

September 9, 2022

Bonnie Lipscomb, Economic Development Director
City of Santa Cruz
337 Locust St.
Santa Cruz CA 95060

Re.: Consulting Arborist services for development – addendum report
Site: City Lot #4, Cedar St. between Cathcart St. & Lincoln St., Santa Cruz

Ms. Lipscomb;

I am writing in response to the request for an addendum to my report 21045-40027, dated 01/18/2022. This addendum letter is as per my discussions with Brian Borguno and Leslie Keedy. The intent of this letter and included data is to clarify determinations as to:

1. Tree diameters and Heritage Tree status¹.
2. Evaluation & ratings relative to tree protection during construction.
3. Feasibility for relocation of trees to be removed.
4. Review of the impact of construction based upon revised site plans entitled “*Entitlements Package 04/29/22.*”

SUMMARY: My review of the revised plans, collected data and categorizations remain unchanged from my original report (01/18/22). All twelve trees on site must be removed to accommodate construction. Specifically, the building footprint encompasses an area including all twelve trees. Only two trees (nos. 7 & 9) might be viable for transplant, but that evaluation could change if their root systems are structurally poor, which can only be determined when surrounding curbs and pavement is removed. Of these two, only tree no. 9 is a Heritage Tree¹.

DISCUSSION:

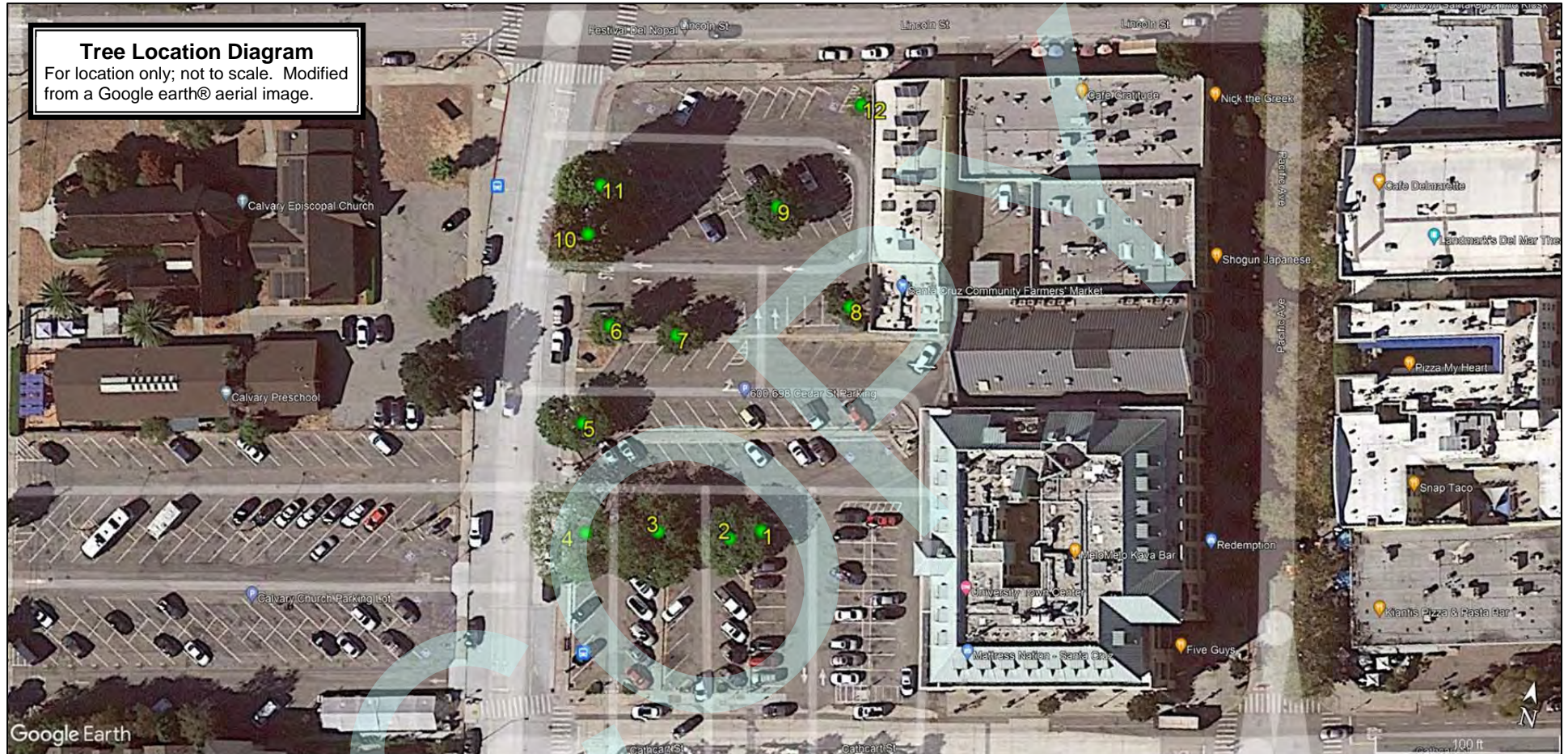
Transplanting (relocating): Under the best of circumstances, transplanting is severely traumatic to tree physiology, and weak trees are likely to decline over time. The relocation process includes severing much of the root system, reducing the tree’s ability to recover. The demolition of curbing and pavement required to relocate, close to tree trunks and covering roots systems, exposes the trees to further root system damage.

