Exhibit B

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THOMPSON
WILDLAND MANAGEMENT
Environmental Management & Conservation Services
International Society of Arboriculture Certified Arborist # WE-7468A
Department of Pesticide Regulation Qualified Applicator Lic. #QL50949 B
Environmental & Arborist Assessments, Protection, Restoration, Monitoring & Reporting
Wildland Fire Property Protection, Fuel Reduction & Vegetation Management
Invasive Weed Control, and Habitat Restoration & Management
Soil Erosion & Sedimentation Control
Resource Ecologist

June 28, 2022

Bliss Residence
9 Mesa Trail
Carmel, CA. 93923
APN: 239-101-022–000

Subject: 9 Mesa Trail Pre-construction Tree Impact Assessment

An arborist-conducted tree evaluation and pre-construction tree impact assessment was recently performed for the undeveloped lot located at 9 Mesa Trail (Lot D12, APN: 239-101-022) on the *Santa Lucia Preserve* in Carmel. More specifically, this assessment involved performing a ground level visual inspection of trees located on the subject property to assess general physiological health and structural condition, determine suitability for incorporating specific trees into the developed landscape, and provide recommendations for retaining, protecting and removing trees based on tree health, condition, location and construction related impacts. This assessment will assist in identifying tree characteristics and conditions, determine which trees are candidates for removal, and provide tree protection guidelines, and replacement recommendations to assist in sustaining and supporting woodland health and character.

The location of trees proposed for removal, as well as trees to be retained and protected are identified in the *Exhibit A: Tree Location Map* and project plans, and trees assessed and recorded during the field assessment are identified in the corresponding *Exhibit B: Tree Impact Assessment Spreadsheet*. Photographs depicting property features and trees addressed in this document are located at the end of the report (refer to attached photos, *Figures 1-24*). Findings and recommendations are provided herein.

I. PROPERTY DESCRIPTION & CHARACTERISTICS

This undeveloped lot located at 9 Mesa Trail (Lot D12) is a total of 19.33 acres in size with the Homeland being 4.31 acres. The Homeland area is a previously disturbed and relatively flat to moderately sloped site consisting of oak woodland and savanna habitat that is dominated by mature coast live oak (*Quercus agrifolia*) trees and grasslands that are primarily composed of

non-native annual grasses (refer to attached photos, *Figures 1-24*). Understory vegetation in the Homeland is dominated by exotic annual grasses, native poison oak (*Toxicodendron diversilobum*) and exotic invasive broadleaf weeds, among other native and introduced species. It should be noted there are several stands of native perennial grasses occurring in some of the Homeland and Openland areas.

Dense understory vegetation is not occurring in most of the Homeland area due to past mowing activities and understory vegetation primarily consisting of annual grasses, but dense understory vegetation is occurring in the surrounding Openlands, which in some areas is overgrown with a variety of native (e.g., poison oak and coyote brush, among other species) and exotic (e.g., French broom, thistles, poison hemlock and annual grasses) understory grasses, forbs, herbaceous annuals & perennials, and woody perennial scrub type vegetation. Similar to the Homeland, coast live oak is the dominant tree specie inhabiting the surrounding Openlands, along with steep and densely vegetated coastal scrub type habitat that is also occurring in some of the nearby Openland areas.

In regards to proposed property development, construction activities do not appear to be occurring on slopes greater than 30% grade. As already indicated, a majority of the proposed building footprint is located in a few previously disturbed and impacted grassland areas and oak woodland clearings that are dominated by non-native annual grasses. The primary vegetation type that will be removed and disturbed during grading operations are non-native annual grasses, exotic broadleaf plants and common native flora, such as poison oak.

The crown class of trees on the lot ranges from suppressed to dominant, with a majority of oak trees having a co-dominant crown class. Mature and overly mature or senescing oak trees are the most common age class of trees located on this woodland parcel. Younger and immature trees are also occurring in various areas of the lot. It should be noted, that the property owner has expressed interest in saving and relocating some healthy young seedlings or saplings that are located in Homeland areas that could be affected by construction acuities. In regards to woodland health, harmful biotic disorders (e.g., pathogens, disease and/or insect pests) appear to be absent in levels that are detrimental to the health and viability of trees and woodland habitat.

