in assisting in the protection of all properties in the town.
> Third, it will allow residents to locate their properties with respect to the several vegetation categories with different degrees of fire hazard and to begin to take prudent precautions on their properties.
> Fourth, it will provide an outline of fuel reduction measures along the major roads in the town, most of which will be a responsibility of the town.

The Moritz report classified vegetation into different fuel categories and recommended maintenance strategies for each. It also ranked the vegetative fuel types based on fire behavior (highest, high, moderate, low). Mr. Moritz conducted site investigations to "ground truth" the vegetation data. From a vegetation perspective, the Moritz map was more detailed than the Cal Fire map. The Moritz map however places lesser emphasis on the hazard factors contained in the Cal Fire mapping model such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area. Figure 3 below is a copy of the Moritz fuel map.

Figure 3

On May 13, 2009, the Town Council decided not to adopt the Cal Fire map. Instead it adopted Chapter 7A of the Building Code to apply on a town-wide basis. As a result, there was substantial evidence in the record to support the Council's decision that it was unnecessary to adopt the Cal Fire map. The Town's action to apply Chapter 7A to the entire town as well as WFPD's defensible space regulations essentially mooted the need for adoption of the Cal Fire map. At the time, this decision was viewed as a community compromise which accomplished two important goals: (1) it assured not only the VHFHSZ areas, but the entire town, would receive the fire protections recommended by the State; and (2) the residents located in the VHFHSZ designated by Cal Fire would not be unduly disadvantaged vis a vis other residents in terms of property value and insurability of their homes. The Council also directed the Moritz report be incorporated into the Safety Element and used to implement vegetation management plans. On July 28, 2010, the Town Council amended its Safety Element to include the Moritz Report and map.

The Moritz vegetation categories (i.e. highest hazard to lowest hazard), do not directly correlate to the very high, high and moderate Cal Fire categories. Briefly, the Moritz map categories place greater emphasis on the type of existing local vegetation while the Cal Fire mapping model contained more general vegetation data but included more comprehensive hazard factors such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area. The Moritz report was useful at the time, but it is important to note its

limitations. The vegetation data in the report has not been recently updated nor has advanced fire science and modeling been incorporated into the hazard assessment.[10]

3. Current WFPD Mapping Effort

State law requires the Town to update its Safety Element in conjunction with the next Housing Element update. (See Section IV below for further discussion of this process.) Fire risk is one of the key issues addressed in the Safety Element. The Safety Element currently relies on the Moritz report to address fire risk. However, as stated above, the Moritz vegetation survey is now outdated and the report does not take advantage of new wildfire modeling advances. The Town had hoped to use the updated Cal Fire maps originally scheduled to be released in 2019 to update the 2010 Safety Element. Unfortunately, it appears Cal Fire will not be releasing those maps until the end of 2022, at the earliest.

To account for this lag, WFPD has initiated its own mapping and risk assessment process which originally was scheduled to be completed by July 26, 2022. On January 25, 2022, the WFPD Board of Trustees authorized funding for an updated fire map and risk assessment for the entire district. WFPD began preparing a Request for Proposals to hire a consultant to perform the work. Recently WFPD staff has pivoted and in an attempt to expedite the process, the Fire Marshal now contemplates awarding a sole source contract to FlameMapper, a GIS-focused technology firm, to create the maps. WFPD recently estimated this mapping project will be complete within 180 days of award and intends to release pieces of the study for Town review on a rolling basis.

IV. Early Regulatory Requirements Applicable to Very High Fire Hazard Severity Zones

In 2009, when the Town elected not to adopt the VHFHSZ map, there were three major statutory requirements applicable to properties located in VHFHSZ areas: (1) affected properties must utilize the stricter Chapter 7A building standards for new construction; (2) affected properties must comply with the state law defensible space standards and (3) owners must make a natural hazard disclosure as part of a real estate transfer.[11] Historically, the Town has effectively gone above and beyond the state building construction and defensible space requirements applicable to Very High Fire Hazard Severity Zones. Thus, on May 7, 2009, the Town adopted an ordinance applying the Chapter 7A wildland urban interface (WUI) building standards to all new building construction throughout the Town. Similarly, during that building code cycle, WFPD adopted a district wide defensible space requirement that aligned with the 100 foot

[10] Cal Fire, among other groups such as NIST, is beginning to also study building separation and buildings as fuel sources. These studies are in the very early stages. The first study is examining the impact of small sheds on the property.

[11] In May 2007, when rolling out the fire hazard maps for LRA's, the State Fire Marshal issued a Frequently Asked Questions bulletin explaining the significance of this designation.

vegetation buffer required by state law for properties located in VHFHSZs.[12] Both the Town and WFPD re-adopted these local regulations every three years to ensure continued town-wide application.[13]

In 2012, the Legislature adopted SB 1241 requiring cities with VHFHSZs to include a discussion of wildfire in the Safety Element of their General Plans.[14] As with the requirement for adopting Chapter 7A, the Town had already complied with the SB 1241 mandate by recently incorporating the Moritz study into its Safety Element in 2010. So, again the fact that it had not formally adopted the Cal Fire map did not have any practical impact.

SB 1241 also required local agencies to make specified findings before approving any subdivisions in the VHFHSZ. The findings at the time were:

> (1) A finding supported by substantial evidence in the record that the design and location of each lot in the subdivision, and the subdivision as a whole, are consistent with any applicable regulations adopted by the State Board of Forestry and Fire Protection pursuant to Sections 4290 and 4291 of the Public Resources Code.
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> (2) A finding supported by substantial evidence in the record that structural fire protection and suppression services will be available for the subdivision through any of the following entities:
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> > (A) A county, city, special district, political subdivision of the state, or another entity organized solely to provide fire protection services that is monitored and funded by a county or other public entity.
> >
> > (B) The Department of Forestry and Fire Protection by contract entered into pursuant to Section 4133, 4142, or 4144 of the Public Resources Code.
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> (3) A finding that to the extent practicable, ingress and egress for the subdivision meets the regulations regarding road standards for fire equipment access adopted pursuant to Section 4290 of the Public Resources Code and any applicable local ordinance.

[12] This State law requirement is codified in Government Code Section 51182.

[13] Every three years the State Building Council promulgates state building standards which are automatically applicable to town issued building permits. In addition, the Town is permitted to adopt more stringent building code requirements (called local amendments) if it is able to make local climatic, geologic or topographical findings. As Chapter 7A would not automatically apply to the Town, the Town has adopted local amendments every code cycle to justify application of the stricter standards. WFPD goes through a similar process with respect to the defensible space requirements which it oversees.

[14] Government Code § 65302.

Since 2012, the Town has not approved any subdivisions in the Cal Fire designated VHFHSZ. Therefore, these findings would not have been triggered even if the Town had adopted the Cal Fire maps. Had the findings been required, they primarily relate to defensible space buffers, water sufficiency, and emergency vehicle access. WFPD and the Town have had defensible space requirements in place for quite some time.[15] Further WFPD reviews every project for emergency access and water sufficiency. As for street width, since at least 1979, the Town has required all town owned streets to contain at least a 20-foot pavement width.[16] However, as is typical in mountainous, forested areas, there are many private roads approved by the County prior to town incorporation that do not meet the current width requirement. These subdivisions were approved long before these regulations were in effect. In an effort to address fire safety issues in these older, non-conforming subdivisions, the Town has created a local "fire safety exception" which prohibits additional housing density in the form of ADUs and state-mandated SB 9 units in these particular areas.

Finally, SB 1241 required the State office of planning and research in consultation with the Department of Forestry to adopt California Environmental Quality Act (CEQA) Guidelines pertaining to fire safety for projects located in or near the VHFHSZ. In 2018, Appendix G of the CEQA Guidelines was amended to require additional environmental analysis for proposed projects located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Specifically, the section requires the lead agency to analyze whether the project would:

> a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
>
> b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
>
> c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or

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[15] WFPD's current defensible space requirements provide:

> **Section 304.1.2.A Perimeter Property Line Clearance.** Section 304.1.2.A Perimeter Property Line Clearance. Persons owning, controlling, or leasing structures and or property are required to remove, a minimum of 50 feet from the perimeter of the property line and 100 feet from any neighboring structure, specifically; flashy fuels consisting of dead weeds and dry annual grasses, as well as dead vegetative material and litter that is capable of being easily ignited and endangering property as determined by the Fire Marshal.

(WFPD, Ordinance No. 12.)

[16] Portola Valley Municipal Code Section 17.40.100.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Since 2018, there has been one proposed project, the Stanford Wedge housing development, that would have triggered this additional analysis. Even though the Town did not adopt the 2008 Cal Fire map, the Draft Environmental Impact Report (DEIR) for that project incorporates this analysis.

Historically the State law requirements for VHFHSZ areas have not made a substantive difference in the Town's land use planning because of the town-wide application of Chapter 7A and the WFPD's local defensible space program.[17] However, following the latest round of wildfires, the State legislature has imposed additional requirements on properties located in VHFHSZs. This legislation is being phased in over a multi-year period and includes AB 38 (real estate disclosures), SB 63 (defensible space) and AB 3074 (ember resistant zones). (See Attachment D for a summary chronology of key fire legislation.) The legislation also directs Cal Fire to promulgate additional regulations that have not yet been finalized. Further some of this legislation overlaps with the triennial building code cycle which is expected to result in additional regulations. Section V below of this memo highlights the key aspects of this new legislation. As this legislation is very recent and still evolving, our analysis may change over time. Given the importance of these issues to the Council and community, we thought it would nevertheless be helpful to release this preliminary summary now.

V. New Regulations Applicable to Very High Fire Hazard Severity Zones

A. Defensible Space/State Minimum Fire Safe Regulations.

1. Defensible Space Requirements

Historically, State law has prescribed minimum defensible space requirements for all property located in the SRA and for VHFHSZ in the LRA.[18] In particular, persons must maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line. SB 63 enacted last legislative session made some modest changes to these requirements by clarifying that owners may abate vegetation on a neighboring property if there is an authorizing state law or local regulation and if the neighboring property owner consents in writing. The law was also amended to clarify that "fuel" included cultivated landscape plants. WFPD already prohibits any "new landscape vegetation", except for ground cover, within 5 feet of a wood-sided building.[19] Again in terms of defensible space, the town's local regulations

[17] WFPD defensible space program is described here: https://www.woodsidefire.org/prevention/defensible-space.

[18] Government Code Section 51182 applies to LRAs and Public Resources Code Section 4291 applies to SRAs.

[19] WFPD Ordinance No. 12.

are equal to those prescribed in State law and even exceed State law as they apply to all properties, not just those located in the VHFHSZ.

2. Cal Fire Minimum Fire Safe Regulations

State law has long authorized Cal Fire to adopt regulations relative to defensible space and vehicular access to buildings located in SRAs. Effective July 1, 2021, SB 901 directed Cal Fire to adopt minimum fire safety standards for VHFHSZs in LRAs as well. Accordingly, effective July 1, 2021, Cal Fire expanded the scope of the existing defensible space and related regulations for SRAs to include VHFHSZs in LRAs. Those regulations are now known as the "SRA/VHFHSZ Fire Safe Regulations."[20]

a. Summary of Current and New Regulations

The current regulations address building separation, street width, emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation (fuel) modification standards. Some of these regulations overlap with the current Chapter 7A standards and the WFPD's local Fire Code regulations which already address fire issues such as sufficient driveways, turnabouts, access road width, and address marking.[21]

In terms of building separation, the Cal Fire regulations currently require a 30-foot setback for all buildings from property boundaries and/or the center of a road. This requirement contains a large exception for parcels which cannot meet the setback due to practical reasons such as size or topography. In these cases, parcels need to satisfy the 30-foot setback provided they implement measures accomplishing the "same practical effect." Such options may include but are not limited to: noncombustible block walls or fences; five (5) feet of noncombustible material horizontally around the structure; installing hardscape landscaping or reducing exposed windows on the side of the structure with a less than 30-foot setback; or additional structure hardening such as those required in Chapter 7A.[22]

In April 2021, in accordance with its rulemaking authority, Cal Fire released additional amendments to these regulations which have been re-named the State Minimum Fire Safe Regulations.[23] These regulations underwent an extensive rulemaking process.[24] .

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[20] 14 California Code of Regulations (CCR) Section 1270 *et. seq*.

[21] See WFPD Ordinance No. 12 and Town Council Resolution 2820-2020.

[22] 14 CCR § 1276.01.

[23] See Title 14 California Code of Regulations, Subchapter 2. (The new draft approved by the Board of Forestry and Fire Protection on August 17, 2022 is attached here as Attachment C.)

[24] One of the more controversial aspects of the original rulemaking process was whether the regulations applied to existing private roads. The new rulemaking attempted to clarify the application to both existing public and private roads. As a result of substantial opposition

Though the first set of new regulations was comprehensive, the original scope of the draft regulations was narrowed through the rulemaking process to focus on the following:

- Establish standards for fuel breaks and greenbelts near communities
- Establish measures for the preservation of undeveloped ridgelines
- Improve clarity regarding the inspection and enforcement agencies

The Board of Forestry and Fire Protection adopted the pared down regulations on August 17, 2022, and they are expected to go into effect on January 1, 2023 pending approval by the Office of Administrative Law and Secretary of State.

Regarding the preservation of ridgelines, the new regulation would require local jurisdictions to identify strategic ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors: topography; vegetation; proximity to any existing or proposed residential, commercial, or industrial land uses; construction where mass grading may significantly alter the topography resulting in the elimination of ridgeline fire risks; ability to support effective fire suppression; and other relevant factors. In addition, the new regulation would prohibit new construction on undeveloped ridgelines identified as strategically important, unless certain exceptions are met.

The new regulations would require development applications containing three or more parcels and zoning amendments and use permits increasing density in the VHFHSZ to consult with the fire authority to install sufficient fire breaks.

WFPD is currently evaluating how these new regulations will impact the Town and may make a recommendation to apply them town-wide, similar to the approach taken with the Chapter 7A and defensible space regulations. In preliminary discussions with the Fire Marshal, he expressed a preference for uniform regulations throughout the district. Optimistically, these new regulations could be rolled out with the Fire Code amendments expected to be adopted by January 1, 2023.

b. Impact on Portola Valley

Many of the Minimum Fire Safe Regulations pertain to road width and emergency vehicle access, areas that are typically challenging in forested, mountainous areas. All town-owned roads meet the minimum width requirement specified in the current regulations. However, many private roads in Town do not meet the width requirement,

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received by counties, particularly rural counties, the Board ultimately withdrew their amendments to the road section of the regulations leaving the issue somewhat muddled for now. Anecdotal evidence shows that Cal Fire is ramping up enforcement against new development with a single emergency access from a substandard road, regardless of whether the road is public or private. Some counties, including Santa Clara County, have urged Cal Fire to take a more moderate enforcement approach against private roads based on two reasons. First, the requirement to bring the entire private road up to fire standards would provide a disincentive for homeowners to home harden their existing homes. Second, improving private roads may encourage further development in the affected WUI.

and development which takes access from sub-standard private roads will be subject to further scrutiny. In practice, as WFPD currently reviews all applications for vehicle access issues, even if the new regulations were applied in the VHFHSZ it would not likely significantly change the nature of the projects approved. However, VHFSHZ projects seeking exclusive access from sub-standard private roads, may be inhibited or may need to proceed through an exception process which may take more time to administer.

Some community members have questioned whether the 30-foot setback requirement would limit development in Portola Valley. Given Portola Valley's large setbacks and special setbacks, larger properties in the VHFHSZ would have no difficulty complying with the setback requirements. However new ADUs and SB 9 units in the VHFSHZ seeking to develop under the State-permitted four-foot setbacks would not meet the minimum fire safe setback of 30 feet. In those circumstances, applicants would likely seek a "same practical effect" exemption (discussed above) on the grounds that application of Chapter 7A and the even stricter local Home Hardening ordinance would have the same effect as a physical separation. Given the smaller parcel sizes, the topographic constraints in the VHFHSZ in Portola Valley and the recently adopted home hardening ordinance, it is likely that most new development would qualify for this exception and not be subject to the 30 foot setback.[25] Notably, while the new Minimum Fire Safe Regulations may require properties seeking to build and ADU or SB 9 unit in the VHFHSZ to seek an exception, the Town's local regulations would prohibit construction altogether for any parcel with single ingress/egress from a sub-standard private road.[26]

There are some areas in the new Minimum Fire Safe Regulations which are not currently addressed by local regulation. These are the ridgeline and fire break regulations which will become effective on January 1, 2023. If the upcoming round of fire code and home hardening amendments do not address these issues, the Town Council may want to direct staff to further explore its own local regulations to address these issues.

B. Real Estate Disclosures

[25] It is not clear whether the current or new regulations apply to accessory dwelling units (ADUs) and junior accessory dwelling units (JADUs). Recent amendments to the ADU law require local agencies to permit 4 foot side and rear setbacks to incentivize further ADU production. This appears to conflict with the 30 foot setback contained in the fire safety regulations. An earlier draft of the proposed regulations expressly exempted ADU/JADUs from their scope. That exemption was removed in the new regulations and thus there appears to be a potential inconsistency between the two regulatory schemes.

[26] See footnote 37, *infra*, regarding a potential enforcement action from HCD regarding the Town's recently adopted local regulation prohibiting ADU and SB 9 construction altogether in certain locations.

AB 38 (2019) requires that, as of July 1, 2021, a seller of real property located in a High or Very High Fire Hazard Severity Zone in an SRA and a Very High Fire Hazard Severity Zone in the LRA must provide the buyer with certain disclosures.

First, if the home was constructed before January 1, 2010, the seller must provide a disclosure notice to the buyer that includes a specific statement on fire hardening,[27] a list of low-cost retrofits (see Section C below), and a list of features of which the seller is aware that may make the home vulnerable to wildfire and flying embers.[28]

Second, if a seller has obtained a final inspection report under Government Code Sec. 51182,[29] the seller must provide the buyer a copy of the report or information on where a copy of the report may be obtained.

Third, the seller must provide documentation stating that the property complies with Public Resources Code Sec. 4291 or local vegetation management ordinances.[30]

This is another area where the Council may want to pursue additional local regulation. While traditionally the WFPD has had primary responsibility for enforcing the defensible space requirements, there are insufficient resources available for proactive enforcement. Accordingly, point of sale inspections can be effective in plugging some of the enforcement gap. Since WFPD's 100 foot defensible space requirements are

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[27] The statement is: "This home is located in a high or very high fire hazard severity zone and this home was built before the implementation of the Wildfire Urban Interface building codes which help fire to harden a home. To better protect your home from wildfire, you might need to consider improvements. Information on fire hardening, including current building standards and information on minimum annual vegetation management standards to protect homes from wildfires, can be obtained on the internet website http://www.readyforwildfire.org." Civ. Code § 1102.6f(a)(1).

[28] These features are:

(A) Eave, soffit, and roof ventilation where the vents having openings in excess of one-eighth of an inch or are not flame and ember resistant;
(B) Roof coverings made of untreated wood shingles or shakes;
(C) Combustible landscaping or other materials within five feet of the home and under the footprint of any attached desk;
(D) Single pane or non tempered glass windows;
(E) Loose or missing bird stopping or roof flashing; or
(F) Rain gutters without metal or noncombustible gutter covers.

Civ. Code § 1102.6f(a)(3).

[29] Under Government Code Sec. 51182(a)(5), a person who owns, leases, controls, operates, or maintains an occupied dwelling or occupied structure in, upon, or adjoining a mountainous area, forest-covered land, shrub-covered land, grass-covered land, or land that is covered with flammable material, which area or land is within a very high fire hazard severity zone, must, upon the completion of any permitted construction or rebuilding undertaken due to fire damage, obtain from the local building official a copy of the final inspection report that demonstrates that the construction or rebuilding meets all applicable state and local building standards.