The trees on this site exhibit many existing conditions that render them poor candidates for relocation². It is my opinion that mature trees proposed for relocation should exhibit high vigor, desirable architecture, strong structure, and be free of significant disease and decay. Trees at risk of decline or structural failure are poor candidates for relocation. I also do not recommend relocation where operations would result in either an undersized rootball or damage to adjacent tree root systems.



¹ City of Santa Cruz Municipal Code, Title 9 Peace, Safety and Morals, Chapter 9.56 Preservation of Heritage Trees and Heritage Shrubs.

² Refer to Dryad, LLC report 21045-40027, dated 01/18/2022.



SUMMARIES OF TREE DATA AND EVALUATIONS:

Data Summaries	Quantity	Ratio	Descriptions/Comments
Total trees inventoried	12	100%	All trees on site
Heritage trees	9	75%	As defined by City of Santa Cruz ($\geq 14"$ dia.) (nos. 1-4, 6, 9-12)
Trees not protected	3	25%	As defined by City of Santa Cruz ($< 14"$ dia.) (nos. 5, 6-8)
Trees in conflict with construction	12	100%	All trees are within the construction footprint
Heritage Trees in conflict with construction	12	100%	All trees are within the construction footprint
Trees that are relocation viable	2	17%	Tree nos. 7 & 9 (relocation not recommended)
Heritage Trees that are relocation viable	1	8%	Tree no. 9 (relocation not recommended)
Species Variation & Ratio			
	4	---	Species variation on site.
Common Name	Quantity	Ratio	Botanical Name (Genus-species)
Chinese pistache	4	33%	<i>Pistache chinensis</i>
Maidenhair tree	1	8%	<i>Ginkgo biloba</i>
Southern magnolia	5	42%	<i>Magnolia grandiflora</i>
Sweetgum	2	17%	<i>Liquidambar styraciflua</i>



TREE INVENTORY DATA & EVALUATIONS:

- Trunk diameters: Unless otherwise described under Comments, trunk diameters were measured (12/20/21) at 54 inches above grade, as per the City of Santa Cruz¹. In a few cases, it was not physically possible to measure the diameter at 54 inches, but it was possible to determine that diameters were well above 14 inches diameter.
- Heritage status: Includes all trees with a single stem equal to or larger than 14 inches at 54 inches above grade¹.
- Transplant viable: The evaluations in this column were determined using the criteria described under Discussion on page 1.