In the Homeland area tree density and canopy cover ranges from low to high. As previously noted, most of the proposed building footprint and homesite is occurring in natural woodland clearings and grassland areas with few or well spaced trees and low to moderate canopy cover (refer to *Figures 1-8*). The proposed driveway and turn around point for the driveway is located in a more densely wooded area of the Homeland with higher tree density and canopy cover (refer to *Figures 1, 2* and *9-11*). Oaks located in fairly close proximity to the proposed driveway route primarily consist of mature, but smaller coast live oak trees (e.g., smaller stem diameter, stature and more compact growth forms) and are expected to tolerate relatively minor impacts associated with driveway construction activities. Given the proper implementation of tree protection and preservation BMP's (best management practices) impacts to trees from home and

driveway construction activities is expected to be insignificant and not detrimental to the health and welfare of nearby oak trees.

As stated earlier in the report, coast live oak (*Quercus agrifolia*) is the dominant tree specie occurring on the lot. Common native plant species observed in the woodland understory or along woodland edges include poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), sticky monkey flower (*Mimulus aurantiacus*), toyon (*Heteromeles arbutifolia*), Pacific blackberry (*Rubus ursinus*), California honeysuckle (*Lonicera hispidula*), gooseberry (*Ribes californicum*), hedge nettle/wood mint (*Stachys bullata*), yerba buena (*Clinopodium douglasii*) and some native perennial grasses, among others. Non-native annual grasses (e.g., wild oat grass, ripgut brome and Italian ryegrass, among others) and habitat degrading invasive broadleaf weeds (e.g., Italian thistle, milk thistle, bull thistle and French broom) are also common and widespread in the Homeland and surrounding Openland areas. Italian thistle (*Carduus pycnocephalus*) and French broom (*Genista monspessulana*) appear to be the most abundant and pervasive exotic invasive plant species occurring on the subject lot (refer to *Figure 12*). Non-native invasive weeds are problematic in that they degrade habitat, decrease native plant diversity and increase combustible fuel loads, and should be controlled, reduced and managed to improve habitat and mitigate wildland fire hazards.

As previously indicated, woodland understory vegetation and grassland areas in the Homeland primarily consists of non-native annual grasses, exotic broadleaf weeds and some native plant species. Native perennial grasses, forbs and shrub species have a notable presence in some areas of the Homeland, but generally appear to be less common and widespread compared to the ubiquitous non-native annual grasses and broadleaf weed species.

Lot D12 appears to have sufficient natural recruitment and regeneration of oak trees; however, additional planting is advised to assist in sustaining the health and character of this oak woodland environment and will be required to comply with *Monterey County Resource Management Agency (RMA)-Planning Department* tree removal permit conditions. At the time of the property visit and assessment, special status plant and animal species, sensitive habitat, and actively nesting birds that have protection status were not observed in or around the Homeland site. In regards to nesting birds, an additional nesting bird assessment should be conducted if any tree work (e.g., removal and/or pruning operations) occurs during the nesting season, which in Monterey County may begin as early as February and continue through August.

In regards to tree removal, a total of seven (7) of the 63 coast live oak trees assessed and documented (referred to in the report as *Tree#s 7, 19 & 32-36* and identified in the field by *tag#s 407, 419 & 432-436*) are proposed for removal in preparation for home construction activities (refer to attached photos, *Figures 3, 4, 9, 13-15 & 18-23*, the corresponding *Exhibit A: Tree Location Map*, and the *Exhibit B: Tree Impact Assessment Spreadsheet*). The remaining oaks on the property will be retained and protected with the necessary tree preservation measures for the duration of the property development project (refer to tree protection measures provided in this report).

II. **METHODOLOGY**

For this report, a ground level visual assessment was recently conducted for several coast live oak (*Quercus agrifolia*) trees located within or in close proximity to the proposed building footprint. In regards to inspecting trees, no aerial (climbing) inspections, woody tissue testing and/or root excavations were performed or requested as part of this evaluation.

Per *Monterey County Resource Management Agency (RMA)-Planning Department* tree removal permit requirements, native specie trees 6 inches DBH (diameter at breast height) or larger at 48 inches above grade are required to be recorded for removal and will need to be replaced if tree removal is approved. 6 to 23 inch DBH trees are replaced at a 3:1 replacement ratio and 24 inch DBH or larger trees (i.e., landmark status trees) are replaced at a 5:1 ratio.

Trees proposed for removal or that have the potential of being impacted by construction activities were documented and recorded during a pre-construction tree assessment (refer to the *Exhibit B: Tree Impact Assessment Spreadsheet*). During the Lot D12 tree assessment 63 oak trees were documented recorded and assigned numbered metal tags (*tag #s 401-463*). These trees are referred to and identified as *Tree#s 1-63* in the report, as well as in the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*. Seven (7) of these oaks are proposed for removal (i.e., *Tree#s 7, 19 & 32-36* and identified in field by *tag#s 407, 419 & 432-436*) in preparation for home construction operations. The remaining 56 oaks are not expected to be significantly affected by property development activities and will be retained and protected during project operations.

