

## Exhibit B

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# RESTORATION PLAN

3196 17 Mile Drive, Pebble Beach CA

Plans and methods to replant Monterey cypress forest and associate understory and coastal Bluff scrub habitat at 3196 17-mile drive in Pebble Beach CA.

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Restoration plan to complete conversion of formal landscape back to native Monterey Cypress Forest and understory and replace 14 Monterey Cypress that died, fell or were removed from the site between 2016 and 2023. Using elements from Hamm, Tree Resource Evaluation/Project Impact Analysis 3196 17 Mile Drive March 2016 and Ballerini BIOLOGICAL ASSESSMENT OF 3196 LLC PROPERTY APN: 008-491-010. March 2016

In his 2016 Biological Assessment for this project Fred Ballerini proposed that the areas outside of the building envelope would be revegetated with local native species at the conclusion of construction. *Native plant revegetation will be necessary, specifically on the ocean bluff, in the areas where exotic plants have been removed and the area of the existing driveway that is slated for decommission. After the completion of the soil disturbance activities, seed and plant materials should be installed in any non-landscaped areas in the fall months after the initial seasonal rains, when soil moisture levels have reached a minimum depth of 3 inches. Any transplanted stock can be replanted immediately and supplemented with a temporary irrigation system for the first year or two. Restoration implementation protocols should be specified in the Conceptual Landscape Plan and may contain additional Monterey Cypress restoration protocols from the Project Arborist*

### **Current conditions**

As of August 15, 2023, the construction of the new house and all its exterior hardscape is essentially completed. The baseline conditions of what the site looked like prior to the demolition of the previous structure, when fully landscaped with exotic shrubs trees and lawn is not entirely clear, but descriptions from Ballerini and Hamm in 2015 and 2015 indicate that, minus the group of Monterey Cypress trees that have fallen or been removed since then, the site has substantially improved as Monterey Cypress habitat. Most<sup>1</sup> of the nonnative landscape plants have been successfully removed and basic weed management has been ongoing by the Mission Landscape crew that has provided planting and maintenance for the property owners. Throughout the areas designated for conservation easement there are occasional seedlings of native species. Monterey cypress seedlings are present in small groups and isolated individuals. These will be flagged to highlight their locations and get a better picture of which ones to leave as is and which ones to consider for potential transplant to other locations. The seedlings are growing throughout the entire property and with overall forest health and balance in mind, some may be removed altogether. In any case, the ideal would be to allow as many of the Cypress seedlings as possible to remain exactly where they sprouted. Additionally observed seedlings of native perennials such as Douglas's Iris, Nuttals milk vetch and seaside daisy will be protected and allowed to remain where they have sprouted. Like the Cypress trees, the native species that germinate in situ are going to be more successful than those that are planted out from containers or transplanted from other locations on the property.

The restoration work can now be completed over the course of the next 12-15 months in two phases. This restoration work consists of the following:

#### **Phase 1**

##### **Exotic Species Eradication and ongoing weed maintenance**

There are several areas where nonnative species have not been completely eradicated from the property and while there are not many remaining, if not removed now, they will be harder to control later and will interfere with the establishment of new native species. On the inland side of the house there are several locations where invasive landscape plants are sprouting new growth from seed or rhizomes. Mexican Fan palm (*Washingtonia robusta* Cal IPC moderate)), calla lily (*Zantedeschia aethiopica*) and Arum (*Arum italicum*) and Alstroemeria – “leftovers” from the previous exotic landscape, are randomly distributed

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<sup>1</sup> Several persistent landscape plants that have proven to be invasive and difficult to eradicate have resprouted in parts of the front yard and several shrubs remain along the top of the bluff overlooking the shoreline.

