5.5 HAZARDS AND HAZARDOUS MATERIALS

This section of the ~~Draft~~ Environmental Impact Report (EIR) evaluates the potential impacts of the proposed project on human health and the environment due to exposure to wildland fires, hazardous materials, or conditions associated with the project site, project construction, and project operations. The analysis in this section is based, in part, upon the following sources:

- *Phase I and Limited Phase II, Environmental Site Assessment Report, 23915 Malibu Road, City of Malibu, Los Angeles County, California*, Leighton and Associates, Inc., October 24, 2005.
- *Revised Addendum to Phase I and Limited Phase II, Environmental Site Assessment Report, 23915 Malibu Road, City of Malibu, Los Angeles County, California*, Leighton and Associates, Inc., November 13, 2008.
- *Additional Work Related to Phase II Site Assessment of the former Underground Storage Tank (UST) and Hydraulic Lift, Tentative Tract 52487, City of Malibu, California,* Leighton and Associates, Inc., February 15, 2006.
- *Results of Limited Geophysical Survey Malibu Road "Towing Site", City of Malibu, California*, Leighton and Associates, Inc., November 26, 2008.
- *Fire Protection Plan, Vesting Tentative Tract Map No. 068861*, Dudek, September 2008.
- *Responses To City Of Malibu Review Comments Dated February 17, 2009 "Towing Site" 23915 Malibu Road, Malibu, California,* Leighton and Associates, Inc., April 7, 2009.

The Phase I and Limited Phase II Environmental Site Assessment Report, its addenda, and associated reports and response to Malibu Review comments are included in Appendix H of this ~~Draft~~ EIR, and the Fire Protection Plan is included in Appendix I of this ~~Draft~~ EIR.

5.5.1 Environmental Setting

Historical Uses

Onsite

The site is currently developed with a veterinary clinic/residence in the southern portion of the site; a single-family residence in the central portion; and a former tow yard with an automobile garage, lavatory shed, and a large asphalt-paved parking area with three mobile trailers in the northern portion of the site. The structures currently on the site were constructed between 1958 and 1963 and may contain lead-based paint and asbestos-containing building materials. A permit for the installation of a 1,500-gallon gasoline underground storage tank (UST) was issued on April 2, 1958, and is reportedly located in the north part of the site, although its exact location, status, and condition are not known. Geophysical surveys and exploratory excavations failed to locate the UST, although the location of the hydraulic lift, which consists of a cylinder, metals rails, and associated concrete, was exposed and confirmed. According to the Revised Addendum to Phase I and Limited Phase II Environmental Site Assessment, the hydraulic lift was removed from the project site in 2007. It is not known whether the UST still remains on the project site. Additionally, as many as four onsite wastewater treatment system (OWTS) tanks could be present onsite.

Historically, the site has been used as dry farming land, an orchard, a veterinary clinic, residences, automobile repair shop, vehicle storage, and towing operations. According to interviews conducted during the preparation of the Phase I and Limited Phase II Environmental Site Assessment (ESA), former practices included spraying the ground with diesel fuel for weed control. Various wastes, including but not limited to used motor oil, broken tractors and other machinery, poison canisters, and common household refuse, reportedly have been dumped and/or buried at the site.

Offsite

The area surrounding the project site consists of residential and undeveloped areas. The project site is bordered by Pacific Coast Highway (PCH), then undeveloped land to the north; undeveloped land to the east and west; and Malibu Road, then residential property to the south. The Malibu Colony Plaza is approximately 300 feet to the east. Historically, PCH and the area north of PCH were agricultural land.

Wildland Fires

Malibu is in the Santa Monica Mountains, and is subject to significant fire hazards due to highly flammable chaparral vegetation covering thousands of acres. Fires in these brushland areas are inevitable because of the flammability of both living and nonliving brush and the variable weather conditions that exist. During the autumn months, Malibu is very dry and highly susceptible to fires. Most fires occur under Santa Ana wind conditions, which are hot, desert winds usually of relatively high velocity and are associated with low humidity. The low humidity and high temperature often produce an extreme fire hazard during late summer and fall.

The project site, as provided by the Los Angeles County Fire Resource Assessment Program September 2007 Fire Hazard Map, is within an area designated as a Moderate Fire Hazard Severity Zone. However, Ordinance No. 299 of the City of Malibu required the Los Angeles County Fire Chief to designate all land within the City as a Very High Fire Hazard Severity Zone (VHFHSZ), a zone defined by a more destructive behavior of fire and a greater probability of flames and embers threatening buildings. Properties in VHFHSZ are subject to more stringent Building Code requirements. In summary, these Code provisions address roofing and siding materials, window glazing, exterior doors, the protection of openings and unenclosed under floor areas, and accessory structures. In addition, the Fire Code establishes special review requirements including preparation and approval of a fuel modification plan.

The City of Malibu has experienced major fires in the past. The project site itself has been affected by five recorded fires. The Malibu Fire of 1935, an unnamed fire in 1958, the Wright Fire in 1970, the Calabasas Fire in 1996, and most recently, the Canyon Fire of 2007 have burned the project site. The October 2007 Canyon Fire severely burned the northern, western, and eastern perimeters of the site, as well as the surrounding areas to the north, west, and east. Prior to the fires, these areas were covered with mature eucalyptus trees, mixed sage scrub plant community, nonnative grass, and weed species.

A substantial portion of the project site is disturbed and/or barren as a result of the former towing operations, vehicle storage, and other structures. Existing vegetative fuels on the site are associated with native and nonnative shrubs and trees scattered throughout the project site and concentrated along the western and northern slopes.

Vegetation, as fuel, plays a major role in affecting fire behavior and shaping the fire hazard potential on the project site. Although the dominant fuel type found on the project site, mixed sage scrub, can burn intensely under strong, dry wind patterns, it does not produce the high fire intensity and fast-spreading wildland fires associated with chaparral fuel types.