Recommendations are based on the overall general health, vigor and condition of trees and habitat; the impact that property development activities may have on trees and natural resources; the hazard level trees present to proposed occupied structures and/or areas with human traffic; and the impacts that tree management and/or removal activities may have on natural resources, habitat and nearby healthy trees.

In regards to exhibits and attachments included in this report, *Exhibit A* is a property map and project site plan that shows the location of trees on the property in relation to proposed structures and other property features, and the *Exhibit B: Tree Impact Assessment Spreadsheet* identifies proposed tree removals as well as trees that have the potential of being affected by property development activities. Photographs depicting property features and trees addressed in this document are located at the end of the report (refer to attached photos, *Figures 1-24*).

III. **TREES PROPOSED FOR REMOVAL & CONSTRUCTION IMPACTS**

Sixty-three (63) coast live oak (*Quercus agrifolia*) trees were recorded (i.e., assigned tag numbers 401-463 [referred into in the report as *Tree#s 1-63*]) and evaluated as part of a pre-construction tree impact assessment. Seven (7) of these oaks are proposed for removal (i.e.,

Tree#s 7, 19 & 32-36) and fifty-six (56) will be retained and protected (refer to the *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*). Additionally, it should be noted there are several additional coast live oak trees occurring in the surrounding Homeland areas that are located a safe distance away from proposed construction activities. These trees will be protected and will not be impacted by property development operations.

Per the construction design plans, a majority of the 63 oaks evaluated for this report will not likely to be significantly impacted or adversely affected by proposed property development operations due to limited or partial root zone disturbance and/or construction activities occurring outside of the most critical portion of the primary root zone area of most of the retained trees. The exception being the 7 oaks that are proposed for removal in preparation for home construction activities (identified as *Tree#s 7, 19 & 32-36*; refer to attached photos, *Figures 3, 4, 9, 13-15 & 18-23*). It should be noted that 13 oaks that will be retained and protected (identified as *Tree#s 8, 9, 12, 14-18, 20-22, 37 & 39*) have the potential of being impacted and affected by property development activities due to their proximity to proposed grading and construction operations; however, these impacts are generally expected to be insignificant and are not likely to be detrimental to the health and viability of the subject trees. In regards to the remaining oaks that will be retained and protected, given the proper implementation of tree protection and preservation BMP's, construction related impacts and disturbance is expected to be negligible and not harmful to tree health.

These 63 oaks that were documented and recorded range from being in poor to good overall health and condition, with a majority of these mature and aging oaks being in fair physiological health and structural condition. As previously noted, 7 of the 63 six inch DBH or larger oaks are proposed for removal in preparation for property development activities due to their location within or in close proximity to the proposed construction footprint. Trees located directly adjacent to construction and grading operations are often recommended for removal due to significant and unavoidable root system impacts that will compromise the health and structural integrity of trees.

The corresponding *Exhibit A: Tree Location Map* identifies the location of the 7 oak trees proposed for removal (also refer to attached photos, *Figures 3, 4, 9, 13-15 & 18-23*). These 7 oaks are identified as *Tree#s 7, 19 & 32-36* (for more specific information and details regarding the general health, size and characteristics of these 7 oaks proposed for removal, refer to the *Exhibit B: Tree Impact Assessment Spreadsheet*).

As previously indicated and per the project design plans, grading activities associated with property development operations are going to be occurring outside of the critical root zone area of a majority of the oak trees located around the proposed construction site, which should have minimal and insignificant impacts to the health and welfare of nearby trees. As noted earlier, the retained trees that have the greatest potential of being affected by construction related activities due to their proximity to grading operations are the 13 oaks identified as *Tree#s 8, 9, 12, 14-18, 20-22, 37 & 39* (refer to *Exhibit A: Tree Location Map* and the *Exhibit B: Tree Impact*

Assessment Spreadsheet); however, overall concerns related to root system impacts are relatively insignificant since only partial encroachment and limited disturbance within the canopy dripline of most of these trees is anticipated.

