August 19, 2022

Attn: Lynn Wang
VeGuard USA LLC
960 N. California Avenue
Palo Alto, CA 94303
(650) 696-0907 | lynnwang.veguard@outlook.com

Re: Preliminary Arborist Report for 3378-3386 El Camino Real, Santa Clara

Dear Lynn,

This preliminary arborist report addresses the proposed project at 3378-3386 El Camino Real, Santa Clara. Per our company's communication with the city arborist and the City Code Chapter 12.35 Trees and Shrubs, the scope of work includes:

- Tag, identify and measure all trees on or overhanging the site that may be encroached by the proposed construction.
- Note protected trees as defined below:
    - Heritage trees in all zoning districts (designated as significant by the City)
    - Specimen trees with a diameter $\geq$ 12" at 54" above grade of the following species on private property: California buckeye *(Aesculus californica),* big leaf maple *(Acer macrophyllum),* deodar cedar (*Cedrus deodara),* blue atlas cedar (*Cedrus atlantica '*Glauca*'),* Camphor (*Cinnamomum camphora),* western sycamore (*Platanus racemosa)*, native oaks (including *Q. agrifolia, lobata, kelloggii, douglasii, wislizenii*), coast redwood (*Sequoia sempervirens)*, California bay laurel (*Umbellularia californica*)
    - Approved development trees
    - Private trees with a diameter $\geq$ 38" at 54" above grade
    - Multi-branched private tree with major branches below 54" above grade, with a diameter $\geq$ 38" just below first major trunk fork.
- Assess individual tree health and structural condition.
- Assess proposed improvements for potential encroachment.
- Based on proposed encroachment, tree health, structure, and species susceptibility, make recommendations for preservation.
- Provide above information on a Tree Protection Plan, to include: tag #s, approximate dripline, whether a tree is removed or preserved, tree protection fencing locations, and tree protection recommendations.

Project Summary
The 38,211 square foot subject property is located off El Camino Real, with a used car dealership to the east, multi-family housing to the south, and a two-story retail structure to the west. The existing one-story building on the subject site is divided into various retail shops and restaurants, though none are in operation. The remaining surface area is almost entirely paved with asphalt for parking and driving access. Minimal landscaping is located along the perimeter and includes neighboring or co-owned trees overhanging the project site.

The proposed project is to construct 24 three-story townhomes with landscaping along the perimeter and through the middle of the property. All the existing structures and hardscape will be demolished. Grading and compaction is expected across the entire site, as this is standard preparation for high-density housing.

I have reviewed 31 trees in my report, none of which are specimen trees, as defined by the city ordinance. Nine trees are located exclusively on the subject property. The remaining 22 trees are either co-owned or neighbor's trees. The dominant species is Lombardy poplar (*Populus nigra* 'Italica') at 39%, next is Mexican fan palm (*Washingtonia robusta*) & crape myrtle (*Lagerstroemia indica*) both at 26%. The remaining trees consist of one of each of the following species: northern California black walnut (Juglans hindsii), English walnut (*Juglans regia*), and Chinese elm (*Ulmus parvifolia*).

All nine on-site trees will need to be removed to accommodate the proposed construction. Five co-owned palms (#261-265) should also be removed due to their poor structure and increased susceptibility to failure. Removal will require permission from the neighboring property owner, which you reportedly have. Since my site visit, four co-owned or off-site trees (#275-278) have been removed. The remaining 13 off-site trees (#279-291) along the south property line may be able to be retained if root encroachment is low to moderate. The existing asphalt prevents any exploratory digging, so the fate of these trees is unknown until after demolition.

Figure 1. Trees along El Camino Real consist of stunted crape myrtles and Mexican fan palms (select trees are numbered). All trees on the subject site are proposed to be removed.

Assumptions & Limitations
This report is based on my site visit on 2-8-22 and the following plans:

- Preliminary Site Plan by BKF Engineers dated 8-19-22
- Survey by Partner Engineering & Science, Inc. dated 7-2-20

It was assumed that the trees and the proposed improvements were accurately surveyed. Some trees were not surveyed, so I approximately located them on the tree protection plan. Their precise locations will not affect the recommendations in this report.