[30] Civil Code § 1102.19.

applicable to all properties in Portola Valley, the Council could elect to adopt a local point of sale disclosure rule applicable to all real property transfers in Town.

C. Low-Cost Retrofits and Disclosure Requirements for Existing Homes in Very High Fire Hazard Severity Zones

Under AB 2911 (2018), the State Fire Marshal in consultation with other agencies was required, as of January 31, 2020, to develop a list of low-cost retrofits that provide for comprehensive site and structure fire risk reduction to protect structures from fires spreading from adjacent structures and vegetation, as well as for restoration of native plant species that are fire resistant or drought tolerant.[31] Under AB 38 (2019) and effective July 1, 2025, upon the sale of any home constructed before January 1, 2010 located in a high or very high FHSZ in an SRA or VHFHSZ in an LRA, the seller is required to provide additional disclosures to the buyer regarding low-cost retrofits. The notice must disclose which listed retrofits, if any, have been completed during the time that the seller has owned the property.[32]
Like the previous disclosure requirement discussed above, the Council could also adopt a local ordinance requiring indoor retrofits to be installed upon any transfer of real property. This regulation could take effect before the state-prescribed date of July 1, 2025.

D. Cal Fire's Risk Reduction Communities Program

Public Resource Code 4290.1 requires Cal Fire to establish criteria to identify communities that follow "best practices" for community risk reduction. Cal Fire had recently adopted regulations designating four mandatory criteria and six option criteria to qualify. The Town, WFPD or a local Homeowner's Association may seek certification under this program. Communities that make the list receive preferential scoring for Cal Fire grant funding for wildfire mitigation and planning. To qualify, the town must satisfy four mandatory criteria (although one criterion is not applicable) and at least 2 of the 6 optional criteria. The required mandatory best practices are:

1. The applicant has adopted a local ordinance designating Very High Fire Hazard Severity Zones (VHFHSZ) pursuant to Government Code § 51179(a) and submitted it to the Board pursuant to 14 CCR § 1280.02.

2. Applicants who are counties must submit the findings for all tentative and parcel maps approved for areas located in SRA or LRA VHFHSZ to the Board pursuant to 14 CCR § 1266.02.

3. The Town must submit the safety element of the general plan to the Board of Forestry for review pursuant to Government Code § 65302.5(b) within the last eight years, and all recommendations have been adopted.

[31] Gov. Code § 51189 (c).

[32] Civ. Code § 1102.6f.

4. After July 1, 2022, a progress report on implementation of the most recent fire safety recommendations from the Board upon subdivision review in a Fire Safety Survey, pursuant to 14 CCR § 1267.01, for each community reviewed within the jurisdiction.

The optional best practices consist of the following:

5. The applicant has adopted one or more local requirements which exceed the minimum regulations adopted by the state in the Fire Safe Regulations (14 CCR §§ 1270.00-1276.04).

6. The applicant has adopted one or more local defensible space ordinances, rules, or regulations which exceed state minimum regulations in 14 CCR § 1299.03.

7. The applicant has adopted a Wildland Urban Interface code stricter than Chapter 49, Part 9, of Title 24 of the California Code of Regulations.

8. The applicant has adopted a zoning ordinance, special district, or special overlay zone that includes fire hazard mitigation requirements which exceed state minimum requirements. Such requirements may address safe zones or areas of refuge, structure density, ornamental vegetation, subdivision design, structure design features, or other fire safety features.

9. The applicant has adopted a comprehensive retrofit code or plan for existing homes.

10. The applicant has identified wildfire as a high priority hazard in a Local or Multi-Jurisdictional Hazard Mitigation Plan (LHMP or MJHMP) updated within the last five years, or as a low or medium priority hazard with the inclusion of one or more mitigation actions.

Certification is not mandatory but instead operates as an incentive by increasing grant funding for additional fire prevention measures. Once the WFPD adopts its updated map and the Town adopts its Safety Element, it is likely both the Town and District will qualify for certification under this program.

VI. Emerging Legislation Affecting Fire Severity Zones

Given the unprecedented number of recent, catastrophic fires in the State, we expect the Legislature to increase its regulation in the area of fire resistance. Below is a discussion of several areas where we can expect to see additional state intervention.

A. Ember Resistant Zone

AB 3074 established a 5-foot ember resistant zone around a structure and requires Cal Fire to develop regulations governing the zone within 0 to 5 feet of the home by January 1, 2023. Cal Fire has not yet adopted these regulations, but many of the recent regulations adopted by the Town Council in the recent home hardening ordinance and in the ADU Fire Safety Checklist pertain to the ember resistant zone.

WFPD's existing regulations also address this issue. Ordinance No. 12 states that the planting of new landscape vegetation within 5 feet of wood-sided habitable buildings must be limited as follows: "When a habitable building includes wood siding on the first floor, no new landscape vegetation, except ground cover, shall be allowed within 5ft of the wood siding. New landscape vegetation, except for ground cover, shall not be allowed within 5ft, in any direction, of any first story window or glass door opening. There is no setback requirement for new landscape vegetation adjacent to [n]on-combustible siding, such as fiber cement board, stone and stucco." An exception applies to existing vegetation planted prior to adoption of the code.[33]

B. Regulations Applicable to High and Moderate Fire Severity Zones

Previously, Cal Fire was not required to map high and moderate fire severity zones within LRAs. New legislation now requires Cal Fire to map high and moderate fire zones for both SRAs and LRAs. The local agency within 30 days of being notified of these fire hazard severity zones, must make that information available to the public for review and comment.

Upon the next triennial building code cycle, SB 63 requires the State Fire Marshal and Department of Housing and Community Development to propose to the State Building Standards expanded fire protection building standards for high fire hazard severity zones.[34] The legislation also requires the State Fire Marshal and the Department of Housing and Community Development to consider expanding application of these building standards to moderate fire hazard severity zones.[35] It is not clear whether this legislation will be implemented in time for the next building code cycle due January 1, 2023.

C. Building Separation Requirements

The National Fire Protection Association (NFPA) recently published a building separation standard for buildings located in the wildland urban interface. The NFPA standard is not binding in California as California uses fire standards published by the International Code Council (ICC). NFPA Standard 1140 specifies that "any building shall be separated from other buildings by at least 30 feet and be set back at least 30 feet from a property line."[36] Incorporating both elements would result in a minimum 60-foot separation between buildings located on adjoining parcels.

In addition, NFPA 1140 states that "any building that exceeds 30 feet in height above the average adjacent ground elevation and that is not protected by an automatic

[33] See Section 304.1.2. D of WFPD's Ordinance No. 12.

[34] Health and Safety Code § 13108.5.

[35] Health and Safety Code § 13108.5.

[36] NFPA 1140, Sec. 12.2.1.

sprinkler system, shall be separated from any other structure by at least 50 feet and be set back at least 30 feet from a property line."[37]

This standard is not binding on the Town or WFPD, but WFPD has mentioned it will review this standard in connection with the triennial building code update discussed below.

D. Triennial Building Code Update

Every three years the California Building Standards Commission updates building and fire codes. These codes automatically apply to towns unless the town adopts stricter local amendments. Local amendments must be based on the community's particular climatic, geological or topographic conditions. Historically, the Town and WFPD has adopted local amendments to address the town's unique local "climatic, geological, or topographical conditions" as authorized under State law. The new codes go into effect on January 1, 2023.

As part of that cycle, the WFPD will be making recommendation on the necessity of any fire related local amendments. In particular, WFPD has announced they plan on examining whether to adopt stricter building separation standards along the lines of NFPA 1140. In addition, the Town in conjunction with WFPD is working on amendments to its home hardening ordinance.

E. State Land Use Laws

In the past few years in response to the statewide housing crisis, the Legislature has more aggressively stepped into the area of local zoning. In the area of ADUs the State has allowed local agencies to regulate or even prohibit ADUs in areas based on "the impact of accessory dwelling units on traffic flow and public safety."[38] In accordance with this authority, the Council recently updated its ADU ordinance to prohibit ADUs in certain areas of Town as recommended by WFPD and has created a Fire Safety Checklist imposing additional restrictions on ADUs that do not comply with local setbacks.

On the other hand, the State has been reluctant to altogether exempt Very High fire zones from housing mandates. In the latest Regional Housing Needs Allocation, the State Department of Housing and Community Development (HCD) refused to grant appeals from jurisdictions based on constraints due to Very High fire mapping. (This is due in part because HCD already took into account the Very High fire maps in the original allocations.) Likewise, SB 9, which requires local agencies to approve certain lot splits and two homes on a lot, expressly provides that Very High fire severity zones are not given a blanket exemption from its local mandate. However, SB 9 nevertheless allows for imposition of objective standards which may be tied to legitimate local fire safety conditions and also permits the building official to deny projects on a case by

[37] NFPA 1140, Sec. 12.2.2.

[38] Government Code § 65852.2 (a)(1)(A). Note that HCD by letter dated April 19, 2022 has questioned the Town's interpretation of this law asserting that the Town does not have the authority to ban the four categories of state-mandated ADU/JADUs.

case basis upon prescribed health and safety findings. The Town's Urgency SB 9 implementing ordinance adopted on December 8, 2021, incorporated several fire protection provisions including the prohibition against SB 9 units in certain areas as recommended by WFPD, incorporation of the Fire Safety Checklist and a placeholder to incorporate any other location prohibitions as identified in the Town's future Safety Element.

SB 12, which recently died, would have required towns with VHFHSZs to update the land use element to: 1) identify the locations of all VHFHSZs, 2) include a comprehensive retrofit strategy to reduce the risk of property loss and damage during wildfires, and 3) allow for lower RHNA allocations in certain VHFHSZs.

Given the prevalence of fire hazard in much of the State, the prevalence of other natural hazards (flooding, sea level rise, earthquakes, unstable soil and others) and the State's perception that local agencies are creating zoning roadblocks to housing production, it is more likely that the State will ratchet up home hardening and other fire avoidance measures, rather than provide blanket exemptions for fire prone areas.

VII. Updates to the Safety Element and Housing Element

The Safety Element is one of the mandatory elements that must be included in the Town's General Plan. State law requires the adoption of a Safety Element to protect the public from unreasonable risks associated with public safety hazards through goals and policies aimed at reducing the risk associated with these hazards. In accordance with State law, the Town is updating its Safety Element concurrently with its Housing Element. Ideally, the updated Cal Fire maps would be incorporated into the Safety Element and would guide the location of increased housing density analyzed in the Housing Element. Unfortunately, Cal Fire has not released the updated maps in time for any city or county to use them to inform the current Housing Element cycle. Thus, every city and town in California is wrestling with this issue.

In the absence of the Cal Fire maps, the Town is utilizing several other data sources to update the Safety Element and inform housing inventory locations. These include the 2008 Cal Fire map, the Moritz map referenced above and already incorporated into the Safety Element and the expertise of a Town-retained fire expert Zeke Lunder. Once an updated map is published, the Town will further update its Safety Element and, if necessary, the Housing Element. It is anticipated that the new Safety Element will discourage development in fire-prone areas and areas lacking at least two evacuation routes. If development does occur in these areas it is likely the Safety Element would provide for additional development regulations to make new construction more fire resilient and to home harden existing residences. The properties proposed for limited upzoning in the proposed Housing Element are along major arterials, away from VHFHSZ areas and not likely to cause evacuation bottlenecks.

Using the existing fire mapping as a placeholder allows the Town to move forward with aspects of the Safety Element and also permits the Town to meet the deadline for certifying the Housing Element. Failing to meet the state-imposed deadline for

submitting a Housing Element to HCD could subject the Town to financial penalties, litigation and ultimately loss of local control over certain land use decisions.

VIII. Next Steps for the Council to Consider

To date the Town's decision not to adopt the VHFSHZ map in 2008 has not had a practical impact on the extent of fire regulation in Town. This is because both the Town and its partner WFPD have adopted local legislation that meets or exceeds the State legislation. However, as discussed above, there are a few areas where the Council may want to consider expanding its local regulations to more closely align with emerging regulations. These areas include: (1) minimum fire safe requirements applicable to VHFSHZ in the areas of setbacks from property lines, private road standards, preservation of strategic ridgelines and construction of fire breaks; (2) seller's duty to provide the buyer with documentation stating the property is in compliance with defensible space requirements and low cost retrofits have been installed; and (3) ability to be certified as a Risk Reduction community in order to qualify for State grants.

Items 1 and 2 above are not dependent upon Council's adoption of the Cal Fire map. WFPD has already announced that it will be recommending a new building separation standard as part of the triennial fire code update. WFPD will also be taking the lead on implementing the other minimum fire safe requirements and will likewise be making recommendations to the entire fire district. While it may be possible to fold these recommendations into the upcoming fire code update, more realistically, WFPD will be recommending a subsequent fire code update to address the new regulations. Staff will be monitoring the final rulemaking related to the Minimum Fire Safe regulations and will be working with WFPD on an implementation schedule.

Only item 3 above (certification of a Risk Reduction community) is dependent upon adopting the Cal Fire Map. Once the Town adopts the updated Cal Fire or WFPD map as well as the upcoming local amendments to the building code and home hardening code, the Town will meet the criteria to become a Risk Reduction community if it desires. WFPD is currently taking the lead on becoming a Risk Reduction community and at the appropriate time will make recommendations to the Town on next steps.

Finally, some residents have also suggested that the Town use the Moritz map to adopt its own VHFSHZ. Under State law, the Town is permitted to adopt additional very high fire hazard severity zones if it can make a finding supported by substantial evidence in the record that the requirements of State law pertaining to defensible space and Chapter 7A are necessary for effective fire protection within the area.[39] In the case of Portola Valley, these findings may be difficult to make because the Town and WFPD have already used their local authority to impose defensible space and Chapter 7A building requirements town-wide and thus the additional VHFHSZ designation would not be necessary to accomplish effective fire protection. Further, because the Moritz map has not been updated to reflect either newly grown or removed vegetation and does not incorporate updated fire science, WFPD and other experts have found the map to be of limited utility.

[39] Government Code § 51179.

Staff plans on agendizing this for further discussion with the community and Council in the upcoming months.

Attachments

A: Portola Valley Town Council February 25, 2019 Staff Report

B: Moritz Vegetation Assessment and Map dated October 2018

C: Draft Proposed Minimum Fire Safe Regulations

D: Fire Legislation Chronology

Exhibit A

MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: Mayor and Members of the Town Council

FROM: Leslie Lambert, Planning Manager

DATE: February 25, 2009

RE: Introduction of an Ordinance Requiring the Designation of Very High Fire Hazard Severity Zones in the Town of Portola Valley

Background

CAL FIRE is required to map all areas of the State of California to designate fire severity zones (moderate, high, or very high), based upon fuels, terrain, weather, and other relevant factors. These zones then define the application of various mitigation strategies to reduce risk associated with wildland fires. The maps cover State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). SRA's cover the unincorporated regions of the State, while LRA's cover incorporated cities and towns. SRA's were originally mapped in 1985 and LRA's were originally mapped in 1996.

Starting in 2006, CAL FIRE undertook a map updating process, using Geographic Information System (GIS) data in conjunction with modeling techniques designed to describe potential fire behavior and fire probability.

The updated maps are to be provided to local agencies so that they can be used to implement Chapter 7A Wildland-Urban Interface Zone building standards. Within the SRA's the provisions of 7A apply to all fire hazard categories. Within the LRA's Chapter 7A applies only to those areas designated "Very High".

There have been a number of draft versions of the proposed maps for the Town. A considerable amount of interaction between the Woodside Fire Marshal, the Town staff and Ray Moritz Fire Consultant and CAL FIRE representatives has taken place over the past several months. While CAL FIRE received the attached April 25, 2008 letter from the Mayor (Exhibit "A") indicating that we accepted the April version of the draft map, showing no areas of "Very High" hazard, they also had a significant amount of information provided to them from Woodside Fire.

In May, CAL FIRE released its revised draft map. The map included recommendations made by Woodside Fire that included "Very High" designations within the Westridge Area, Alpine Hills, Portola Ranch, and a majority of the western hillsides. Town staff reviewed the map and requested that CAL FIRE reconsider the broad areas designated as "Very High". Staff worked with the Chief at CAL FIRE in charge of the mapping program to address our

concerns and we are pleased that CAL FIRE was responsive to most of our requests. CAL FIRE removed all the "Very High" zones except for the northwest quadrant of the Town, which includes Hayfields, Wayside and Santa Maria neighborhoods. Attached is a small version of the November 23, 2008 map as recommended by CAL FIRE (Exhibit "B"). (A larger scale map will be on display at the Town Council meeting.)

Local Very High Hazard Severity Zones Map

CAL FIRE prepared recommendations for Very High Fire Hazard Severity Zones in those areas where local government agencies have Local Responsibility Areas (LRA) and has transmitted these recommendations in the attached December 15, 2008 letter to the Town Manager (Exhibit "C"). Government Code Sections 51175-51189 govern the actions that local agencies must take concerning the designation of "Very High Hazard Severity" areas. Specifically, Section 51179 requires the local agency to designate, by ordinance, very high fire hazard severity zones in its jurisdiction within 120 days of receiving recommendations from CAL FIRE.

CAL FIRE has prepared Final Very High Fire Hazard Severity Zone recommendations for local responsibility areas. These recommendations reflect similar hazard ratings adjacent to the state responsibility area zones (unincorporated areas).

The fire hazard maps were updated to more accurately reflect the zones in California that are susceptible to wildfire. The hazard mapping process incorporated new science and technology for determining hazard ratings. Using the latest fire science, CAL FIRE developed and field-tested a model that serves as the basis of zone assignments. The model evaluated properties using characteristics that affect the probability of the area burning and potential fire behavior in the area. Many factors were considered such as fire history, existing and potential fuel, flame length, blowing embers, terrain, weather and the likelihood of buildings igniting.

The hazard maps are to be used to identify areas where ignition resistant building standards will be required for new construction, to identify properties requiring defensible space maintenance, and by sellers to disclose natural hazards at the time of property sale. CAL FIRE strongly recommends that local governments use the maps as they update the safety elements of their general plans.

Regarding the accuracy of the maps, CAL FIRE has made the maps available to local agencies through its website. Local agencies have had the opportunity to comment on the maps and have requested changes based on supporting data. CAL FIRE reviewed the recommended changes and updated the maps where appropriate.

Chapter 7A

In September 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Code of Regulations (CCR), Title 24, Part 2, know as the 2007 California Building Code (CBC).

In May 2008, the Town Council adopted an ordinance, which amended Chapter 15.04 of the Portola Valley Municipal Code. This chapter incorporates the Town's building regulations

and the subject ordinance was related to the 2007 Building Standards Code. Of interest to the Town Council was the Wildland Urban Interface Building Standards (Chapter 7A). The regulations included in Chapter 7A will only apply to new buildings in areas designated as "Very High Fire Hazard Severity Zones." Specific requirements and regulations included in Chapter 7A include:

Roofing: Class "A" roofing will be required in the designated wildland urban interface zones. The Town currently has Class "A" regulations, however, Chapter 7A further requires that any space between a roof covering and roof decking must be designed to prevent the intrusion of flames and embers. Chapter 7A calls out specifications for flashing, and requires that roof gutters are "provided with a means to prevent the accumulation of leaves and debris in the gutter." This will result in the construction plans calling out construction details, including flashing details and gutter details, and inspectors inspecting the same.

Attic Ventilation: Attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion-resistant, noncombustible wire mesh with ¼ inch openings. Also, eaves and soffits shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside.

Exterior Walls: Exterior walls are required to be noncombustible or ignition-resistant material, heavy timber, or log wall construction, and must provide protection from the intrusion of flames and embers. This regulation essentially precludes the use of wood shingles on buildings. Exterior wall vents must resist the intrusion of flame and embers into the structure or vents shall be screened with a corrosion resistant, noncombustible wire mesh with ¼ inch openings. Exterior windows, window walls, glazed doors, and glazed opening within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire-resistance rating of not less than 20 minutes. This is a more substantial window than may typically be installed. Exterior doors are also required to utilize a noncombustible construction, or solid core wood with other design parameters. The exterior door requirements are fairly consistent with the doors typically utilized throughout Town.