Grading and construction related disturbance will be avoided within a radius that is a minimum of three times (3X) the diameter (DBH) of the subject trees, which is the most sensitive portion of a tree's critical root zone (CRZ) area. The CRZ is generally defined as the area within the canopy dripline (i.e., the outer most portion of the canopy dripline 360 degrees around the tree) that contains the most sensitive and important roots for supporting and sustaining the health and structural integrity of trees. Trees with a DBH of approximately 12 inches should have a minimum protective radius of 4 feet, but preferably a greater area within the CRZ should be protected with limited soil disturbance. It should be noted that 3X the trunk diameter is the minimum CRZ area that must be protected and, where possible, root zone disturbance should be avoided within the entire canopy dripline and even expanded to the area beyond the canopy dripline. Consequently, significant root system impacts or root loss will be avoided and is not anticipated to occur in levels that is detrimental to the health and welfare of retained trees.

It should be noted that coast live oaks can be fairly tolerant of low to moderate levels of root pruning and root loss; however they are generally less tolerant to increases (i.e., introduction of fill material) or decreases (i.e., cut slopes) in natural grade. Obviously, where possible, root loss and root system impacts should be avoided and minimized to the greatest extent possible and this important consideration should be factored in when developing a construction design plan. Per the site assessment and analysis of the current development design plan, it appears that retained trees in the vicinity of home and driveway construction activities will likely tolerate construction impacts with minimal or insignificant adverse affects and are suitable for being retained, protected and preserved.

During project operations the trees on the lot will be routinely monitored and adequately protected, and in the event that large primary roots are encountered the project arborist will be notified and consulted to assist in providing guidance and recommendations to minimize impacts to protected trees. If trees exhibit any signs or symptoms of stress and decline due to possible construction related impacts or any other factors (e.g., biotic and/or abiotic disorders) specific treatments can be performed (e.g., supplemental deep watering, radial or vertical mulching, growth regulator treatments, among others) to assist in mitigating adverse impacts and to aid in the recovery of impacted trees, but none of these treatments are anticipated to be necessary.

Landscaping activities associated with property development will be designed and implemented in manner that will avoid or minimize impacts to nearby oaks. For example, landscaping should be avoided or limited within the critical root zone area (i.e., canopy dripline) of oak trees, with minimal soil disturbance, irrigation, planting and introduction of soil or other landscaping materials.

The ecological impacts of proposed tree removal will be insignificant and will be mitigated by planting a minimum of twenty-one (21) 1 to 15-gallon oak replacement trees on the subject parcel (planting larger container size oaks is also permitted). Also, per *Monterey County RMA-Planning Department* tree preservation ordinances and resource protection best management practices (BMP's), the remaining trees on the property will be retained and protected from construction activities for the duration of the property development project (refer to tree protection BMP's provided in this report). Tree and resource protection measures will assist in preserving and protecting ecological resources and minimizing impacts to trees and woodland habitat.

Additionally, several oak trees that are located in relatively close proximity to the proposed project site will be pruned to maintain and preserve tree health, improve aesthetics, provide adequate clearance around structures, reduce combustible fuel loads (i.e., ladder fuels) and improve defensible space for wildland fire protection. Pruning operations should occur during the proper time of year (preferably fall through early winter) and will utilize proper pruning best management practices (BMP's) to minimize impacts to retained trees.

IV. **RECOMMENDATIONS**

A. Tree Removal & Replacement:

For the reasons provided in this report, permission is being requested to remove a total of seven (7) oak trees (identified as *Tree#s 7, 19 & 32-36*) in preparation for proposed property development activities (refer to *Figures 3, 4, 9, 13-15 & 18-23* and the corresponding *Exhibit A: Tree Location Map* and *Exhibit B: Tree Impact Assessment Spreadsheet*).

As previously stated, per *Monterey County RMA-Planning Department* tree preservation ordinances and resource protection BMP's, the remaining trees on the lot will be retained and protected from construction activities for the duration of the property development project (refer to tree protection BMP's provided in this report). Tree and resource protection measures will assist in protecting trees and minimizing harmful impacts to trees, habitat and other ecological resources.

As noted in the previous section, several oak trees located in the Homeland that are in relatively close proximity to the proposed project site will be pruned to maintain and preserve tree health, improve aesthetics, provide adequate clearance around proposed structures, reduce combustible fuel loads (i.e., ladder fuels) and improve defensible space for wildland fire protection. Pruning operations should occur during the proper time of year (preferably fall through early winter) and will utilize proper pruning BMP's to minimize impacts to trees.

Tree removal and/or pruning operations should be avoided during the bird nesting season, which in Monterey County may begin as early as February and continue through August. If tree work is necessary during this time period a nesting assessment is advised to determine if any nesting

birds are present. A recent tree assessment and site inspection determined that actively nesting birds are presently not occurring within or directly adjacent to the property development site; however depending on when construction activities begin (i.e., February-August) it may be necessary to perform an additional assessment.