Fire Services

The City is served by the Los Angeles County Fire Department (LACFD), as well as the California Department of Forestry and Fire Prevention, if needed. There are five LACFD stations that could serve the project site. Their staffing and equipment are detailed in Table 5.5-1, *Fire Stations Serving the Project Site*.

Table 5.5-1
Fire Stations Serving the Project Site

Station	Address	Distance from Project Site	Staffing/Equipment
Station 88	23720 Malibu Road Malibu, CA 90265	0.3 miles	Three-person engine company and a two-person paramedic squad
Station 70	3970 Carbon Canyon Road Malibu, CA 90265	2.9 miles	Four-person engine company and a battalion chief
Station 67	25801 Piuma Road Calabasas, CA 91302	6.2 miles	Three-person engine company
Station 69	401 S. Topanga Canyon Blvd Topanga, CA 90290	10.8 miles	Four-person assessment engine company and additional paid on-call firefighters on an "as needed" basis"
Station 71	28722 W. Pacific Coast Highway Malibu, CA 90265	6.7 miles	Four-person engine company and a two-person paramedic squad

Source: Dudek 2008.

Fire protection services for the project site are primarily provided by Fire Station 88, but if necessary, the project site could be served by any or all of the fire stations listed in Table 5.5-1. In addition to these stations, in the event of major fires, the county has mutual aid agreements with cities and counties throughout the state so that additional personnel and fire fighting equipment can augment the LACFD.

Regulatory Setting

Various federal and state regulations and programs exist to reduce risks related to environmental hazards and to regulate the use, storage, and transportation of hazardous materials. Several of the existing federal and state laws and programs are summarized in the following paragraphs.

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the principal federal law that regulates generation, management, and transportation of hazardous waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste.

The Environmental Protection Agency

The Environmental Protection Agency (EPA) oversees and administers federal programs, laws, and regulations such as the aforementioned RCRA. In addition, Region IX of the EPA has established regional screening levels (RSL), formerly known as preliminary remediation goals ~~(PRG), risk,~~ health-based guidelines that may be used in the evaluation and cleanup of waste release sites. Although they are not intended as de facto cleanup standards, they are often used to streamline and standardize the health risk decision-making process.

Toxic Substances Control Act

The manufacture and importation of chemicals is regulated by the Toxic Substances Control Act (TSCA). The TSCA gives the EPA the authority to require reporting or testing of chemicals which may pose an environmental or human-health hazard. The EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk. In October 1992, TSCA was amended to add the Lead-Based Paint Exposure Reduction Act, intended to reduce the exposure of children to lead. This Act established state programs for monitoring and abatement, and training and certification requirements for lead abatement workers.

State

Hazardous Materials Release Notification

Many state statutes require emergency notification of a hazardous chemical release. These statutes include:

- Health and Safety Codes §§ 25270.7, 25270.8, and 25507
- Vehicle Code § 23112.5
- Public Utilities Code § 7673 (PUC General Orders #22-B, 161)
- Government Code §§ 51018, 8670.25.5 (a)
- Water Codes §§ 13271, 13272
- California Labor Code § 6409.1 (b)10

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration (Cal/OSHA) pursuant to the California Labor Code § 6409.1(b).

Leaking Underground Fuel Tanks

Leaking USTs have been recognized since the early 1980s as a major source of groundwater contamination by fuel products and solvents. In California, regulations aimed at protecting against UST leaks have been in place since 1983 (Health and Safety Code). This occurred one year before RCRA was amended to add Subtitle I, requiring UST systems to be installed in accordance with standards that address the prevention of future leaks. The State Water Resources Control Board (SWRCB) has been designated the lead California regulatory agency in the development of UST regulations and policy.

Older tanks are typically single-walled steel tanks. Many of these have leaked as a result of corrosion, punctures, and detached fittings. As a result, the State of California required the replacement of older tanks with new double-walled fiberglass tanks with flexible connections and monitoring systems. UST owners were given 10 years to comply with the new requirements. The deadline for compliance was December 22, 1998. However, many UST owners did not act by the deadline, so the state granted an extension for their replacement ending January 1, 2002. The SWRCB, in cooperation with the Office of Emergency Services, maintains an inventory of leaking underground fuel tanks in a statewide database.

South Coast Air Quality Management District

South Coast Air Quality Management District (SCAQMD) Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing material (ACM). The requirements for demolition and renovation activities

include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, storage, and disposal requirements for asbestos-containing waste materials (ACWM). In the event the gasoline UST is encountered, and it still contains gasoline liquid that could release volatile organic compounds (VOCs) to the atmosphere, then the tank may need to be cleaned and degassed, in which case, the provisions of SCAQMD Rule 1149 must be followed. Similarly, if the tank leaked and VOC-impacted soil needs to be overexcavated, then the provisions of SCAQMD Rule 1166 will need to be adhered to.

California Code of Regulations

Title 22, Division 4.5 of the California Code of Regulations (CCR) sets forth the requirements for hazardous-waste generators, transporters, and owners or operators of treatment, storage, or disposal facilities. These regulations include requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. They also specify the requirements for transporting hazardous waste, including manifesting, vehicle registration, and emergency accidental discharges during transportation.

Occupational Safety and Health Administration Rule 29, Code of Federal Regulations Part 1926

Prior to demolition of the onsite buildings/structures, building materials will also be carefully assessed for the presence of lead-based paint. Its removal, where necessary, will need to comply with state and federal regulations, including Occupational Safety and Health Administration (OSHA) Rule 29, Code of Federal Regulations (CFR) Part 1926. The OSHA rule establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation of monitoring. Because 29 CFR Part 1926 is an existing regulation, federal law requires compliance with 29 CFR Part 1926 whether it is included in this EIR or not. Furthermore, Title 17, CCR, Division 1, Chapter 8, identifies procedures for accreditation, certification, and work practices for lead-based paint and lead hazards. Section 36100 specifically sets forth requirements for lead-based paint abatement of public and residential buildings.

