

APPENDIX 4

Jim Borer, Certified Arborist #496

Specimen tree preservation, and analysis

January 3, 2022

Mr. Matt Waken
MJW Investments, LLC.

Telefax: This page plus 18

Re: Existing Tree Inspection Report 18282 Philadelphia Street Whittier, Ca.

Dear Matt,

I am writing as a follow-up to my November 16 and December 23, 2021, field inspections of the existing mature specimen trees within and on the street frontages of the above referenced redevelopment project location in Whittier, California.

Assignment

Travel to the subject site, review the existing conditions of the 5 Ficus trees and the 12 carrotwood trees that are growing within the site and on the street frontages of Philadelphia Street and Comstock Avenue. Consider the trees existing conditions and their dispositions for long-term conservation in the context of the site's re-development. Prepare and submit this follow-up report, including the accompanying 'Excel' Spreadsheet inventory of the subject trees.

Observations

***Ficus n. 'macrocarpa'* Indian laurel fig**

The five mature Ficus trees are growing as street trees behind the curb frontages. Two of the Ficus are growing within the Philadelphia Street frontage and three are growing within the Comstock Avenue frontage. I have attached photographs of the trees' conditions at the time of the field inspection on December 23, 2021.

The five Ficus trees are mature specimens. The two Philadelphia Street trees have recently been pruned and therein possess upright form and character. The three Comstock Avenue frontage Ficus trees have not been pruned recently and possess broader form and character as a result.

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The five individual Ficus trees supported extensive surface roots. Therein they have uplifted and damaged their adjacent curbs, sidewalks, and street surfaces. The extent of the surface root uplifting damage can be seen in the obvious cracking, shaving, and asphalt patching that connects uplifted sections to others that have not been uplifted or uplifted as much. The uplifting damage has been ongoing for decades. These conditions expose the Ficus' surface root systems to be very shallow and in contact with many of these uplifted/ damaged features referenced above.

Opinions and Recommendations

The Ficus trees are mature specimens that exhibit good vigor and possess reasonably good viability given the existing site conditions, usage, their surface rooting conditions, and the related uplifting damage that they have inflicted upon the adjacent improvements including fractured, cracked, and damaged curbs and paved surfaces.

It is my opinion that these trees would be subject to significant disaffection as the result of substantial efforts to repair the uplifting damage that they have subjected the adjacent paved surfaces and curbs in any attempt to repair and replace the same. It is my opinion that they would be subject to severe impacts to their surface root structures in any such effort. There would be additional encroachment from demolition, removal of the adjacent structures, sidewalks, curbs, and paved surfaces that would be required to comprehensively redevelop the site into a multi-unit residential housing project.

It is further my opinion that these trees would experience significant decline to both their systemic vigor (growth systems) and structural integrity (ability to support themselves) in any such demolition and reconstruction efforts. Therein they would be subject to severe decline and catastrophic failure and collapse if they were subject to conservation in place during such operations.

It is my opinion furthermore that these Ficus are not good candidates for relocation given the required size of the root balls, 16' or larger, that would be required to support ongoing vigorous performance as transplanted specimens. The root ball sizes would require the commitment of substantial areas, equal to the root ball dimensions plus a few extra feet on each side, that would be required to replant them with reasonable exposed root ball soil surface areas. The areas that would be required to guy wire the canopy structures would extend distances that would be equivalent to half of the canopy heights or further outward from the trunks. It is my experience that such lateral clearances that would be required to support guy-wire tie downs are not possible in street tree / urban settings.

It is my opinion that these street trees should be removed and replaced, in the context of the site's redevelopment, with a species that is less invasively surface rooted, smaller in mature stature, and upright in growth form, and therefore more

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well-suited to the setting of multi-family building(s), more vertical spaces, and realistic street frontages planter sizes. Therein I recommend a species such as either Indian tribe crape myrtles, (*Lagerstroemia x. faurei* varieties) or Brisbane box, *Tristania conferta*.

If required to plant *Ficus* trees in support of the removal of the subject *Ficus* trees it would be my recommendation that they be planted off-site in another civic setting to the satisfaction of the city of Whittier.

Cupaniopsis anacardioides. Carrotwood trees

The twelve *Cupania* trees in and around the parking lot setting of the site are maturing specimens that, while exhibiting various canopy conditions, are mature specimens that have been exposed to poor care for an extended period in the past. Their systemic conditions expose varying levels of vigor based upon their canopy densities at this time.

The *Cupania* trees' structural conditions are poor. This is based upon the fact that they have been non-selectively pruned (topped), possess structural defects including locations where many major branches arise from singular locations, and where parallel branches are growing into each other, referred to as inclusion, without their being cojoined at their growing tissues.

Opinions and Recommendations

It is my opinion that the *Cupania* trees are mature specimens that exhibit varying degrees of poor vigor and poor structural integrity. Therein they are poor candidates for conservation within the re-development process in any manner. They could be reasonable candidates for replacement within the new landscape provided that the planting locations can support canopies that could be expected to grow to be 20 feet tall and a minimum of 20 feet wide. Otherwise it is my opinion that they should be replaced with smaller stature trees that would be considered a better fit into smaller planting areas.