When tree removal operations commence, removal should be performed by licensed and insured tree workers trained in accordance with ANSI Z133.1 safety regulations, as required by OSHA. If necessary, tree protection measures should be installed to nearby trees that could potentially be damaged during removal operations. Additionally, if substantial soil disturbance occurs at the removal site it may be necessary to install erosion and sedimentation control measures to effectively stabilize exposed soil surfaces and contain sediment runoff. Furthermore, BMP's involved with tree removal, disposal, and the cleaning and sterilization of tools and equipment should be implemented to minimize the chance of biotic disorders (that may be present) spreading to other areas.

In regards to tree replacement, twenty-one (21) 1 to 15-gallon oak seedlings or saplings (container size depends on availability and quality of nursery stock, and planting larger sized oaks [e.g., boxed oaks] is also an option) of good physiological and structural health shall be planted on the subject lot to replace the 10 removed oaks and to help sustain the long-term health, viability and character of this oak woodland environment. Replacement trees should be acquired from a local native plant nursery that has healthy specimens that are free from physiological and structural disorders. Furthermore, replacement trees should be planted during the appropriate time of year using proper tree planting techniques and best management practices, and should be planted in suitable locations that will support healthy establishment and maturation. Successful completion of this compliance action shall be achieved when the 21 replacement plantings survive a five-year monitoring period.

It should be noted there are naturally occurring oak seedlings and saplings located in the Homeland. Where possible, these seedlings or saplings should be protected from construction activities or, alternatively, saved and transplanted to a safe and suitable area on the lot and cared for until they are properly established.

B. <u>Construction Tree Protection Measures:</u>

Per *Monterey County RMA-Planning Department* requirements and resource preservation BMP's, the following tree and resource protection measures shall be implemented for this home development project located at 9 Mesa Trail (Lot D12). Proper implementation of tree and resource preservation BMP's and regular construction site monitoring will assist in protecting and preserving the health and welfare of trees, habitat and surrounding resources. The location of tree protection measures will be determined on-site by the project arborist and project design team, and tree and resource preservation measures will be regularly inspected and properly maintained for the duration of the project to ensure they are functioning effectively:

1) Prior to commencing with grading and construction activities install high visibility exclusionary fencing that clearly defines the work area, limits unnecessary disturbance to surrounding areas, and protects the critical root zone (i.e., area defined by the outermost portion of the canopy dripline, 360 degrees around the tree) of individual trees and tree groupings. Perform necessary repairs, modifications and maintenance on a as needed basis.

2) Install appropriate sedimentation control measures (e.g., silt fence) along downslope perimeter of construction site, and if necessary apply soil stabilization and source control measures (e.g., rice straw mulch, erosion control blankets, all-weather surfaces) to exposed soil surfaces to prevent erosion problems and sediment runoff during rain events. Perform routine monitoring as well as necessary maintenance and improvements to ensure that erosion & sedimentation control measures are functioning effectively. It should be noted, that erosion problems and sediment deposition around trees can adversely affect tree health and stability.

3) Where grading and construction activities are occurring within 3 feet of trees install trunk and stem protection measures (e.g., 2x4 lumber forming protective barrier around circumference of lower stem of tree). Tree protection measures should be securely installed to trees with rope and high visibility exclusionary fencing. If it is necessary to perform any pruning use proper tree pruning practices to minimize stress and maximize wound healing.

4) If it is necessary to temporarily store construction materials or equipment within the canopy dripline of nearby oak trees (which will be avoided and should not be necessary), apply 2 to 5 inches of clean and properly sourced woodchip mulch to limit soil disturbance and prevent soil compaction within the critical root zone area.

5) Where possible, avoid damaging or cuting roots located within the critical root zone (i.e., canopy dripline) of trees, especially roots that are 2 inches diameter or larger, and avoid grading or significant soil disturbance within a radius that is a minimum three times (3X) the diameter (DBH) of a subject tree, which is the most sensitive portion of a tree's critical root zone (CRZ) area. Trees with a DBH of approximately 12 inches should have a minimum protective radius of 4 feet, but preferably a greater area within the CRZ should be protected with limited soil disturbance. It should be noted that 3X the trunk diameter is the minimum CRZ area that must be protected and, where possible, ideally root zone disturbance should be avoided within the entire canopy dripline (i.e., the outer most portion of the canopy dripline 360 degrees around the tree) and even expanded to the area beyond the canopy dripline and primary root zone. Construction footings should be designed and excavation activities performed in a manner to minimize impacts to primary roots, or alternative foundation designs (e.g., pier and grade beam) that are less impactful to critical root systems should be considered. If significant roots are encountered efforts should be made to carefully excavate (e.g., tunnel or dig) under or around primary lateral roots. Grading or trenching operations that may occur within the critical root zone of retained trees should be performed under the guidance and monitoring of the project arborist; however, no such activities are planned or anticipated for this project. Tree roots severed or significantly damaged during grading and excavating operations should be cleanly cut

