
Nigel Belton

Consulting Arborist

**AN ASSESSMENT OF THE TREES LOCATED WITHIN THE PROPOSED DEVELOPMENT SITE
AT 1412, 1438, 1500 AND 1514 CAPITOLA ROAD, SANTA CRUZ - CALIFORNIA**

Prepared at the request of:
Carlos Jurado
Project Associate
Mid-Peninsula Housing Corporation
257 Main Street
Watsonville, CA 95076
cjurado@midpen-housing.org

Site visit by:
Nigel Belton - ISA Certified Arborist WE-0410A
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Job - Mid-Pen Housing Corp - 7.22.18



Ph / Fax (831) 688-1239

P.O. Box 1744 ~ Aptos, CA 95001 ~ CCL # 657930 ~ beltonnigel@gmail.com

EXHIBIT

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SUMMARY:

One hundred and fifty-two trees were surveyed within the development site. All of these trees are identified within the accompanying Tree Survey Matrix and on a Tree Location Map, both of which are attached to this report. The majority of the surveyed trees within the project area comprise of native Coast Live Oaks of varying sizes.

One hundred and two trees are recommended for preservation based upon their health and structural condition ratings. A number of these trees will have to be removed to facilitate the design and construction of the development.

Fifty trees are recommended for removal based upon their health and/or structural conditions, or because of undesirable species characteristics. All of the Bailey Acacia and Wild Plum Trees are recommended for removal on this site.

The final number of trees that can be preserved on this site will be influenced by design requirements and constraints. It is crucial that the trees preserved on this site have large enough undisturbed root zone areas, otherwise they will not thrive. These determinations must be made by the project arborist in collaboration the design team during the design development period.

The trees identified for preservation must be protected from damage and excessive root loss during the demolition and construction phases of this project. Tree Protection Zone Fences must be installed before any equipment comes on site and must be maintained in good order throughout the entire construction period.

The project arborist must provide inspections, supervision and oversight during the construction period, as prescribed within the Inspection Schedule in this report.

BACKGROUND:

Carlos Jurado contacted me on behalf of the Mid-Peninsula Housing Corporation, concerning the need for a tree survey and an arborist's report regarding the proposed multi use development at 1412, 1438, 1500 and 1514 Capitola Road. This development site comprises of four separate parcels which are owned by the Santa Cruz County Redevelopment Successor Agency. It is my understanding that the proposed development includes the construction two commercial buildings fronting Capitola Road and that two high density housing structures will be constructed in the area behind them. The project area comprises of two existing residential structures surrounded by a large open area of grassland and groupings of trees, some of which are of significant size and value to the community.

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ASSIGNMENT:

This assignment entails the provision of a tree resource survey and the preparation of an arborist's report on behalf of the Mid-Peninsula Housing Corporation. The 152 surveyed trees within the project area are identified with numbered tags affixed to their trunks. The tree tag numbers correspond with the numbering utilized within this arborist's report and the accompanying tree survey matrix. The numbered tree's locations are also shown on a tree location map.

The Tree Survey Matrix serves to document the dimensions, health and structural conditions of individual trees. The matrix also denotes whether individual trees are suitable for preservation or should be removed, based upon their condition ratings and/or undesirable species characteristics. The matrix also provides limited comments pertaining to trees of concern.

The arborist's report provides a background and discussion regarding the nature of the proposed improvements. This report provides observations and conclusions regarding the subject trees and their suitability for preservation. The report further provides preliminary recommendations for tree preservation and protection during both the design and the construction phases of the proposed development. This report also provides a preliminary inspection schedule for the project arborist during the construction period.

LIMITATIONS:

The inspection of the surveyed trees was made from the ground only. No tree canopies were accessed to examine their above ground structures, nor were any of these trees inspected below soil grade to examine their root systems. The inspections of trees were limited to visual examinations and did not entail any advanced testing of their interior structures.

This is a preliminary Tree Protection Report based on a site inspection and discussions pertaining to the nature of the proposed improvements. I was provided with a conceptual schematic showing the outlines of proposed structures and the surrounding infrastructure within the project area. I have not had the opportunity to review any detailed Civil or Architectural Plans at this early stage of the project. It is my understanding that the final locations of the new structures and surrounding infrastructure are yet to be determined.

DISCUSSION:

Fifty-two trees were surveyed within the project site, the smallest of which measured 3-inches in diameter when measured at 54-inches above ground level (Standard Diameter at Breast Height or DBH Measurement). The predominant tree species on this site comprises of native Coast Live Oaks (87 trees), the majority of which appear to have grown naturally from acorns. These oaks vary in height (between 10 and 40-feet tall). The larger established specimens are more desirable for preservation and protection during the design and construction periods of this project but are also more vulnerable to construction impacts resulting from root loss. I also noted the row of smaller oaks adjacent to the boundary of the southwest corner of the project site. These trees will serve to provide valuable screening and should be preserved if at all possible.

I noted some undesirable tree species on this site, including Bailey Acacia, Wild Plums and Mayten Trees. These trees are recommended for removal as they are naturally invasive. Three of the six mature Monterey Pines on this site are recommended for preservation based upon their condition ratings, however these mature pines are approaching the end of their life spans and they are very sensitive to construction impacts. I recommend that consideration be given to these concerns during design development.

The two Coast Redwood Trees that are located on the project site and on a neighbor's property, should be preserved, being generally tolerant of construction impacts if properly protected. Both of these trees appear to be well setback from proposed parking infrastructure in the preliminary development schematic provided to me.

The two large Fern Pines located within the proximity of the street frontage and the residence at 1438 Capitola Road will likely be located within the footprint of the proposed commercial building site and surrounding infrastructure. The opportunity for the preservation of these significant trees will be contingent on their locations relative to the proposed structures and the surrounding driveway and parking areas.

OBSERVATIONS AND RECOMMENDATIONS PERTAINING TO TREE PRESERVATION:

Tree #1 - 32-inch DBH Coast Live Oak (*Quercus agrifolia*):

Tree #3- 5-inch DBH Coast Live Oak:

Tree #5- 14-inch DBH Coast Live Oak:

These three oaks are located in the northeast corner of the project site and are recommended for preservation and protection due to their good condition ratings. I recommend that these oaks are pruned to improve their structural conditions and appearance.