Occupational Safety and Health Administration Hazard Communication Program

The US Department of Labor Occupational Safety and Health Administration (OSHA) has standards that regulate the use of significant quantities of hazardous materials in the workplace. The Hazard Communication Standards requirements include the training of workers to handle hazardous materials and proper labeling of hazardous materials. It is intended to ensure that adequate information about hazardous materials being used is available to those who might be affected by the materials.

California Building Code

The California Building Code specifies structural requirements for buildings exposed to wildland vegetation. These requirements are intended to protect the buildings from wildland fires.

California Government Code Section 51175

This requires the Director of Forestry and Fire Protection to identify areas in the state of California that are considered VHFHSZs. These fire zones are delineated on Fire Hazard Severity Zone Maps created for areas throughout the state, including the City of Malibu.

Local

Los Angeles County Code

The City of Malibu has adopted by reference Title 11, Health and Safety, Division 2, General Hazards, of the Los Angeles County Code. It includes regulations concerning potential hazards, including water hazards. Other portions of the Los Angeles County Code, including Division 3 and Division 4 of the Health and Safety codes, include regulations concerning the storage and transportation of hazardous materials.

The Los Angeles County Fire Code also establishes guidelines and requirements for fuel modification and clearance of brush and vegetative growth. Specifically, Fire Code Section 1117.2.1 requires the submittal of a fuel modification plan, a landscape plan, and an irrigation plan for the area within a proposed project's boundaries that is prepared by a registered landscape architect, landscape designer, landscape contractor, or an individual with expertise acceptable to the forestry division of the fire department prior to any new construction where the structure or subdivision is in an area designated as a VHFHSZ in Los Angeles County.

The Weed Abatement Division of the Los Angeles County Department of Agricultural Commissioner has been given authority to create defensible space for unimproved properties. In accordance with Los Angeles County Fire Code (Section 317 et seq.), the Agricultural Commissioner may notify all owners of property affected that they must clear all flammable vegetation and other combustible growth or reduce the amount of fuel content for a distance greater than 30 feet, but not to exceed 200 feet.

City of Malibu Fire Code

The City of Malibu has adopted the Los Angeles County Fire Code, contained in Title 32 of the Los Angeles County Code. The Los Angeles County Fire Code has, in turn, adopted the California Fire Code, 2007 edition. The City of Malibu Fire Code includes regulations that require the identification of Fire Hazard Severity Zones and regulations that regulate vegetation management and fuel modification. Fire Code Section 1117.2.1 requires that a fuel modification plan, a landscape plan, and an irrigation plan be prepared prior to any subdivision of land or new construction in a VHFHSZ. As described previously in this chapter, all land in the City is designated as a VHFHSZ. The Malibu Fire Code requires that a fuel modification plan be prepared for any projects in a VHFHSZ.

City of Malibu Local Coastal Program Land Use Plan

General Policies 4.45 through 4.54 of the City of Malibu Local Coastal Program (LCP) Land Use Plan are intended to minimize risks due to fire hazards. They include siting and design guidelines and requirements, including guidelines and requirements for developments adjacent to parkland. This also requires adequate access and water supply for fire protection personnel. Specific brush clearance methods are required. The LCP Land Use Plan also requires a Fuel Modification Plan for any project that requires fuel modification.

City of Malibu LCP Local Implementation Plan

Chapter 9 of the City of Malibu LCP Local Implementation Plan contains provisions intended to ensure that new development minimizes risks to life and property in areas of high geologic, flood, and fire hazard. To implement the LCP Land Use Plan, development standards, permit and application requirements, and other measures are provided.

5.5.2 Thresholds of Significance for Hazards and Hazardous Materials

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

HAZ-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

HAZ-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

HAZ-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

HAZ-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

HAZ-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

HAZ-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

The project site is not located in the vicinity of a public airport or a private airstrip or within the jurisdiction of an Airport Land Use Plan. The nearest public airport is Santa Monica Airport, approximately 15 miles east of the project site. Therefore, the impacts associated with the following thresholds would be less than significant and will not be addressed in the following analysis.

- Thresholds HAZ-5 and HAZ-6

5.5.3 Environmental Impacts

The following impact analysis addresses potentially significant impacts. The applicable thresholds of significance are identified in brackets after the impact statement.

IMPACT 5.5.1: OPERATION OF THE PROPOSED PROJECT WOULD NOT INVOLVE THE TRANSPORT, USE, AND/OR DISPOSAL OF HAZARDOUS MATERIALS. [THRESHOLDS HAZ-1, HAZ-2, AND HAZ-3]

Impact Analysis:

Operation of the proposed low-density single-family development would not involve the use of hazardous materials beyond normal household cleaners, pool cleaning chemicals, and landscaping products. Use of these substances would be minimal and would not be subject to established federal OSHA standards or to approval by the LACFD. The proposed project would not involve the release or handling of a substantial amount of hazardous or acutely hazardous materials, nor would it emit a substantial amount of hazardous emissions. Stationary emission sources generated at the project site could be from small portable generators and barbeque grills and ovens, which would not pose a significant health risk to sensitive receptors nearby, such as residences along Malibu Road and northeast of the site, Malibu Bluffs Park approximately ~~500~~ 1,000 feet west of the site, and occupants of Webster Elementary School and Our Lady of Malibu Catholic School, which are approximately 900 feet and 1,200 feet from the northern boundary of the project site.

IMPACT 5.5-2: CONSTRUCTION OF THE PROPOSED PROJECT WOULD REQUIRE THE REMOVAL OF HAZARDOUS MATERIALS, INCLUDING POTENTIAL LEAD-BASED PAINT AND ASBESTOS-CONTAINING MATERIALS. [THRESHOLD HAZ-1, HAZ-2, AND HAZ-4]

Impact Analysis:

Project construction would require the removal and/or demolition of standing and buried structures located on the site, including the former veterinary clinic and tow yard, and the single-family residence. Project construction may also require removal of a 1,500-gallon gasoline UST~~, hydraulic lift~~ and up to four OWTS tanks that may be on the project site.