and promptly covered with moist burlap fabric or equivalent until roots are permanently covered with backfill material or until the exposed grading cut and soil profile is permanently stabilized and protected. If burlap covered cut roots are exposed to the outside environment for an extended period of time a project attendant shall be assigned the task of regularly wetting burlap covered roots to prevent root desiccation. Additionally, it may be necessary to perform supplemental irrigating (i.e., regular deep watering throughout the remaining portions of the critical root zone) to construction impacted trees. Frequency, quantity and duration of supplemental watering should be determined by the project arborist.

6) As previously stated, coast live oaks can be fairly tolerant of low to moderate levels of root pruning and root loss; however, they are generally less tolerant to increases (i.e., introduction of fill material) or decreases (i.e., cut slopes) in natural grade. Obviously, where possible, root loss and root system impacts should be avoided and minimized to the greatest extent possible and this important consideration should be factored in when developing a construction design plan. Per the site assessment and analysis of the current development design plan, it appears that retained trees in the vicinity of home and driveway construction activities will likely tolerate construction impacts with minimal or insignificant adverse affects and are suitable for being retained, protected and preserved.

7) Avoid storing construction tools, materials and equipment within the critical root zone (i.e., canopy dripline) of trees, and do not wash out or dispose of excess materials (e.g., paint, plaster, concrete, or other potentially harmful substances) within critical root zone areas. As previously noted, if it is unavoidable and necessary to temporarily store or stockpile materials and equipment within the dripline of trees, apply 2 to 5 inches of clean and properly sourced woodchip mulch to prevent significant soil compaction and root zone disturbance.

8) Where possible, avoid altering the natural grade within the critical root zone of trees to reduce the likelihood of causing stress, decline or mortality. Lowering natural grade can result in significant root damage and raising the grade (i.e., introducing fill material, particularly around the lower trunk and root crown) can lead to trunk and root decay disorders that are detrimental to the health and structural integrity of trees.

9) If tree pruning is necessary it is important to utilize proper pruning BMP's that will assist in minimizing harmful impacts to trees. In most cases, tree pruning should ideally be performed during the fall through early winter months. A general principle to follow is that it is important to make proper pruning cuts, keeping them as small as possible while removing as few living branches as necessary to achieve the objective. Large pruning wounds often do not completely heal over with wound wood callus tissue, which creates a permanently exposed entry point for decay, disease and insect pests. Excessive pruning can stress, injure and harm trees by depleting energy reserves and reducing food making processes (i.e., photosynthesis), which can compromise a trees ability to perform essential physiological functions and to recover and replenish essential reserves during periods of stress (e.g. root disturbance and drought conditions). Additionally, it creates an abundance of exposed wounds providing entry points for

potentially harmful biotic disorders (e.g., disease, decay and/or insect pests) that can adversely affect the health and structural integrity of trees. It should be noted that pruning involving the removal of 30% or more living canopy material requires a County permit. Additional pruning BMP's and guidelines are available upon request.

10) The primary objective of pruning operations should be as follows: To remove dead and unhealthy limbs and branches (i.e., deadwood removal); improve canopy balance and symmetry and maintain natural form; thin out overly dense and heavy portions of the canopy; and, if necessary, perform targeted and selective weight reduction pruning of the canopy and large limbs (i.e., end weight reduction pruning) to assist in preventing significant structural failures that can be detrimental to tree health and potentially hazardous to areas with human activity. As suggested in the previous sentence, perform necessary pruning to reduce and mitigate hazard concerns to occupied structures and areas with human activity; and perform necessary pruning to reduce wildland fire hazards and combustible fuel loads, and improve property protection and defensible space around structures.

11) Perform regular construction site inspections for the duration of the project to monitor the condition of tree and resource protection measures, and to determine if any repairs, adjustments or modifications are necessary. Additionally, trees impacted by site development should be periodically monitored and assessed during and following the project to determine if any tree care and management actions are necessary, and to make certain trees do not present a hazard to property and/or nearby structures.

