Kielty Arborist Services LLC

P.O. Box 6187 San Mateo, CA 94403 650-515-9783

April 16, 2018

David J. Powers Attn: Amber Sharpe 1871 The Alameda, Suite 200 San Jose, CA 95126

Site: Hemlock Apartments, San Jose

Dear Ms. Sharpe,

At your request on Friday, March 30, 2018, I visited the above site to inspect and comment on the trees on site. An apartment building is proposed for this site and as required a tree survey and a tree protection plan is needed for the nearby trees to be retained

Method:

The lot was inspected from the ground. The trees were located on a map provided by you. Each tree was assigned an identification number; this number was inscribed on a metal foil tag and nailed to the tree at eye level. The trees were then measured for diameter at 24 inches above ground level (DBH or diameter at breast height in San Jose). A condition rating of 1-100 was assigned to each tree representing form and vitality using the following scale:

1 - 29 Very Poor 30 - 49 Poor 50 - 69 Fair 70 - 89 Good 90 - 100 Excellent

The height of each tree was estimated and the spread was paced off. Observations for each tree will be included.

Survey:

	ree# Species London plane	DBH 17.3	CON 80		PComments Good vigor, good form, 10 feet from	
	(Platanus x hispanica	<i>a</i>)			property line.	
2*	African fern pine (Afrocarpus falcatus)	14.8	50	35/20	Fair vigor, poor form, codominant at 2 feet with included bark, branch failure at 10 feet.	
3*	African fern pine (Afrocarpus falcatus)	15.5)	70	35/25	Fair vigor, fair form.	
4*	African fern pine (Afrocarpus falcatus)	13.0	70	25/20	Fair vigor, fair form.	
5	Japanese maple (Acer palmatum)	12.1	80	20/20	Good vigor, good form, aesthetically pleasing.	
6	Tree of heaven (Ailanthus altissima)	39.1	40	45/35	Fair vigor, poor form, topped at 15 feet, invasive, hazard.	
7	Redwood (Sequoia sempervire	29.4 ns)	65	80/25	Fair vigor, fair form, drought stressed, restricted root zone.	
8	Redwood (Sequoia sempervire	33.8 ns)	70	85/20	Fair vigor, fair form, restricted root zone, drought stressed.	
9	Redwood (Sequoia sempervire	13.8 <i>ns)</i>	50	60/15	Fair vigor, poor form, suppressed by larger redwoods, drought stressed.	
10	Redwood (Sequoia sempervire)	27.8 ns)	50	85/20	Fair vigor, poor form, crook in top, drought stressed, restricted root zone.	
11	Chinese pistache (Pistacia chinensis)	12.2	80	35/20	Good vigor, good form.	
12	Chinese pistache (Pistacia chinensis)	6.1	80	20/15	Good vigor, good form,	
13	Japanese maple (Acer palmatum)	6.0	80	15/12	Good vigor, good form.	
14	C	5.1	50	12/10	Fair vigor, poor form, suppressed.	
(Citrus spp.) *-INDICATES TREE ON NEIGHBORING PROPERTY						

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Summary:

The trees on site are a mix of imported trees, there are no trees native to San Jose on site. All of the trees are proposed for removal to facilitate the proposed construction. The neighbor's London plane tree #1 and African fern pine trees #2-4 will be retained for this project. The neighbor's London plane tree is in good condition. Because this species has a good tolerance to construction impacts, it is recommended to maintain a no excavation zone of 6 times the tree's diameter (9 feet) from this tree in order to keep the tree in good health. Tree protection fencing will need to be placed at 10 times the tree's diameter (14 feet) where possible during the construction process in order to protect the root zone from potential compaction.

Showing neighboring London plane tree



African fern pine trees #2-4 are located on the neighbor's property to the north in a small planting strip between a parking lot and the property line. These trees are in fair condition and provide screening for the property. The existing foundation on the property likely acted as a root barrier for these trees. Roots underneath the existing foundation are expected to be minimal to nonexistent. Tree protection fencing for these trees should extend off of the property line fence and out to the existing foundation to protect what roots are growing in this area. Impacts are expected to be minimal.

Showing African fern pine trees on neighboring property

The remaining trees surveyed are to be removed to facilitate construction. Japanese maple tree #5 is in good condition. This tree is located behind the existing home on Baywood Avenue. The demolition of the existing home will likely have a high impact on the tree's health as the tree is located only 1 foot from the foundation.



