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TREE RESOURCE ANALYSIS & ARBORIST REPORT - THE SANTA CRUZ CITY SCHOOLS WORKFORCE HOUSING PROJECT – 313 SWIFT STREET, CALIFORNIA

Prepared at the request of:

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Job – Santa Cruz City Schools – 6.19.23



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TREE RESOURCE ANALYSIS & ARBORIST REPORT - THE SANTA CRUZ CITY SCHOOLS WORKFORCE
HOUSING PROJECT – 313 SWIFT STREET, CALIFORNIA

SUMMARY:

This is a preliminary report based upon the conceptual plans for this project.

I surveyed twenty-six trees in preparation for this report. A number of these trees are located on adjacent properties.

Seventeen of the surveyed trees qualify as protected Heritage Trees in the City of Santa Cruz.

I determined that sixteen of the seventeen Heritage trees are suitable for preservation because they have good overall condition ratings (Trees #1, #2, #3, #4, #5, #6, #8, #9, #10, #12, #16, #17, #18, #20, #21, #23 & #25).

I determined that one Heritage Tree is unsuitable for preservation, because of its poor structural condition rating (Tree #15).

I reviewed the conceptual plans for this development. I determined that it is likely that six of the surveyed Heritage Trees will likely have to be removed because of their locations within the proximity of the proposed construction and infrastructure footprints on this site (Trees #16, #17, #18, #20, #23 & #25).

I determined that ten of the Heritage Trees can likely be preserved during the construction period (Trees #1, #2, #3, #4, #5, #8, #9, #10, #12 & #24).

The Critical Root Zone Areas of the trees identified for preservation must be protected during the design and construction phases of this project. I must review the construction plans as they are being developed and provide a tree protection plan, which must be included in the completed construction plan set.

The Project Arborist must also provide inspections and supervision during the construction period.

BACKGROUND:

The proposed development entails the construction of over 100 housing units on the property at 313 Swift Street. I surveyed twenty-six trees on the project site and on adjacent properties.

ASSIGNMENT:

1- Survey all trees that have trunks measuring four-inches and larger in diameter at 54-inches above ground. Affix numbered tags to the trunks of these trees and plot their locations on a Tree Location Map.

2- Prepare a Tree Resource Matrix to document the surveyed tree's dimensions, and health and structural condition ratings.

- The matrix identifies the protected Heritage Trees on the site.
- The matrix identifies the trees that are suitable for preservation, and it identifies those trees that are unsuitable for preservation because of their poor condition ratings.
- The matrix identifies those trees that must be removed because of their location, within the proximity of the proposed construction footprints.

3- Prepare an arborist report.

- Review the conceptual plan provided to me.
- Provide observations regarding the site and the individual tree conditions.
- Provide preliminary tree protection recommendations for the construction phase of this project.
- Provide a preliminary inspection schedule, showing at which time the project arborist must be on site to provide inspections and supervision during the construction period.

LIMITATIONS:

This is a preliminary report. The report provides tree protection recommendations based upon a review of the conceptual plans provided to me. I have not reviewed any detailed Civil and Landscape plans at this time.

The inspection of these trees was made from the ground. The surveyed tree's canopies were not accessed to assess their above ground structures, nor were their roots examined below ground. The inspection of these trees was limited to visual examinations and did not entail any advanced testing of their structural conditions.

The trunks of several trees were hidden by ivy growth, which prevented thorough inspections of their structural conditions.

PRELIMINARY OBSERVATIONS & DETERMINATIONS:

SEVENTEEN HERITAGE TREES ARE SUITABLE FOR PRESERVATION & PROTECTION DURING THE CONSTRUCTION PERIOD (BASED ON THEIR HEALTH & STRUCTURAL CONDITION RATINGS):

Note – DBH = The trunk diameter measured at 54-inches above ground.

Tree #1 – 20-inch DBH Coast Redwood (*Sequoia sempervirens*):

Tree #2 – 16.5-inch DBH Coast Redwood:

Tree #3 – 17-inch DBH Coast Redwood:

Tree #4 – 16.5-inch DBH Coast Redwood:

Tree #5 – 18-inch DBH Coast Redwood:



Tree #8 – 14-inch DBH Lombardy Poplar (*Populus nigra* “Italica”):

Tree #9 – 8 & 17-inch DBH Lombardy Poplar:

Tree #10 – 40-inch DBH Lombardy Poplar:



Tree #12 – 21-inch DBH Black Walnut (*Juglans spp.*):



Tree #16 – Monterey Cypress (*Hesperocyparis macrocarpa*) - 62-inches diam. at 12-inches above ground:
Tree #17 – 25-inches or larger DBH Lombardy Poplar:



Tree #18 – 25-inch or larger DBH Lombardy Poplar

Tree #20 – 14 & 16-inch DBH Lombardy Poplar:



Tree #21 – 17-inch DBH Camphor Tree (*Cinnamomum camphora*):

Located on the adjacent property to the west.