Tree's #2, #4, #6, #19, #21, #22, #32, #33 and #71 - Nine Bailey Acacia (*Acacia baileyana*):

The great majority of the Bailey Acacia trees on this site exhibit poor health and have poor structural conditions. This species is undesirable due to its invasive nature. All of the Bailey Acacia Trees on this site are recommended for removal.





Tree's #10, #17, #20, #23 and #72 - Five Wild Plum Trees (*Prunus spp.*):
Tree #11 - Purple Plum (*Prunus cerasifera*):

These Wild Plums comprise of clusters of individual trunks. All of the plums are recommended for removal because they are potentially invasive and have poor health and structure ratings.



Tree #26 - 20-inch DBH Coast Live Oak:

This tree is located within the grouping of oaks located to the east of the residence at 1500 Capitola road (Tree's #24 through #31). The six of the larger oaks within the group of trees are recommended for preservation and protection during the design and construction periods of this project.

I recommend that tree #26 is pruned to improve its structure and appearance. Remove larger dead wood and reduce end-weight in any heavy and overextended limbs (also referred to as end weight reduction in this report).



Tree #27 - 20, 17 & 8-inch DBH Coast Live Oak:

I recommend that this oak is preserved and protected during the design and construction periods of this project.

This oak has a poor structural condition due to its codominant growth pattern which comprises of three trunks attached to a common stump. The areas of attachment between these trunks are weak and they are vulnerable to failing at this time.

I recommend that this oak be pruned to improve its structure (reducing weight in the ends of heavier limbs and the remove larger dead wood). I also recommend that one or more support cables are installed between the codominant trunks in order to reduce the risk of trunk failures. Utilize 5/16-inch diameter EHS Grade Cable attached to 3/8-inch through rods, with amon-eyes as the attachment points.





Tree #28 - 16-inch DBH Coast Live Oak:

I recommend that this oak is preserved and protected during the design and construction periods of this project.

I recommend that this tree is pruned to improve its structure and appearance. Remove larger dead wood and reduce end-weight in any heavy and overextended limbs.

Tree #29 - 15 & 9-inch DBH Coast Live Oak:

I recommend that this codominant oak is preserved and protected during the design and construction periods of this project.

I recommend that this tree is pruned to improve its structure and appearance. Remove larger dead wood and reduce end-weight in any heavy and overextended limbs.

I also recommend that one support cable is installed in between the two codominant trunks. Utilize 5/16-inch diameter EHS Grade Cable attached to 3/8-inch through rods.



Tree #30- 16-inch DBH Coast Live Oak:

I recommend that this oak is preserved and protected during the design and construction periods of this project.

I recommend that this tree is pruned to improve its structure and appearance. Remove larger dead wood and reduce end-weight in any heavy and overextended limbs.

Tree #34- 14 7 13-inch DBH Coast Live Oak:

This oak is located next to the sidewalk at the front of 1514 Capitola Road. I noted that it will likely be situated within the entry way to the proposed parking area.



Tree's #35, #36, #37 and #152 - Four Chinese Pistache (*Pistacia chinensis*):

The four Chinese Pistache growing in the landscape strip between the sidewalk and the curb are attractive trees that exhibit good health and generally have good structural conditions. They are recommended for protection during the design and construction of this project, if at all possible.



Tree #40 - 9 & 9-inch DBH Coast Live Oak:

Tree #41- 12-inch DBH Coast Live Oak:

Tree #42- 8 & 17-inch DBH Coast Live Oak:

Tree #43- 15-inch DBH Coast Live Oak:

Tree #44 - 8 & 8-inch DBH Coast Live Oak:

This cluster of five Coast Live Oaks is located near the road frontage to the northwest of the residence at 1500 Capitola Road. All of these trees are worthy of preservation and protection during the design and construction phases of this project, if space permits.

I recommend that the oaks are pruned to improve their structures and appearance. Remove larger dead wood and reduce end-weight on any heavy and overextended limbs.



Tree #45- 12 & 10-inch DBH Coast Live Oak:

Located to the west of the house at 1500 Capitola road.

This oak is recommended for removal due to its poor structural condition. It has a poor codominant structure, having two scaffold limbs that are poorly attached at the common trunk. The oak has also developed an asymmetrical growth pattern resulting in a poor canopy shape.



Tree #48 - 19-inch DBH Coast Live Oak:

Tree #49 - 25-inch DBH Coast Live Oak

Tree #50 - 10-inch DBH Coast Live Oak:

These three oaks are located on the property boundary to the southwest of the house at 1500 Capitola Road. All three oaks are worthy of preservation based upon their condition ratings, however it appears that they will be situated within the construction footprint, as shown on the conceptual schematic provided to me.



Tree #51 - 7, 8, 5, 5 & 5-inch DBH Black Walnut (*Juqians spp.*):

Tree #55 - 11, 11, 8 & 8-inch DBH Black Walnut:

Both of these Walnut trees are recommended for removal because they have regenerated from stumps and have poor structures.



Tree #52 - 15-inch DBH Coast Live Oak:

Tree #53 - 13 & 14-inch DBH Coast Live Oak:

These two oaks are located to the southwest of the house at 1500 Capitola road. The two oaks are worthy of preservation based upon their condition ratings, however it appears that they will be situated within the construction footprint as shown on the conceptual site plan provided to me.



Tree #56 - 10-inch DBH Coast Live Oak:

This oak is worthy of preservation based upon its condition ratings, however it appears to be located within the proposed construction footprint.

Tree #60 - 36 7 14-inch DBH Fern Pine (*Afrocarpus falcatus*):

This large tree is located east of the residence at 1438 Capitola Road. I noted that it has a co-dominant structure having two scaffold trunks attached to a common trunk. The area of attachment between the two scaffold trunks is poor. The tree is recommended for preservation based upon its overall condition rating. I noted that this tree is located within the proposed construction footprint, as shown on the conceptual schematic provided to me.

In the event that it can be preserved, it must be pruned to improve its structure and support cables must be installed between the scaffold limb structure to improve its structural integrity.





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Tree #61 - 14, 21, 12, 10, 12, 13, 24-inch DBH African Fern Pine:

This large tree is growing within the street frontage next to Capitola Road. The tree exhibits good health but it has a poor structural condition due to the development of multiple scaffold limbs attached at the common trunk.

The tree is recommended for preservation based upon its condition rating and as long enough of the root zone can be preserved during construction. In the event that this tree can be preserved, it must be protected and pruned to improve its structure. Support cables must also be installed between the scaffold limb structure in order to improve its structural integrity.