Decking: Decking within ten feet of the primary structure must be constructed of an ignition-resistant material, or of heavy timber, exterior fire-retardant treated wood, or approved noncombustible materials. This regulation severely limits the allowable building materials when considering deck construction.

Underfloors: The underside of cantilevered and overhanging portions of the building must maintain the ignition-resistant integrity of the exterior walls. Buildings shall also have all underfloor areas enclosed to grade with exterior walls. Again, these provisions will limit the materials that can be utilized for construction.

Landscape Maintenance Plans: Section 701.A.3.2.4 states "Prior to building permit final approval, the property shall be in compliance with the vegetation clearance requirements prescribed in Public Resources Code 4291 Government Code 51182." The referenced code section provides information regarding fuel reduction treatments around buildings, including creating horizontal and vertical spacing between vegetation, removing surface fuels greater than 4 inches in height, and pruning branches to at least 6 feet. Essentially, the Town and/or Fire District will be responsible for reviewing, approving, and inspecting vegetation maintenance plans. Presumably, inspections will be on-going well after final

inspection of the structures. The staff has not yet prepared a plan for administration of this particular provision, and will work with the Fire District in determining enforcement responsibilities.

Inspection and Certification: The building official will be required to certify that, at the time of final inspection, the site is compliant with the provisions of Chapter 7A. Given the requirements for preparation and maintenance of defensible space, this will need to be carefully coordinated with the Fire Marshall, as Town staff is not specifically trained in landscaping for fuel reduction.

The Deputy Building Official is current on Chapter 7A and will also be attending a training seminar on the Wildland Urban Interface Code and Products sponsored by Underwriters Laboratory on March 12th. After the seminar we hope to come back with a definition of new buildings and we may also want to discuss applying these standards to areas not within the "Very High" designation.

Insurance

At the Town Council meeting of April 23, 2008 a review of the CAL FIRE map and the Fuel Mapping prepared by Ray Moritz was considered. Town Council and residents raised a number of concerns regarding the proposed Very High Fire Hazard Severity Zone and how it would affect cost and availability of insurance. CAL FIRE has indicated that insurance rates are determined by a variety of factors, including fire risk. Fire risk is different from Fire hazard. Fire hazard is the focus of the fire hazard maps, not fire risk. Fire hazard is based on factors such as fuel (material that can burn), slope and fire weather. Fire risk considers the potential for damage based on factors such as the ability of a fire to ignite the structure, the flammability of the construction material, and mitigation measures that reduce the risk. These mitigation measures include defensible space, building design, ignition resistant building materials, and ignition resistant construction techniques.

Ultimately, it is not possible to state that insurers will ignore the limitations of the focus of the hazard maps. However, to respond to such issues, the California Department of Insurance and CAL FIRE have established a partnership and joint commitment to protecting Californians from fire losses. A Memorandum of Understanding (MOU) (Exhibit "D") was signed by the Insurance Commission and the Director of CAL FIRE in October 2007 to mutually promote awareness and collaboration among fire officials, the insurance industry, and the public to prevent and mitigate fire losses. The MOU is attached for reference.

In the past few years, a number of residents have informed the Town staff and Fire Marshal that their insurance company was either intending to or canceling their insurance policies. It has been the practice of the staff and the Fire Marshal to encourage property owners to contact their insurance companies and request a site inspection of the property. Further, the Fire Marshal is also available to conduct a site inspection of the subject property and provide recommendations for fuel management and mitigation. This approach appears to have been successful in many instances, at least on those residents who responded back to staff on their outcome.

Local Discretion

Public Resources Code Section 51179 allows a local agency, at its discretion, to exclude from the requirements of Chapter 7A an area identified as a Very High Fire Hazard Severity Zone by the State, following a finding supported by substantial evidence in the record that the requirements of Chapter 7A and the Public Resources Code are not necessary for effective fire protection within the area. At this point, the staff does not believe substantial evidence exists to rebut the State's designation in the area the State has designated as Very High Fire Hazard Severity Zone.

Recommendation

It is recommended that the Town Council review this report and attachments as it relates to the Very High Fire Hazard Severity Zones in the Local Responsibility Area (LRA) Map dated November 24, 2008 as recommended by the Director of the California Department of Forestry and Fire Protection (CAL FIRE). It is further recommended that the Town Council introduce and conduct the first reading of the proposed ordinance adopting the Very High Hazard Severity Zones in LRA as prepared by the Town Attorney.

Approved: Angela Howard
Angela Howard, Town Administrator

ORDINANCE NO. _____
AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF PORTOLA VALLEY DESIGNATING VERY HIGH FIRE HAZARD SEVERITY ZONES

WHEREAS, earlier this year, the Town adopted an updated Building Code, which included, among other things, Chapter 7A which will apply to new buildings in areas designated "Very High Fire Hazard Severity Zones"; and

WHEREAS, Pursuant to State law, the California Department of Forestry and Fire Protection ("CAL FIRE") is required to map all areas of the State to designate fire severity zones; and

WHEREAS, CAL FIRE prepared a draft map to Portola Valley, the Town and Woodside Fire Protection District made comments on the draft map, the Town held a public hearing on the draft map and CAL FIRE has now released its final map; and

WHEREAS, local agencies are required to designate by ordinance the very high fire hazard severity zones in their jurisdiction within 120 days of receiving recommendations from CAL FIRE.

NOW, THEREFORE, the Town Council of the Town of Portola Valley does **ORDAIN** as follows:

1. Adoption of Map. The Town Council hereby designates Very High Fire Hazard Severity Zones as recommended by the Director of the California Department of Forestry and Fire Protection and as designated on a map ("Map") titled Very High Fire Hazard Severity Zones in LRA-Portola Valley, dated November 24, 2008, and retained on file at Portola Valley Town Hall, 765 Portola Road, Portola Valley, CA 94028.

2. Environmental Review. Adoption of the map referred to in Section 1 is categorically exempt from the provisions of CEQA, under CEQA Guidelines Section 15307 and 15308 (Actions by Regulatory Agencies for Protection of Natural Resources and the Environment).

3. Severability. If any part of this ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance or the applicability of this ordinance to other situations.

4. Effective Date; Posting. This ordinance shall become effective thirty (30) days from the date of its passage, and shall be posted within the Town of Portola Valley in three (3) public places.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

By: _____
Mayor

ATTEST

_____
Town Clerk

APPROVED AS TO FORM:

_____
Town Attorney

EXHIBIT "A"

TOWN of PORTOLA VALLEY

April 25, 2008

Ms. Kate Dargan
Fire Marshal
Cal Fire
1131 S. Street
Sacramento, CA 95814
P.O. Box 94426

Subject: State Fire Hazard Maps for the Town of Portola Valley

Dear Ms. Dargan,

The Town of Portola Valley Town Council at their April 23, 2008 meeting, held a public meeting on the proposed DRAFT Fire Hazard Severity Zones in LRA map. After much discussion it was unanimously decided to accept the DRAFT Map as shown on the State Web Site. The Town Council further voted unanimously to not accept the recommendations forwarded to the State by the Woodside Fire Protection District.

We appreciate your staff's assistance and support in working with us on the review of the DRAFT Map.

Sincerely,

Maryann Derwin, Mayor

cc: Town Council Members
Sandy Sloan, Town Attorney
Angela Howard, Town Administrator
Leslie Lambert, Planning Manager
George Mader, Town Planner
Chief Muela, Woodside Fire Protection District
Fire Marshal Enea, Woodside Fire Protection District
Fire Captain Martinez, Cal Fire
David Sapsis, Cal Fire
Dean Cromwell, Cal Fire

EXHIBIT "B"

FRAP Fire and Resource Assessment Program

Portola Valley

Very High Fire Hazard Severity Zones in LRA
As Recommended by CAL FIRE

Fire Hazard Severity Zones

Local Responsibility Area	State or Federal Responsibility Areas
VHFHSZ	VHFHSZ
Non-VHFHSZ	Non-VHFHSZ

City Boundary
Parcels
County Boundary

Government Code 51175–89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of potential fuels over a 30-50 year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings. Details on the project and specific modeling methodology can be found at [illegible]. Local Responsibility Area VHFHSZ maps were initially developed in the mid-1990s and are now being updated based on improved science, mapping techniques, and data.

In late 2005 to be effective in 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VHFHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated very high fire hazard severity zones will be used by building officials for new building permits in LRA. The updated zones will also be used to identify property whose owners must comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This specific map is based on a geographic information system dataset that depicts final CAL FIRE recommendations for Very High FHSZs within the local jurisdiction. The process of finalizing these boundaries involved an extensive local review process, the details of which are available at [illegible] (click on "Continue as guest without logging in"). Local government has 120 days to designate, by ordinance, very high fire hazard severity zones within its jurisdiction after receiving the recommendation. Local government can add additional VHFHSZs. There is no requirement for local government to report their final action to CAL FIRE when the recommended zones are adopted. Consequently users are directed to the appropriate local entity (county, city, fire department, or Fire Protection District) to determine the status of the local fire hazard severity zone ordinance.

This map was developed using data products such as parcel and city boundaries provided by local government agencies. In certain cases, this includes copyrighted geographic information. The maps are for display purposes only - questions and requests related to parcel or city boundary data should be directed to the appropriate local government entity.

Projection Albers, NAD 1983
Scale 1: 14,000
at 36" x 36"
November 24, 2008

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

MAP ID: FHSZL_c41_PortolaValley

DATA SOURCES
CAL FIRE Fire Hazard Severity Zones (FHSZL06_3)

EXHIBIT "C"

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
P.O. Box 944246
SACRAMENTO, CA 94244-2460
(916) 653-7772
Website: www.fire.ca.gov

December 15, 2008

TOWN OF PORTOLA VALLEY

DEC 16 2008

RECEIVED

Ms. Angela Howard
Town Administrator
City of Portola Valley
765 Portola Road
Portola Valley, California 94028

Dear Ms. Howard:

This letter is to transmit the California Department of Forestry and Fire Protection (CAL FIRE) recommendations for very high fire hazard severity zones in the city of Portola Valley in San Mateo County, California. This is made pursuant to Government Code Sections 51178, 51179 and 51181 which require the Director of CAL FIRE to make such recommendations. Government Code Sections 51178.5 and 51179 (a through g) describe local agency responsibilities upon receipt of this information. Cities and counties have 120 days from receipt of this letter to act on the recommendations.

The map and data are available on the enclosed compact disc. The information is also located on the CAL FIRE Website at:

http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland.php

If you have questions or need further information please contact, John Ferreira, Unit Chief, San Mateo-Santa Cruz Unit at (831) 335-5355.

Sincerely,

RUBEN GRIJALVA
Director

cc: John Ferreira
Mike Fuge

Enclosures

STEVE POIZNER
Insurance Commissioner
California Department of Insurance

RUBEN GRIJALVA
Director
California Department of Forestry
& Fire Protection (CAL FIRE)

MEMORDANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) establishes a partnership between the California Department of Insurance, Steve Poizner, Insurance Commissioner and the California Department of Forestry and Fire Protection (CAL FIRE), Ruben Grijalva, Director in the prevention and mitigation of fire losses in California.

I. BACKGROUND

The California Department of Insurance (CDI) regulates California's $118 billion insurance industry, the fourth largest insurance market in the world. Among his many duties, the Insurance Commissioner oversees the activities of all fire, homeowner, and other insurance products, which are intended to protect the public and businesses from losses, including losses caused by wildfire. One of Insurance Commissioner Poizner's primary objectives is to increase public awareness of the value of disaster preparation and mitigation for all types of disasters, including destructive wildfires. The Insurance Commissioner is committed to ensuring that fire insurance coverage is both affordable and available to those who need it most.

CAL FIRE/State Fire Marshal's (SFM) office provides Californians with a wide variety of public safety services including fire protection, fire prevention, law enforcement, code enforcement, arson/bomb response, hazardous liquid pipeline safety and product safety. The mission of the CAL FIRE/SFM is to protect life and property through the development and application of fire prevention engineering, education and enforcement. The CAL FIRE/SFM office is actively engaged in seeking new ways to approach the wildfire problem and bring additional resources, programs, and partnerships to bear on reducing loss and costs.

Facts at a glance:

- The number and degree of wildfire losses are increasing in California decade by decade.
- Each year, over $100 million is being spent in the suppression efforts and more in the disaster recovery phases of these catastrophic natural and/or human caused hazards, but the losses continue to mount.

- Hundred of thousands of acres within the wildland-urban interface burn each year.

- Thousands of homes, businesses and other structures are damaged or destroyed each year by wildfires, resulting (on average) in more than $200 million in annual property damage.

- Many of these fires result in injury and/or death to fire department and law enforcement personnel, and members of the public.

- In the 2003-2004 wildfire sieges, CAL FIRE's fire suppression costs exceeded $252.3 million; property damage costs exceeded $974 million; 5,394 structures were destroyed; and more than 23 people lost their lives as a result of California wildfires.

- More than 5 million homes are currently located in California's wildland-urban interface. As more homes are built within these areas, the danger to life and property will continue to increase, unless significant action takes place to prevent these fires or mitigate the damage and injury caused by fire.

II. COLLABORATIVE MISSION

Together, the California Department of Insurance Commissioner and CAL FIRE Director, enter into this MOU to mutually promote an increased awareness and collaboration among fire officials, the insurance industry and the public in the prevention and mitigation of fire losses. Accordingly, the California Insurance Commissioner and CAL FIRE Director, agree to collaborate on the following goals:

- Reduce the risk that wildfires will cause in the loss of life or large-scale property damage/loss.

- Increase awareness of fire officials, the insurance industry and the public on methods and ways to prevent and mitigate fire losses.

- Increase incentives for homeowners, businesses, and insurance companies to actively prevent and mitigate fire risks.

- The Department of Insurance will facilitate obtaining comments/suggestions on the concepts contained herein, from representatives of the California insurance industry with the end goal of receiving their endorsement on this collaborative venture.

Unless otherwise agreed, each organization of this MOU is responsible for its own expenses related to this MOU. There will be no exchange of funds between the parties for tasks associated with this MOU.

III. SCOPE OF COLLABORATION

In addition to as yet unknown/other pertinent efforts, that may be agreed upon, the California Insurance Commissioner and CAL FIRE/SFM agrees to collaborate on the following projects:

1. Public Awareness Campaign - Prevention and Mitigation

The public may realize several benefits of prevention and mitigation of wildfires which include: (1) a direct reduction in the risk of property damage, death or injury caused by fire, (2) increased availability and affordability of homeowners', business and other insurance products; and (3) increased level of insurance coverage resulting in fewer out-of-pocket expenses to rebuild after a fire.

Accordingly, the California Insurance Commissioner and CAL FIRE Director agree to collaborate on development of an outreach program targeted to residents and businesses located in the wildland-urban interface. The parties also agree to work closely on outreach projects with other organizations committed to fire safety, prevention and mitigation, such as, the California Fire Safe Council and others.

2. Insurance Company Education - Wildfire Risk and Mitigation Courses

In cooperation with the California Department of Insurance, the CAL FIRE/SFM will examine the feasibility and value in offering to insurers managing property business in California, a one-day course (brought to the insurers regional offices) targeting appropriate wildfire risk assessment and property mitigation strategies in California to:

- Educate policy makers, underwriters and property inspectors.
- Share best practices that promote fire-safe living in the Wildland-Urban Interface (WUI) as outlined within building codes and standards.
- Teach effective mitigation strategies that (when applied) would significantly reduce the risk level and serve to increase the comfort level of insuring property within the wildland-urban interface.

This course would be offered to all personal/commercial property insurers writing business policies in California. CAL FIRE/SFM subject matter expert staff will provide the instruction to the insurer's audience. The Insurance Commissioner's Office will assist in the review of course materials and facilitation of the courses.

3. Review of Fire Insurance Risk Models

The development of a property's fire insurance premium by an insurer commonly includes a factor representing the proximity and effectiveness of public fire suppression capabilities. It also commonly includes an interest in the type of fire department (on-duty, public safety officers or volunteer), nearest fire station to the risk, type of response (pump and aerial apparatus, emergency medical, etc.) from the closest fire station and the availability of an effective water supply. Insurers often attempt to obtain this information through direct contact with the fire department providing services to the risk in question. This is a cumbersome process relying upon the availability and cooperation of the fire department.

CAL FIRE/SFM currently maintains a small internal division that manages the National Fire Database Reporting System California inputs. Partnering with the insurance industry and expanding the purpose of this division to serve the data and analytical needs of both the California fire service and insurers through the creation of a statewide emergency services database would greatly enhance information-sharing and risk assessment.

Risk Mitigation Mapping is an obvious "next generation" activity for California. As a State, we have advanced to the point where we are able to define and map hazard areas for a variety of natural hazards (wildfire, flood, seismic), but we have yet to quantify mitigation effectiveness, collect that information, and display it in conjunction with the underlying hazard. This tool, more than any other, will demonstrate the effect of the actions we are taking collectively to mitigate risk.

A partnership with fire prevention/protection and insurance is a solid starting point for this improvement since both are directly founded upon risk mitigation. This effort would start with pilot project(s) to create the databases, quantify the hazard and effective mitigations through a weighted-values assessment methodology, acquisition and compilation of Geographic Information Systems (GIS) data for graphical display, on-site assessments, and continuing analysis. A two-year pilot project will develop sufficient templates and process assessments from which to propose a statewide effort.

4. California's Fair Access to Insurance Requirements Plan (FAIR Plan)

Established by the Legislature in 1968, one of the California FAIR Plan's objectives is to, "...assure the availability of basic property insurance...to properties ...for which basic property insurance cannot be obtained through the normal insurance market". A large portion of these properties are in the program because of their exposure to the brush fire hazard found in the wildland-urban interface.

California Insurance Code Section 10090-10100.2 appears to support the individual risk inspection and improvement statements for many properties located within wildfire risk areas. However, may be missing the input of the subject experts to assist in the correct assignment of the assessment of risk as well as the communication of preferred risks to insurers. The current inspection

forms used by the inspection bureau(s) may not have incorporated a complete knowledge base conforming to national best practices and appear to focus only upon the distance to the hazardous brush with no attention to the impact of flying embers. There appears to be a need for guidelines for properties located within areas exposed to wildfires other than brush (primarily Central & Northern California). CAL FIRE/SFM has significant expertise in all types of wildland fire that takes advantage of scientific studies, codes and standards, and results from post fire studies.

CAL FIRE/SFM in cooperation with the Department of Insurance will work with the governing committee of the California FAIR Plan Association to analyze whether the current inspection form and inspection procedures are appropriate to use to measure a property's risk to loss by a wildland fire; and, if needed, work collaboratively to improve the form and the inspections procedures used by the FAIR Plan. Following approval of the form, the CAL FIRE/SFM will provide training and certification of the inspection bureau staff to encourage a consistent and fair application of the inspection criteria. By utilizing the CAL FIRE/SFM expertise in the property review it can be expected that a proper assessment of the risk coupled with utilization of the guidance to mitigate the exposure will reduce the structure and life loss potential of a wildland fire event.

5. Damage Assessment

Both CDI and CAL FIRE perform damage assessment functions immediately after a catastrophic wildfire. A review of this process may reveal strategies to partner before, during, and after large and damaging wildfires. Providing faster access to CAL FIRE's fire activity information/data bases may assist CDI in planning for resource deployment during fires. The Office of Emergency Services (OES) may be a natural partner in this as they also conduct a damage assessment process for disaster declaration requirements. A timely, more efficient damage assessment process provides better service levels to the affected victims and local communities, speeds the recovery effort, and allows for enhanced fraud enforcement. The California Insurance Commissioner and CAL FIRE Director agrees to examine each agency's respective damage assessment functions to determine where a sharing of damage assessment data is appropriate and valuable.