ONE HERITAGE TREE IS NOT SUITABLE FOR PRESERVATION BECAUSE OF ITS POOR CONDITION RATING:

Tree #15 – 56.5-inch DBH Monterey Cypress:

I observed a dieback pattern in the canopy caused by Seiridium Canker infections. I also observed large broken branches in the crown of this tree. The tree has a poor codominant growth pattern, having several stems that share weak areas of attachment to each other and the trunk.



SIX HERITAGE TREES WILL LIKELY HAVE TO BE REMOVED BECAUSE OF THEIR LOCATIONS WITHIN THE PROXIMITY OF THE PROPOSED CONSTRUCTION FOOTPRINTS:

Tree #16 – Monterey Cypress (62-inch diameter trunk at 12-inches above ground):

This tree is located within the footprint of the proposed parking area next to the north property boundary.



Tree #17 – 25-inches or greater DBH Lombardy Poplar:

Tree #18 – 25-inches or greater DBH Lombardy Poplar:

Tree #20 – 14 & 16-inch DBH Lombardy Poplar:

Note that the trunks of both trees were hidden by Ivy growth. These trees are located in close proximity to the footprint of the proposed parking area next to the north property boundary.



Tree #23 – 44-inch DBH Monterey Pine (*Pinus radiata*):

This tree is adjacent to the footprint of the proposed driveway and turnaround area adjacent to the south property boundary.



Tree #25 – Silver Dollar Eucalyptus (*Eucalyptus polyanthemos*) - 28.5-inch trunk diameter at 30-inches above ground:

This tree is adjacent to the footprint of the proposed driveway on the south side of the property.



PRELIMINARY RECOMMENDATIONS FOR TREE PRESERVATION:

TREE PROTECTION RECOMMENDATIONS:

I determined that ten of the Heritage Trees can likely be preserved during the construction period (Trees #1, #2, #3, #4, #5, #8, #9, #10, #12 & #24).

1- Tree Protection Zone Fencing must be installed and approved of by the project arborist before demolition and construction work can proceed. These fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project arborist. The fences must comprise of steel chain-link material or heavy-duty snow fences, attached to steel posts driven into the ground. Laminated Tree Protection Notices must be attached to the TPZ fences at distances of every 15-feet (see the attached TPZ notice template).

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

3- Grading, trenching and construction activities must be excluded from fenced Tree Protection Zones. 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.

4- The project arborist must be notified if significant roots over 2-inches diameter are encountered during any underground work.

TREE PRUNING & MAINTENANCE RECOMMENDATIONS:

I recommend that the trees that are to be preserved be pruned to improve their structural conditions and to reduce the risk of tree failures.

The Project Arborist must meet with the approved Tree Service Provider to discuss the scope of the recommended pruning work on this site before it proceeds and should also be available to inspect the work in progress in order to ensure that it is being performed correctly. This work must comply with ANSI A-300 Best Management Practices and ISA Standards for tree pruning and the installation of tree support systems (tree props and support cables). This work must also be performed under the supervision of an ISA Certified Arborist (See the attached list of recommended tree service providers).

CONSTRUCTION PERIOD INSPECTION SCHEDULE:

1 – THE TREE PROTECTION ZONE FENCES:

- > Tree Protection Zone Fencing must be installed and approved of by the project arborist before any site demolition and construction work proceeds.
- > TPZ fences must not be dismantled or moved at any time during the construction period, without first obtaining the consent of the project manager and the project arborist.
- > Note - 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 within these areas. 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 PRE-CONSTRUCTION MEETING:

- > 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 – SITE INSPECTIONS & SUPERVISION:

- > The project arborist must be notified if significant roots over 2-inches diameter are encountered during any underground work. Roots encountered within the limits of grading and excavation work that exceed 2-inches diameter must be pruned properly and not be torn by equipment.
- > The project arborist must also provide supervision oversight concerning all construction disturbances that will encroach within the Critical Root Zones Areas of Protected Trees (as defined by the tree's canopy drip line perimeters or a factor of their trunk diameter measurements).

Please contact me if you have any questions regarding this report.

Respectfully submitted.



Nigel Belton

Attachments:

- Assumptions & Limiting Conditions
- Tree Resource Matrix
- Tree Location Map
- Tree Protection Notice Template
- Conceptual Site Plan (SCC WFH Unit Count Remix)