The Phase I and Limited Phase II ESA and associated addenda and response to City Comments included a review of federal, state, and local regulatory databases compiled in accordance with Government Code Section 65962.5 for cases pertaining to leaking USTs, aboveground storage tanks, hazardous waste sites, and abandoned potentially hazardous sites. The assessments concluded that the project site is not listed on any of the databases, and that listed facilities nearby do not represent a potential source of soil or groundwater contamination that would migrate beneath the site.

However, historic uses at the site involved the use of hazardous substances, including pesticides due to historical agricultural use of portions of the site, gasoline and diesel fuels, and motor oil. Underground, environmentally sensitive structures, such as the 1,500-gallon gasoline UST that ~~reportedly~~ may lie~~s~~ beneath the north part of the site, ~~the hydraulic lift,~~ and any buried waste that is encountered, will need to be removed from the site and/or closed in accordance with applicable state and local requirements. In the case of the UST, a tank closure permit may need to be secured from the Los Angeles County Department of Public Works Environmental Programs Division, and their protocols and procedures for tank removal, as well as the associated sampling and testing requirements, will need to be followed. Although geophysical surveys and exploratory excavations were unable to locate the UST, it might be encountered during site grading and/or construction. Depending on the condition of the UST and any gasoline liquid that might remain in the tank, permits that govern releases of VOCs to the atmosphere may have to be secured from the SCAQMD. The excavation and removal of metals-impacted soil, if implemented without appropriate dust control measures, could result in contaminant releases via fugitive dust.

Soil sampling conducted as a part of the October 2005 Phase I and Limited Phase II ESA identified vanadium concentrations that were above the EPA's RSLs, or health-based guidance levels, in certain soil samples

~~(PRGs)~~. That report originally recommended that soil in areas with purportedly "elevated" concentrations of vanadium should be excavated and disposed of at a proper facility. As summarized in Leighton's November 13, 2008, revised addendum to that report, subsequent reexamination of the soil analyses and comparison to the most up-to-date regulatory thresholds—notably, the U.S. EPA's health risk-based RSL, that were most recently updated in April 2009—showed that the maximum concentration of vanadium at the site (i.e., 190 mg/kg) did not exceed the current RSL for residential soil of 390 mg/kg (EPA 2009). For this reason, it was determined that the vanadium detected in soil at the site does not pose a concern from human health risk standpoint.

Total petroleum hydrocarbons were not detected above the laboratory detection limits in any of the soil samples analyzed. In addition, the chromium and lead in several soil samples were at levels that could make those soils a California hazardous waste once they are excavated. As reported in the recent Revised Addendum to the Phase I and Limited Phase II ESA report, additional testing of these soils showed that the Soluble Threshold Limit Concentration (STLC) limit, a California test for hazardous waste, was not exceeded, and for this reason, these soils will not require removal or special handling as a waste during site grading. ~~As discussed in the November 13 addendum, the vanadium that was detected in certain soil samples was reexamined in light of the most current EPA risk-based guidelines.~~

The maximum vanadium concentration detected at the site, so far, lies well below these EPA residential soil screening levels. These findings notwithstanding, it is possible that other contaminants, such as petroleum hydrocarbons, could be encountered in soil during site grading and/or construction. ~~and that certain~~ Should that occur, the appropriate regulatory agencies, such as the SCAQMD or the Los Angeles County Fire Department Health Hazardous Materials Division (LACFD HMMD), ~~might need to~~ would be notified as required by state and local regulations.

As described in the April 7, 2009, Response to City of Malibu Comments prepared by Leighton and Associates, additional testing for impacts related to past pesticide use on the project site was performed in March 2009. Four organochlorine pesticides, 4,4-DDE, 4,4-DDT, aldrin, and chlordane, were detected above the laboratory detection limit. Their concentrations, however, were below the current USEPA Region 9 Site Screening Level for residential properties and the current maximum contaminant level Site Screening Level.

Aldrin and chlordane also exceeded the current groundwater risk-based Site Screening level. Therefore, groundwater samples were conducted on three wells within the project site boundaries. The samples collected confirmed no pesticides were detected above the method detection limit. The April 7, 2009, report states that, based on the results of the laboratory analyses that were performed on groundwater samples collected from the site, it is the opinion of Leighton and Associates that groundwater has not been impacted by historical pesticide use on the property.

Additionally, the EDR report contained in the Phase I and Limited Phase II ESA states indicated that radon concentration is exceeded in 19 percent of tested sites (with reference to USEPA action level) in zip code 90265. Radon is not regulated in the State of California. Nonetheless, the California Department of Health Services and the USEPA both recommend 4 picocuries per liter (pCi/L) as the level at which certain precautions be taken to mitigate the buildup of indoor radon. As of the April 7, 2009, Response to City of Malibu Comments, the California Department of Health Services' database of indoor radon levels, last updated on July 1, 2008, showed that for zip code 90265, out of 62 tests, 9 tests (or 14.5 percent) exceeded 4 pCi/L. The California Department of Conservation, California Geological Survey (2005), also identifies the project site within a thin coastal strip that has a moderate potential for indoor radon levels above 4 pCi/L. Out of an abundance of caution, the applicant would include as a project design feature a radon monitoring system that would be designed and installed by appropriately licensed professionals.