Tree of heaven #6 is in poor condition. This tree has been topped in the past at 15 feet. The remaining growth after 15 feet consist of epicormic water sprout growth. These water sprouts do not develop proper branch to trunk unions and can easily fail in normal weather conditions. Also, topping trees promotes decay where the original topping cuts took place. Because this tree was topped in the past it is now a hazard to the property. This species is an invasive species and is on the city of San Jose's list of Unsuitable Trees for this area.

Showing topped tree #6



Redwood trees #7-10 are located on the east side of the property and are in fair to good condition. The tops of the redwood trees are exhibiting drought stressed symptoms. These trees have a restricted root zone due to the existing building and adjacent neighboring building. Also, the existing hardscapes near the trees are restricting root growth. The available soil for root growth near these trees is highly compacted. There is not enough room to support the future growth of these trees and is likely the reason these trees are showing drought stress symptoms.

Showing restricted root zone for redwood trees

Chinese pistache trees #11 and #12 are in good condition. These trees are to be removed to facilitate construction.

Tree Removal Ordinance

For multifamily residences, a permit is required for the removal of trees of any size. For trees on these properties, a <u>Live Tree Removal Application</u> is required if the tree is ordinance sized, or a <u>Permit Adjustment</u> is required if the tree is smaller than ordinance sized or dead. The only trees surveyed that are below ordinance size of 12 inches in diameter are trees #12-14 and the remaining trees are larger than 12 inches in diameter.

City Street Trees

City Street Trees, or trees in the public right-of-way, are commonly located within the park strip or the area between the curb and the sidewalk. For permission to remove, prune, or plant City street trees (generally located between the sidewalk and curb), please contact the Department of Transportation at (408) 277-2762, or visit their website for additional information. Chinese pistache tree #11 may be considered a street tree. It is recommended to check with the planner assigned to this project.

Tree Protection Plan For Trees To Be Retained:

Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for the protection zones should be 6 foot tall metal chain link fencing supported by metal poles pounded into the ground to a minimum depth of 24 inches. The support poles should be spaced no more than 10 feet apart on center. The location for the protection fencing should be as close to 10 times the tree diameter where possible while still allowing room for construction to safely continue. Signs should be placed on fencing signifying "Tree Protection Zone - Keep Out". No materials or equipment should be stored or cleaned inside the tree protection zones.

The project arborist will need to be on site for any excavation when within 10 times the diameter of a tree to be retained. Inspections of the excavation will include a report documenting the visit provided to the owner, contractor and town arborist. Mitigating measures will be provided at the time of excavation.

Landscape Buffer

Where tree protection does not cover the entire root zone of the trees (10X diameter), or when a smaller tree protection zone is needed for access, a landscape buffer consisting of wood chips spread to a depth of six inches with plywood or steel plates placed on top will be placed where foot traffic is expected to be heavy. The landscape buffer will help to reduce compaction to the unprotected root zone.

Tree Trimming

During construction any trimming will be supervised by the site arborist and must stay underneath 25% of the trees total foliage. No trimming is expected at this time on this site.

Root Cutting

Any roots to be cut should be monitored and documented. Large roots or large masses of roots to be cut should be inspected by the site arborist. The site arborist may recommend irrigation or fertilizing at that time. Cut all roots clean with a saw or loppers. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist.

Trenching and Excavation

Trenching for irrigation, electrical, drainage or any other reason, should be hand dug when beneath the dripline of desired trees. Hand digging and careful placement of pipes below or beside protected roots will dramatically reduce root loss, thus reducing trauma to desired trees. Trenches should be back filled as soon as possible using native materials and compacted to near original levels. Trenches to be left open with exposed roots shall be covered with burlap and kept moist. Plywood laid over the trench will help to protect roots below.

Irrigation

Normal irrigation should be maintained throughout the entire length of the project for any imported tree to be retained. Irrigation should consist of surface flooding, with enough water to wet the entire root zone. If the root zone is traumatized this type of irrigation should be carried out two times per month during the warm dry season.

Inspections

The site will be inspected after the tree protection measures are installed and before the start of construction. It is the contractor's responsibility to notify the site arborist when construction is to start, and whenever there is to be work preformed within 10 times the diameter of a retained tree on site at least 48 hours in advance. During the site visits the site arborist will offer mitigation measures specific to the work completed. Kielty Arborist Services can be reached at 650-515-9783(Kevin), 650-532-4418(David), or by email at kkarbor0476@yahoo.com.

This information should be kept on site at all times. The information included in this report is believed to be true and based on sound arboricultural principles and practices. Sincerely,

Kevin R. Kielty Certified Arborist WE#0476A David P. Beckham Certified Arborist WE#10724A