within the open area of the Cypress restoration area as well as the far southern edge of the property (where they are mixed with bull thistle and rabbits foot grass) and the small space in front of the house entry that is not in the Conservation easement. On the Coast side of the house there are still small patches of Ice plant, Aloe sp., coast rosemary along the bluff that should be removed as soon as possible. Other common weeds in the easement area that need to be pulled whenever found but certainly before they can produce and drop viable seed, include Rabbit foot grass (*Polypogon sp.*) Prickly lettuce (*Lactuca serriola*), hairy cats ear (*Hypochaeris radicata*), and *Carpobrotus*, Sweet clover, cut leaf plantain

#### **Erosion control**

Erosion control measures taken prior to the onset of construction have been impacted by weather and the long construction process. Straw wattles or fiber rolls placed on the open ground west and north of the house should be refreshed and some replaced parallel to contour lines. Silt fencing along the top of the bluff should be replaced with new stakes and new mesh fencing material at least 2 feet back from the bluff drop off. (This is an area where several of the Coast Rosemary (*Westringia fruticosa*) plants that were part of the landscape of the original house are persisting and should be removed before the new silt fence is placed.). The Erosion control updates should be completed no later than October 15.

#### **Replacement tree planting**

A total of 22 trees including 14 Monterey Cypress trees fell or were removed during demolition and construction of the new house. This had a negative impact on the Monterey Cypress canopy cover and stability of the whole stand onsite but did not negatively impact the understory or “Monterey Cypress habitat”. These trees were surrounded by exotic landscape plants, groundcovers, including a well-watered lawn, previously and were not in the original established easement or undeveloped portion of the lot. The extra irrigation for the exotic landscape very likely impacted the health of those trees contributing to their demise. The impacts of the lost trees are really only on a tree for tree basis, not on a square footage area basis, as the effort to restore the forest already includes the eradication of the nonnative plants (much of which has been completed) and replacing them with appropriate native plants including young Cypress trees.

To offset the removal, we propose to plant 28 new container grown cypress trees grown from seed collected in the native population along 17-Mile Drive including fourteen 5-gallon Cypress trees, on a one for one replacement ratio for the removed Cypress trees, 1 D-pot or 1-gallon size Monterey cypress for each of the removed Pine trees and six additional D-pot or 1-gallon size Monterey cypress to bring the total to 28. . The net effect will be to replace the lost Monterey Cypress trees at a minimum of 2 to 1 ratio as well as add diversity in age class and size to the on-site forest which will sustain the forest regeneration for decades to come.

The 5-gallon replacement trees will be planted in or as close to the locations of the removed trees as possible (and/or feasible). Based on the original numbered tree map for the site, tree numbers 1,14,17,22,31,32,54,72,74,80, 81,82, 83 & 86 were cut down, or fell and removed. The locations of these trees will be flagged by the project biologist or arborists and used for general placement of the new trees.

The replacement tree planting should take place between October 15 and December 15. It is preferable that the planting be after several rain events have created water penetration several inches into the soil, but not entirely necessary. At the time of planting, holes should be dug that are just a little wider than the 5-gallon cans and then filled to the top with water and allowed to drain out and then filled again. After the water has drained away the second time the trees should be carefully removed from the can and the root system gently loosened and spread to allow it to grow away from the cylinder shape of the root ball. A small amount of the native soil should be placed back in the center of the hole to allow the root crown to sit just a little higher than the surrounding soil and the tree should be set carefully into the hole and then backfilled around the sides and watered a third time. Lightly tamp the soil by foot around the outside of the root ball.

If any seedlings are chosen for transplanting to other parts of the property, they should be moved on the same day as the 5-gallon tree planting. Holes should be prepared the same way as for the 5-gallon size trees and watered well. Seedlings should be excavated with a trenching shovel to go deep below the stem and then gently scooped out with the root system intact and carried to the receiver hole and placed, backfilled, and then watered in again. Around each new tree, create a watering basin. A water-holding basin is simply made of a berm of soil 3 to 6 inches high all around the root ball. It should be 2 feet away from the trunk of the 5-gallon trees and 6-8" away from the transplanted seedlings. To water, simply fill the basin with water. The water will then percolate into the soil exactly where the plant needs it!