Due to their age, the structures onsite are likely to contain lead-based paint and asbestos-containing building materials. Lead is a toxic metal that was used in paint and other common materials for many years. Exposure to lead may cause a range of health effects, including seizures and death. Children under six years old are most affected by exposure to lead. Asbestos is the name given to a group of naturally occurring fibrous silicate minerals, typically those of the serpentine group. Although asbestos is hazardous, the risk of asbestos-related diseases depends on exposure to airborne asbestos fibers. In other words, an individual must inhale asbestos fibers to incur any chance of developing an asbestos-related disease. How many fibers a person must breathe to develop the disease is uncertain. However, at very low exposure levels, the risk may be negligible or zero. Asbestos-containing materials generally release significant quantities of asbestos into the air only when cut, broken, ripped, or otherwise damaged. For this reason, demolition activities, including those proposed, have the potential to release significant quantities of asbestos. Specified work practice requirements limiting asbestos emissions from building demolition and renovation activities are set forth in SCAQMD Rule 1403 (Asbestos Emission From Demolition/Renovation Activities). This rule, in whole or in part, is applicable to owners and operators of any demolition or renovation activity, and the associated disturbance of asbestos-containing material. Implementation of SCAQMD Rule 1403 would be subject to the following provisions:

- Prior to building demolition or renovation, an asbestos survey, which shall include inspection, identification, and quantification, shall be conducted by a qualified environmental laboratory.

- The SCAQMD shall be notified of the project description, the removal procedures, and time schedules; material handling and cleanup; and material storage and disposal.

IMPACT 5.5-3: PROJECT DEVELOPMENT WOULD NOT AFFECT THE IMPLEMENTATION OF AN EMERGENCY RESPONSE OR EVACUATION PLAN. [THRESHOLD HAZ-7]

Impact Analysis: Access to the project site would be provided by a new private street off the north side of Malibu Road, which is classified as a local street. The design of the proposed residential subdivision does not include use of the fire access road located along the western boundary of the site. No vehicular access would be provided to PCH, although foot traffic from the project site via an emergency access door along the western retaining wall would be provided.

The project design would not inhibit emergency vehicle circulation. The gate installed at the entrance of the private street would include an approved key switch or key box to allow emergency personnel access to the project site. Additionally, the private street has been designed in accordance with LACFD standards for emergency access, including street width and location of vehicle turnaround areas. The LACFD will review the project site plans for access and safety issues, and building permits will not be issued until the project meets that department's standards for access, thereby avoiding any interference with emergency response or evacuation plans.

IMPACT 5.5-4: THE PROJECT SITE IS WITHIN FIRE ZONE 4, VERY HIGH FIRE HAZARD SEVERITY ZONE AND COULD EXPOSE RESIDENCES TO FIRE DANGER. [THRESHOLD HAZ-8]

Impact Analysis: The proposed project would place homes in a setting that could be impacted by wildland fires. The October 2007 Canyon Fire reached the site and severely burned the northern, western, and eastern perimeters. The heat emanating from that fire also melted parts of vehicles parked at the tow yard. Although the area near the project site is proximate to most of the recent fires, it cannot be concluded that the project site is at a greater risk than other locations in the City. Preventive measures, as required by City ordinances and regulations, will be taken to offset the risk factors:

- Implementation of ignition-resistant construction methods and materials per the updated City of Malibu Fire Code, based on the 2007 California Fire and Building Codes;

- Establishment of dedicated fuel modification and defensible space around each residence;

- Fuel modification maintenance to be conducted annually and funded by the homeowners association (HOA) and included in covenants, conditions, and restrictions (CC&Rs);

- Improved water availability and fire flow capacity;

- Improved emergency vehicle access that complies with LACFD requirements; and

- Installation of life safety interior fire sprinklers in all homes.

The City has designated the project site as a VHFHSZ. For this reason, a Fire Protection Plan, including a Preliminary Fuel Modification Plan has been prepared for the proposed project and addresses fuel modification requirements for areas within the boundary of the project site. The Preliminary Fuel Modification Plan was prepared in accordance with the County of Los Angeles Fire Department Fuel Modification Plan Guidelines and identifies specific zones within a property that are subject to fuel modification. A fuel modification zone is a strip of land where combustible native or ornamental vegetation has been modified, thinned, and/or partially or totally replaced with drought-tolerant, fire-resistant plants. Fuel modification reduces the radiant and convective heat, and provides fire suppression forces with defensible space.

The Preliminary Fuel Modification Plan is illustrated on Figure 5.5-1. Three zones have been identified on the plan:

- Zone A (Setback Zone) – provides a defensible space for fire suppression forces and offers protection from intense flames and sparks or embers carried by strong winds. This zone provides a 20-foot buffer around any combustible structures, accessory structures, or appendages.

- Zone B (Irrigated Zone) – augments irrigation and planting requirements. This zone extends from the outermost edge of Zone A to 100 feet from a structure. Landscaping and vegetation will consist primarily of green lawns, ground covers, and adequately spaced shrubs and trees, and will require either automatic or manual irrigation systems.

- Zone C (Native Brush Thinning Zone) – is designed to slow the rate of spread and reduce flame lengths and intensities of the fire prior to its reaching the irrigated area. Extends from the outermost edge of Zone B to 200 feet from a structure. Irrigation systems are not required for this zone. Existing native vegetation will be modified by thinning and removal of species that constitute a high fire risk.

The long-term maintenance of the fuel modification zones will be addressed in the proposed project's CC&Rs and will be maintained by the HOA. The LACFD has reviewed and approved the Preliminary Fuel Modification Plan, and the Final Fuel Modification Plan for the proposed project will need to be approved at the time of tentative map processing.

The LACFD does not require offsite fuel modification (LACFD 1998). This is mainly due to problems inherent with enforcement of regulations on adjacent property and the potential for confusion regarding responsibility for fuel modification areas outside legal ownership. The County has established a brush clearance program for developed and unimproved properties. For unimproved properties such as the adjacent Knoll Site, the program is administered by the Weed Abatement Division of the County Department of Agricultural Commissioner. The Weed Abatement Division has the authority to clear all flammable vegetation and other

combustible growth and to reduce the amount of fuel content for a distance greater than 30 feet, but not to exceed 200 feet in the event that a property owner does not maintain defensible space. The defensible space required for the structures on Parcels 2 and 3 is approximately 100 feet and approximately 80 feet would be beyond the property line; this area extends into the adjoining Knoll Site, which is undeveloped private property. As brush clearance on the Knoll Site would be managed either by the property owner (i.e., Malibu Bay Company) or the Los Angeles County Weed Abatement Division, risks associated with the spread of wildfire would be adequately controlled ~~by this enforcement agency~~.