Tree #66 - 22-inch DBH Coast Live Oak:

This oak, exhibits good health and it has a fair structural condition. It is worthy of preservation if there will be adequate space for the protection of its Critical Root Zone Area during the design and construction phases of this project. I also recommend that this tree is pruned to improve its structural condition, if preserved.



Tree #82 - 22-inch DBH Monterey Pine (*Pinus radiata*):

This pine has died as a result of the recent drought period and a resultant infestation by Red Turpentine Beetle (*Dendroctonus valens*) and Engraver Beetles (*Ips spp.*).



Tree #83 - 22-inch DBH Monterey Pine:

This pine is recommended for removal based upon its condition rating and location.

I noted that this pine has a significant infestation of Red Turpentine Beetle on its lower trunk. The tree is located within the footprint of the housing development as shown on the conceptual schematic provided to me.



It is important to note that the six mature Monterey Pines located within the project site are located either within, or very close to the footprints of the proposed structures and surrounding driveway/parking infrastructure. These construction disturbances will likely result in significant root loss if any of the pines preserved in place. It has been my experience that mature Monterey Pines are not tolerant of significant root loss during site development work and it is likely that these trees will die within a short period of time in the event that there is significant root loss. For these reasons, I recommend that all of the Monterey Pines are removed on this site (unless the final design of the development allows for adequate areas of their Critical Root Zones to be preserved). Note that the Critical Root Zone Area required for tree preservation is generally defined by the canopy drip line perimeter (applicable to a symmetrical canopy form), or by calculating the required protection radius based upon trunk diameter. The Tree Protection Zone around these pines should be between one and 1.25-feet per inch of trunk caliper, measured at 54-inches above grade in this context (Reference - Trees and Development, A Technical Guide to Preservation of Trees During Land Development - Nelda Matheny and James Clark).

Tree #85 - 38-inch DBH Coast Redwood (*Sequoia sempervirens*):

The trunk of this healthy redwood is primarily located on the adjacent private property to the south of 1438 Capitola Road. The trunk appears to transect the property boundary.

The tree is worthy of preservation and its Critical Root zone must be protected during the construction period. I recommend that construction disturbances are limited to the edge of the canopy drip-line if at all possible. The small Coast Live Oak next to it should be removed.



Tree's #86 through #88 - Three Coast Live Oaks next to the southern boundary:

Tree's #91 Through #98 - Eight Coast Live Oaks next to the southern boundary:

Tree's #100 through #103 - Three Coast Live oaks next to the southern boundary:

Tree's #105 through #112 - Eight Coast Live Oaks located next to the southern boundary and the southwestern corner of the project site:

The row 22 Coast Live Oaks growing within the proximity of the southwest corner of the project site are young trees which exhibit good health. These trees provide valuable screening along the project boundary and are recommended for preservation and protection during the construction phase. The preservation of these oaks will require that there is an adequate setback distance between their trunks and the new curb line of the proposed parking area, as shown on the conceptual site plan (preferably a minimum eight-foot setback distance between the trunks and the curb line if possible).

A number of these trees are crowded close together and some of the poorer specimens could be removed to provide for more space between them.



The three Arizona Cypress Trees (*Hesperocyparis arizonica*) and the one Mayten Tree (*Maytenus boaria*) growing within this row of oaks should be removed because of their poor condition ratings.

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Tree #114 - 22-inch DBH Monterey Pine:

This mature pine is located on the west boundary of the project site. It is recommended for removal due to its poor condition rating and its close proximity to proposed construction disturbances. I noted that the top of the pine had been previously killed by Pine Pitch Canker (*Fusarium circinatum*) and that the loss of apical dominance resulted in the development of a heavy limb structure which is vulnerable to failure. I also noted a number of active Pine Pitch Canker infection sites in some of the limb ends.



Tree #116 - 29-inch DBH Monterey Pine:

This mature pine is located next to the western boundary. I noted a number of distinctive pitch tubes on the lower trunk associated with an infestation by Red Turpentine Beetle.

The tree is suitable for preservation based upon its condition rating, however I recommend that it is considered for removal because of its close proximity to the proposed parking area as represented on the conceptual site plan provided to me. The construction of the parking area as shown will likely result in significant root loss within the Critical Root Zone Area of this mature pine.



Tree #118 - 30-inch DBH Monterey Cypress (*Hesperocyparis macrocarpa*):

This large tree is located on the west boundary of the project site. It must be removed as it has partially failed in the ground as evidenced by its strong lean to the east and the heaved soil area observed on the west side of the trunk. The tree also exhibits fair to poor health at this time.



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Tree #119 - 18-inch Eucalyptus Tree (*Eucalyptus spp.*):

This tree exhibits good health and has a good structural condition which makes it worthy of preservation. Unfortunately, it appears to be located within the development footprint.



Tree #120 - 22-inch DBH Monterey Pine:

This mature pine is situated next to the western property boundary. The tree exhibits good health and has a poor structural condition rating. The top of this tree has developed a heavy lean and I noted that the great majority of the limb structure had been removed over the neighbor's yard.

I recommend that this tree is removed because of its close proximity poor structure and its location next to the proposed parking area as represented on the conceptual schematic provided to me. The construction of the parking area as shown, will likely result in significant root loss within the Critical Root Zone Area of this mature pine.



Tree's #121 through #123 - Three Mayten Trees:

These three trees are growing within close proximity to each other and they have fair overall condition ratings. I recommend that these crowded trees are removed and replaced with a more desirable species.



Tree #124 - 16-inch DBH Raywood Ash (*Fraxinus angustifolia* "Raywood):

This tree is worthy of preservation based upon its condition rating.

In the event that it can be preserved and will be setback far enough from construction disturbances, it must be pruned to improve its structural condition and appearance.



Tree #126 - 22-inch DBH Scarlet Flowering Gum (*Corymbia ficifolia*):

This tree exhibits good health but has a poor structural condition due to the development of a poor growth pattern. I noted that there are poor attachment areas between the main scaffold limbs which makes them vulnerable to failure. I recommend that the flowering gum is removed and replaced with a new specimen tree.

Tree #128 - 25, 21 & 10-inch DBH Coast Redwood:

This large tree is located near the western boundary of the project site and it is worthy of preservation and protection during the design and construction phases of the development.

I noted that the conceptual site plan shows the proposed landscape area around this tree to be large enough in size to ensure the preservation of its Critical Root Zone Area.