IV. ORGANIZATION CONTACTS

Both the California Insurance Commissioner and the CAL FIRE Director will appoint a person to serve as the official contact to coordinate the activities of each organization in carrying out this MOU. The initial appointees of each organization are:

Department of Insurance:

Tony Cignarale, Deputy Commissioner
Consumer Services & Market Conduct Branch
300 S. Spring Street
Los Angeles, CA 90013
(213) 346-6360
cignaralea@insurance.ca.gov

CAL FIRE:

Kate Dargan, State Fire Marshal
State Fire Marshal's Office
1131 "S" Street
Sacramento CA, 95814
(916) 445-8434
kate.dargan@fire.ca.gov

V. AUTHORIZATIONS

On behalf of the organization I represent, I wish to sign this Memorandum of Understanding (MOU) establishing a partnership between the California Department of Insurance and the California Department of Forestry and Fire Protection (CAL FIRE) in the prevention and mitigation of fire losses in California; and contribute to its further development.

SIGNATURE ON FILE

Date: 10/15/07

Steve Poizner. California Insurance Commissioner
California Department of Insurance

SIGNATURE ON FILE

Date: 10/15/07

Ruben Grijalva, Director
California Department of Forestry & Fire Protection (CAL FIRE)

Exhibit B

FUEL HAZARD ASSESSMENT STUDY

TOWN OF PORTOLA VALLEY

October 2008

Prepared by Moritz Arboricultural Consulting

Preface

This study was commissioned by the town to provide fundamental information with respect to the types of vegetation in the town and the relative potential fire hazards posed by each type. The report is intended to have four fundamental applications, as follows:

First, it will form an important part of the new Safety Element to be developed by the town as a part of the town's General Plan. This will help fulfill a requirement of the state planning law.

Second, it will provide a basis for the establishment of programs and measures by the town and the Woodside Fire Protection District in assisting in the protection of all properties in the town.

Third, it will allow residents to locate their properties with respect to the several vegetation categories with different degrees of fire hazard and to begin to take prudent precautions on their properties.

Fourth, it will provide an outline of fuel reduction measures along the major roads in the town, most of which will be a responsibility of the town.

Residents and town officials are encouraged to read the study and view the illustrative map. These should provide a good background on the fire hazards posed by the vegetation in the town.

Residents will likely be most interested in the section "Specific Fire Hazard Mitigation Strategies by Fuel Type" starting on page 10. Here, the reader will find detailed mitigation strategies that they can consider applying to their property. As noted in the report, property owners are encouraged to call on assistance from the Fire Marshal's office of the Woodside Protection District.

Residents may also find Appendix II, "Implementation of the Portola Valley Fuel Hazard Assessment Study," starting on page 20, as a good starting point when considering overall approaches to providing vegetation fire safety on their properties.

The town and the Woodside Fire Protection District will want in particular to consider the recommendations in the section "Fire Response and Evacuation Routes" starting on page 16. This section includes recommended general standards and more specific recommendations for eight main roads in the town. A next step that the town and the fire protection district will consider will be a more detailed application of the standards. The standards are general guidelines and their application will need to take into consideration the practical realities of conditions in the various parts of the town.

George Mader, Town Planner

Portola Valley Fuel Hazard Assessment
Town of Portola Valley

Prepared by
Moritz Arboricultural Consulting

October 2008

CONTENTS ***Page***

INTRODUCTION

The goals of this fuel hazard assessment for the Town of Portola Valley are to assist the town and its residents to (1) develop a landscape that has a reasonable level of fire safety for citizens and emergency responders and (2) create a sustainable, aesthetic, and environmentally balanced response to fire threat, taking into account the natural values of the area (e.g., residential use and enjoyment, biodiversity, maintenance of native species, and more).

The project addresses potential fire behavior and offers strategies for fire hazard mitigation in the Town. The following areas are highest in priority for treatment:

- Major emergency access/egress routes
- Areas adjacent to structures/residences
- Areas with potential for severe fire behavior

The values at risk include homes, businesses, government and public infrastructure, the local economy, residents, emergency responders, and aesthetics.

This assessment includes mapping of vegetation fuels and ranking of fuels as to fire behavior, i.e., ability to suppress or fight a fire. Based on the fuel assessment, general and specific strategies are presented to facilitate both public and private actions that can be taken to reduce fire risk. In particular, this assessment has been developed to assist the town in its work on future revisions to the safety element of the general plan.

METHODOLOGY

A fuel hazard assessment of Portola Valley was conducted using color aerial photography (dated 2005), ground reconnaissance (August and September 2007), and published references on fire behavior. This assessment is presented on the "Fuel Hazard Map" dated July 17, 2008. For each mapped unit (or polygon, 5-acre minimum) a ranking of fire behavior potential (highest, high, moderate, and low) was developed using general fuel models created by the Northern Forest Fire Laboratory (USDA Forest Service: NFFL) as modified by Moritz Arboricultural Consulting (MAC) to account for stage of fuel development and regional conditions. In addition, the USDA Forest Service National Fire Danger Rating System (a system of nine fuel models) was used as a reference.

Of the fuel types identified by MAC as occurring in Portola Valley, six are not precisely defined in the national models and required developmental stage modifications for ranking. Consideration was also given to potential changes in fire behavior caused by sudden oak death (SOD)

A follow-up field review of the fuel and fire behavior severity map and methodology was conducted with Woodside fire officials in March 2008. Comments received during this meeting were incorporated into the final fire hazard map and the hazard evaluations presented in this report.

GENERAL DESCRIPTIONS OF VEGETATION FUELS

General vegetation fuel types and rankings as to potential fire behavior for Portola Valley are:

"highest" (h+) includes a shrub type (chaparral) and three forest types (fire-prone oak woodland, mixed evergreen forest, fire-prone urban forest)

"high" (h) includes two forest types (fire-prone urban forest and redwood forest) and one shrub type (coastal scrub);

"moderate (m) includes urban savannah and grassland;

"low" (l) includes mowed grass and vineyard.

There are eleven plant communities/habitats within the borders of Portola Valley as mapped by TRA Environmental Services (TRA). MAC also identified eleven vegetation fuel types in both wildland and urban areas. Eight of the MAC fuel types correspond directly to TRA plant community/habitat types, and two are mapped in a related category. For example, where TRA mapped grassland, MAC divided it into mowed grass and grassland because these distinctions affect the fire hazard.

The comparison of the TRA and MAC types are listed below with corresponding potential fire behavior ratings assigned by MAC. The sequence of plant communities listed under MAC ranges from those with the highest fire potential to those with the lowest potential.

MAC:	**TRA:**
Chaparral (h+)	Chaparral
Fire-Prone Oak Woodland (h+)	Oak Woodland
Mixed Evergreen Forest (h+)	Mixed Evergreen Forest
Fire-Prone Urban Forest [heavy undergrowth] (h+)	Urban Forest/Garden
Fire-Prone Urban Forest (h)	Urban Forest/Garden
Redwood Forest (h)	Redwood Forest
Urban Savannah [grass carries fire] (m)	Oak Savannah
Grassland (m)	Grassland
Mowed Grass (l)	Grassland
Vineyard (l)	Vineyard
N/A	Aquatic Feature

The vegetation fuel types are generally described below in terms of dominant species and general percent cover in the overstory and understory. The prevalence and trends of invasion of exotic species is noted, as are any shifts in species which can be expected over time without manipulation (i.e., shift from oak to bay or oak to Douglas-fir, or shift from grass to coyote bush, etc.). The locations of the fuel types are shown on the July 17, 2008 "Fuel Hazards Map," that is part of this report.

CH – CHAPARRAL (HIGHEST HAZARD) consists of dense evergreen and deciduous shrubs that can reach 10 feet tall and supports a sparse understory of herbaceous plants and litter. Dominant shrubs in this type include chamise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos glauca*, *A. tomentosa*), California-lilac (*Ceanothus cuneatus*, *C. oliganthus* var. *sorediatus*), redberry (*Rhamnus crocea* ssp. *crocea*), scrub oak (*Quercus berberidifolia*), coffeeberry (*Rhamnus californica*), and holly-leafed cherry (*Prunus ilicifolia* ssp. *ilicifolia*). This type is notorious for exhibiting extreme fire behavior.

FPO - FIRE-PRONE OAK WOODLAND (HIGHEST HAZARD) consists of the native oak woodland dominated by a dense canopy of coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), California buckeye (*Aesculus californica*), and Pacific madrone (*Arbutus menziesii*). The dense understory of this woodland consists of poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and other shrubs that create fairly contiguous ladder fuels from the forest floor to the tree canopy. The combination of dense understory vegetation, ladder fuels, and disease caused by sudden oak death (*Phytophthora ramorum*) makes this type extremely flammable and prone to crown fires.

MEF - MIXED EVERGREEN FOREST (HIGHEST HAZARD) supports a mixture trees including coast live oak (*Quercus agrifolia*), tan oak (*Lithocarpus densiflora*), Pacific madrone, black oak (*Quercus kellogii*), with minor components of bigleaf maple (*Acer macrophyllum*), coast redwood (*Sequoia sempervirens*) and Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*). The shrub layer is minimal but includes: tree reproduction, western sword fern (*Polystichum munitum*), California hazel (*Corylus cornuta* var. *californica*), poison oak and various brooms in limited areas. This mixture of trees and shrubs has a great potential for creating severe fire behavior.

FPUF - FIRE-PRONE URBAN FOREST (HIGHEST AND HIGH HAZARD) includes residential areas that are moderate to densely landscaped with fire-prone ornamentals such as juniper (*Juniperus* spp.), pine (*Pinus* spp.), acacia (*Acacia* spp.), and eucalyptus (*Eucalyptus* spp.). Also present in these areas may be sparse to dense remnants of the native trees and shrubs such as coast live oak, Pacific madrone, and poison oak. This forest type is also strongly affected by sudden oak death. Areas with dense understory vegetation were ranked as having the highest hazard.

CS – COASTAL SCRUB (HIGH HAZARD) supports low shrubs, typically 3 to 6 feet tall that are densely arranged with scattered openings supporting non-native annual grasses. Dominant plants in this type include coyote brush (*Baccharis pilularis*), poison oak (*Toxicodendron diversiloba*), California-lilac (*Ceanothus thyrsiflorus*), California bee plant (*Scrophularia californica*), blackberry (*Rubus ursinus*), toyon (*Heteromeles arbutifolia*), and sagebrush (*Artemisia californica*). Fire behavior in coastal scrub is strongly affected by the live fuel moisture in the coyote bush.

RF - REDWOOD FOREST (HIGH HAZARD) consists of a dense overstory of young-growth coast redwood (*Sequoia sempervirens*), tan oak (*Lithocarpus densiflorus*), big-leaf maple (*Acer macrophyllum*), salal (*Gaultheria shallon*), sword fern, Douglas-fir,and California bay (*Umbellularia californica*). Associated understory shrubs include California hazel, wood rose (*Rosa gymnocarpa*), and thimbleberry (*Rubus parviflorus*). Redwood forest is surprisingly flammable. The thick duff layer is especially receptive to fire brands and redwood bark ignites easily. Tan oak is highly susceptible to sudden oak

death; dead leaves retained on these mid-canopy trees exacerbate the fire hazard by creating ladder fuels.

US - URBAN SAVANNAH (MODERATE HAZARD) consists of residential areas where grass occupies greater than 50 percent of the overall landscape. Areas along roadways and near homes are typically densely landscaped with ornamental trees, shrubs, irrigated flowerbeds, and lawns. Other than the overstory canopy [typically valley oak (*Quercus lobata*) or coast live oak (*Quercus agrifolia*)] the grassland species dominate this plant community (See Grassland). While there may be some areas of down and dead overstory materials, grass usually is the fuel that carries the fire. Crowning and torching of the overstory are highly unlikely. Thus, fire behavior in grassy areas is determined by whether the grass has been mowed or not.

GR – GRASSLAND (MODERATE HAZARD) includes unmanaged, introduced annual grasses and native forbs including: oatgrass, annual agoseris (*Agoseris heterophylla*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus horeaceus*), barley (*Hordeum murinum* ssp. *leporinum*), foxtail barley (*H. jubatum*), Italian ryegrass (*Lolium multiflorum*), needlegrass (*Nasella pulchra*), and California fescue (*Festuca californica*). When dry, this flashy fuel supports fires with high rates of spread under windy conditions.

MG - MOWED GRASS (LOW HAZARD) includes grazed and mowed introduced annual grasses and both exotic and native forbs, including: oatgrass, annual agoseris (*Agoseris heterophylla*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barley (*Hordeum murinum* ssp. *leporinum*), foxtail barley (*H. jubatum*) Italian ryegrass (*Lolium multiflorum*), needlegrass (*Nasella pulchra*), and California fescue (*Festuca californica*). Rates of fire spread are greatly reduced by grazing or the alteration of the fuel arrangement as a result of mowing; a fire in this type may self extinguish.

VIN – VINEYARD (LOW HAZARD) consists of rows of irrigated grapes (*Vitis* sp.) vines with an exceptionally sparse to barren soil surface. Associated fences are often lined with showy shrubs such as lavender or rose. Fires typically do not burn this vegetation type.

FUEL BEHAVIOR SEVERITY RANKING

The following table ranks the Vegetation Fuel Types in terms of their Fire Behavior. The Fire Behavior Ranking was calculated by Moritz Arboricultural Consulting based on an evaluation of the information in columns (2) – (4).

Vegetation Fuel Type	NFFL Model	Developmental Stage	Flame Length)	Fire Behavior Ranking (current study)
(1)	(2)	(3)	(4)	(5)
Chaparral	4	High	45	Highest – h+
Fire-Prone Oak Woodland	7	Extreme	20+	Highest – h+
Mixed Evergreen Forest	10	Extreme	20+	Highest – h+
Fire-Prone Urban Forest	7	Extreme	20+	Highest – h+
Fire-Prone Urban Forest	7	High	13	High – h
Coastal Scrub	5	High	18	High – h
Redwood Forest	9	Extreme	14	High – h
Urban (Oak) Savannah	3	Low	7	Moderate – m
Grassland (tall grass)	3	Low	7	Moderate - m
Mowed Grass	1	Moderate	5	Low – l

Explanation of columns:
(1) Vegetation Fuel Type by MAC,
(2) NFFL Fuel Model Number,
(3) Fuel Model Stage of Development (eg. old Douglas fir forest has a different structure and fire behavior than Douglas fir reproduction),
(4) expected flame length (fire intensity) for a given model and its stage of development,
(5) expected difficulty to suppress by MAC.

GENERAL FIRE HAZARD MITIGATION STRATEGIES

The following are general strategies that the town and others at risk can employ to reduce fire threat and "Behavior Ranking:"

Strategy: Select fire resistant plants
Actions:

- Select species with low surface to volume ratios (i.e., southern magnolia vs. pine, rhododendron vs. Australian tea, English laurel vs. cypress screen)**.** As an example, for a given weight, southern magnolia leaves have less total surface areas than pine needles.
- Select broadleaf vs. needle-leaf species
- Select clean looking species with stout branches and twigs (non-twiggy)
- Select species listed as pest and disease resistant
- Select deciduous trees and shrubs with supple, moist foliage
- Select species with out volatile oils in their leaves (use the smell test). Sap is water-like and does not have a strong oil odor

Strategy: Reduce fuel volumes
Actions:

- remove deadwood from trees and shrubs
- thin forest stands that produce great amounts of litter and debris
- create shrub/grass mosaics from continuous shrub masses
- remove shrubs beneath and around existing and emerging trees
- select low-growing shrubs and ground covers as replacement plants
- remove/reduce lofty, loosely compacted litter accumulations, especially large debris such as branches and replace with compact, small particle mulch to prevent invasion of noxious weeds and elevate live fuel moisture

Strategy: Reduce fuel flammability
Actions:

- mow grass when it is 50% cured (by June 1st)
- replace annual grass with plants that do not cure (dry out)
- remove deadwood in trees and shrubs
- establish an irrigated landscape in carefully selected areas close to the home (along foundations, under windows, under overhangs, and around decks and other structures)
- remove sick, dying and dead shrubs and trees

Strategy: Establish/maintain fuel discontinuity
Actions:

- remove/reduce "ladder" fuels (grass to brush to trees)
- create shrub/grass mosaics from continuous masses by installing hardscape
- remove shrubs from beneath and around existing and emerging trees
- thin thickets of small trees and tree reproduction from large tree understories
- create low fuel zone near structural vulnerabilities such as windows, decks, large overhangs,

Strategy: Reduce the possibility of fire traveling through tree crown
Actions:

- Separate overlapping tree and large shrub canopies
- Thin fire-prone tree canopies (oak, bay, eucalyptus, pines, redwood and Douglas fir) to open canopy structure (no more than 30% foliar reduction)
- Prune out low hanging fire-available branches and twigs up to 3 inches in diameter to a minimum of 10 feet above ground under any portion of the canopy or to an elevation 10 feet above the highest ground elevation
- Perform fuel volume reduction actions mentioned above

SPECIFIC FIRE HAZARD MITIGATION STRATEGIES BY FUEL TYPE

The following mitigation strategies are specific to the vegetation fuel type.

Chaparral – H+

Dominant shrubs in this type include chemise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos glauca, A. tomentosa*), California lilac (*Ceanothus cuneatus, C. oliganthus var. sorediatus*), redberry (Rhamnus crocea ssp. crocea), scrub oak (*Quercus dumosa*), coffeeberry (*Rhamnus californica ssp. californica*), and holly-leaved cherry (*Prunus ilicifolia*), but may have up to 35% fir or hardwood reproduction.

Chaparral - Fire Hazard: This type is notorious for exhibiting extreme fire behavior. This is one of the serious fire hazardous types due to the heavy horizontal fuel continuity and abundant fine material, almost 100% available to a potential fire. The sclerophyllus species typically have very low fuel moisture and are therefore more flammable. Also, the densely, twiggy and foliated species found in this fuel type, i.e. chemise, tend to be more flammable. The expected fire behavior of this type under severe fire weather may be extreme. Fire in this fuel type displays high to extreme rates of spread with high intensities in strong winds. It can generate a blizzard of fire brands and this fuel bed is very receptive to spot fire ignitions.

Maintenance: Maintenance actions in this fuel type are affordable, effective and necessary for the health, vigor and survivability of the shrubs. Fire safe maintenance is critical to safety and includes the following actions:

- You may wish to favor a particular native species on site or convert to a new or more fire resistant type such as perennial grass. However, all of the chamise should be removed.
- Thin brush or brush islands up to 10.0 feet tall to a spacing of 2 X the height, on center. Always favor fire resistant species.
- Raise (trim up) the crowns by 1/3 the height in defensible space zones and along roads.
- Remove deadwood subcanopies.
- Clear all grass, cured herbs and flammable debris from under the shrub canopies.
- Remove dead shrubs near homes, drives, and roads.
- Remove structurally unstable trees within falling distance of homes, drives and roads.
- Clean up down and dead debris.

Fire-prone Oak Woodland (Pyrophytic Hardwood) - H+

Oak woodland with associated hardwoods, heavy undergrowth or down and/or dead ground fuels. This type consists of a canopy of coast live oak, tan oak, black oak, madrone and bay. It may have a minor component conifers and/or exotics. It has dense undergrowth of, coffeeberry, poison oak, hardwood reproduction, excessive fir reproduction and or exotic brush. This is a hazardous fuel type. It may have an unhealthy over-story/canopy and, as a consequence, excessive down and dead debris.

Fire-prone oak woodland hazard: The fire hazard of this fuel type is among the highest in the area. Under high to extreme fire weather conditions the fire rate of spread is rapid and intensity is very high to extreme. Crowning, branding and

spotting is common. Sudden Oak Death may be a significant factor in the flammablility of this type.