Although the LACFD has approved the Preliminary Fuel Modification Plan, a Fire Protection Plan was prepared nonetheless. The purpose of the Fire Protection Plan is to evaluate the project's vulnerability to fires with regard to emergency access to the site, the adequacy of fire hydrants available to serve the site, and the design of the proposed structures. The Fire Protection Plan includes recommendations for the design of the road, gate, and driveways that would be created by the proposed project. These recommendations address the following planning and design elements:

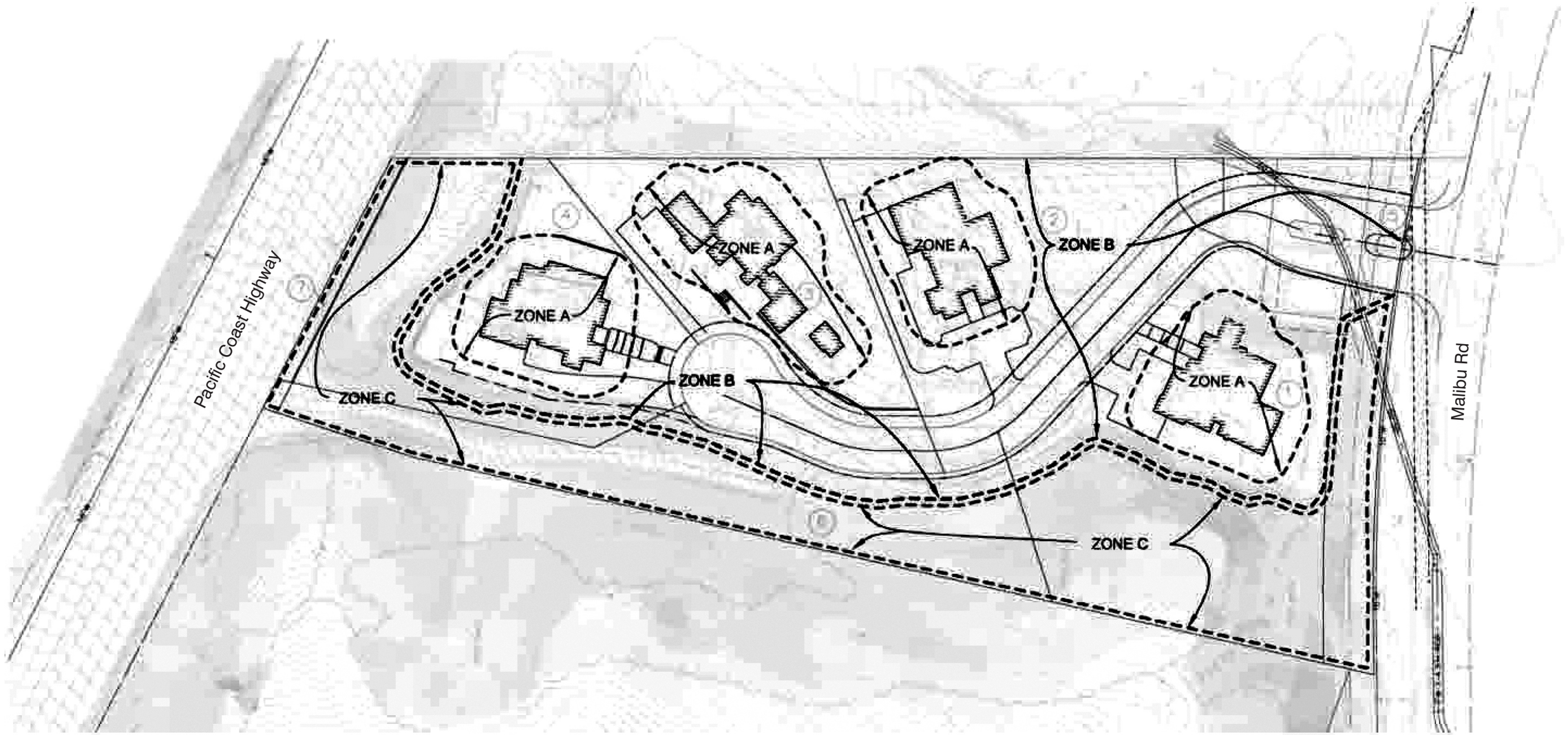
- Fuel modification zones and permitted vegetation
- Roadway access, gates, and driveways
- Ignition-resistant structural requirements
- Interior and exterior fire protection systems

Compliance with these recommendations would facilitate the fire department's mission by providing improved access for emergency personnel and apparatus, reducing the likelihood of "flashover" in case of a structure fire by providing interior sprinklers, and providing improved firefighting water capacity. The Fire Protection Plan also includes recommendations for construction of the homes that will meet the requirements of the Fire Code adopted by the City of Malibu. Because flying firebrands, which are wind-borne embers or other incendiary materials, pose the greatest risk to the proposed structures, many of the recommendations are intended to minimize the likelihood that embers penetrate the structures. The Fire Protection Plan summarizes the ignition-resistant construction materials and methods and provides recommendations for the installation of interior fire sprinklers and fire alarm systems in the proposed homes and structures. The recommendations contained in the Fire Protection Plan would create a redundant system of improved infrastructure and design, which would reduce the vulnerability of the homes.

Construction of the proposed structures would utilize appropriate building materials (i.e., ignition-resistant materials) and design features to complement the provided fuel modification. The design will also incorporate alternative fuel modification measures where fuel modification cannot be fully accommodated onsite, such as noncombustible firewalls and landscaping techniques that include irrigated, fire-resistant plant species.