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Tree #130 - 19-inch DBH Mexican Fan Palm (*Washingtonia robusta*):

This palm is located next to the western boundary of the project site. The palm merits preservation based upon its health and structural condition ratings but is poorly located, being crowded between the adjacent redwood and the three Black Walnuts located within its proximity.

I recommend that it is preserved based upon its good condition rating and that the dead fronds on the trunk are removed at this time.

Tree's #131 through #133 - Three 6-inch, 6-inch & 8-inch DBH Black Walnuts:

These three trees are recommended for preservation because of their good overall condition ratings. I noted that the surrounding landscape area represented on the conceptual site plan appears to be large enough for the preservation of these trees. I recommend that they are pruned to improve their structures.



Tree #134 - 12 & 15-inch DBH Cottonwood Poplar (*Populus spp.*):

This codominant tree has two trunks attached to the stump at grade. The area of attachment between these trunks is very poor, being very narrow with a significant area of bark inclusion (trapped bark).

I recommend that this tree is removed because of its poor condition rating and its undesirable species characteristics. This species is not recommended for preservation as a landscape tree because of its weak growth pattern and invasive root growth habit.



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Tree #135- 11 & 11-inch DBH Coast Live Oak:

This oak has a poor structure and a misshapen canopy due to competition with the adjacent Cottonwood Poplar. The tree exhibits good health.

The removal and replacement of this misshapen tree with a better specimen is a practical consideration at this time.

Tree #136 - 11-inch DBH London Plane Sycamore (*Platanus x hispanica*):

This tree is located in the landscape in front of the adjacent property to the left of the project site. It has been included within this report because its Critical Root Zone must be protected during the construction period.



Tree #137 - 19-inch DBH Chinese Elm (*Ulmus parvifolia*):

This Elm has a very poor structure, having developed an asymmetrical growth pattern and heavy scaffold limb development on one side. I recommend that this tree is removed because it is vulnerable to failure at this time.



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Tree #138 - 26-inch DBH Monterey Pine:

This mature pine is a good specimen, having good health and a good structural condition. The pine is worthy of preservation based upon its condition rating.

I noted that this tree may be situated within the landscape area as shown on the conceptual site plan. This large Monterey Pine can only be preserved if there will be a large enough area of the Critical Root Zone left undisturbed during the construction period (the area of the CRZ must equal the drip-line perimeter or a minimum radius of 26-feet around the trunk).

Tree's #139 through #142 - Four Coast Live Oaks:

These four trees have DBH measurements equaling 13 & 16, 3 & 4, 13 and 7 & 9-inches, respectively. All of these trees are worthy of preservation based upon their condition ratings.



Tree's #144 & #146 - Two Silk Oaks (*Grevillea robusta*):

These trees are not worthy of preservation due to their poor condition ratings and appearance.



Tree's #147 through #149 - Three small Coast Live Oaks:

These young oaks have trunk diameters of less than 10-inches at 54-inches above grade. They are worthy of preservation, as long as a large enough area of landscape will be available for the protection of their rootzones.



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Tree #150 - 16-inch DBH Mexican Fan Palm:

This established palm is recommended for removal due to its poor growth pattern. The lower trunk has developed a large bow to the west, which is a significant structural defect.



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RECOMMENDATIONS FOR TREE PRESERVATION DURING DESIGN AND CONSTRUCTION:

TREE PROTECTION DURING DESIGN DEVELOPMENT:

The project arborist must work with the design team in order to provide plan review comments and recommendations concerning the preservation and protection of desirable trees during the design development phases of this project. These recommendations pertain the protection of the Critical Root Zones of trees situated within close proximity to proposed grading, work, construction activities and new underground utilities and drains (and the new driveway and parking infrastructure).

1- Tree Protection Zone (TPZ) fence locations must be shown on the Final Site Demolition and Construction Plans.

2- I recommend that the individual tree numbers are identified within this report are shown on the Completed Civil Plans, so as to provide an easy reference in the field during the demolition and construction periods of this project.

3- I recommend that the following notes are added on the final Demolition, Grading, Drainage, Utility and Construction Plan Sheets:

- Tree Protection Zone Fencing must be installed and approved of by the project arborist, before site demolition and construction work proceeds. These fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project arborist.

Tree Protection Zone Fences must comprise of steel chain-link construction, attached to steel posts driven into the ground. Laminated Tree Protection Notices must be attached to TPZ fences at distances of every 10-feet (see the attached TPZ notice template). TPZ fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project arborist.

- The project arborist must attend a pre-construction meeting with the General Contractor and the grading contractor and must also be notified concerning scheduled site meetings throughout the construction period.

- All construction activities must be excluded from fenced Tree Protection Zones unless such encroachments are unavoidable, in which case the project arborist must provide supervision regarding root protection and preservation. Vehicles and equipment must be excluded from Tree Protection Zones. No materials, chemicals or waste products may be stored or disposed of within these protected areas.

- The project arborist must be notified in the event that significant roots over 2-inches diameter are encountered during any underground work.

TREE PRUNING AND MAINTENANCE RECOMMENDATIONS:

I recommend that the trees designated for preservation should be pruned in order to improve their structural conditions and to reduce the risk of limb failures. This work should be completed before the construction phase begins.

The Project Arborist must meet with the approved Tree Service Provider to discuss the scope of recommended pruning work before it proceeds and must also inspect the work in progress in order to ensure that it is being performed correctly. Such work must be undertaken by a State Licensed Tree Service Provider and comply with ANSI A-300 Best Management Practices and ISA Standards for tree pruning and maintenance work. This work must be performed under the supervision of an ISA Certified Arborist.

CONSTRUCTION PERIOD RECOMMENDATIONS:

1- Tree Protection Zone Fencing must be installed and approved of by the project arborist, before site demolition and construction work proceeds. These TPZ Fences must comprise of steel chain-link construction, attached to steel posts driven into the ground. Laminated Tree Protection Notices must be attached to TPZ fences at distances of every 10-feet.

TPZ fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project arborist.

All construction activities must be excluded from fenced Tree Protection Zones, unless such encroachments are unavoidable, in which case the project arborist must provide supervision regarding root protection and preservation. Vehicles and equipment must be excluded from Tree Protection Zones. No materials, chemicals or waste products may be stored or disposed of within these protected areas.

2- The project arborist must attend a pre-construction meeting with the General Contractor and the grading contractor and must also be notified concerning scheduled site meetings throughout the construction period.