C. Tree Repair & Replacement:

Per tree care and preservation BMP's, if any trees are damaged during construction operations they should be promptly repaired and/or treated per arborist specifications. Remedial or mitigation treatments may vary and will depend largely on the damage or injury sustained, as well as the condition of a specific tree at the time of injury. As previously noted, trees impacted by project operations should be periodically monitored and assessed by the project arborist during and following the project to determine if any tree care and management actions are necessary that will assist in preserving and improving tree health and preventing tree hazards.

V. **CONCLUSION**

In conclusion, for the reasons provided in this report a total of 7 coast live oak trees (identified as *Tree#s 7, 19 & 32-36*) located on the property at 9 Mesa Trail (Lot D12) on the *Santa Lucia Preserve* are proposed for removal in preparation for planned home construction activities. Additionally, tree and resource protection measures shall be installed prior to construction activities commencing and properly monitored and maintained for the duration of the project. Given the proper implementation of tree and resource protection measures provided in this report, construction related impacts are expected to be minimal and insignificant to tree health.

Additionally, in the interest of complying with *Monterey County RMA-Planning Department* tree removal permit conditions and preserving and sustaining the health and character of oak woodland habitat, 21 replacement oak trees shall be planted on the subject lot and survive a five-year monitoring period.

Best regards,

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Resource Ecologist

June 28, 2022
Date

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CLIENT ACKNOWLEDGES THAT THIS REPORT, AND ANY OPINIONS, ADVICE OR RECOMMENDATIONS EXPRESSED OR GIVEN, ARE BASED ON THE INFORMATION SUPPLIED BY CLIENT AND ON THE DATA, INSPECTIONS, MEASUREMENTS AND ANALYSIS CARRIED OUT OR OBTAINED BY TWM.

THIS REPORT IS BASED ON A LIMITED VISUAL INSPECTION FOR OBVIOUS DEFECTS AND OF TREE CONDITION FROM GROUND LEVEL. IT IS NOT A COMPLETE HEALTH AND HAZARD EVALUATION, AS SOME HEALTH AND HAZARD CONDITIONS ARE NOT VISIBLE AND CANNOT BE CONFIRMED BY SUCH LIMITED INSPECTION. A COMPREHENSIVE HEALTH AND HAZARD ASSESSMENT WOULD INCLUDE OTHER INVESTIGATION MEASURES INCLUDING, BUT NOT LIMITED TO, CORE SAMPLES, TISSUE ANALYSIS, ROOT COLLAR EXCAVATION, SOIL ANALYSIS, AND VISUAL INSPECTION OF THE ENTIRE TREE VIA CLIMBING. ESTIMATES FOR THIS WORK ARE AVAILABLE UPON REQUEST.

BE ADVISED THAT HEALTHY TREES AND/OR LIMBS MAY FAIL UNDER CERTAIN CONDITIONS, AND THAT THE RECOMMENDATIONS IN THIS REPORT ARE BASED ON GENERAL STANDARDS OF TREE CARE. THIS REPORT IS MADE WITH THE UNDERSTANDING THAT NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, ARE MADE THAT ANY TREES REFERRED TO IN THE REPORT OR LOCATED ON OR ADJACENT TO THE SUBJECT PROPERTY ARE GUARANTEED TO BE SOUND OR SAFE.

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Figure 1. Driveway entrance to proposed main house construction site.

Figure 2. Another view of driveway entrance. Oaks visible in photo will be retained and protected.