I did not review any other plans, such as a grading & drainage, utility, landscape, etc. The recommendations in this report are thus preliminary and may need to be revised once more detailed plans are available. These preliminary recommendations are not intended to be used during construction, rather they offer initial impressions on tree preservation.

The health and structure of the trees were assessed visually from ground level. No drilling, root excavation, or aerial inspections were performed. Internal or non-detectable defects may exist and could lead to part or whole tree failures. Due to the dynamic nature of trees and their environment, it is not possible for arborists to guarantee that trees will not fail in the future.

Tree Inventory & Assessment Table
#s: Each tree was given a square metal tag with numbers ranging from #261-291. Their locations are given in the tree protection plan.

DBH (Diameter at Breast Height): Trunk diameters in inches were measured at 4.5' above average grade with a diameter tape. Height of measurement may deviate from the standard on atypical trunks; deviations are noted under the "Comments" section.

Health Rating
Dead: Dead or declining past chance of recovery.
Poor (P): Stunted or declining canopy, sparsely foliated with poor foliar color. Possible disease or insect issues. Unreliable specimen for preservation. Would require significant maintenance, and a protection zone well beyond the dripline in order to retain. Acceptable to leave for nature if not a threat to property.
Fair (F): Fair to moderate vigor, typical for the species. Will require an adequate protection zone, and supplemental maintenance such as: crown cleaning of mistletoe, dead, broken, or diseased branches. Additional maintenance such as fertilizing, soil aeration, and mulching may be recommended to improve vigor.
Good (G): Good vigor and color, with no obvious problems or defects. Generally more resilient to impacts. Minor maintenance may be recommended.
Very Good (VG): Exceptional specimen with excellent vigor and structure. Unusually nice.

Structure Rating
Poor (P): Exhibiting defects such as weak attachments, extensive decay, large deadwood, root defects, leans, cracks or cavities that may threaten existing or future targets. May or may not be correctable with pruning, cabling or bracing.
Fair (F): Minor correctable defects, may or may not have a target. Should receive maintenance as recommended.
Good (G): Well-structured with no significant or obvious defects.

Dripline**:** Canopy radius (in feet) was visually estimated in each cardinal direction.

Age
Young (Y): Within the first 20% of expected life span. High resiliency to encroachment.
Mature (M): Between 20% - 80% of expected life span. Moderate resiliency to encroachment.
Overmature (OM): In >80% of expected life span. Low resiliency to encroachment.

DE: Dripline Encroachment (X indicates encroachment)
CI: Anticipated Construction Impact (L = Low, M = Moderate, H = High)
PA: Project Arborist

Figure 2. Tree #279, the neighbor's English walnut, is especially intolerant of root damage. The extent of root encroachment will need to be determined after the asphalt has been removed by digging an exploratory trench along the proposed walkways. After the project arborist has reviewed the exposed roots, they shall provide additional design & protection recommendations.