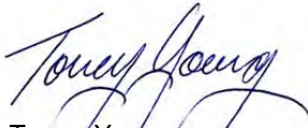
Tag no.	Common name	Genus-species	Trunk diameter (ins.)			Heritage status	Transplant viable	Comments
			1	2	3			
1	Southern magnolia	<i>Magnolia grandiflora</i>	20.5			Yes	No	Heritage status: Qualifies as a Heritage Tree as multiple stems are >14" diameter. Diameter: • Multiple stems >14" at 54" above grade, at juncture of multiple codominant limbs. • Primary stem diameter measured at ~36" above grade. Relocation potential: Poor candidate due to weak, irreparable canopy structure and damaged root system.
2	Southern magnolia	<i>Magnolia grandiflora</i>	20.5			Yes	No	Heritage status: Qualifies as a Heritage Tree as the multiple stems are each >14" diameter. Diameter: • Multiple stems >14" at 54" above grade, at juncture of multiple codominant limbs. • Primary stem diameter measured at ~42" above grade. Relocation potential: Poor candidate due to weak, irreparable canopy structure, damaged root system, and overlapping rooting space with tree no. 3.
3	Southern magnolia	<i>Magnolia grandiflora</i>	21.5	17.5		Yes	No	Heritage status: Qualifies as a Heritage Tree as both codominant stems are >14" diameter. Diameter: • Codominant (2) stems >14" at 54" above grade. • Codominant stem diameters measured at 54" above grade. Relocation potential: Poor candidate due to weak, irreparable canopy structure, severely damaged root system, and overlapping rooting space with tree no. 2.
4	Southern magnolia	<i>Magnolia grandiflora</i>	33.0	21.5		Yes	No	Heritage status: Qualifies as a Heritage Tree as codominant stems and limb are >14" diameter. Diameter: • Codominant (2) stems >14" at 54" above grade. • Codominant stems & limb diameters measured at 54" above grade. • Low, codominant limb measured 16" diameter. Relocation potential: Poor candidate due to canopy decline, decay, and damaged root system.
5	Southern magnolia	<i>Magnolia grandiflora</i>	13.5	12.5	12.0	No	No	Heritage status: Does not qualify as a Heritage Tree as none of the multiple stems are >14" diameter. Diameter: • Diameter of stem 1 measured at ~48" above grade) • Codominant stems & limb diameters measured at 54" above grade. Relocation potential: Poor candidate due to weak structure, decay, traumatic stem damage, limb failures, bacterial exudate, and damaged root system.

Tag no.	Common name	Genus-species	Trunk diameter (ins.)			Heritage status	Transplant viable	Comments
			1	2	3			
6	Chinese pistache	<i>Pistachia chinensis</i>	14.0			Yes	No	Heritage status: Qualifies as a Heritage Tree as the stem is 14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Poor candidate due to weak structure, poor architecture, limb failures, and severely restricted root system.
7	Chinese pistache	<i>Pistachia chinensis</i>	8.0			No	Yes	Heritage status: Does not qualify as a Heritage Tree as the primary stem is <14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Possible, but not recommended due to severe pruning and likely poor root system due to severely restricted rooting space.
8	Chinese pistache	<i>Pistachia chinensis</i>	12.5			No	No	Heritage status: Does not qualify as a Heritage Tree as the stem is <14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Poor candidate due to weak structure, poor architecture, and severely restricted root system and buried root crown.
9	Chinese pistache	<i>Pistachia chinensis</i>	17.5			Yes	Yes	Heritage status: Qualifies as a Heritage Tree as the stem is >14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Possible, but not recommended due to severe pruning, and likely poor root system due to severely restricted rooting space with a buried root crown.
10	Sweetgum	<i>Liquidambar styraciflua</i>	34.0			Yes	No	Heritage status: Qualifies as a Heritage Tree as the stem is >14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Poor candidate due to weak structure, poor architecture, severe pruning, and severely restricted and damaged root system.
11	Sweetgum	<i>Liquidambar styraciflua</i>	28.0			Yes	No	Heritage status: Qualifies as a Heritage Tree as the primary stem is >14" diameter (at 54" above grade). Diameter: <ul style="list-style-type: none"> • Multiple codominant limbs at 54" above grade. • Primary stem diameter measured at ~36" above grade. Relocation potential: Poor candidate due to weak structure, poor architecture, severe pruning, and severely restricted and damaged root system.
12	Maidenhair tree	<i>Ginkgo biloba</i>	17.0			Yes	No	Heritage status: Qualifies as a Heritage Tree as the stem is >14" diameter. Diameter: Diameter measured at 54" above grade. Relocation potential: Poor candidate for relocation due to severe pruning (topping/heading), extremely poor structure and architecture, likely poor root system due to severely restricted rooting space and buried root crown.



Please feel free to contact me with questions or comments.

Respectfully,



Torrey Young
Registered Consulting Arborist

ASCA Registered Consulting Arborist, no. 282
ISA Board Certified Master Arborist, no. WE-0131BM
CUFC Certified Urban Forester, no. 121
ISA Tree Risk Assessment Qualified
ASCA Tree & Plant Appraisal Qualified
CA Contractors License no. 363372 (C-27 & D-49; inactive)