3- The project arborist must be notified in the event that significant roots over 2-inches diameter are encountered during any underground work.

<u>Name</u>	<u>Address</u>	<u>City, State</u>	<u>Zip</u>	<u>APN#</u>	<u>Res Addr</u>	<u>FAA ID #</u>	<u>DATE</u>	<u>TIME</u>	<u>Mitigation Cost</u>
Larkin Valley Road				County ROW					\$400.00
Larkin Valley Road				County ROW					\$575.00
Larkin Valley Road				County ROW					\$450.00
John Borrego	214 Stanford St	Watsonville,CA	95076	048-011-35	49 Buena Vista Dr.	KWVIT0361	TBD	TBS	\$5,900.00
John Borrego	214 Stanford St	Watsonville,CA	95076	048-011-35	49 Buena Vista Dr.	KWVI0059	TBD	TBS	\$2,200.00
Miguel A Tovar JR	130 Buena Vista Dr	Freedom, CA	95019	049-221-49	130 Buena Vista Dr.	KWVIT0328	TBD	TBS	\$2,000.00
Miguel A Tovar JR	130 Buena Vista Dr	Freedom, CA	95019	049-221-49	130 Buena Vista Dr.	KWVI0010	TBD	TBS	
Jose Angel Ramirez	4 Miller Ave	Freedom, CA	95019	049-461-14	4 Miller Ave.	KWVIT0367	TBD	TBS	\$1,900.00
Joseph Vincent	64 Buena Vista Dr	Freedom, CA	95019	049-461-16	64 Buena Vista Dr.	KWVI0014	TBD	TBS	\$2,000.00
Kirk S Halstead	108 Buena Vista Dr	Freedom, CA	95019	049-221-11	108 Buena Vista Dr.	KWVI0012	TBD	TBS	\$1,400.00
Keith M Jackson	7979 Soquel Dr	Aptos, CA	95003	049-461-21	30 Buena Vista Dr.	KWVI1503	TBD	TBS	\$1,400.00
Felicia Cawaling	46 Buena Vista Dr	Freedom, CA	95019	049-461-23	46 Buena Vista Dr.	KWVI2193	TBD	TBS	\$7,000.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVI2194	TBD	TBS	\$2,900.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVI2195	TBD	TBS	\$1,500.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVI2196	TBD	TBS	\$2,300.00
Jesus Talamantes Haro	282 Manfre Rd	Watsonville,CA	95076	049-252-15	282 Manfre Rd.	KWVI05030	TBD	TBS	\$1,100.00
Jesus Talamantes Haro	282 Manfre Rd	Watsonville,CA	95076	049-252-15	282 Manfre Rd.	KWVI2223	TBD	TBS	\$1,600.00
Edward Chavez	286 Manfre Rd	Watsonville,CA	95076	049-252-14	286 Manfre Rd.	KWVI05032	TBD	TBS	\$2,900.00
300 Manfree Road	300 Manfree Road			County ROW					\$1,500.00
John Le Barre	PO Box 553	Freedom, CA	95019	049-571-04	54 Eucalyptus Dr.	KWVIT0266	TBD	TBS	\$4,300.00
David & Maria Raquel Cruz	66 Eucalyptus Dr	Watsonville,CA	95076	049-571-05	66 Eucalyptus Dr.	KWVIL009	TBD	TBS	\$7,400.00
David & Maria Raquel Cruz	66 Eucalyptus Dr	Watsonville,CA	95076	049-571-05	66 Eucalyptus Dr.	KWVIT0267	TBD	TBS	
Subtotal									\$50,725.00
Subtotal City Split									\$25,362.50
Subtotal County Split									\$25,362.50
Subtotal County Split									\$25,362.50
Reimbursed by County									\$5,050.00
County Total									\$20,312.50

Name	Address	City, State	Zip	APN#	Res Addr	FAA ID #	DATE	TIME	Mitigation Cost
Larkin Valley Road				County ROW					\$400.00
Larkin Valley Road				County ROW					\$575.00
Larkin Valley Road				County ROW					\$450.00
John Borrego	214 Stanford St	Watsonville, CA	95076	048-011-35	49 Buena Vista Dr.	KWVIT0361	TBD	TBS	\$5,900.00
John Borrego	214 Stanford St	Watsonville, CA	95076	048-011-35	49 Buena Vista Dr.	KWVIT0059	TBD	TBS	\$2,200.00
Miguel A Tovar JR	130 Buena Vista Dr	Freedom, CA	95019	049-221-49	130 Buena Vista Dr.	KWVIT0328	TBD	TBS	\$2,000.00
Miguel A Tovar JR	130 Buena Vista Dr	Freedom, CA	95019	049-221-49	130 Buena Vista Dr.	KWVIT0010	TBD	TBS	\$1,900.00
Jose Angel Ramirez	4 Miller Ave	Freedom, CA	95019	049-461-14	4 Miller Ave.	KWVIT0367	TBD	TBS	\$2,000.00
Joseph Vincent	64 Buena Vista Dr	Freedom, CA	95019	049-461-16	64 Buena Vista Dr.	KWVIT0014	TBD	TBS	\$1,400.00
Kirk S Halstead	108 Buena Vista Dr	Freedom, CA	95019	049-221-11	108 Buena Vista Dr.	KWVIT0012	TBD	TBS	\$1,400.00
Keith M Jackson	7979 Soquel Dr	Aptos, CA	95003	049-461-21	30 Buena Vista Dr.	KWVIT1503	TBD	TBS	\$7,000.00
Felicia Cawaling	46 Buena Vista Dr	Freedom, CA	95019	049-461-23	46 Buena Vista Dr.	KWVIT2193	TBD	TBS	\$2,900.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVIT2194	TBD	TBS	\$1,500.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVIT2195	TBD	TBS	\$2,300.00
Albert Paul L & Cheryl A	56 Buena Vista Dr	Freedom, CA	95019	049-461-15	56 Buena Vista Dr.	KWVIT2196	TBD	TBS	\$1,100.00
Jesus Talamantes Haro	282 Manfre Rd	Watsonville, CA	95076	049-252-15	282 Manfre Rd.	KWVIT05030	TBD	TBS	\$1,600.00
Jesus Talamantes Haro	282 Manfre Rd	Watsonville, CA	95076	049-252-15	282 Manfre Rd.	KWVIT2223	TBD	TBS	\$2,900.00
Edward Chavez	286 Manfre Rd	Watsonville, CA	95076	049-252-14	286 Manfre Rd.	KWVIT05032	TBD	TBS	\$1,500.00
300 Manfree Road				County ROW					\$4,300.00
John Le Barre	PO Box 553	Freedom, CA	95019	049-571-04	54 Eucalyptus Dr.	KWVIT0266	TBD	TBS	\$7,400.00
David & Maria Raquel Cruz	66 Eucalyptus Dr	Watsonville, CA	95076	049-571-05	66 Eucalyptus Dr.	KWVIT0009	TBD	TBS	
David & Maria Raquel Cruz	66 Eucalyptus Dr	Watsonville, CA	95076	049-571-05	66 Eucalyptus Dr.	KWVIT0267	TBD	TBS	

