

Kielty Arborist Services LLC

P.O. Box 6187
San Mateo, CA 94403
650-525-1464

September 15, 2016

Sunny Goyal
A U Energy, LLC
41805 Albrae St. 2nd Floor
Fremont, CA 94538

Site: 1705 Berryessa Road, San Jose, CA 95133

Dear Mr. Goyal,

As requested, on Wednesday, September 14, 2016, I visited the above site for the purpose of inspecting and commenting on the trees. New construction is planned for this site, prompting the need for a tree survey. As requested, a tree protection plan will be included in this report.

Method:

The significant trees at this location were located on a site plan provided by myself. Each tree was given an identification number. This number was inscribed on a metal tag and nailed to the trees at eye level. The trees were then measured for diameter at 2 feet above grade. The trees were each assigned a condition rating of 1 – 100 for form and vitality using the following system.

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

The condition rating is the average of the vitality and form of the trees. The height of each tree was estimated and the spread was paced off. I have included my recommendations for which trees should be removed. Lastly, a comments section is provided.

P-Indicates ordinance sized tree(over17.8 inches in diameter)

R-Indicates proposed removal.

*****-Indicates tree on neighbors property.

Survey:

Tree#	Species	Diameter	CON	HT/SP	Comments
1P	American sycamore (<i>Platanus occidentalis</i>)	20.1	65	30/30	Good vigor, poor form, topped for utilities, street tree, large surface roots.
2PR	American sycamore (<i>Platanus occidentalis</i>)	17.9	60	25/35	Good vigor, poor form, topped for utilities, leans towards street, codominant at 5 feet.
3P	American sycamore (<i>Platanus occidentalis</i>)	23.5	65	35/45	Good vigor, poor form, topped for utilities, large surface roots damaging sidewalk, heavy into street by 10 feet.
4PR	Mexican fan palm (<i>Washingtonia robusta</i>)	24.9	50	25/10	Good vigor, good form, poor location, underneath utilities.
5*	Persimmon (<i>Diospyros kaki</i>)	6est	70	20/12	Good vigor, fair form, good fruit producer, 5 feet from property line.
6*	Chinese jujube (<i>Ziziphus jujuba</i>)	3est	65	10/5	Fair vigor, fair form, water stressed, young tree, 3 feet from the property line.
7*	Persimmon (<i>Diospyros kaki</i>)	6est	70	15/12	Good vigor, good form, good fruit producer, 3 feet from property line.
8*	Fig (<i>Ficus carica</i>)	6est	70	10/10	Fair vigor, fair form, 3 feet from property line.
9*	Fig (<i>Ficus carica</i>)	5est	60	6/6	Poor vigor, fair form, suppressed, 3 feet from property line.
10*	Fig (<i>Ficus carica</i>)	6est	70	10/10	Good vigor, good form, 3 feet from property line.
11	Brush cherry (<i>Syzygium australe</i>)	1.5	50	7/2	Fair vigor, fair form, poor species, young tree, easily transplantable.
12R	Flowering plum (<i>Prunus x blireana</i>)	5.9	60	12/8	Fair vigor, fair form, minor deadwood in canopy.

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Survey:

Tree#	Species	Diameter	CON	HT/SP	Comments
13R	Flowering plum (<i>Prunus x blireana</i>)	6.9	60	10/10	Fair vigor, fair form, minor deadwood in canopy, multi leader at 4 feet.
14	Evergreen ash (<i>Fraxinus uhdei</i>)	1.6	70	10/5	Good vigor, fair form, young transplantable tree.
15	Evergreen ash (<i>Fraxinus uhdei</i>)	2.1	70	10/6	Good vigor, fair form, young transplantable tree.
16*	Persimmon (<i>Diospyros kaki</i>)	6est	70	12/12	Good vigor, good form, 4 feet from property line.
17*	Fruiting plum (<i>Prunus spp.</i>)	5est	50	12/8	Fair vigor, fair form, 3 feet from property line.
18*	Apple (<i>Malus spp.</i>)	6est	65	15/10	Good vigor, fair form, 1 foot from property line.
19*	Peach (<i>Prunus persica</i>)	6est	70	12/10	Good vigor, good form , 1 foot from property line.
20*	Peach (<i>Prunus persica</i>)	6est	70	12/10	Good vigor, good form , 1 foot from property line.
21*	Peach (<i>Prunus persica</i>)	6est	70	12/10	Good vigor, good form , 1 foot from property line.
22R	Flowering plum (<i>Prunus x blireana</i>)	6.1	60	12/10	Fair vigor, fair form, minor deadwood in canopy.
23R	Crape myrtle (<i>Lagerstroemia spp.</i>)	4.6	70	12/8	Good vigor, good form.
24R	Crape myrtle (<i>Lagerstroemia spp.</i>)	4.2	70	12/8	Good vigor, good form.
25R	Crape myrtle (<i>Lagerstroemia spp.</i>)	4.7	70	12/8	Good vigor, good form.
26R	Crape myrtle (<i>Lagerstroemia spp.</i>)	6.0@base	70	12/8	Good vigor, good form, multi leader at base.

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Survey:

Tree#	Species	Diameter	CON	HT/SP	Comments
27R	Crape myrtle (<i>Lagerstroemia spp.</i>)	6.0@base	70	12/8	Good vigor, good form, multi leader at base.

P-Indicates ordinance sized tree(over17.8 inches in diameter)

R-Indicates proposed removal.

*-Indicates tree on neighbors property.

Summary:

The existing site is a gas station on the corner of Berryessa road and Lundy Avenue. A retail/deli, convenience store, and a car wash tunnel is proposed for this site. The trees on this site are a mix of imported trees (exotics), there are no native trees. The trees are in fair to good condition. There are 4 street trees on site(#1-4) consisting of 3 American sycamore trees and 1 Mexican fan palm tree. All 4 street trees have been planted underneath utility lines. Sycamore trees #1-3 have all been topped as a result of being planted underneath utilities. As a result the sycamores on site have grown wide instead of tall with heavy lateral leaders. Maintenance pruning consisting of lightening heavy lateral limbs should be done every 3-5 years to reduce the risk of a limb failure. In order to prune a street trees one must contact the Department of Transportation for permission to do so.

In close proximity to American sycamore tree #1 is a proposed retail/deli store. This tree has large surface roots visible at grade level. If this tree is to be retained, it is recommended that the retail/deli store be built on a pier and grade beam foundation, with the grade beam not exceeding more than 6 inches below grade. This will greatly decrease potential impacts to the tree. Piers should also be limited in diameter and quantity when near this tree. Before the start of construction it is recommended that an exploratory trench be dug in the same exact location as the proposed foundation using only hand tools in combination with an air spade, to a depth of 2 feet. This way all roots can be exposed and piers can be strategically placed in a way that has the least impact to the tree. Also if any roots are to be cut they can be cleanly cut during the digging of the exploratory trench. If the above recommendations are followed the impacts to the tree should be minor. Any roots to be cut over 2 inches in diameter must first be inspected by the site arborist. The site arborist must be on site during any proposed digging within 15 feet from this tree in all directions. During site visits the site arborist will inspect, document and offer mitigation measures when needed. Mitigation measures for this tree will consist of an irrigation schedule and a onetime deep water fertilization to the trees root zone. Tree protection fencing for this tree will need to be located as close as possible to the proposed work, while still allowing for construction to safely continue.

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The existing driveway on this site near tree #1 will be removed and replaced at the location of street tree #2. American sycamore #2 will need to be removed to facilitate the construction of the new driveway entrance. Once the existing driveway is removed the once compacted area should be replaced with quality top soil and compost in order to allow for future root growth into this area for tree #1. This will benefit the tree. Removal of the old driveway must be done by hand when within 15 feet from this tree. The site arborist must also be called out to the site when this work is to take place.