Maintenance: Mitigative actions may be most successful in this forest/fuel type. It can be converted from one of the most hazardous types to one of the least fire-prone. Fire safe maintenance of this type includes the following actions:

- Thin out overly dense stands to provide crown separation. Favor fire resistant species (such as oak rather than bay).
- Remove or substantially thin undergrowth. Separate shrubs by a distance of at least two times their height, crown to crown. Any fire prone shrubs should be cut to no more than two feet in height. Keep the undergrowth sparse. When thinning out undergrowth always favor fire resistant plants.
- Raise tree crowns to a minimum of 8.0 feet above grade. All parts of the canopy less than 3 inches in diameter should be no lower than eight feet vertical distance above grade. The canopy line will be horizontal to slope.
- When thinning out undergrowth or planting, favor fire resistant plants.
- Remove dead and diseased trees or branches and foliage prior to the fire season or as they develop.
- Remove bay and conifer reproduction.
- Clean up down and dead debris. Chip materials up to 6 inches and cut larger branches and trunks flat to maximize soil contact.
- Remove heavily SOD infested trees. Consider replacement with SOD resistant native trees (i.e: Interior Live Oak (Q. Wislizenii), Valley Oak (Q. Lobata), etc.).
- Maintain trees in good health. See California Oak Foundation guide.

Mixed Evergreen Forest – H+

This forest type is dominated by mature evergreen hardwoods such as oak, bay and tanoak. It may have a 25 to 35% fir and/or redwood component. It has sparse or no continuous undergrowth. The dominant trees are in good (healthy) condition. There is no significant accumulation of down and dead materials.

Mixed Evergreen Forest - fire hazard: The fire hazard of this fuel type is among the highest. Most fires will be in surface fuels with short flame lengths and slow rates of spread but there is a high potential for torching, crowning and branding where fuel concentrations are heavy. Crown fires may be infrequent but in severe fire weather when crowning does occur fires are hard to suppress. The crowning potential may be minimized through proper management of ground fuels and crown raising. The opportunity to provide ongoing maintenance and improvements in fire resistance is great.

Maintenance: Maintenance actions in this forest/fuel type are affordable and effective. If this type is not maintained and **is** allowed to decline, it will become a very serious fire-prone type, one of the most hazardous types. Fire safe maintenance of this type includes the following actions:

- Thin out overly dense stands to provide crown separation. Favor the more fire resistant species (such as oak and other broadleaf species rather than bay laurel and fir).
- Keep the fire prone undergrowth sparse and low. Separate fire prone shrubs by a distance of at least two times the height, crown to crown.

Any fire prone shrubs should be cut to no more than two feet in height. When thinning out undergrowth always favor fire resistant species.

- Raise tree crowns to a minimum of 10 feet above grade. All parts of the canopy less than 3 inches in diameter should be no lower than 10 feet vertical distance above grade. On slopes the canopy line will be 10 feet above highest point. Raise the crowns of redwoods and firs as high as practical.
- When thinning out undergrowth or planting, favor fire resistant plants.
- Remove deadwood trees thoroughly, particularly firs.
- Remove dead and diseased trees or branches and foliage prior to the fire season or as they develop.
- Remove bay and Fir reproduction.
- Chip down and dead debris.
- Maintain trees in good health. See California **O**ak Foundation for a guide.

Fire Prone Urban Forest (with heavy undergrowth) – H+

This extremely hazardous forest/fuel type is dominated by mature evergreen hardwoods (e.g., coast live oak, bay, tanoak, madrone, etc.) and 25 to 35% mature fir or redwood. It has a heavy undergrowth of tree reproduction, herbs and/or shrubs. Often it has excessive bay or fir reproduction. It typically has excessive down and dead debris due to SOD and/or competition.

Mixed Evergreen Forest with undergrowth - fire hazard: The fire behavior of this fuel type is high. The opportunity to provide improvements in fire resistance is great but at a greater cost than for hardwood forest or park-like mixed evergreen forest. However, once the initial work is done, maintenance will be significantly less over time.

Maintenance: Maintenance actions in this forest/fuel type are affordable and effective. Fire safe maintenance of this type includes the following actions:

- Thin out overly dense stands to provide crown separation. Favor the more fire resistant species (such as oak and bay and fir).
- Clear undergrowth leaving only well spaced, fire resistant plants. Separate other shrubs by a distance of at least two times the height, crown to crown. Any fire prone shrubs retained should be cut to no more than two feet in height. When thinning out undergrowth**,** favor fire resistant species.
- Raise hardwood tree crowns to a minimum of 10 feet above grade. All parts of the canopy less than 3 inches in diameter should be no lower than eight feet vertical distance above grade. On slopes the canopy line will be horizontal with slope. Raise the crowns of fir and redwood as high as practicable leaving no attached deadwood below the live crown.
- When thinning out undergrowth or planting, favor fire resistant plants.
- Remove deadwood trees thoroughly, particularly bays, redwoods and firs.
- Remove dead and diseased trees or branches and foliage prior to the fire season or as they develop.
- Remove fire-prone shrubs, and bay and Fir reproduction.
- Chip down and dead debris, up to six inches diameter and cut up larger branches and trunks down flat to maximize soil contact.
- Maintain trees in good health. See California Oak Foundation guide.

Fire-prone Urban Forest (hardwoods with minor components of conifers) - H

Mixed hardwoods with heavy undergrowth. This type consists of a canopy of tanoak, coast live oak, bay laurel and madrone, with minor components of Douglas-fir, redwood and exotics. It has excessive down and dead material and/or a dense undergrowth of douglas fir reproduction, oak reproduction, hardwood reproduction, bay and tanoak reproduction, ceanothus, manzanita, hazel, and exotics. This is the areas' second-most hazardous fuel type. It may have an unhealthy over-story/canopy.

Fire-Prone Urban Forest Hazard: The fire hazard of this fuel type is among the highest in the area. Under high to extreme fire weather conditions the fire rate of spread is rapid and intensity is very high to extreme. Crowning, branding and spotting is common.

Maintenance: Mitigation may be most successful in this forest/fuel type. It can be converted from one of the most hazardous types to one of the least fire prone. Fire safe maintenance of this type includes the following actions:

- Thin out overly dense stands to provide crown separation. Favor fire resistant species (such as oak or redwood rather than bay and fir).
- Remove or substantially thin undergrowth. Separate shrubs by a distance of at least two times their height, crown to crown. Any fire prone shrubs should be cut to no more than two feet in height. Keep the undergrowth sparse. When thinning out undergrowth always favor fire resistant plants.
- Raise tree crowns to a minimum of 10 feet above grade. All parts of the canopy less than 3 inches in diameter should be no lower than eight feet vertical distance above grade. The canopy line will be horizontal to slope.
- When thinning out undergrowth or planting, favor fire resistant plants.
- Remove dead and diseased trees or branches and foliage prior to the fire season or as they develop.
- Remove invasive shrubs, and bay laurel and **f**ir reproduction.
- Clean up down and dead debris. Chip small materials and cut larger branches and trunks flat to maximize soil contact.
- Maintain trees in good health. See California Oak Foundation guide.

Coastal Scrub - H

This vegetation fuel type is highly invasive in grassland and open hardwood forest in the absence of natural fire. This type is dominated by a "doghair" stand of Ceanothus, coyote bush, coffeeberry, manzanita and possibly fir reproduction, but may have up to 35% fir or hardwood reproduction.

Coastal Scrub - Fire Hazard: This is one of the serious fire hazardous types due to the heavy horizontal fuel continuity and abundant fine material, almost 100% available to a potential fire. The high density of shrubs water stresses the stand. The expected fire behavior of this type is equivalent to heavy chaparral. Fire in this fuel type displays high to extreme rates of spread with high intensities in strong winds. It can generate a blizzard of fire brands and this fuel bed is very receptive to spot fire ignitions.

Maintenance: Maintenance actions in this fuel type are affordable, effective and necessary for the health, vigor and survivability of the shrubs. Fire safe maintenance is critical to safety and includes the following actions:

- First decide on the kind of mature landscape you envision. You may wish to favor a particular native species on site or convert to a new or more fire resistant type.
- Thin brush reproduction up to 10.0 feet tall to a spacing of 2 X the height, on center. Always favor fire resistant species.
- Raise (trim up) the crowns by 1/3 the height.
- Clear all grass, dried herbaceous herbs and flammable debris from under the shrub canopies.
- Remove dead shrubs near homes, drives, and roads.
- Remove structurally unstable trees within falling distance of homes, drives and roads.
- Clean up down and dead debris.

Redwood Forest – H

This forest/fuel type is more than 50% mature coast redwood and occurs on more mesic (cooler, more moist areas with better than average soil development) slopes and in drainages. Where there is no significant sub-canopy of hardwoods, such as tanbark oak (*Lithocarpus densiflora*) and California bay laurel (*Umbellularia californica*), an abundance of dead-and-down debris, and/or heavy layer of vegetation ground fuels (sword fern, huckleberry, poison oak, toyon, tree reproduction or invasive exotics such as brooms), and the understory is park-like the fire hazard tends to be relatively moderate. Where such forest do have excessive down-and-dead, heavy continuous undergrowth or young redwood forest with attached "ladder fuels" (continuous attached branches from low to high, living or dead).

Coast Redwood Forest - fire hazard: The fire hazard of this fuel type is typically low on mesic sites with rich well-developed soils and relatively cool microclimates (north to northeast facing slopes, along canyon/valley bottom lands, seep sites and along streams). Most fires will be low intensity fires in surface fuels with short flame lengths and slow rates of spread. There could be occasional torching if spot fuel ("jackpot") concentrations are heavy. Crown fires are infrequent but when they do occur, particularly on steep slopes under extreme fire weather conditions.

The fire hazard in this fuel type may be moderate where there is a buildup of down and dead debris and/or heavy undergrowth, and they are hard to suppress. Stand replacement fires are more likely occur in this subtype.

The fire hazard in this fuel type may be high in young to juvenile stand development stages where there is ground to top "ladder" fuels, a heavy buildup of down and dead debris and/or heavy undergrowth, and they are very hard to suppress. Stand replacement fires are more likely to occur in this subtype.

The crowning potential may be minimized through proper management of ground fuels, crown raising and occasionally selective stand thinning. The opportunity to provide ongoing maintenance and improvements in fire resistance is high.

Maintenance: Maintenance actions in this forest/fuel type are affordable and effective. Stand thinning, if needed, is more expensive (It can come to $2,000 per tree in the developed residential setting.). In wildland fuel threat mitigation,

with some thinning of mature trees, may pay for itself. Fire safe maintenance of this type includes the following actions:

- Thin out overly dense stands to provide crown separation. Too many stems per acre deplete soil water, available nutrients and healthy growing space.
- Remove basal sprouts.
- Remove unstable, sick, declining and dead trees.
- Limb up trees as high as practical (More than 10 feet above grade).
- Remove diseased, dying, and dead branches, trunk-attached twigs, dead branches and branch stubs.
- Remove Douglas fir, bay laurel, tanbark oak and other flammable tree reproduction (except where redwood regeneration is necessary).
- Clear undergrowth leaving only well spaced, fire resistant plants. Separate other more flammable shrubs by a distance of at least two times the height, crown to crown. Any fire prone shrubs (broom, poison oak), should be removed. When thinning out undergrowth favor fire resistant species.
- Clean up dead and down debris.
- Remove SOD killed trees.

Grassland and Urban (Oak) Savannah – L to M

This fuel type typically presents relatively low levels of fire intensity but can exhibit rapid rates of spread. Also grasses are important ignition fuels that should be treated where ignition is likely to occur (around homes, roads and other developed areas**)**.
Grass should receive particular attention where it serves as a transition fuel to heavier fuel types (grass to brush to trees). Grass should be mowed to no more that 4 inches in height in the Fire Apparatus Clear Zone **(**FACZ**)** and defensible space areas. It should also be mowed or grazed in fuel management zones where it might serve as a transition fuel.

FIRE RESPONSE AND EVACUATION ROUTES:

During a major wildfire, emergency personnel direct evacuees from local streets to the larger collector roads leading to arterial avenues. Portola Valley is served by three arterial roads: Alpine Road, Los Trancos Road, and Portola Road. Collector roads in the area include Westridge Drive, Cervantes Road, Golden Oak Drive, and Indian Crossing leading to Valley Oak Street. In addition Wayside Road serves as a collector. Vegetation fuel management should be undertaken along these roads initially and on an annual basis in order to provide Fuel Modification Zones (FMZ).

Initial Treatment and Annual Maintenance Requirements for FMZ:

Fuel Modification Zones (FMZ) (commonly referred to as Fire Apparatus Clear Zones) should be constructed and maintained along all roads and other emergency access/evacuation routes if so designated by the Woodside Fire Department. The FMZ along the main routes and collector roads should extend a minimum of 20 feet from either side of the paved surface (note this is greater then required by State and local codes but considering potential flame lengths, it is necessary for fire safe access/egress).

Standards to be Applied within each FMZ :

- In a distance extending 10 feet out from the paved road surfaces, brush and shrub species should not exceed three feet in height and be separated by a distance equal to at least twice the height of the brush or shrub.

- Shrubs and shrub islands (shrub islands should not be greater than 15 feet in diameter) in the 10- to 20-foot-zone out from the road pavement edge shall be separated by a distance no less than two times the shrub or shrub island height

- All cured grasses shall be mowed to a maximum of three inches (3") in height prior to June 15th of any given fire season and debris should be removed. This zone should be so maintained throughout the fire season (as declared by local and State agencies), but at least until October 15. Annual and perennial grasses can be retained in the 10 to 20 foot zone, provided the grasses are mowed annually to a maximum three-inch (3") height. Perennial grasses should be favored where irrigation is absent because of their longer green period.

- Individual oak and ornamental trees can be retained adjacent to the roadway provided a minimum 14-foot clearance is maintained above the paved surface.

- All tree canopy fuels less than 3 inches in diameter (100 hour time-lag fuels) within the 0' to 20' foot zone shall be limbed up (crown raised) one third the height of trees less than 30 feet in total height and a minimum of ten feet above grade for all trees 30 feet or greater in height. Any plants constituting a "ladder fuels" shall be removed from below the tree canopy. (Ladder fuels consist of continuous vegetation from the ground to tree crowns.)

- All tree crowns within the FACZ shall be separated by a distance of no less than ten feet (10') above the road surface. As young trees mature, removal of trees may be required to maintain proper separation of tree crowns within this zone.

- Treatments for specific fuel types are discussed under the maintenance provisions for each vegetation type in the previous section**.**

Comments and Recommendations for Specific Routes

Portola Road: This major emergency access/egress route varies greatly in roadside fuel conditions. The north end of the road, on the east side is perhaps the greatest fire threat where a Eucalyptus stand with an Acacia and brush understory could generate high intensity fire and significant torching, crowning and branding. Smoke and branding from this stand could significantly inhibit fire response and evacuation along this critical route. This condition, capable of generating extreme fire behavior, should be abated. Other areas along this road should receive standard FACZ treatment. Fuels should be modified as described in the fuel treatment section above.

Westridge Drive: This major emergency access/egress connecting Portola Valley Road with Alpine Road passes through large areas of high to highest fire behavior potential urban forest. These areas require the full 20 feet of roadside treatment as prescribed in the fuel treatment section.

Cervantes Road: This secondary access route that connects Westridge Dr. with Golden Oak Drive and ultimately out to Alpine Road. The road runs adjacent to some highest fire behavior potential sites and should receive FACZ attention equivalent to Westridge.

Golden Oak Drive: This road borders some significantly fire hazardous topographic conditions, as well as high to highest fire behavior potential vegetation types. The “chimney drainages” running up to this road should receive as much as 30 feet of vegetation fuel treatment. The remainder of this road should receive that standard recommended treatment described above.

Alpine Road: This road has good FACZ management along most of its extent due to commercial development and other roadside treatments. However, the west end of Alpine, west of the intersection of Portola Valley Road present some FACZ challenges that require attention. This western extent of Alpine is a connector with Willowbrook and could play an important access for wildland fire in the Open Space Preserve. Thus, this area should receive the recommended fuel treatment specified above.

Indian Crossing/Valley Oak: These connected roads are the one-way-in/one-way-out emergency access/evacuation route for Portola Valley Ranch. Therefore this road should receive the full 20 feet of roadside treatment recommended above. The Town and Fire Department may whish to also consider an emergency exit connector to Los Trancos Road from Valley Oak.

Los Trancos Road: This road is an important emergency access/egress for the Blue Oaks development and the Los Trancos Woods development. The fuels on the **Santa Clara** County (east) side of the road are particularly problematic due to the creek, the steep topography and the unmanaged wildland. This road also requires the full 20 feet of treatment recommended above.

Wayside Road. It is an extremely substandard road with substandard road width, turn radii and significant vegetation fuel threats along the road. Consequently, this road should have more than the minimum required roadside fuel treatment. At the east end (low end) of the road there is heavy vegetation off to the north and south side, dominated by fire-prone “pyrophytic” hardwoods. Moving up the road on the south side, in the drainage, is a redwood stand with widespread mortality of tanoak due to SOD. This road requires particularly full treatment for fire safe access/egress to the extent possible.

APPENDIX I

FIRE-RESISTANT PLANTS
10/02/08

Select species and varieties that are relatively fire resistant:

1. Plants that are well adapted to the local climatic zones, microclimate, aspect, slope and local environmental conditions.
2. Plants with low fuel volumes: low growing, limited spread and open architecture.
3. Plants with a low surface to volume ratio (a clean open appearance, not twiggy and dense)
4. Plants that are deep-rooted and proficient at acquiring water.
5. Trees and shrubs with watery sap lacking volatile chemicals, fats and oils.
6. Plants lacking an internal canopy of dead material.
7. Plants with relatively more fire resistant foliage:
   Most deciduous trees and shrubs.
   Trees and shrubs with large fleshy leaves.
   Trees and shrubs with foliage lacking volatile chemicals, oils, waxes, etc.

Examples:

Locally Native Trees	Locally Native Shrubs	Non-native Trees
Valley oak (a.k.a. California white oak)	Pacific wax myrtle	Magnolias
Oregon oak	California beaked hazel	Maples
California sycamore	Magnolias	Oaks (most non-native deciduous oaks)
Big leaf maple	Flannel-bush	Fruit & nut trees (almost all)
Oregon ash	Spicebush (sweet shrub)	Sycamores
Red alder	Pacific rhododendron	Alders
White alder	Western redbud	Ashes
Buckeye		Palms (no dead leaves)
Fremont cottonwood		Birches
Black cottonwood		Buckeyes
Willows		Elms and Zelkovas
Hinds black walnut		Beeches
California box elder		Willows
Pacific madrone		Privets
		Plums
		A variety of broadleaf trees with above Characteristics.

APPENDIX II

Implementation of the Portola Valley
Fuel Hazard Assessment Study
(10/02/08)

Residents are encouraged to outline an approach they are going to take to reduce the fire hazard posed by vegetation on their properties. As a first step they should locate their properties on the Fuel Hazard Map to determine the "Vegetation Fuels" on their property. They should review the "Maintenance" recommendations for the types of vegetation on their property. If questions arise with respect to the recommendations, they should seek advice from the Fire Marshall's office of the Woodside Fire Protection District.

In addition, attention should be given to establishing **Shaded Fuel Breaks** and **Fuel Reduction Zones** on each property. A shaded fuel break is a strip of vegetation where the vertical fuel continuity (fire ladder) has been disrupted and the plants maintained so as to resist fire spread, high fire intensity and ignition of a house. In the first 10 feet from buildings vegetation should be irrigated regularly or monthly depending on the plant requirements. The information that follows is intended to provide guidance with respect to these topics. (For a more information, the reader is referred to the state publication "General Guidelines to Implement Performance Based Defensible Space Regulation under Public Resources Code Section 4291.")