Subtotal \$50,725.00
Subtotal City Split \$25,362.50
Subtotal County Split \$25,362.50
Subtotal County Split Reimbursed by County \$5,050.00
County Total \$20,312.50

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

366

#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	<p>PLAN REVIEW COMMENTS:</p> <p>1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET</p> <p>2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ</p>
-	GENERAL RECOMMENDATIONS FOR THE PRELIMINARY PLANS:							<p><u>Sheet A001 – Cover Sheet.</u></p> <ul style="list-style-type: none"> - An additional line item should be added to the General Notes to specify that the contractor must comply with the Tree Protection Notes on the Tree Protection Plan. <p><u>Sheet C1.0 – Preliminary Site Plan;</u></p> <p><u>Sheet C2.0 – Preliminary Grading Plan;</u></p> <p><u>Sheet C3.0 – Preliminary Utility Plan;</u></p> <ul style="list-style-type: none"> - The final plans must only show the locations of the existing trees to be preserved. - The trees marked for preservation should be numbered on these sheets for an easy reference during design work and during construction. - Best to include Tree Protection Zone Notes on the Grading & Utility plans. Otherwise provide a clear reference to the notes found on Sheet TPZ1.00 – I recommend that the specific plan call-outs for arborists supervision (identified below) are included on the final grading plans. <p><u>Sheet TPZ1.00 – Tree Protection & Removal Plan;</u></p> <ul style="list-style-type: none"> - TP & R Notes - Item 2 should specify that the project arborist must inspect & document the installation of tree protection before any equipment comes on site. There should also be Tree Protection Zone notice template on this sheet (see Arborist Report). - Item 5 – Mulch should be no thicker than a 4-inch layer and set back 9-inches from trunks at grade. - The Inspection Schedule on page 43 of the Arborist’s Report also needs to be added to this plan.

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 2 OF 13.								PLAN REVIEW COMMENTS:
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET 2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ
1	Coast Live Oak (<i>Quercus agrifolia</i>)	32	40	50	2	X	-	1- Concerns about the following tree protection issues: 1- The great potential for root significant loss during construction of curb & parking stalls (trunk is setback about 3-feet from curb). - Recommend utilization of a reinforced concrete slab that requires minimal base excavation, concerning the footprint of the closest 4 parking stalls. - Recommend that an exploratory trench is carefully dug by hand or with an air spade at the proposed curb line before grading, to locate any 1.5-inch and larger roots that may require pruning. - Recommend that a call out note is added on the grading plan concerning required Project Arborist's supervision during careful excavation work required within the root zone. - Recommend that the closest back flow preventer location is moved further back from the trunk if at all possible.
3	Coast Live Oak	5	15	5	3	X	-	1- Concerns about the following tree protection issues: No specific recommendations apart from standard tree protection requirements.
5	Coast Live Oak	14	25	25	2	X	?	2- County review questions regarding tree preservation on the site: - The preservation of this tree will require the removal of parking stalls 7 & 8, and appropriate care to protect the root zone during grading and construction.
7	Coast Live Oak	4	10	5	2	X	X	To be removed because of its location on site plan.
8	Coast Live Oak	7	15	10	1	X	X	2- County review questions regarding tree preservation on the site: - Cannot be preserved due to its location in the proposed trash enclosure.

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 3 OF 13.										
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:		
9	Coast Live Oak	7	15	10	2	X	X	1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET 2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ		
13	Coast Live Oak	5/4	15	10	2	X	X	2- County review questions regarding tree preservation on the site: - Cannot be preserved due to its location in the proposed trash enclosure. 2- County review questions regarding tree preservation on the site: - Cannot be preserved due to location in paved area and close proximity to building.		
14	Coast Live Oak	14/17/13	15	25	2	X	X	To be removed because of its location shown on the site plan.		
15	Coast Live Oak	15	10	5	2	X	X	To be removed because of its location shown on the site plan.		
16	Coast Live Oak	4	20	5	2	X	X	To be removed because of its location shown on the site plan.		
18	Coast Live Oak	6	15	10	1	X	X	To be removed because of its location shown on the site plan.		
24	Coast Live Oak	19	30	30	3	X	X	To be removed because of its location shown on the site plan.		
25	Coast Live Oak	7	25	5	2	X	X	To be removed because of its location shown on the site plan.		
26	Coast Live Oak	20	35	35	2	X	X	To be removed because of its location shown on the site plan.		
27	Coast Live Oak	20/17/8	45	45	2	X	?	2- County review questions regarding tree preservation on the site: - Preservation may be an option if the landscape soil area can be increased around the trunk (by possibly changing the corner of the driveway?). The adjacent pedestrian path and driveway will then have to be constructed carefully. The oak will also require the pruning & cabling maintenance as prescribed in the arborist's report if saved.		
28	Coast Live Oak	16	25	25	3	X	X	2- County review questions regarding tree preservation on the site: - Located in a parking stall and must be removed due to lack of options.		