When the plant is well established, usually after a year, remove the basins and then the plant will benefit from the same watering as neighboring plants. After the first year, the roots will likely have outgrown the size of the basin and water should be more widely applied to encourage continued expansion of the roots. Watering of these new trees can be done by hand once a week through the first 4 months (regardless of rain fall) and then once every two weeks for the remainder of the first growing season ending in October. Additional watering may be necessary through the first rainy season (October to April) if the year proves to be a below average rainfall year.

**Table 1 Trees to be replaced on site**

<i>Hesperocyparis macrocarpa</i>	#81	34.8"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#17	31.5"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#14	41.4"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#86	26"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#54	15.8"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#82	35.5"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#83	25"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#72	25"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#74	20.5"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#80	13"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#1	23.9"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#22	19"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#31	17"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Hesperocyparis macrocarpa</i>	#32	12"	<i>Hesperocyparis macrocarpa</i> 5-gallon
<i>Pinus radiata</i>	#25	23.8"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#26	22.6"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#24	30"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#30	27"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#2	23.9"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#52	22.5"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#15	35"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
<i>Pinus radiata</i>	#20	19"	<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
Additional trees to meet 2 fo1 Ratio of replacement			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
			<i>Hesperocyparis macrocarpa</i> D-pot or 1-gal
Total of 28 Container grown Monterey Cypress replacement trees			

The Container grown trees will be monitored for survival for 5 years. Any of the container grown trees that die during this period will be replaced in the next appropriate planting period (October to December).

## Phase 2

### Coastal bluff planting

On the Conceptual Landscape Plan completed in December 2016, Robert Joyce Architecture and Landscape Design called out four (4) distinct zones of the property for planting. They were Zone 1 Coastal Bluff Restoration, Zone 2 Cypress Conservation area, Zone 3 Special Cypress germination area and Zone 4 Courtyard and rear garden landscape. Zones 1,2 and 3 cover the portion of the property placed into permanent Scenic and Conservation Easement, while Zone 4, along with the house and appurtenant hardscape comprise the remainder of the lot.

Zone 1 runs from the Southern property line, due north along the back of the house, then angles west from the corner of the house and NW toward the northern property line and then back south along the ocean bluff top. This area has remnants of the native bluff and dune scrub habitat represented by Nuttals milk vetch, *Erigeron glaucus*, *Eriogonum parvifolium* and several others, but is otherwise a blank slate waiting for revegetation. Once the remainder of the nonnative species have been removed, a group of native perennials shall be planted in naturalistic groups and swaths from the bluff top to within 5 feet of the back of the house. The general area to be included in this zone is shown in this photo below.

The species to be planted and the quantities are listed below in table 1. No container size is specified but the ideal range would be from 2" liners, 5.5" deep "stubbie" leach tubes, 3.5" or 4" squares up to 1-gallon cans based on availability. The intent will be to create a sparse, well-spaced planting that will allow the species to fill into their mature sizes without extreme competition. Seedlings already apparent in this area include Monterey Cypress, Nuttals milk vetch, seaside daisy, Salt grass, Douglas's Iris, and Dune sedge. These plants will be flagged with orange flags during the final weed eradication just prior to planting to make sure they are protected.





Placement of the plants on site will be done by the project biologist in coordination with the landscape/restoration contractor to create irregular groupings and swaths rather than formal landscape layout. Planting will be with the least amount of disturbance possible to prevent additional soil disturbance. Holes should be dug only large enough to put the containerized root system into the ground just below grade. If recent rains have not been sufficient to moisten the soil to 3" deep, planting holes should be thoroughly saturated by hand before placing the new plants in them. Soil should be gently, but thoroughly tamped down all the way around the plant to ensure complete contact with the native soil around the root ball.