Defensible Space is the area within the perimeter of a parcel where basic wildfire protection practices are implemented. The focus of these guidelines is on fuel modification measures, meaning where vegetation is managed and maintained so that it reduces the spread and intensity of encroaching wildfires. Vegetation surrounding homes is fuel for a fire. Experience has shown that fuel reduction around a structure increases the probability of a structure surviving a wildfire. Good defensible space allows firefighters to protect and save homes safely without unacceptable risk to their lives. Fuel reduction through vegetation management is the key fundamental to creating defensible space. **Defensible Space** comprises a **Shaded Fuel Break** next to structures and a **Fuel Reduction Zone** beyond.

A **Shaded Fuel Break** should be established within 30 feet of each building or structure by removing and clearing away all fire prone vegetation, with certain exceptions. Exceptions include: single specimens of trees or other vegetation that is well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to any building or structure.

A **Fuel Reduction Zone** should be established from 30 to 100 feet away from a building or to the property line, whichever is less, and limited to your land. Adjacent property owners are not required to clear beyond 100 feet from their structure, but are encouraged to do so to create appropriate defensible space on a community-wide basis. Within the **Fuel Reduction Zone**, the following are recommended:

> Dead and dying woody surface fuels and aerial fuels should be removed. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, should be permitted to a height no greater than 3 inches. This guideline is primarily intended to eliminate trees, bushes, shrubs and surface debris

that are completely dead or with substantial amounts of dead branches or leaves/needles that would readily burn.

Downed logs or stumps, when embedded in the soil, may be retained when isolated from other vegetation.

Fuel reduction does not mean cutting down all trees and shrubs, or creating a bare ring of earth across the property. It does mean arranging the trees, shrubs and other fuel sources in a way that makes it difficult for fire to transfer from one fuel source to another.

General Notes:

Properties with greater fire hazards will require more clearing. Clearing requirements will be greater for those lands with steeper terrain, larger and denser fuels, fuels that are highly volatile.

Fuel reduction activities that remove trees may require permits from the Town.

Care should be taken with the use of equipment when creating a defensible space zone. Internal combustion engines must have spark arresters and metal cutting blades should be used with caution to prevent starting fires during periods of high fire danger. A metal blade striking a rock can create a spark and start a fire. This is a common cause of fires during summertime.

Vegetation removal can cause soil disturbance, soil erosion, regrowth of new vegetation, and introduction of non-native invasive plants. Keep soil disturbance to a minimum, especially on steep slopes. Erosion control techniques such as minimizing use of heavy equipment, avoiding stream or gully crossings, use of mobile equipment during dry conditions, and covering exposed disturbed soil areas will help reduce soil erosion and plant regrowth.

In the **Fuel Reduction Zone**, one of the following fuel treatments should be implemented. Combinations of the methods may be acceptable as long as the intent of the guidelines is met.

Separation Between Fuels

Surrounding each structure, minimum clearance between fuels will range from 4 feet to 10 feet in all directions. Clearance should be in both the horizontal and vertical directions. The clearance distance between vegetation will depend on the slope, vegetation size, vegetation type (brush, grass, trees), and other fuel characteristics (fuel compaction, chemical content, etc.). Properties with greater fire hazards will require greater clearing between fuels.

If your property is on steeper slopes or has larger sized vegetation, this justifies greater spacing between individual trees and bushes (see Plant Spacing Guidelines and Case Examples below).

Grass generally should not exceed 4 inches in height. However, grass and other herbs, may be maintained less than 18 inches in height above the ground when isolated from other fuels or where necessary to stabilize the soil and prevent erosion.

Clearance requirements
Horizontal clearance should be maintained between aerial fuels, such as the outside edge of the tree crowns or high brush. Horizontal clearance helps stop the spread of fire from one fuel to the next.

Vertical clearance should be maintained between lower limbs of aerial fuels, and the nearest surface fuels and grass/weeds. Vertical clearance removes “ladder fuels” and helps prevent a fire from moving from the smaller fuels to the taller fuels.

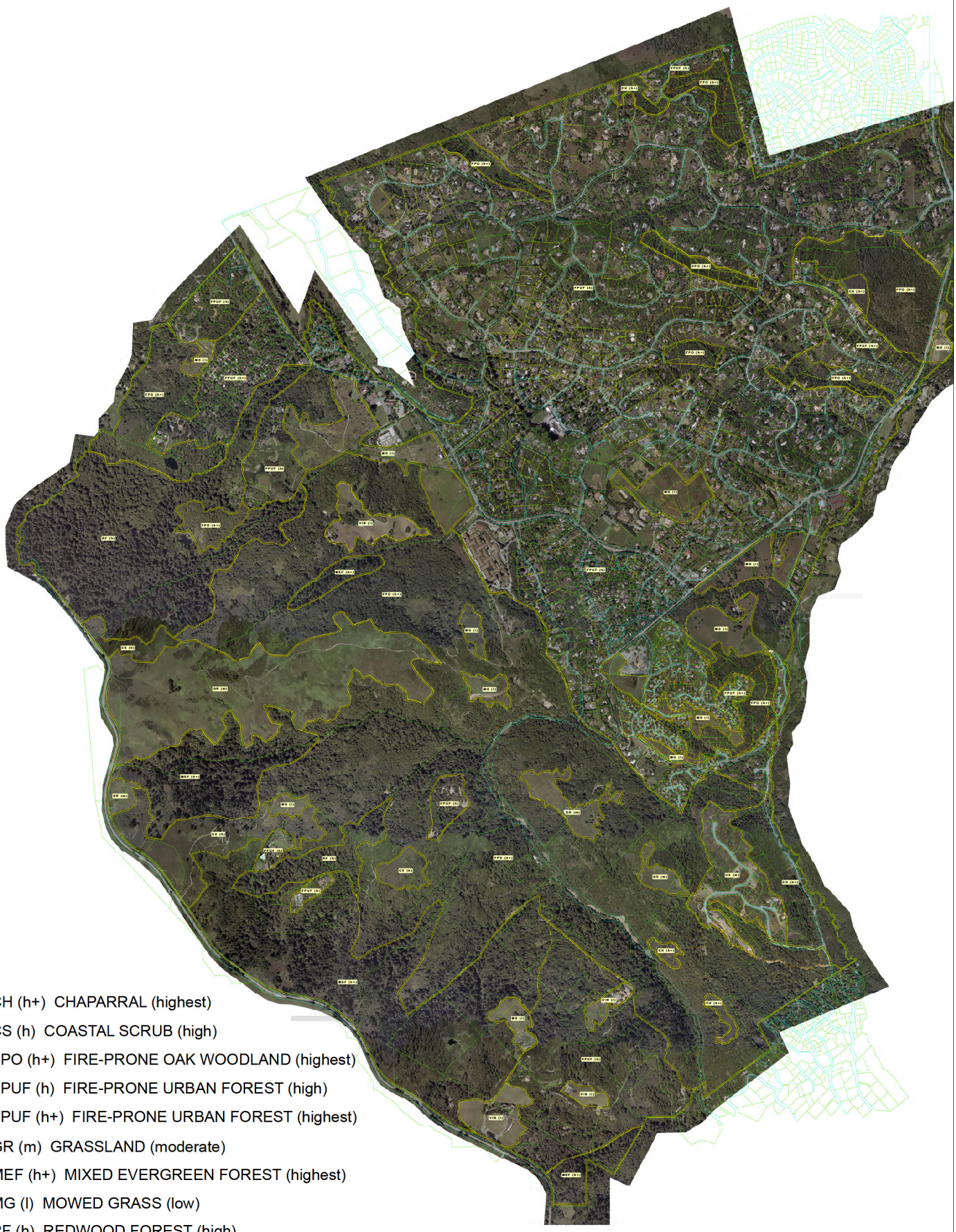
Plant Spacing Guidelines
Guidelines are designed to break the continuity of fuels and can be used as a “rule of thumb.”

Minimum Horizontal Space from the edge of one tree canopy to the edge of the next on slopes greater than 20% should be 10 feet.

Minimum horizontal space between edges of shrubs on slopes greater than 20% should be twice the height of the shrub.

Minimum Vertical Spacing between top of shrub and bottom of lower tree branches should be three times the height of the shrub**.**

Defensible Space with Continuous Tree Canopy
A vegetation removal option is available for those wanting to retain a continuous stand of larger trees with no space between tree canopies while creating defensible space. For this guideline, within the Reduced Fuel Zone, spacing between aerial fuels is not required, such as in a stand of larger trees. In this situation, remove all surface fuels greater than 4 inches in height; remove lower limbs (3” or smaller) of trees (“prune”) to at least 8 feet above ground or up to 1/3 height for small trees). Properties with greater fire hazards, such as steeper slopes or more severe fire danger, will require pruning heights in the upper end of this range. Where there is shrub undergrowth, apply Plant Spacing Guidelines. A minimum clearance of 8 feet should be maintained where there is grass or other ground cover.



CH (h+) CHAPARRAL (highest)

CS (h) COASTAL SCRUB (high)

FPO (h+) FIRE-PRONE OAK WOODLAND (highest)

FPUF (h) FIRE-PRONE URBAN FOREST (high)

FPUF (h+) FIRE-PRONE URBAN FOREST (highest)

GR (m) GRASSLAND (moderate)

MEF (h+) MIXED EVERGREEN FOREST (highest)

MG (l) MOWED GRASS (low)

RF (h) REDWOOD FOREST (high)

US (m) URBAN SAVANNAH (moderate)

VIN (l) VINEYARD (low)

0 1,200 2,400

Feet

N

Basemap: Town of Portola Valley
Vegetation Data Source: Moritz Arboricultural Consulting
Map: TRA Environmental Sciences, Inc.
October 2008

Exhibit C

Title 14 of the California Code of Regulations (14 CCR),

Division 1.5, Chapter 7

Subchapter 2, Articles 1-5

"DRAFT State Minimum Fire Safe Regulations, 2021"

Subchapter 2. ~~SRA/VHFHSZ~~ State Minimum Fire Safe Regulations

Article 1. Administration

§ 1270.00. Title.

These regulations shall be known as the "~~SRA/VHFHSZ~~ State Minimum Fire Safe Regulations," and shall constitute the ~~basic~~ minimum ~~w~~Wildfire protection standards of the California Board of Forestry and Fire Protection.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4102, 4126, 4127 and 4290, Public Resources Code.

§ 1270.01. Definitions ~~Purpose~~

The following definitions are applicable to this Subchapter.

(a) Agriculture: Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.

(b) Board: California Board of Forestry and Fire Protection.

(c) Building: Any Structure used or intended for supporting or sheltering dany use or Occupancy, except those classified as Utility and Miscellaneous Group U.

(d) CAL FIRE: California Department of Forestry and Fire

Protection.

(e) Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and Roads that loop back on themselves

(f) Defensible Space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.

(g) Development: As defined in section 66418.1 of the California Government Code.

(h) Director: Director of the Department of Forestry and Fire Protection or their designee.

(i) Driveway: A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.

(j) Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health,

safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.

(k) Fire Apparatus: A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.

(l) Fire Authority: A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.

(m) Fire Hydrant: A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.

(n) Fuel Break: A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.

(o) Greenbelts: open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.

(p) Greenways: Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

(q) Hammerhead/T: A "T" shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.

(r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.

(s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.

(t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.

(u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.

(v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.

(w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons.

Manufactured homes, mobile homes, and factory-built housing are considered Residential Units.

(x) Ridgeline: The line of intersection of two opposing slope aspects running parallel to the long axis of the highest elevation of land; or an area of higher ground separating two adjacent streams or watersheds.

(y) Road: A public or private vehicular pathway to more than four (4) Residential Units, or to any industrial or commercial Occupancy.

(z) Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the Traffic Lane or Shoulders.

(aa) Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:

(1) access for emergency wildland fire equipment,

(2) safe civilian evacuation,

(3) signing that avoids delays in emergency equipment response,

(4) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and

(5) fuel modification sufficient for civilian and fire fighter safety.

(bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.

(cc) State Responsibility Area (SRA): As defined in Public

Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.

(dd) Strategic Ridgeline: a Ridgeline identified pursuant to § 1276.02(a) that may support fire suppression activities or where the preservation of the Ridgeline as Undeveloped would reduce fire risk and improve fire protection.

(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.

(ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.

(gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.

(hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

(ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.

(jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.

(kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.

(ll) Vertical Curve: A curve at a high or low point of a Roadway that provides a gradual transition between two Roadway grades or slopes.

(mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).

(nn) Wildfire: Has the same meaning as "forest fire" in Public Resources Code Section 4103.

~~(a) These regulations have been prepared and adopted for the purpose of establishing minimum Wildfire protection standards in conjunction with Building, construction and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones as defined in Government Code § 51177(i) (VHFHSZ).~~

~~(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.~~

~~(c) These measures shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; and vegetation modification. The fire protection standards which follow shall specify the minimums for such measures.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.02. Purpose. ~~Scope~~

(a) These regulations have been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).

(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.

(c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. The regulations which follow shall specify the minimums for such measures.

(d) Prescribing these minimum Wildfire protection standards reduces the risk of Wildfires, which among other things protects the health, safety and welfare of residents, and protects natural resources and the environment.

~~(a) These regulations shall apply to:~~

~~(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991 , and those approved after July 1, 2021~~

~~within the VHFHSZ, except as set forth below in subsections (b) through (d), inclusive, and (f);~~

~~(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971, except where being sited or installed as an accessory or junior accessory dwelling unit as set forth in subsection (d) below;~~

~~(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and~~

~~(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.~~

~~(b) These regulations do not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.~~

~~(c) (1) At the discretion of the Local Jurisdiction, and subject to any requirements imposed by the Local Jurisdiction to ensure reasonable ingress, egress, and capacity for evacuation and~~

~~emergency response during a Wildfire, these regulations shall not apply to the reconstruction or repair of legally constructed residential, commercial, or industrial Buildings due to a Wildfire, to the extent that the reconstruction or repair does not:~~

~~(A) increase the square footage of the residential, commercial, or industrial Building or Buildings that previously existed; or~~

~~(B) change the use of the Building or Buildings that had existed previously; or~~

~~(C) construct a new Building or Buildings that did not previously exist on the site.~~

~~(2) Nothing in this subsection shall be construed to alter the extent to which these regulations apply to the reconstruction or repair of a legally constructed residential, commercial, or industrial Building for reasons unrelated to a Wildfire.~~

~~(d) These regulations do not apply to the creation of accessory or junior accessory dwelling units that comply with Government Code sections 65852.2 or 65852.22, or any local ordinances enacted thereunder, as applicable, including any local ordinances requiring provisions for fire and life safety.~~

~~(e) Unless otherwise exempt pursuant to this Subchapter, affected activities include, but are not limited to:~~

~~(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);~~

~~(2) application for a Building permit for new Building~~

~~construction;~~

~~(3) application for a use permit; and~~

~~(4) Road construction.~~

~~(f) EXEMPTION: Roads used solely for agricultural, mining, or the management and harvesting of wood products.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code~~; *Section 65852.2 Government Code*~~.

§ 1270.03. Scope. ~~Provisions for Application of The Regulations~~

(a) These regulations shall apply to:

(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b).

(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;

(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and

(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel

or tentative map.

(b) These regulations do not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.

(c) Affected activities include, but are not limited to:

(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);

(2) application for a Building permit for new construction not relating to an existing Structure;

(3) application for a use permit;

(4) Road construction including construction of a Road that does not currently exist, or extension of an existing Road.

(d) The standards in these regulations applicable to Roads shall not apply to Roads used solely for Agriculture; mining; or the management of timberland and harvesting of forest products.

~~This Subchapter shall be applied as follows:~~

~~(a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL~~

~~FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA.~~

~~(b) the Director or their designee may review and make fire protection recommendations on applicable construction or Development permits or maps provided by the Local Jurisdiction.~~

~~(c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.~~03~~04 Provisions for Application of these Regulations

This Subchapter shall be applied as follows:

(a) the L~~l~~ocal J~~u~~risdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for B~~b~~uilding permits, tentative parcel maps, tentative maps, and installation or use permits for construction or D~~d~~evelopment within the SRA.

(b) the Director or their designee may review and make fire protection recommendations on applicable construction or Development permits or maps provided by the L~~l~~ocal J~~u~~risdiction.

(c) the L~~l~~ocal J~~u~~risdiction shall ensure that the applicable sections of this S~~s~~ubchapter become a condition of approval of any applicable construction or D~~d~~evelopment permit

or map.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.~~04~~05. Local Regulations ~~Ordinances~~.

(a) These regulations shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, these regulations do not supersede local regulations which equal or exceed the standards of this Subchapter. ~~Nothing contained in these regulations shall be considered as abrogating the provisions of any ordinance, rule, or regulation of any state or Local Jurisdiction provided that such ordinance, rule, regulation or general plan element is equal to or more stringent than these minimum standards.~~

(b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter. ~~The Board may certify local ordinances as equaling or exceeding these regulations when they provide the Same Practical Effect.~~

(c) A Local Jurisdiction shall not apply exemptions to these regulations that are not enumerated in this Subchapter. Exceptions requested and approved in conformance with § 1270.06 (Exceptions to Standards) may be granted on a case-by-case basis. ~~Counties may submit their local ordinances for certification via email to the Board.~~

~~The Board's certification of local ordinances pursuant to this section is rendered invalid when previously certified ordinances are subsequently amended by Local Jurisdictions without Board re-certification of the amended ordinances. The Board's regulations supersede the amended local ordinance(s) when the amended local ordinance(s) are not re-certified by the Board. Amendments made by Local Jurisdictions to previously certified ordinances shall be submitted for re-certification.~~

(d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public R esources Code.

§ 1270.0~~5~~6. Inspections.

Inspections shall conform to the following requirements:

(a) Inspections in the SRA shall be made by:

(1) the Director, or

(2) L~~l~~ocal J~~j~~urisdictions that have assumed state fire protection responsibility on SRA lands, or

(3) ~~L~~ L~~l~~ocal J~~j~~urisdictions where the inspection duties have been formally delegated by ~~CAL FIRE~~ the Director to the L~~l~~ocal J~~j~~urisdictions, pursuant to subsection (b).

(b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:

(1) The Local Jurisdiction represents that they have

appropriate resources to perform the delegated inspection authority.

(2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or restricted.

(3) The Local Jurisdiction consents to the delegation of inspection authority.

(4) The Director may revoke the delegation at any time.

(5) The delegation of inspection authority, and any subsequent revocation of the delegation, shall be documented in writing, and retained on file at the CAL FIRE Unit headquarters that administers SRA fire protection in the area. .

~~Inspections made under 14 CCR § 1270.05(a)(2) or 14 CCR § 1270.05(a)(3) shall occur only when these regulations are incorporated into local ordinance in one of the following manners:~~

~~(1) these regulations have been incorporated verbatim or by reference into that jurisdiction's permitting or approval process for the activities described in 14 CCR § 1270.02; or~~

~~(2) the local ordinances have been certified pursuant to 14 CCR § 1270.04;~~

(c) Inspections in the VHFHSZ shall be made by the Local Jurisdiction. ~~Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws even when the inspection duties have been delegated pursuant to this section.~~

(d) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws in the SRA even when the inspection duties have been delegated pursuant to this section. ~~Reports of violations shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction.~~

(e) Reports of violations within the SRA shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction. ~~When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.~~

(f) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4102, 4119, 4125, 4290 and 4291, Public Resources Code.

§ 1270.0~~6~~7. Exceptions to Standards.