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT Q

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 4 OF 13.									
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:	
29	Coast Live Oak	15/9	30	25	2	X	X	<p>1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET</p> <p>2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ</p>	
30	Coast Live Oak	16	40	30	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Located in a parking stall and must be removed due to lack of other options.</p>	
31	Coast Live Oak	6	20	10	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Located in a parking stall and must be removed due to lack of other options.</p>	
34	Coast Live Oak	14/13	25	35	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Located in the parking stall and must be removed due to lack of other options.</p> <p>1- Concerns about the following tree protection issues: - The very limited soil area around the trunk and the great potential for significant root loss during construction. - The close proximity of the tree canopy as the trunk is setback about 7-feet from the building. This will require extensive pruning work to allow for construction work (at least 3 or 4-feet of setback between the canopy and structure will be needed). - Removal and replacement is the only practical option due to design constraints concerning the limited root zone area available and the tree's broad canopy dimensions.</p>	
35	Chinese Pistache	6	15	15	1	X	X	<p>Tree to be removed due to its location within the construction footprint.</p>	
36	Chinese Pistache	4	10	10	1	X	-	<p>Street Tree.</p> <p>1- No specific recommendations apart from required tree protection.</p>	

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT Q

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 5 OF 13.									
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:	
37	Chinese Pistache	7	15	20	1	X	-	Street Tree. 1- No specific recommendations apart from required tree protection.	1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET 2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ
38	Chinese Pistache	7	15	20	1	X	-	Street Tree. 1- No specific recommendations apart from required tree protection.	
39	Coast Live Oak	15	30	20	3	X	?	2- County review questions regarding tree preservation on the site: - I recommend that consideration is given to expanding the landscape area around this tree and the adjacent oaks in order to preserve more root zone area, if at all possible (see the marked-up site plan).	
40	Coast Live Oak	9/9	30	15	3	X	?	2- County review questions regarding tree preservation on the site: - I recommend that consideration is given to expanding the landscape area around this tree and the adjacent oaks in order to preserve more root zone area, if at all possible (see the marked-up site plan).	
41	Coast Live Oak	12	30	25	2	X	?	2- County review questions regarding tree preservation on the site: - I recommend that consideration is given to expanding the landscape area around this tree and the adjacent oaks in order to preserve more root zone area, if at all possible (see the marked-up site plan).	
42	Coast Live Oak	8/17	15	25	2	X	X	2- County review questions regarding tree preservation on the site: - This tree must be removed because it leans strongly to the east and its trunk and canopy will encroach into the paved area if left in place.	
43	Coast Live Oak	15	25	25	2	X	X	2- County review questions regarding tree preservation on the site: - Must be removed due to its location within the construction footprint (unless the synthetic turf area and paving can be significantly reduced).	

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 6 OF 13.									
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:	
44	Coast Live Oak	8/8	20	20	3	X	X	<p>1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET</p> <p>2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ</p>	
48	Coast Live Oak	19	25	40	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Must be removed due to its location within the construction footprint.</p> <p>2- County review questions regarding tree preservation on the site: - Must be removed due to its location within the construction footprint and close proximity to the handicapped parking area. I noted that it will be in a parking stall and will be setback about 10-feet west of Building 1. The broad canopy will also be problematic regarding its size and proximity next to the building.</p>	
49	Coast Live Oak	25	25	40	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Must be removed due to its location within the construction footprint. The tree is located in the proposed sidewalk and is setback about 10-feet from Building 4. Alteration of the plan to save this tree does not appear to be a practical option when considering its canopy dimensions and location next to the driveway.</p>	
50	Coast Live Oak	10	20	15	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	
52	Coast Live Oak	15	20	15	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	
53	Coast Live Oak	13/14	20	20	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	
54	Coast Live Oak	7	10	10	2	X	X	<p>2- County review questions regarding tree preservation on the site: - Must be removed because of its location within the artificial turf area.</p>	
56	Coast Live Oak	10	15	15	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	
57	Coast Live Oak	6	15	10	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	
58	Chinese Pistache	5	15	10	2	X	X	<p>- Must be removed as located within footprint of Building 4.</p>	

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT Q

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 7 OF 13.									
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:	
60	Fern Pine (<i>Afrocarpus falcatus</i>)	36/14	60	65	2	X	X	<p>1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET</p> <p>2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ</p>	
61	Fern Pine	14/21/12/ 10/12/13/ 24	70	75	2	X	-	<p>2- County review questions regarding tree preservation on the site: - Located in the paved area at the south end of the synthetic turf area. - The preservation of this large tree would require a significant landscape design change in order to preserve enough of the surrounding root zone area. The turf area would have to be much reduced in size and the paved surfaces within 25-feet of the trunk removed. I believe it will be more constructive to focus on possibly expanding the landscape area around the existing trees at the north side of the proposed turf area (Tree #60 and the adjacent oaks). 1- Concerns about the following tree protection issues: - The open soil area around the trunk of this large tree will be too small and will likely result in significant root loss during construction. - I recommend that the landscape area around this tree and the nearby oaks is expanded in size. I recommend that consideration be given to scooting the synthetic turf footprint about ten feet to the south, if this can be achieved when considering design constraints. This action will preserve a lot more root zone area (see the mark-up on the attached site map). Tree to be removed due to its location within the construction footprint.</p>	
63	Liquidambar (<i>Liquidambar styraciflua</i>)	8	25	20	2	X	X	Tree to be removed due to its location within the construction footprint.	
65	Coast Live Oak	5	20	5	2	X	X	Tree to be removed due to its location within the construction footprint.	
66	Coast Live Oak	22	25	40	2	X	X	Tree to be removed due to its location within the construction footprint.	
67	Coast Live Oak	5	15	10	2	X	X	Tree to be removed due to its location within the construction footprint.	

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT Q

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 8 OF 13.										
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:		
								1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET 2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ		
68	Coast Live Oak	4	10	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
69	Chinese Pistache	3	10	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
70	Chinese Pistache	4	10	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
74	Coast Live Oak	8	25	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
75	Coast Live Oak	8	25	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
76	Coast Live Oak	6	20	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
77	Coast Live Oak	7	15	15	2	X	X	Tree to be removed due to its location within the construction footprint.		
78	Raywood Ash (<i>Fraxinus angustifolia</i> "Raywood")	9	35	20	2	X	X	Tree to be removed due to its location within the construction footprint.		
79	Coast Live Oak	6	15	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
80	Coast Live Oak	10	20	20	2	X	X	Tree to be removed due to its location within the construction footprint.		
81	Coast Live Oak	7	30	10	2	X	X	Tree to be removed due to its location within the construction footprint.		
85	Coast Redwood (<i>Sequoia sempervirens</i>)	38	50	35	2	X	-	1- Concerns about the following tree protection issues: The trunk of this tree is located on an adjacent property. The proposed parking area will be setback about 18-feet from the trunk and care must be taken to avoid root tearing and damage during grading work (root pruning will be needed). - Requires a call-out on the grading plans concerning the need for project arborist supervision during grading and excavation work for the permeable parking area.		