**Table 2 Zone 1: Coastal Bluff scrub/dune scrub plant list**

<b>Botanical name</b>	<b>Common name</b>	<b>Quantity</b>
<i>Acmispon heermannii</i> var. <i>orbicularis</i>	wooly lotus	30
<i>Armeria maritima</i>	sea thrift	50
<i>Astragalus nuttallii</i> variety <i>nuttalli</i>	Nuttall's milk-vetch	50
<i>Carex pansa</i>	Dune sedge	50
<i>Corethrogyne filaginifolia</i>	beach aster	50
<i>Distichlis spicata</i>	salt grass	50
<i>Dudleya caespitosa</i>	sea lettuce	50
<i>Erigeron glaucus</i>	seaside daisy	100
<i>Eriogonum parvifolium</i>	seacliff buckwheat	25
<i>Eriophyllum staechadifolium</i>	lizard tail	30

### **Cypress forest understory planting**

This includes both zones 2-Cypress Conservation area and 3- Special Cypress germination area. From the Front wall along 17-mile Drive along the north side of the driveway and north to the northern property line and on a smaller section between the south side of the driveway to the southern property line the property will be enhanced and restored as Cypress Forest habitat. These two zones as originally conceived by the project arborist and landscape architect included an area to encourage Monterey Cypress seed germination and recommendations for soil preparation including raking off 1-2" of leaf/scale litter and spreading seed on the bare surface.<sup>2</sup> There is no need for any additional soil preparation anywhere within these 2 zones after all the nonnative plants have been eradicated. Small seedlings of Monterey Cypress have already germinated throughout zones 1,2 and 3 and they should be protected. Prior to any additional weed eradication or enhancement planting of understory species, the existing Monterey Cypress seedlings will be flagged in place with orange flags to indicate that they are to be left in place. Once weed eradication is completed, the Cypress seedling population will be assessed for location and density and the project biologist and/or Arborist will determine if any should be transplanted to different locations in the easement or removed outright. It is assumed that as long as there are mature cypress trees onsite producing cones, there will continue to be new seedlings sprouting sporadically on the property.

As with the planting layout of the Bluff scrub and Dune scrub to the west, the layout of the Cypress Forest understory species will be done onsite based on existing native plants and trees and to a lesser extent, the topography. There are several natural swale forms in the easement area northeast of the house that have collected rain runoff and have a higher level of native grasses and sedges in them. Pacific reed grass is one of the typical species that would occur in these seasonal drainages. (Undetermined *Juncus* species

<sup>2</sup> Arborist Hamm referred to USFS cited studies of post-fire seed germination of southern California Cypress species that inferred that germination for all Cypress species would *only* occur on bare mineral soil. "Cypress seeds require bare mineral soil for germination and establishment". This is *not* the case for Monterey Cypress as proven on this site already.



occasionally occur in similar conditions along the Monterey County Coast. Several plants have been planted here in the Easement zone 2, though their presence onsite was not noted by Ballerini or Hamm and they are not on any of the planting lists) based on the more mature, undisturbed habitat in the NW corner of this lot and the SE corner of the neighboring lot, the 3 primary species of the Cypress Forest understory are Seaside daisy, California hedge nettle and Douglas's Iris. These will be the primary species grown and planted in the two planting zones for Cypress Forest

Seedlings of all 3 species as well as mature larger plant clusters of these and several other species already exist in the northern portion of the planting zone and to a lesser extent in the central portion of Zone 2.