Additionally, at the request of the City of Malibu Environmental Review Board, the proposed project has been modified to include the removal of all eucalyptus trees from the project site as well as the eucalyptus trees east of the project site, along the western boundary of the Knoll Site; the applicant of the proposed project has received permission from the property owner of the Knoll Site. Removal of the eucalyptus trees would further reduce potential onsite and offsite fuel, which would increase the fire safety of the site.

Preliminary Fuel Modification



Source: Dudek 2008

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5.5.4 Cumulative Impacts

The proposed project would not result in the storage of any substantial amount of hazardous materials or waste, and surrounding properties were not identified as storing or releasing any significant amount of hazardous materials or waste. The proposed removal of lead paint and/or asbestos, as well as remediation of any onsite soil contamination associated with historical uses of the site would be completed in accordance with established federal, state, and local protocols, standards, and requirements, including permit requirements to control fugitive dust and fugitive VOC emissions. Additionally, the proposed project would conform to design standards and fire preventive measures imposed by the LACFD in order to minimize hazards associated with wildland fires. Therefore, assuming that other nearby renovation or demolition activities (see Table 4-1, *Cumulative Projects List)* would also comply with existing regulations, the proposed project in combination with other related projects would not create a cumulatively considerable impact.

However, in a January 16, 2008, letter, the LACFD stated that any new development would incrementally increase the demand for fire protection services. Although the incremental increase in demand would be slight, it could be significant when considered cumulatively with other new developments in the area. This could put a strain on fire protection resources that could increase the susceptibility of the project area to fire hazards.

5.5.5 Existing Regulations and Standard Conditions

Hazardous Materials

- SCAQMD Rule 1403
- OSHA Rule 29, CFR Part 1926
- Title 22, CCR, Division 1, Chapter 12
- LA County Department of Public Works Environmental Programs Division
- Title 11, Health and Safety Divisions 2, 3, and 4, Los Angeles County Code

Fire Hazard

- California Building Code
- County of Los Angeles Fire Code
- City of Malibu Local Coastal Program Land Use Plan
- City of Malibu Local Coastal Program Local Implementation Plan
- City of Malibu Fire Code

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant:

- Impact 5.5-1 — Operation of the proposed project would not involve the transport, disposal or release of hazardous materials or emissions.
- Impact 5.5-3 — The proposed project would not impact or inhibit an emergency response or evacuation plan.

Without mitigation, the following impact would be **potentially significant**:

- Impact 5.5-2 — Project construction would require the disposal of hazardous materials, including lead-based paint, asbestos-containing building materials, and subsurface structures, including but not limited to a possible 1,500-gallon gasoline UST, ~~hydraulic lift,~~ and mechanical equipment parts. Additionally, the project area may have moderate potential for indoor radon levels that exceed the California Department of Health Services and USEPA thresholds.
- Impact 5.5-4 — The proposed project would develop habitable structures that would be exposed to wildfire danger.
- Cumulative Impacts — The proposed project would incrementally increase the demand for fire protection services, which, considered cumulatively with related developments in the area, could be significant.

5.5.7 Mitigation Measures

Impact 5.5-2

5.5-1 The applicant shall retain an experienced, independent environmental monitor to observe all significant earth-moving activities. The monitor shall observe the operations, remaining watchful for environmentally sensitive underground structures, buried waste, stained or discolored soil that could represent residual contamination, and the like. The monitor shall also be empowered to alert the City and regulatory agencies, when appropriate, and provide direction to the grading contractor.

5.5-2 Should the environmental monitor (see Mitigation Measure 5.5-1) determine that environmental investigation or remediation is necessary, such environmental investigation or remediation shall be conducted under a Work Plan that shall be approved by a regulatory agency that has jurisdiction to oversee hazardous waste cleanups.

5.5-~~2~~ 3 The removal of environmentally significant substructures shall be conducted in accordance with all applicable recommendations provided in the Phase I and Limited Phase II, Environmental Site Assessment Report and subsequent reports prepared by Leighton and Associates, as well as any subsequent Responses to City Comments and requirements set forth by the Los Angeles County Fire Department, including the following:

a) Should the 1,500-gallon gasoline underground storage tank (UST) be identified during site grading, the independent environmental monitor (see mitigation measure 5.5-1) shall direct the proper removal of the UST in accordance with regulatory guidelines. The necessary permits (tentatively, from the Los Angeles County Department of Public Works Environmental Programs Division) shall be secured, and the tank removed in accordance with applicable agency requirements and protocols. Soil samples shall be taken at that time and supplemental subsurface investigations in the area shall be required to assess the presence of any contamination resulting from the UST.

~~b) Prior to demolition, the underground hydraulic lift shall be properly removed in accordance with regulatory guidelines. Confirmation soil samples shall be collected from the excavation pit to ensure that all contaminated soil, if present, is properly removed. Soil generated during the removal activities shall be disposed of at an appropriate facility.~~

~~c~~ b) Any buried waste encountered during development of the site, including but not limited to waste oil, used motor oil, engine blocks, water tanks, broken tractors, poison canisters, and basic household waste, must be disposed of in accordance with regulatory guidelines. Soil samples must be collected to ensure all contamination is properly removed.

~~d~~ c) Prior to demolition, all identified onsite wastewater treatment system tanks shall be properly removed from the site in accordance with regulatory guidelines.

~~e~~ d) Prior to demolition of the site buildings, a comprehensive asbestos survey and lead-based paint survey must be performed. If asbestos or lead-based paint is found in the building materials that will be disturbed by the demolition activities, the material must be abated by a qualified contractor under current local, state, and federal regulations.