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 9 OF 13.									PLAN REVIEW COMMENTS:
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET 2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ	
86	Coast Live Oak	8/10/7	25	20	2	X	-	1- Concerns about the following tree protection issues: These oaks are located near the edge of the proposed parking area footprint. - Requires a plan call-out on the grading plans for project arborist supervision during grading work.	
87	Coast Live Oak	7	15	5	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
88	Coast Live Oak	8	15	15	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
91	Coast Live Oak	6	15	5	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
92	Coast Live Oak	7	20	5	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
93	Coast Live Oak	5/6	15	5	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
94	Coast Live Oak	4	15	5	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
95	Coast Live Oak	7	15	10	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
96	Coast Live Oak	9	20	10	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	
97	Coast Live Oak	7/6/5	15	15	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.	

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EXHIBIT 0

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 10 OF 13.											
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:			
	<p>1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET</p> <p>2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ</p>										
98	Coast Live Oak	9/6	20	10	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
100	Coast Live Oak	6	15	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
101	Coast Live Oak	9	20	15	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
102	Coast Live Oak	6	15	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
103	Coast Live Oak	4	10	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
105	Coast Live Oak	8	15	15	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
106	Coast Live Oak	5	15	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
107	Coast Live Oak	5	20	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
109	Coast Live Oak	6	15	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
110	Coast Live Oak	10	20	15	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			
111	Coast Live Oak	6	15	5	2	X	-	<p>1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.</p>			

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 11 OF 13.										
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:		
112	Coast Live Oak	8	20	15	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work.		
116	Monterey Pine	29	55	45	2	X	X	2- County review questions regarding tree preservation on the site: - This pine must be removed as it will be setback 5-feet from the parking area curb, resulting in significant root loss and potential instability in the soil. Mature pines are not tolerant of root loss and decline and death will result within a number of years as a result.		
117	Coast Live Oak	6	20	10	2	X	-	1- Concerns about the following tree protection issues: - Requires a call-out for project arborist supervision during grading work		
119	Eucalyptus Tree	18	40	40	2	X	X	Tree to be removed due to its location within the construction footprint.		
120	Monterey Pine	22	80	40	2	X	X	2- County review questions regarding tree preservation on the site: - This pine must be removed because it will be setback 6-feet from the parking area curb, resulting in significant root loss and potential instability in the soil. Mature pines are not tolerant of root loss and decline and death will result within a number of years as a result.		
124	Raywood Ash	16	45	35	2	X	X	Tree to be removed due to its location within the construction footprint.		
127	Windmill Palm (<i>Trachycarpus fortunei</i>)	9	10	5	2	X	-	2- County review questions regarding tree preservation on the site: - This small palm can easily be relocated in the landscape.		
128	Coast Redwood	25/21/10	85	35	2	X	-	1- Concerns about the following tree protection issues: - I recommend a grading & utility plan call out regarding Project Arborist supervision during work within 25-feet of trunk (may need root pruning).		

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PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 12 OF 13.									
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:	
130	Mexican Fan Palm (<i>Washingtonia robusta</i>)	19	45	5	2	X		1- Concerns about the following tree protection issues: - No specific recommendations apart from the required tree protection fencing.	
131	Black Walnut	6	25	15	2	X	-	1- Concerns about the following tree protection issues: - No specific recommendations apart from the required tree protection fencing.	
132	Black Walnut	6	40	15	2	X	-	1- Concerns about the following tree protection issues: - No specific recommendations apart from the required tree protection fencing.	
133	Black Walnut	8	35	15	2	X	-	1- Concerns about the following tree protection issues: - No specific recommendations apart from the required tree protection fencing.	
135	Coast Live Oak	11/11	25	25	2	X	X	1- Concerns about the following tree protection issues: - No specific recommendations apart from the required tree protection fencing. 2- County review questions regarding tree preservation on the site: - This oak must be removed as it will be less than 5-feet from proposed storm drain and significant root loss will be unavoidable during drain installation work. This oak also has a poor codominant structure at four-feet above grade.	
136	London Plane Sycamore (<i>Platanus x hispanica</i>)	11	40	25	3	X	-	1- Concerns about the following tree protection issues: Located on the street frontage in front of the adjacent private property to the west. - No specific recommendations apart from the required tree protection. Pine is located within the footprint of Building 2.	
138	Monterey Pine	26	80	60	2	X	X	2- County review questions regarding tree preservation on the site: - Located within the sidewalk between the drive and the west side of Building 1. (setback a few feet from structure). It must be removed because there is not enough space for the preservation of root zone or for the broad canopy above ground.	
139	Coast Live Oak	13/16	30	40	2	X	X	This oak is located next to the footprint of Building 2.	
140	Coast Live Oak	3/4	20	10	2	X	X		

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EXHIBIT Q

PLAN REVIEW MATRIX – MID-PENINSULA HOUSING PROJECT SITE – CAPITOLA ROAD – SANTA CRUZ, CA

SHEET 13 OF 13.											
#	SPECIES:	TRUNK DIAMETER AT 54-INCHES ABOVE NATURAL GRADE:	ESTIMATED HEIGHT:	ESTIMATED SPREAD:	HEALTH: (1 = Best Rating out of 5)	SUITABLE FOR PRESERVATION BASED ON CONDITION RATINGS:	REMOVE TREE BECAUSE OF LOCATION IN PROJECT AREA:	PLAN REVIEW COMMENTS:			
141	Coast Live Oak	13	30	20	2	X	X	1- RECOMMENDATIONS FOR TREE PROTECTION - PERTAINING TO THE REVIEW OF THE PRELIMINARY PLAN SET			
142	Coast Live Oak	7/9	30	25	2	X	X	2- PLAN REVIEW COMMENTS - PERTAINING TO THE SPECIFIC TREES IDENTIFIED FOR RE-EVALUATION BY THE COUNTY OF SANTA CRUZ			
143	Coast Live Oak	7	20	15	2	X	X	2- County review questions regarding tree preservation on the site: - Small tree located within the proposed trash enclosure footprint. It must be removed as there is no available space available for its preservation.			
147	Coast Live Oak	5	15	5	2	X	X	Located within the proposed driveway footprint.			
148	Coast Live Oak	8	20	10	2	X	X	Located within the proposed driveway footprint.			
149	Coast Live Oak	7	20	10	2	X	X	Located within the proposed driveway footprint.			
152	Chinese Pistache	4	15	10	2	X	-	No specific recommendations apart from the required tree protection fence.			

Prepared by Nigel Belton, ISA Certified Arborist WE-0410A – January 31, 2019

EXHIBIT Q