Showing sycamore tree #2



American sycamore #3 is in close proximity to the proposed parking area. Root cutting would likely need to take place. The site arborist must be on site when this work is to take place. The cut for the proposed parking area would be a corner cut out to the tree's root zone, affecting an estimated 20% of the trees root zone. This tree will need to be mitigated through pruning and an irrigation schedule. The tree has large heavy lateral leaders that extend 10 feet into the street. A lightening of the lateral leaders would need to take place before the start of construction. Impacts to this tree are expected to be moderate.

Showing sycamore #3

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Mexican fan palm #4 will likely need to be removed in the near future as this tree is growing underneath utility lines. Palm trees that are topped will die as they only have one apical meristem. Once this meristem is removed the tree will die. This is why palm trees should not be grown under utility lines as they will eventually need to be topped and will die as a result. Minor work is proposed near this tree in order to make room for parking. Root cutting would likely take place at least 5 feet from the tree. This tree is recommended to be removed as it was planted in the wrong location and will soon need to be removed regardless of construction as the tree will be interfering with utilities.

Showing palm tree underneath utilities

Trees #5-10 and #16-21 are located on neighboring properties. Impacts to these trees will be nonexistent as no work is proposed in close proximity to these trees. Also the large brick wall surrounding the property likely acts as a root barrier between the adjacent properties.

Trees #11, 14, and 15 will be retained. These trees are recommended to be protected by tree protection fencing.

Trees #12-13, and #22-27 are proposed for removal in order to facilitate construction. For commercial properties, and industrial properties, a permit is required for the removal of trees of any size. For trees on these properties, a Tree Removal Permit is required if the tree is ordinance sized, or a Permit Adjustment if the tree is smaller than ordinance sized. The following tree protection plan will help to reduce impacts to the retained trees.

Tree Protection Plan:

Tree Protection Zones

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 supported by metal poles 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 the dripline as possible 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. Areas outside the fencing but still beneath the dripline of protected trees, where foot traffic is expected to be heavy, should be mulched with 4 to 6 inches of chipper chips.

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Demolition

During the demolition process all tree protection should be in place. An inspection prior to the start of the demolition may be required. A pre-demolition meeting with the site arborist is also advised. All vehicles must remain on paved surfaces if possible. If vehicles are to stray from paved surfaces, 4 to 6 inches of chips shall be spread and plywood laid over the mulch layer. This type of landscape buffer will help reduce compaction of desired trees. Parking will not be allowed off the paved surfaces. The removal of foundation materials, when inside the driplines of protected trees, should be carried out with care. Hand excavation may be required in areas of heavy rooting. Exposed or damaged roots should be repaired and covered with native soil. Tree protection fencing may need to be moved after the demolition. The site arborist should be notified and the relocated fence should be inspected.

Root Cutting

Any roots to be cut shall be monitored and documented. Large roots (over 2" diameter) or large masses of roots to be cut must be inspected by the site arborist. The site arborist, at this time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist.

Trenching

Trenching for irrigation, drainage, electrical or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near its original level, as soon as possible. Trenches to be left open for a period of time, will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

Irrigation

Normal irrigation shall be maintained on this site at all times. On a construction site, I recommend irrigation during winter months, 1 time per month. Seasonal rainfall may reduce the need for additional irrigation. During the warm season, April – November, my recommendation is to use heavy irrigation, 2 times per month. Enough water should be applied to the soil to wet the entire root zone. This type of irrigation should be started prior to any excavation. The irrigation will improve the vigor of the tree and will also improve the water content of the tree. The on-site arborist may make adjustments to the irrigation recommendations as needed. The foliage of the tree may need cleaning if dust levels are extreme. Removing dust from the foliage will help to reduce mite and insect infestation.

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Inspections

The City of San Jose may require scheduled tree reports for a site like this. The tree protection reports will be provided when tree protection measures are installed and prior to occupancy. Remaining tree inspections are on an as needed basis.

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

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