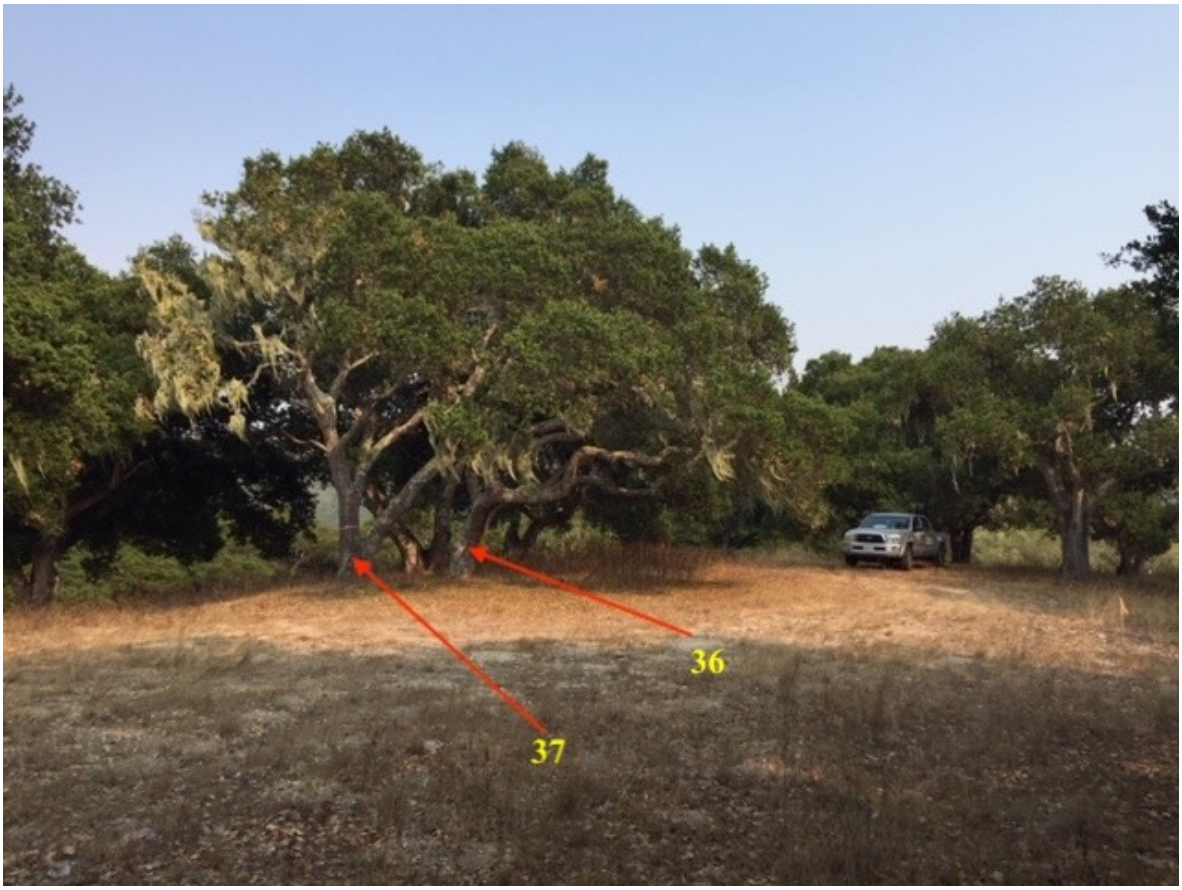

Figure 3. Another view of proposed main house construction site. *Tree#36* seen in photo is proposed for removal and *Tree#37* will now be retained and protected.

Figure 4. Another view of proposed main house construction site. *Tree#33* is proposed for removal due to location within construction footprint.

Figure 5. Grassland area of Homeland looking towards proposed pool location in foreground area and possible barn location in background area.

Figure 6. Another view of grassland dominated area of Homeland looking towards possible barn location.

Figure 7. Another view of grassland dominated area of Homeland.

Figure 8. Looking towards another possible barn location in the clearing left of center. Trees will be retained and protected.

Figure 9. Proposed driveway route. *Tree#7* in center of photo is proposed for removal due to location in driveway.

Figure 10. Proposed driveway route along edge of grassland clearing.

Figure 11. Proposed driveway route through oak woodland. Dead snag in center of photo will need to be removed.

Figure 12. Large population of non-native invasive French broom in adjacent Openlands. Several stands are occurring on lot.

Figure 13. *Tree#7* in center foreground is proposed for removal due to driveway location.

Figure 14. Closer view of *Tree#7*.

Figure 15. *Tree#19* (right of center in foreground) is recommended for removal due to close proximity to proposed bunk house.

Figure 16. *Tree#s 20* (background left) *& 21* (center foreground) are no longer proposed for removal and will be retained and protected.

Figure 17. *Tree# 22* is no longer proposed for removal and will be retained and protected.

Figure 18. *Tree#s 32* (center foreground) *& 33* (right background) are recommended for removal due to location within proposed homesite.

Figure 19. *Tree#s 32* (background left of center) *& 33* (center foreground) are proposed for removal due to location within building footprint of main house.

Figure 20. Closer view of *Tree#33*.

Figure 21. *Tree#s 34* (left of center) *& 35* (right of center) are proposed for removal due to location within building footprint of main house.

Figure 22. *Tree#36* (right of center) is proposed for removal due to location within building footprint of main house and *Tree#37* (left of center) will be retained and protected.

Figure 23. Closer view of *Tree#36* that is proposed for removal.

Figure 24. Closer view of *Tree#37* that will now be retained and protected.

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