I have attached photographs to document the conditions at the time of the field inspections. Please contact me if you have any questions, require additional inspection, or if you wish to discuss any of the issues related in this report with me further.

Respectfully submitted,

*Jim Borer Certified
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Enclosure: Photographs of conditions at time of inspection

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Tree number 1, *Ficus n. macrophylla*

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The canopies of tree numbers 1 and 2 have been pruned substantially but are still massive and broad in form and character.

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Surface roots extend outward for long distances in both open planters and beneath paved surfaces.

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Tree number 2

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Tree number 2's canopy has been pruned yet hangs over the sidewalk and the building.



The black color ribbons are asphalt where the pavement has been uplifted by roots.

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This picture depicts a root that is a good distance away from the tree's trunk on the soil surface.



Tree number 3

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Tree number 3 with asphalt patches where it has grossly uplifted the adjacent sidewalk.



Tree number 3 at the eastern end of the planter frontage where it has been uplifted and patched.

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Tree number three where the curb along street frontage has been damaged by surface roots.



Tree number four along the Comstock frontage.

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Fractured street surface adjacent to tree number four.



Tree number four where its surface rots have damaged adjacent sidewalk.

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Tree number four where it has grossly uplifted sidewalk frontage.



Tree number 5

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Tree number five where it has grossly uplifted the curb, sidewalk, and fractured adjacent street surface.



Tree number five uplifted adjacent street surface.

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Tree number five overview of uplifting damage.



Tree number 16 is typically well foliage but inside of the dense canopy are profusions of twiggly branches where the woody branches were severely pruned irrespective of the presence of significant secondary branches that could have been reasonable places to perform the reductions..

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Decline of the systemic vigor is apparent in the uppermost canopy. The topping can be seen where the large woody branches end and develop into profusions of small diameter twiggy branches abruptly.

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This tree's canopy is full but the trunk structure is in decline due to having been topped.



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Tree number 17 exhibits severe systemic distress.



Many woody branches developing from a single point on the trunk are prone to failures.



This photograph a typical condition of branch inclusion which is a defect that develops do to poor branch development patterns in early stages of life as an urban tree.

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The affects of inclusion are that the secondary growth of woody branches eventually frces branch shear failures.

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Prepared by: Jim Borer, Certified Arborist #496

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Project location: Southeast corner of Philadelphia and Comstock
Whittier, Ca.

Tree #	Latin name	Common name	DBH	Est. Ht. @Wdth	Comments	Dispositions
1	<i>Ficus nitida</i>	Indian Laurel fig	29"	50' x 40'	Recently thinned Upright character	Removal (subject to decline)
2	<i>Ficus nitida</i>	Indian laurel fig	28"	50' x 30'	Heavily thinned Rubber matting over exposed roots crown	Removal (subject to decline)
3	<i>Ficus nitida</i>	Indian laurel fig	29"	55' x 45'	Generous canopy some defects in root crown area	Removal (subject to decline)
4	<i>Ficus nitida</i>	Indian laurel fig	29"	50' x 45'	Generous canopy some root structure defects	Removal (subject to decline)
5	<i>Ficus nitida</i>	Indian laurel fig	33"	50' x 50'	Largest canopy Most surface rooted w/ the most damaged concrete	Removal (subject to decline)
6	Cupaniopsis anac.	carrotwood	11"	18' x 20'	Has been topped very thin canopy Secerely distressed	Removal (systemic decline)
7	Cupaniopsis anac.	carrotwood	11"	12' x 12'	Has been topped Very thin canopy	Removal (systemic decline)

				Die back present	
8	<i>Cupaniaopsis anac.</i>	carrotwood	7"	12'x 13'	Has been topped very thin canopy Removal (systemic decline)
9	<i>Cupaniopsis anac.</i>	carrotwood	15"	20' x 20'	Has been topped inclusion within branch structure Removal (systemic decline)
10	<i>Cupaniopsis anac.</i>	carrotwood	16"	20' x 22'	Has been topped systemic decline Removal (systemic decline)
11	<i>Cupaniopsis anac.</i>	carrotwood	14"	18' x 22'	has been topped defects in branch structure Removal (severe decline)
12	<i>Cupaniopsis anac.</i>	carrotwood	13"	18' x 22'	Has been topped very thin live canopy obvious distress Removal (severe decline)
13	<i>Cupaniopsis anac.</i>	carrotwood	11"	22' x 16'	Has been topped very thin canopy obvious distress Removal (severe decline)
14	<i>Cupaniopsis anac.</i>	carrotwood	18"	24' x 20'	Has been topped poor structure with defects Removal (severe decline)
15	<i>Cupaniopsis anac.</i>	carrotwood	15"	18' x 18'	Has been topped defects in branch structure Removal (severe decline)
16	<i>Cupaniopsis anac.</i>	carrotwood	14"	20' x 22'	Has been topped defects in branch Removal (severe decline)

17 *Cupaniopsis anac.*

carrotwood

8"

14' x 14'

structure

Has been topped
dieback of upper
canopy

Removal
(severe defects)

end