(a) Upon request by the applicant, an ~~e~~Exception~~s~~ to standards within this ~~s~~Subchapter ~~or to Local Jurisdiction certified~~

~~ordinances~~ may be allowed by the inspection entity in accordance with ~~listed in~~ 14 CCR § 1270.05 (Inspections) where the Exceptions provide the Same Practical Effect as these regulations towards providing Defensible Space. Exceptions ~~granted~~ granted by the ~~inspection entity~~ Local Jurisdiction listed in 14 CCR § 1270.05, shall be made on a case-by-case basis only. ~~Exceptions granted~~ Exceptions granted by the ~~inspection entity~~ Local Jurisdiction ~~listed in 14 CCR § 1270.05~~ listed in 14 CCR § 1270.06 shall be forwarded to the appropriate CAL FIRE unit headquarters ~~Unit Office~~ that administers SRA fire protection in that Local Jurisdiction, or the county in which the Local Jurisdiction is located and shall be retained on file at the Unit Office.

(~~b~~b) Requests for an ~~e~~Exception shall be made in writing to the ~~inspection entity~~ Local Jurisdiction listed in 14 CCR § 1270.05 by the applicant or the applicant's authorized representative.

~~At a minimum, the~~ At a minimum, the request shall state the specific section(s) for which an ~~e~~Exception is requested~~,~~; material facts supporting the contention of the applicant~~,~~; the details of the Exception proposed~~,~~; and a map showing the proposed location and siting of the ~~e~~Exception. Local J~~j~~urisdictions listed in § 1270.05 (Inspections) may establish additional procedures or requirements for ~~e~~Exception requests.

(c) Where an Exception is not granted by the inspection entity, the applicant may appeal such denial to the Local Jurisdiction. The Local Jurisdiction may establish or utilize an appeal

process consistent with existing local Building or planning department appeal processes.

(d) Before the Local ~~j~~Jurisdiction makes a determination on an appeal, the inspector shall be consulted and shall provide to that Local Jurisdiction documentation outlining the effects of the requested Exception on ~~w~~Wildfire protection.

(e) If an appeal is granted, the Local ~~j~~Jurisdiction shall make findings that the decision meets the intent of providing Defensible Space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that Local ~~j~~Jurisdiction.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1270.08. Distance Measurements.

All specified or referenced distances are measured along the ground, unless otherwise stated.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

~~§ 1271.00. Definitions.~~

~~Agriculture: Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.~~

~~Building: Any Structure used or intended for supporting or~~

~~sheltering any use or Occupancy, except Utility and Miscellaneous Group U Buildings.~~

~~CAL FIRE: California Department of Forestry and Fire Protection.~~

~~Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped Roads.~~

~~Defensible space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.~~

~~Development: As defined in section 66418.1 of the California Government Code.~~

~~Director: Director of the Department of Forestry and Fire Protection or their designee.~~

~~Driveway: A vehicular access that serves up to two (2) parcels with no more than two (2) Residential Units and any number of non-commercial or industrial Buildings on each parcel.~~

~~Distance Measurements: All specified or referenced distances are measured along the ground, unless otherwise stated.~~

~~EXCEPTION: An alternative to the specified standard requested by~~

~~the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.~~

~~Fire valve: see hydrant.~~

~~Fuel modification area: An area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.~~

~~Greenbelts: A facility or land-use, designed for a use other than fire protection, which will slow or resist the spread of a Wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.~~

~~Hammerhead/T: A Road or Driveway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the Road that serves it.~~

~~Hydrant: A valved connection on a water supply or storage system, having either one two and a half (2 1/2) inch or one four and a half (4 1/2) inch outlet, with male American National Fire Hose Screw Threads (NH), used to supply Fire Apparatus and hoses with water.~~

~~Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that issues or approves Building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate Development and construction activity.~~

~~Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.~~

~~One-way Road: A minimum of one traffic lane width designed for traffic flow in one direction only.~~

~~Residential unit: Any Building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for one or more persons. Manufactured homes, mobilehomes, and factory-built housing are considered Residential Units for the purposes of mandatory measures required in 14 CCR § 1270.01(c).~~

~~Road: Vehicular access to more than two (2) parcels; more than four (4) Residential Units; or access to any industrial or commercial Occupancy. Includes public and private streets and lanes.~~

~~Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the traffic lane or Shoulders.~~

~~Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:~~

~~(a) access for emergency wildland fire equipment,~~

~~(b) safe civilian evacuation,~~

~~(c) signing that avoids delays in emergency equipment response,~~

~~(d) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and~~

~~(c) fuel modification sufficient for civilian and fire fighter safety.~~

~~Shoulder: Vehicular access adjacent to the traffic lane.~~

~~State Board of Forestry and Fire Protection (Board): As defined in Public Resources Code section 730.~~

~~State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.~~

~~Structure: That which is built or constructed, an edifice or Building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.~~

~~Subdivision: As defined in section 66424 of the Government Code.~~

~~Traffic lane: The portion of a Road or Driveway that provides a single line of vehicle travel.~~

~~Turnaround: A Road or Driveway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.~~

~~Turnouts: A widening in a Road or Driveway to allow vehicles to pass.~~

~~Utility and Miscellaneous Group U Building: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.~~

~~Vertical clearance: The minimum specified height of a bridge or overhead projection above the Road or Driveway.~~

~~Wildfire: As defined in Public Resources Code Section 4103 and 4104.~~

~~Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.~~

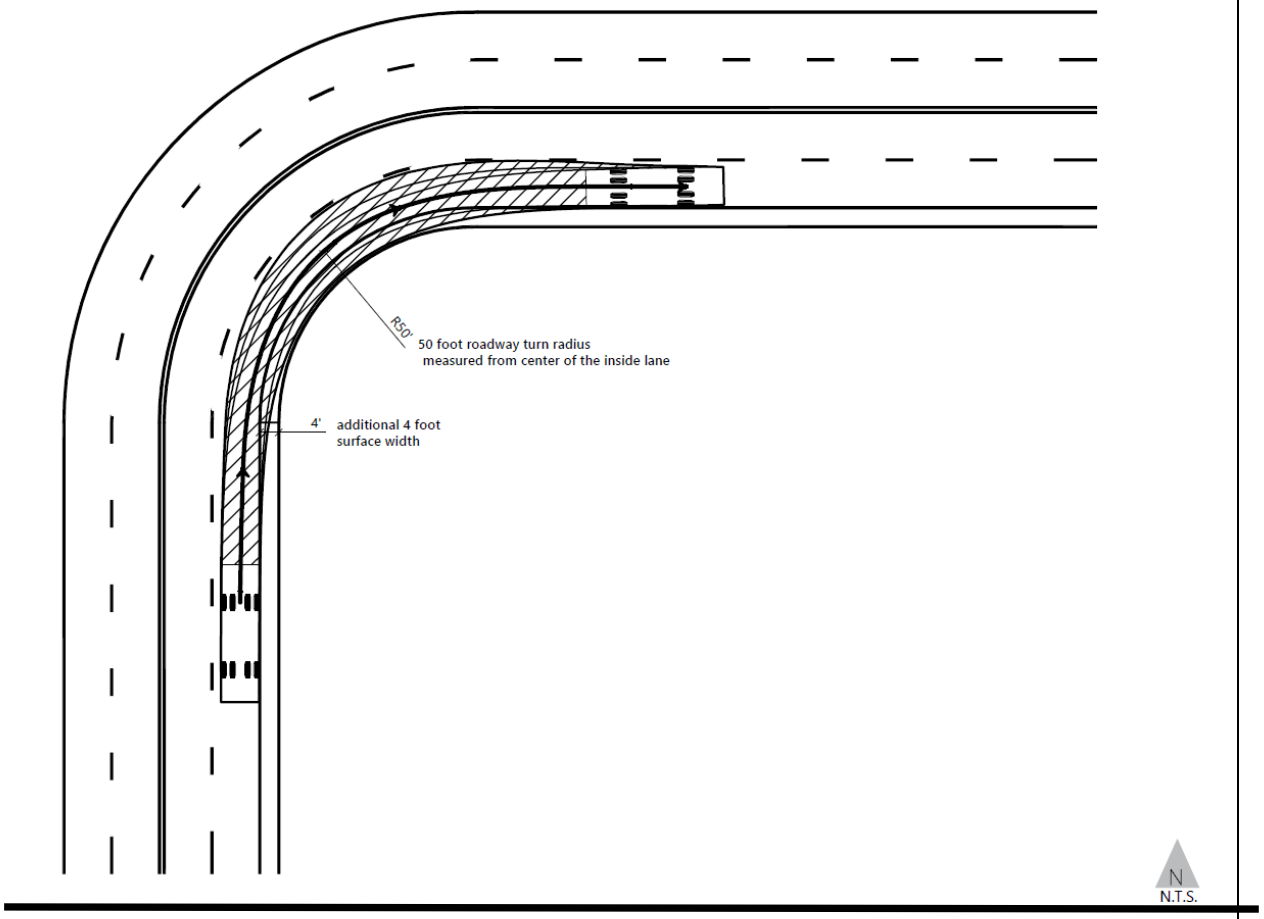
Article 2. ~~Emergency Access~~ Ingress and Egress

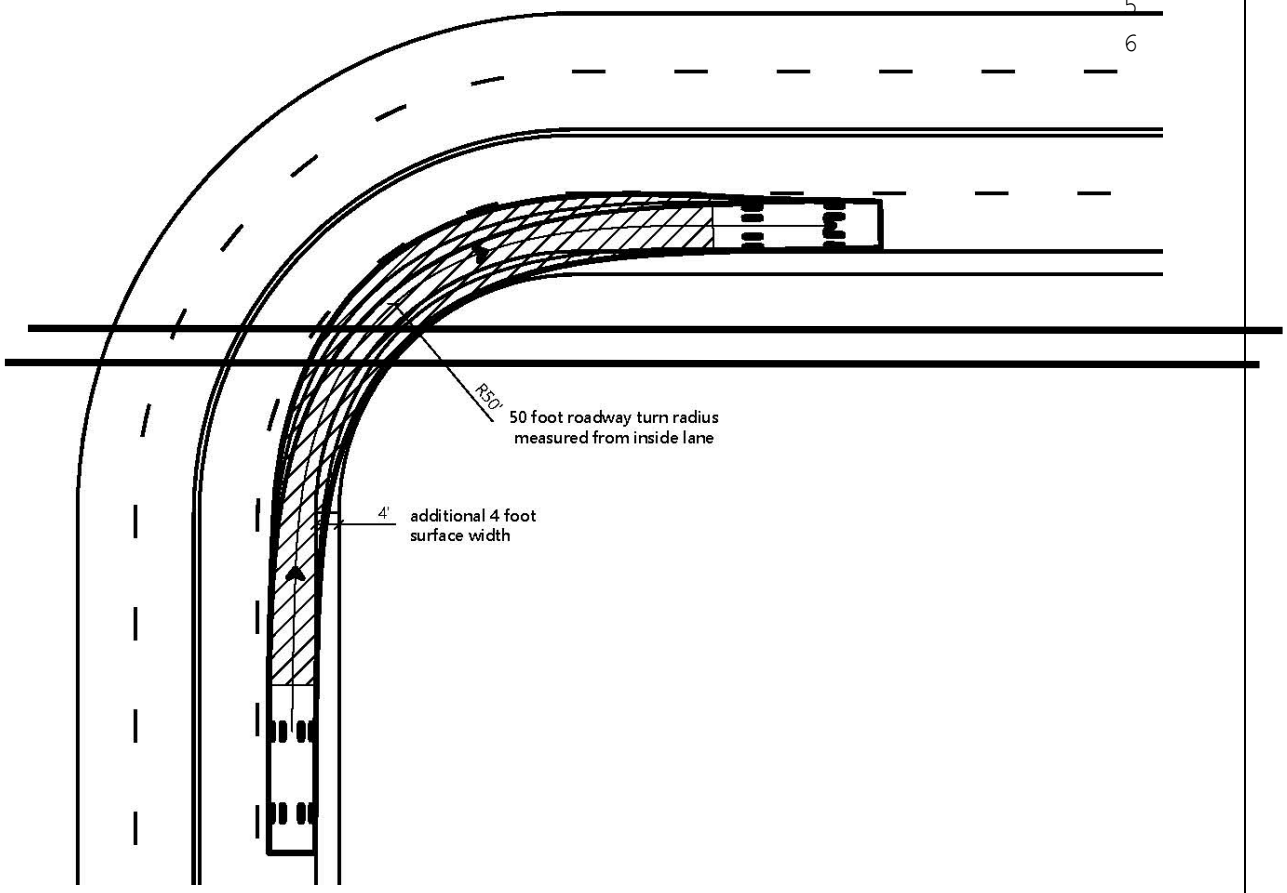
§ 1273.00. Intent.

Roads, and ~~d~~Driveways, whether public or private, unless exempted under 14 CCR § 1270.02(d), shall provide for safe access for emergency ~~w~~Wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a ~~w~~Wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

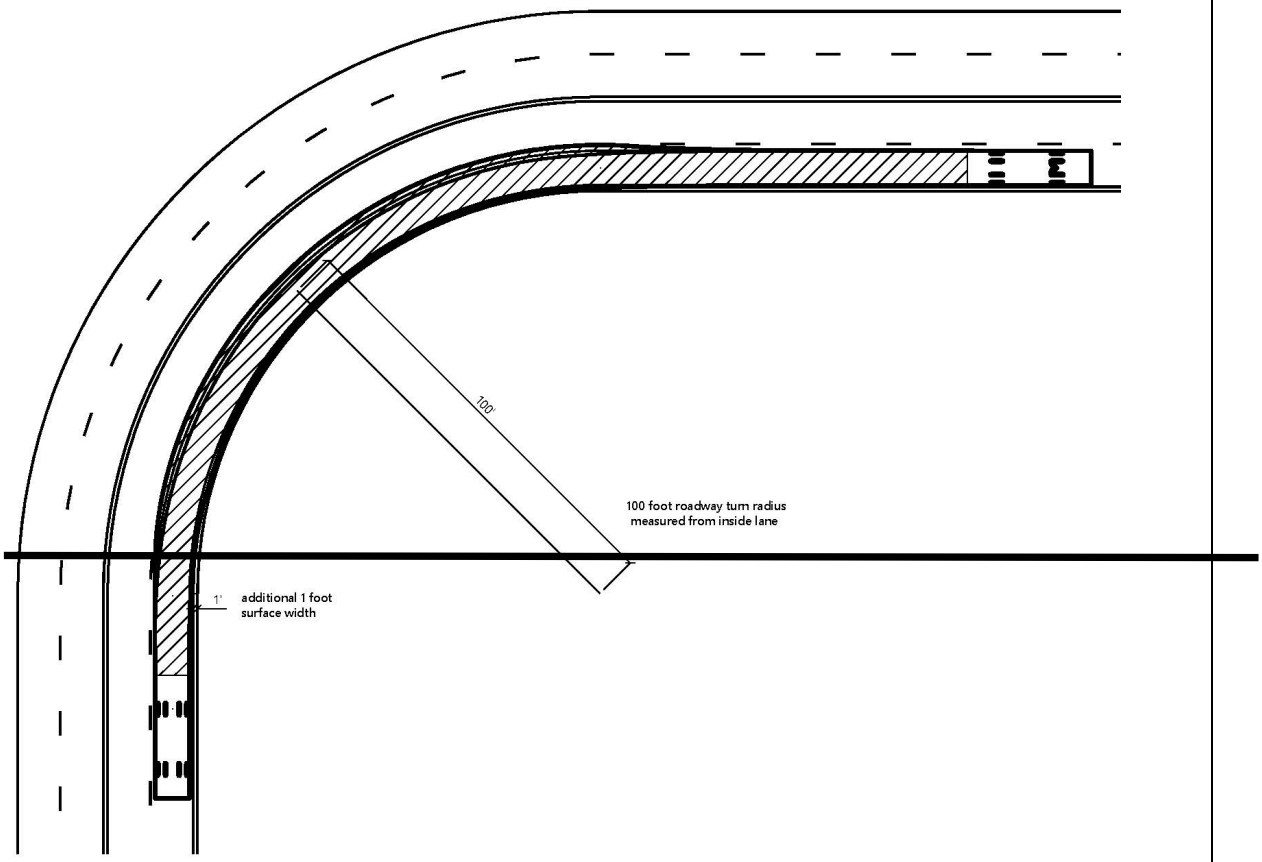
Note: Authority cited: Section 4290, Public Resoures Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.01. ~~Width.~~ Width

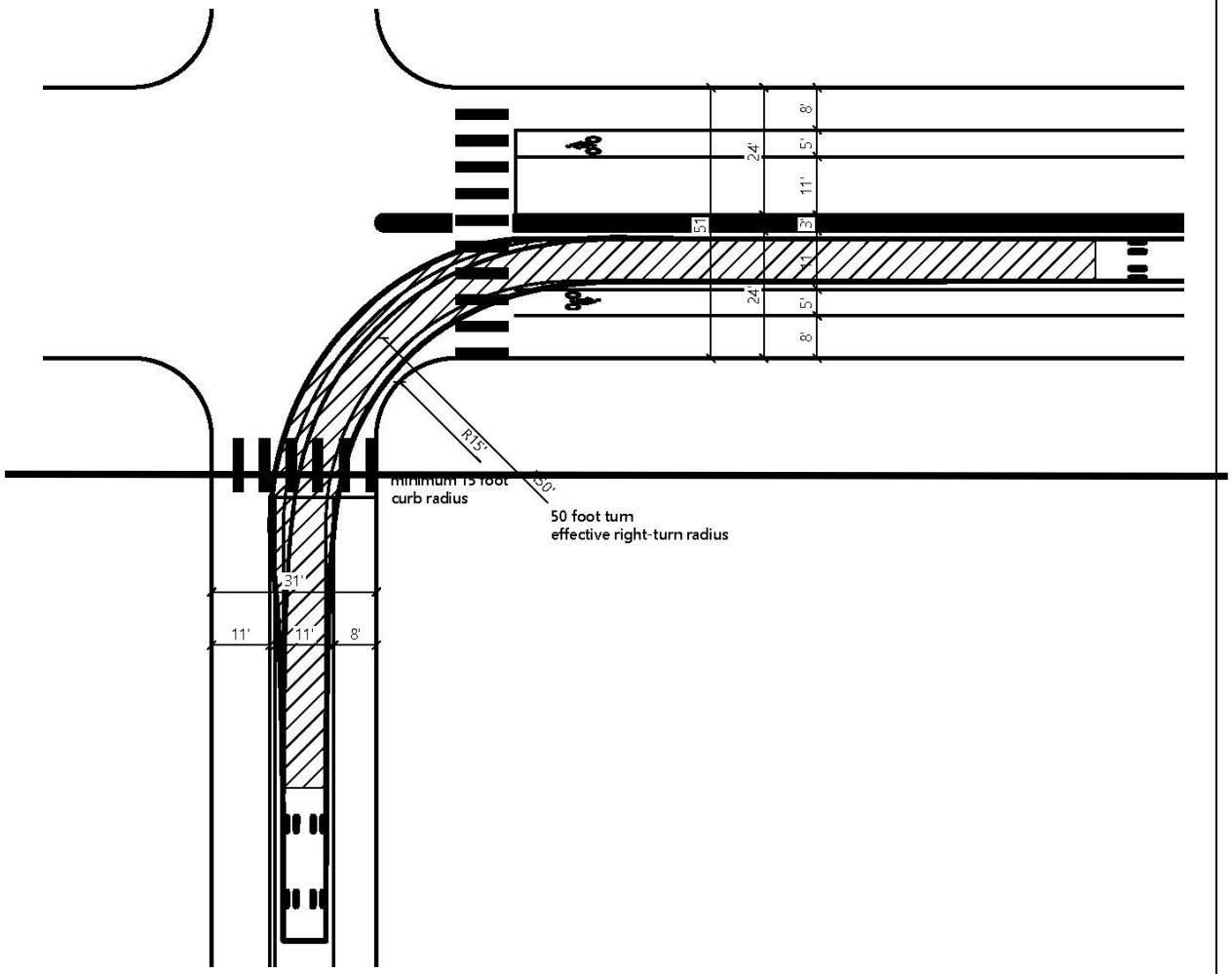

R50'
50 foot roadway turn radius
measured from center of the inside lane
4'
additional 4 foot
surface width
N
N.T.S.