### Cypress forest replanting and understory enhancement

**Table 3 zone 2 and 3 Cypress Forest understory plant list**

<i>Calamagrostis nutkaensis</i>	Pacific reed grass	50
<i>Clinopodium douglasii</i>	Yerba buena	40
<i>Corethrogyne filaginifolia</i>	beach aster	50
<i>Erigeron glaucus</i>	seaside daisy	250
<i>Hierochloe occidentalis</i>	California vanilla grass	25
<i>Iris douglasiana</i>	Douglas iris	100
<i>Phacelia malvifolia</i>	Stinging phacelia	25
<i>Phalaris californica</i>	California canary grass	25
<i>Stachys bullata</i>	California hedge nettle	100
<i>Hesperocyparis macrocarpa</i>	Monterey cypress	Container grown trees from local seed stock

### Temporary irrigation only.

Monterey cypress seedlings are susceptible to damping-off fungi [2,33]. Monterey cypress is highly susceptible to coryneum canker (*Coryneum cardinale*), which can kill trees in inland locations. Monterey cypress trees on the coast seem resistant to coryneum canker possibly because of the constant spray of salt, which decreases fungal spore viability [33].

No permanent irrigation will be used in the Conservation/Scenic easement planting zones 1,2 or 3. Any irrigation will be installed above ground and will be removed at the end of the third full year or when the planting areas are established as evaluated by the project Biologist.

### Success criteria

The project site will be, by necessity, a dynamic growing collage with existing mature plants, new naturally occurring seedlings and additional planted container grown plants. Success will not necessarily be counted in quantity of surviving plants (Except for the container grown Cypress trees) as much as in area of native plant cover. The plantings and natural occurring seedlings should eventually blend into and mimic the density and cover of the NW corner and smaller sections in the NE corner of the property. This will be visually estimated from established photo points on the easement boundaries. Ten separate photo points will be established around the outside perimeter of the easement just prior to commencing the first step of weed eradication and another set will be taken at the completion of planting. These same points will be used for monitoring visits each spring through the 3-year monitoring period. These photos will be used to compare overall vegetative cover change through the annual reporting period. While over the 3-year establishment period, some individual perennial plants may die, others may thrive and reach a higher level of vegetative cover than in year 1. Target average vegetative cover for the entire easement should be 75% of the Monterey Cypress Forest understory area. Any Monterey Cypress trees that are planted



from containers or by transplanting will be evaluated on an individual basis and have % survival criteria. Any Container grown Cypress tree that dies at any time during the establishment period will be replaced by a similar sized Cypress tree.

**Table 3 Success criteria**

Success criteria	Year 1	Year 2	Year 3	Year 4	Year 5
Total Vegetative cover	50%	60%	75%	NA	NA
Native vegetative cover	90%	95%	99%		
Nonnative cover	Less than 10%	Less than 5%	1% or less		
Planted container tree survival	100%	100%	100%	100%	100%

*Figure 3: Typical cypress seedlings in open space where irrigated lawn was removed.*

### Monitoring and reporting

Monitoring of the understory and bluff scrub planting areas will be conducted by the project biologist one time per month for the first 6 months after planting and then on a quarterly basis for the next two and a half years. Monitoring of the container grown Cypress trees will continue on an annual basis for a total of 5 years. Observations from the monitoring visits will be shared with the property owner and the Landscape foreman to address any needs for remediation with watering, weeding or plant replacement.

At the end of each calendar year after the completion of the planting, an annual report shall be prepared and submitted to the California Coastal Commission, the director of the Monterey County Housing and Community Development Planning Department and the Property owner. The report shall summarize the activities for the year just past and include evaluation of success criteria and whether standards proposed for that year were met and what remedial measures were taken or proposed.



*Figure 4: View looking south from undisturbed cypress understory on north portion of lot. This is the standard for the easement success criteria.*

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- <sup>i</sup> 2. Armstrong, Wayne P. 1966. Ecological and taxonomic relationships of Cupressus in southern California. Los Angeles, CA: California State College. 129 p. Thesis. [21332]
33. Vogl, Richard J.; Armstrong, Wayne P.; White, Keith L.; Cole, Kenneth L. 1977. The closed-cone pines and cypress. In: Barbour, Michael G.; Major, Jack, eds. Terrestrial vegetation of California. New York: John Wiley and Sons: 295-358. [7219]



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