5.5-4 Prior to the occupancy of the four residential units, the construction manager shall retain a licensed radon contractor to determine if radon is detected beyond the 4 pCi/L threshold or that established by the US Environmental Protection Agency. If the amount of radon exceeds the established threshold, the applicant shall retain a licensed radon contractor to reduce the radon in the affected residences. Methods include but are not limited to the soil suction radon reduction system, which entails the installation of a vent pipe system and fan that pull radon from beneath the house and vent it to the outside. The radon contractor shall develop language for proper maintenance of the radon monitoring systems that would be installed in each residence, as well as the radon monitoring and reduction system, if required. The maintenance instructions shall be included in the proposed project's covenants, conditions, and restrictions . The property disclosure statements shall indicate that the site is within an area with a moderate potential for indoor radon levels.

Impact 5.5-4

5.5-~~3~~ 5 Implementation of the proposed project shall comply with all requirements and recommendations of the County of Los Angeles Fire Department (LACFD). The Fire Department Review, performed by the LACFD based upon preliminary site plans, produced the following requirements:

a) A 20-foot-wide access driveway and safety vehicle turnaround shall be included.

b) Interior fire sprinklers shall be installed in each residence.

c) A 1,500-gallon-per-minute fire flow at 20 pounds per square inch for a two-hour duration is required at the project site.

d) Prior to issuance of building permits by the City, the LACFD shall approve a Final Fuel Modification Plan for the project site.

5.5-~~4~~ 6 The LACFD determined that the proposed project requires a Fire Department Plan Check and Filing Fee. Before issuance of building permits, the LACFD must perform a Plan Check for each

residence proposed. This would ensure that there is adequate water to serve fire hydrants, confirm that the Final Fuel Modification Plan for the proposed project is in place, and ensure that the sprinklers and fire alarm systems and emergency access are adequate.

5.5-~~5~~ 7 The proposed project must comply with all requirements of the LACFD, as detailed in letters dated December 17, 2007, and January 16, 2008, included in Appendix B of the ~~Draft~~ EIR. Where the two letters differ, the more conservative approach shall be taken. The letters include the following requirements, among others:

a) The applicant shall participate in an appropriate financing mechanism, such as a developer fee or an in-kind consideration in lieu of developer fees, to provide funds for fire protection facilities which are required by new commercial, industrial, or residential development in an amount proportional to the demand created by this project. Currently, the developer fee is a set amount per square foot of building space, adjusted annually, and is due and payable at the time a building permit is issued. In the event that the developer fee is no longer in effect at the time of building permit issuance, alternative mitigation measures may be required.

b) The development of this project shall comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, fire hydrants, brush clearance, and fuel modification plans.

c) Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than the prescribed width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.

d) Fire hydrant spacing shall be 600 feet and shall meet the following requirements:

   i) No portion of lot frontage shall be more than 450 feet via vehicular access from a public fire hydrant.

   ii) No portion of a structure should be placed on a lot where it exceeds 750 feet via vehicular access from a properly spaced public fire hydrant.

   iii) When cul-de-sac depth exceeds 450 feet on a residential street, hydrants shall be required at the corner and midblock.

   iv) Additional hydrants shall be required if hydrant spacing exceeds specified distances. A Fire Department–approved turning area shall be provided for all driveways exceeding 150 feet in length and at the end of all cul-de-sacs.

e) Fire Department access shall provide a minimum unobstructed width of 28 feet, clear-to-sky, and be within 150 feet of all portions of the exterior walls of the first story of any single unit. If exceeding 150 feet, provide 20 feet minimum paved width "Private Driveway/Fire Lane" clear-to-sky to within 150 feet of all portions of the exterior walls of the unit. Fire Lanes serving three or more units shall be increased to 26 feet.

f) Streets or driveways within the development shall be provided with the following:

~~i) Provide 36 feet in width on all streets where parking is allowed on both sides.~~

~~ii~~ i) Provide 34 feet in width on cul-de-sacs up to 700 feet in length. This allows parking on both sides of the street.

~~iii) Provide 36 feet in width on cul-de-sacs from 701 to 1,000 feet in length. This allows parking on both sides of the street.~~

~~iv~~ ii) For streets or driveways with parking restrictions: The entrance to the street/driveway and intermittent spacing distances of 150 feet shall be posted with Fire Department approved signs stating "NO PARKING – FIRE LANE" in three-inch high letters. Driveway labeling is necessary to ensure access for Fire Department use.

~~v~~ iii) Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road.

5.5-~~6~~ 8 The proposed project shall comply with all recommendations contained in the Fire Protection Plan (Appendix I) and in the Fuel Modification Plan prepared for the proposed project. Compliance with the Fire Protection Plan and Fuel Modification Plan would reduce the vulnerability of the proposed structures and the project site to wildland fires. The recommendations would minimize the likelihood of ember (firebrand) penetration or direct flame impingement, ensure that fire sprinklers and fire alarms are installed in the proposed residences, that the infrastructure of the site and surrounding area allow emergency personnel and vehicles to access the proposed project, and that the project site is landscaped in such a way that the proposed residences are not immediately adjacent to significant amounts of vegetation that could fuel wildfires.

5.5-~~7~~ 9 The covenants, conditions, and restrictions for the proposed residences shall require the regular maintenance of the vegetation on the project site to ensure compliance with the Fuel Modification Plan.

Cumulative Impacts

See mitigation measure 5.5-~~5~~ 7(a), which requires the applicant to participate in a developer fee or an in-kind consideration in lieu of developer fees, to provide funds for fire protection facilities.

5.5.8 Level of Significance After Mitigation

Compliance with the aforementioned mitigation measures, as well as existing regulations and standard conditions, would reduce potential impacts associated with wildland fires and hazardous materials to levels below significance. Mitigation Measure 5.5-~~5~~ 7(a) would fully mitigate any impacts to fire protection resources, and after mitigation, the proposed project would not contribute to a cumulatively significant impact. Therefore, no significant unavoidable adverse impacts relating to hazards have been identified.

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