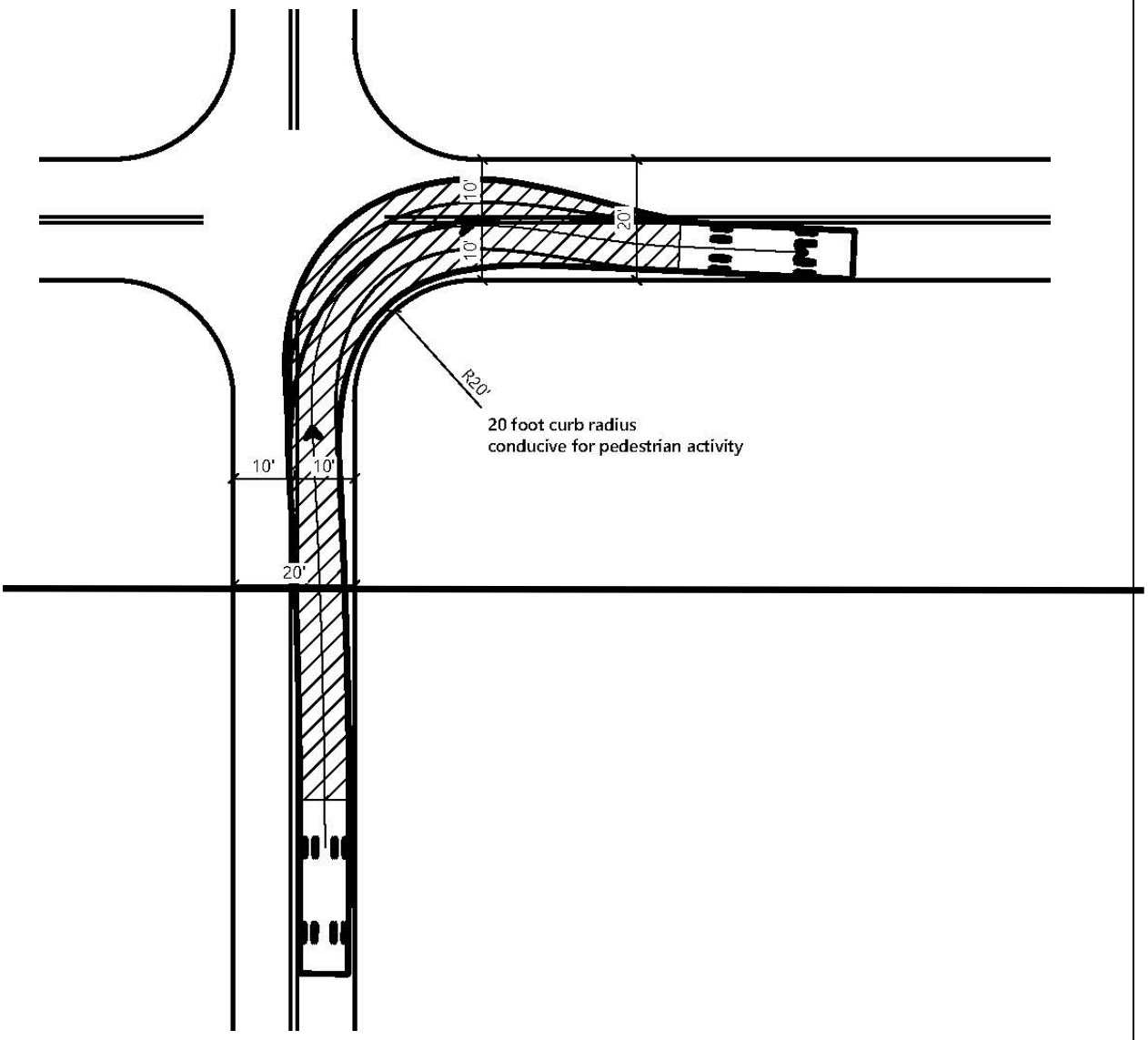
~~*Figure 1*~~
~~*Effective Turning Radius for Horizontal Curvature with 50 Foot Radius*~~



~~Figure 2~~
~~Effective Turning Radius for Horizontal Curvature with 100 Foot Radius~~



~~Figure 3~~
~~Effective Turning Radius for Intersections with Bike Lanes or Parking~~



~~Figure 4~~
~~Effective Turning Radius for 20 Foot Wide Road Intersection~~

(a) All Roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including Shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless

other standards are provided in this article or additional requirements are mandated by Local Jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including Shoulders. The Local Jurisdiction may approve One-way Roads.

(1) All One-way Roads shall, at both ends, connect to a Road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) Residential Units.

(2) In no case shall a One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each One-way Road.

(c) All Driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13' 6”).

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.02. Road Surfaces.

(a) Roads shall be designed and maintained tosupport the imposed load of ~~f~~Fire ~~a~~Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) Road and ~~d~~Driveway ~~s~~Structures shall be designed and

maintained to support at least 40,000 pounds.

(c) ~~P~~Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction ~~local authority having jurisdiction~~.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.03. Grades.

(a) At no point shall the grade for all ~~r~~Roads and ~~d~~Driveways exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the ~~local authority having jurisdiction~~ Local Jurisdiction and with mitigations to provide for ~~s~~Same ~~p~~Practical ~~e~~Effect.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.04. Radius.

(a) No ~~r~~Road or ~~r~~Road ~~s~~Structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in ~~r~~Roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.05. Turnarounds.

(a) Turnarounds are required on Driveways and Dead-end Roads.

(b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.

(c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the Driveway. Where the Driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.

(d) A turnaround shall be provided on Driveways over 300 feet in length and shall be within fifty (50) feet of the Building.

(d) Each Dead-end Road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.

(e) Figure A. Turnarounds on Roads with two ten-foot traffic lanes.

Figure A/Image 1 is a visual representation of paragraph (b).

[editorial note: no change to the images in this section]

(f) Figure B. Turnarounds on driveways with one ten-foot traffic lane.

Figure B/Image 2 is a visual representation of paragraph (b).

[editorial note: no change to the images in this section]

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.06 Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.07 Road and Driveway Structures.

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.

(b) Where a bridge or an elevated surface is part of a Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of Fire Apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the

local authority having jurisdiction.

(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.

(d) A bridge with only one traffic lane may be authorized by the Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.08 Dead-end Roads

(a) The maximum length of a ~~d~~Dead-end Road~~road~~, including all Dead-end Roads accessed from that Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

parcels zoned for less than one acre - 800 feet

parcels zoned for 1 acre to 4.99 acres - 1,320 feet

parcels zoned for 5 acres to 19.99 acres - 2,640 feet

parcels zoned for 20 acres or larger - 5,280 feet

All lengths shall be measured from the edge of the Road surface at the intersection that begins the Road to the end of the Road surface at its farthest point. Where a Dead-end Road crosses areas of differing zoned parcel sizes requiring different length

limits, the shortest allowable length shall apply.

(b) See 14 CCR § 1273.05 for Dead-end Road turnaround requirements.

Note: Authority cited: Section 4290, Public Resources Code.

Reference: Sections 4290 and 4291, Public Resources Code.

§ 1273.09 Gate Entrances.

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13' 6”).

(b) All gates providing access from a Road to a Driveway shall be located at least thirty (30) feet from the Roadway and shall open to allow a vehicle to stop without obstructing traffic on that Road.

(c) Where a One-way Road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.

(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

Article 3. Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved Roads and Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the Road. This section shall not restrict the size of letters or numbers appearing on Road signs for other purposes.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.01. Road Signs.

(a) Newly constructed or approved Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each Local Jurisdiction. This section does not require any entity to rename or renumber existing Roads, nor shall a Road providing access only to a single commercial or industrial Occupancy require naming or numbering.

(b) The size of letters, numbers, and symbols for Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background

color of the sign.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.

(b) Signs required by this article identifying intersecting Roads shall be placed at the intersection of those Roads.

(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, Dead-end Roads, One-way Roads, or single lane conditions, shall be placed:

(~~i~~1) at the intersection preceding the traffic access limitation, and

(~~ii~~2) no more than one hundred (100) feet before such traffic access limitation.

(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.03. Addresses for Buildings.

(a) All Buildings shall be issued an address by the Local

Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U Buildings are not required to have a separate address; however, each Residential Unit within a Building shall be separately identified.

(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.

(c) Addresses for residential Buildings shall be reflectorized.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All Buildings shall have a permanently posted address which shall be plainly legible and visible from the Road fronting the property.

(b) Where access is by means of a private Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.

(c) Address signs along One-way Roads shall be visible from both directions.

(d) Where multiple addresses are required at a single Driveway, they shall be mounted on a single sign or post.

(e) Where a Road provides access solely to a single commercial

or industrial business, the address sign shall be placed at the nearest Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.

(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

Article 4 Emergency Water Standards.

§ 1275.00. Intent.

Emergency water for ~~w~~Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a ~~w~~Wildfire or defend property from a ~~w~~Wildfire.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1275.01. Application.

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the Local ~~j~~Jurisdiction ~~having authority~~.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1275.02. Water Supply.

(a) When a water supply for ~~S~~structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the Local Jurisdiction~~local authority having jurisdiction~~.

(b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting," 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.

(c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment Structure, as long as the specified quantity is immediately available.

(d) Nothing in this article prohibits the combined storage of emergency ~~w~~Wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.

(e) Where freeze or crash protection is required by ~~l~~Local ~~j~~Jurisdictions ~~having authority~~, such protection measures shall be provided.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1275.03. Hydrants ~~and Fire Valves~~

(a) The Fire ~~h~~Hydrant ~~or fire valve~~ shall be eighteen (18) inches above the finished surface. Its location in relation to the ~~r~~Road or d~~r~~Riveway and to the ~~b~~Building(s) or ~~s~~Structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.

(b) The Fire ~~h~~Hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.

(c) Fire Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the ~~l~~Local ~~j~~Jurisdiction.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1275.04. Signing of Water Sources.

(a) Each Fire ~~h~~Hydrant~~, fire valve,~~ or access to water shall be identified as follows:

(1) if located along a ~~d~~Driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on

the ~~d~~Driveway address sign and mounted on a fire retardant post, or

(2) if located along a Road,

(1~~i~~) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said Fire ~~h~~Hydrant ~~or fire valve,~~ with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the ~~d~~Driveway, or

(2~~ii~~) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

Article 5. Building Siting, Setbacks, and Fuel Modification ~~Fuel Modification Standards~~

§ 1276.00. Intent

~~n~~To reduce the intensity of a Wildfire by reducing the volume and density of flammable vegetation, the strategic siting of fuel modification and Greenbelts shall provide for increased safety for emergency fire equipment and evacuating civilians by its utilization around Structures and Roads, including Driveways, and a point of attack or defense from a Wildfire. To

reduce the intensity of a Wildfire, reducing the volume and density of flammable vegetation around Development through strategic fuel modification, parcel siting and Building setbacks, and the protection of Undeveloped Ridgelines shall provide for increased safety for emergency fire equipment, including evacuating civilians, and a point of attack or defense from a Wildfire.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1276.01. Building and Parcel Siting and Setbacks. ~~Setback for Structure Defensible Space~~

(a) All parcels shall provide a minimum thirty (30) foot setback for all B~~b~~uildings from all property lines and/or the center of a R~~r~~oad, except as provided for in subsection (b).

(b) A reduction in the minimum setback shall be based upon ~~When a thirty (30) foot setback is not possible for~~ practical reasons, which may include but are not limited to, parcel dimensions or size; topographic limitations; Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints ~~easements~~, and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:

~~Same practical effect options may include, but are not limited~~

~~to:~~ (1) non-combustible block walls or fences; or

(2) ~~five (5) feet of~~ non-combustible material extending five (5) feet horizontally from the furthest extent of the Building; or

(3) ~~installing~~ hardscape landscaping; or

(4) ~~reducing~~ a reduction of exposed windows on the side of the ~~s~~Structure with a less than thirty (30) foot setback; or

(5) the most protective ~~additional Structure hardening that exceeds the~~ requirements in the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A, as required by the Local Jurisdiction.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1276.02. Ridgelines. ~~Maintenance of Defensible Space Measures.~~ (a) The Local Jurisdiction shall identify strategic Ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors:

(1) Topography;

(2) Vegetation;

(3) Proximity to any existing or proposed residential, commercial, or industrial land uses;

(4) Construction where mass grading may significantly alter the topography resulting in the elimination of Ridgeline fire

risks;

(5) Ability to support effective fire suppression; and

(6) Other factors, if any, deemed relevant by the Local Jurisdiction.

(b) Preservation of Undeveloped Ridgelines identified as strategically important shall be required pursuant to this section.

(c) New Buildings on Undeveloped Ridgelines identified as strategically important are prohibited, as described in subsections (c)(1), (c)(2), and (c)(3).

(1) New Residential Units are prohibited within or at the top of drainages or other topographic features common to Ridgelines that act as chimneys to funnel convective heat from Wildfires.

(2) Nothing in this subsection shall be construed to alter the extent to which utility infrastructure, including but not limited to wireless telecommunications facilities, as defined in Government Code section 65850.6, subdivision (d)(2), or Storage Group S or Utility and Miscellaneous Group U Structures, may be constructed on Undeveloped Ridgelines.

(3) Local Jurisdictions may approve Buildings on strategic Ridgelines where Development activities such as mass grading will significantly alter the topography that results in the elimination of Ridgeline fire risks.

(d) The Local Jurisdiction may implement further specific

requirements to preserve Undeveloped Ridgelines.

~~To ensure continued maintenance of commonly owned properties in conformance with these standards and to assure continued availability, access, and utilization of the Defensible Space provided by these standards during a Wildfire, provisions for annual maintenance shall be provided in emergency access covenants or similar binding agreements.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1276.03. Fuel Breaks ~~Disposal of Flammable Vegetation and Fuels.~~

(a) When Building construction meets the following criteria, the Local Jurisdiction shall determine the need and location for Fuel Breaks in consultation with the Fire Authority:

(1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or

(2) an application for a change of zoning increasing zoning intensity or density; or

(3) an application for a change in use permit increasing use intensity or density.

(b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the

potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.

(c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.

(d) Fuel Breaks may be required at locations such as, but not limited to:

(1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;

(2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation safety, or support fire suppression tactics;

(3) Directly adjacent to a Hazardous Land Use to limit the spread of fire from such uses, reduce radiant and convective heat exposure, or support fire suppression tactics;

(4) Strategically located along Ridgelines, in Greenbelts, or other locations to reduce radiant and convective heat exposure, ember impacts, or support community level fire suppression tactics.

(e) Fuel Breaks shall be completed prior to the commencement of any permitted construction.

(f) Fuel Breaks shall be constructed using the most ecologically

and site appropriate treatment option, such as, but not limited to, prescribed burning, manual treatment, mechanical treatment, prescribed herbivory, and targeted ground application of herbicides.

(g) Where a Local Jurisdiction requires Fuel Breaks, maintenance mechanisms shall be established to ensure the fire behavior objectives and thresholds are maintained over time.

(h) The mechanisms required shall be binding upon the property for which the Fuel Break is established, shall ensure adequate maintenance levels, and may include written legal agreements; permanent fees, taxes, or assessments; assessments through a homeowners' association; or other funding mechanisms.

~~Disposal, including chipping, burying, burning or removal to a site approved by the Local Jurisdiction, of flammable vegetation and fuels caused by site Development and construction, Road and Driveway construction, and fuel modification shall be completed prior to completion of Road construction or final inspection of a Building permit.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1276.04. Greenbelts, Greenways, Open Spaces and Parks ~~Greenbelts~~

(a) Where a Greenbelt, Greenway, open space, park, landscaped or natural area, or portions thereof, is intended to serve as a

Fuel Break, the space or relevant portion thereof shall conform with the requirements in § 1276.03 (Fuel Breaks).

~~Subdivision and other Developments, which propose Greenbelts as a part of the Development plan, shall locate said Greenbelts strategically as a separation between wildland fuels and Structures. The locations shall be approved by the local authority having jurisdiction and may be consistent with the CAL FIRE Unit Fire Management Plan or Contract County Fire Plan.~~

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

§ 1276.05 Disposal of Flammable Vegetation and Fuels

The disposal, including burning or removal to a site approved by the Local Jurisdiction, in consultation with the Fire Authority, of flammable vegetation and fuels caused by site construction, Road and Driveway construction shall be in accordance with all applicable laws and regulations.

Note: Authority cited: Section 4290, Public Resources Code. Reference: Sections 4290 and 4291, Public Resources Code.

Exhibit D

Town of Portola Valley

Chronology: State and Local Fire-Related Regulatory Actions

1985 – Cal Fire released first fire zone maps for State Responsibility Areas (SRA)

1992 – Bates Bill requiring Cal Fire to issue fire maps for Local Responsibility Areas (LRA)

1996 – Cal Fire released first fire zone maps for LRAs

2007 – Cal Fire released second set of fire zone maps for SRAs

2008-2011 – Cal Fire released second set of fire zone maps for LRAs

April 2008 – Cal Fire published draft fire map showing no Very High fire areas in Town

April 23, 2008 – Council meeting regarding status of Cal Fire map and Ray Moritz map

April 25, 2008 – Mayor wrote letter accepting Cal Fire Map

May 2008 – Cal Fire issued revised map taking into account additional areas recommended by Woodside Fire Protection District

October 2008 – Moritz Fuel Hazard Assessment Report issued

November 23, 2008 – Cal Fire issued third revised map representing a consensus between Town, WFPD and Moritz

December 15, 2008 – Cal Fire transmitted third revised map to Town of Portola Valley

February 25, 2009 – Town Council staff report recommending adoption of November 23, 2008 Cal Fire map

May 13, 2009 – Town Council decided not to adopt Cal Fire map, adopted Chapter 7A town wide and directed Moritz report be incorporated into Safety Element and used to implement vegetation management plans

July 28, 2010—Town's Safety Element updated to include Moritz Report

2012 – AB 1241 adopted requiring cities with adopted Very High Fire Hazard Zones (VHFHZ) to include a discussion of wildfire in the next update of the Safety Element of the General Plan. Also required fire findings for subdivisions located in VHFHZs.

December 28, 2018 – OPR's new CEQA Guidelines requiring wildland fire impacts to be addressed became effective

January 1, 2019 – SB 1260 removed cities' discretion to elect not to adopt VHFHSZ maps recommended by Cal Fire.

January 1, 2019 – SB 901 extended minimum fire safety standards relative to defensible space to VHFHSZ in LRAs effective July 1, 2021

April 10, 2019 – Town Council created the Wildfire Preparedness Committee

2019 – Third set of fire maps originally expected to be released by Cal Fire (now estimated to be released in late 2022)

January 1, 2020 – AB 747 adopted requiring Safety Elements to be reviewed and updated if necessary to include discussion of evacuation routes in Safety Element

July 1, 2021 – Cal Fire amended Minimum Fire Safe Regulations to include VHFHSZ in LRAs (implements SB 63)

August 11, 2021 – Town Council adopted ADU Fire Safety Checklist

December 8, 2021 – Town adopted Home Hardening Ordinance

August 4, 2022 – Emergency Preparedness Committee recommended Town Council adopt Evacuation Study

August 10, 2022 – Town Council adopted Evacuation Study

August 17, 2022 – Board of Forestry adopted updates to Minimum Fire Safe Regulations (effective January 1, 2023)

August 17, 2022 – OPR released final Fire Hazard Planning Technical Advisory and WUI Planning Guide

January 1, 2023 – New Uniform Building and Fire Codes take effect (updated on three year cycle)

January 31, 2023 – Updated Housing Element due (Safety Element updated concurrently)

February 2023 – Target date for completion of WFPD's updated fire mapping

July 1, 2025 – Low cost retrofit disclosures required for sale of homes built before January 1, 2010 located in a VHFHSZ