#	Species	DBH	Health	Structure	Dripline N E S W	Age	DE	CI	Comments	Recommendations
261	Mexican Fan Palm (*Washingtonia robusta*)	20	G-F	VP	5 all	M	X	H	**Co-owned tree.** 30' of brown trunk. Uniform stem width. Yellowing at tips of fronds. 1/2 root ball growing over concrete.	Remove due to very poor structure and increased susceptibility to failure (**will require neighbor's permission**).
262	Mexican Fan Palm	16	G-F	VP	5 all	M	X	H	**Co-owned tree.** 28' of brown trunk. Uniform stem width. Yellowing at tips of fronds. Cluster of 3 root balls (#362-364) 1/2 root ball growing over sidewalk.	
263	Mexican Fan Palm	25	G-F	VP	5 all	M	X	H	**Co-owned tree.** 20' of brown trunk. Uniform stem width. Yellowing at tips of fronds. Cluster of 3 root balls (#362-364). 1/2 root ball growing over sidewalk.	
264	Mexican Fan Palm	18	G	VP	5 all	M	X	H	**Co-owned tree.** 15' of brown trunk. Phototropic bend in stem to N, has corrected. Burn on S side of trunk. Cluster of 3 root balls (#362-364). 1/3 root ball growing over sidewalk. Less yellowing than other palms.	
265	Mexican Fan Palm	19	G	VP	5 all	Y-M	X	H	**Co-owned tree.** 15' of brown trunk. Uniform trunk width. 1/3 root ball growing over concrete. Boots removed from trunk.	
266	Crape Myrtle (*Lagerstroemia indica*)	5	G-F	F	10 5 10 5	Y-M	X	H	Trunk location estimated by arborist. Ivy growing at base and up trunk. 3 stems at 6'. Slightly stunted shoot growth. Old heading cuts. *In proposed driveway.*	Remove.
267	Crape Myrtle	1	F-P	G	1 1 1 2	Y	X	H	Trunk location estimated by arborist. Tag on tree stake. Not rooted into ground. Tip dieback. Ivy growing at base and up stem. Poor specimen for preservation. *In proposed driveway.*	
268	Crape Myrtle	1, 1	F	F	3 5 5 3	Y	X	M-H	Trunk location estimated by arborist. No tag. Multi-stem, pruned as shrub. Stunted shoot growth. Ivy at base. *4' from proposed foundation & 1' from proposed sidewalk.*	
269	Crape Myrtle	3.5	F	F	5 all	Y	X	H	Trunk location estimated by arborist. Ivy growing at base and up trunk. Codominant stems at 6'. Old heading cuts. Stunted shoot growth. Still has tree stake. *In proposed sidewalk.*	
270	Crape Myrtle	3	F	G-F	5 all	Y	X	M-H	Trunk location estimated by arborist**.** Ivy growing at base. Stunted shoot growth. Codominant stems at 5'. *In proposed sidewalk.*	

#	Species	DBH	Health	Structure	Dripline N E S W				Age	DE	CI	Comments	Recommendations
271	Mexican Fan Palm	39	F	G	5 all				M	X	H	30' of brown trunk. Ivy climbing up trunk. Fronds browning at 10-2. *In proposed sidewalk.*	Remove.
272	Crape Myrtle	3.5	F	G-F	5 all				Y	X	H	Ivy growing at base and up stem. Codominant stems at 5'. Stunted shoot growth. *Less than 1' from proposed sidewalk & 4' from proposed foundation.*	
273	Mexican Fan Palm	28	F	G	5 all				M	X	H	30' of brown trunk. Ivy at base and growing up trunk. Browning & yellowing fronds at 10-2. *In proposed sidewalk.*	
274	Mexican Fan Palm	23	G-F	G	5 all				M	X	H	30' of brown trunk. Yellowing at tips of fronds. *In proposed sidewalk.*	
275	Crape Myrtle	7.5	G/G-F	G-F	10 all				M	X	M-H	**Neighbor's tree.** Tag on fence*.* In ~2' wide planting strip surrounded by asphalt. Codominant stems at 7' with wide union. Branches brushing against billboard sign. *6' from proposed walkway.*	Removed.
276	Northern California Black Walnut (*Juglans hindsii*)	6.5	G	F/F-P	15	0	5	10	Y-M	X	M-H	**Neighbor's tree.** Small heading cuts low in canopy presumably for parking/street clearance. In 2' wide planting strip surrounded by asphalt. Base of stem in contact with curb. *7' from proposed walkway.*	
277	Chinese Elm (*Ulmus parvifolia*)	8	F	F-P	15	15	10	5	M	X	H	**Co-owned tree.** DBH estimated. Sandwiched between chain-link and wooden fence. Chain-link embedded in trunk. In 2' wide planting strip surrounded by asphalt. *4' from proposed walkway.*	
278	Crape Myrtle	8	G-F	G-F	10	10	15	10	M	X	H	**Co-owned tree.** DBH estimated. No tag. Two 1.5" heading cuts on neighbor's side, presumably for clearance. Two 3" branches rubbing. Light pole in canopy. *4' from proposed walkway.*	

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	Age	DE	CI	Comments	Recommendations
279	English Walnut (*Juglans regia*)	12, 10	F	F	15	10	10	20	M	X	M +/-	**Neighbor's tree.** DBH estimated. No tag. Old big pruning wounds with decay, nice visible wound wood. Somewhat stunted shoots. Codominant stems 1' from grade. *10' from proposed walkway, 17' from proposed foundation & 16' from proposed trash enclosure.*	PA on-site to monitor asphalt demolition within 15' of P/L fence. After demolition, dig exploratory trench with an air spade along proposed walkways & trash enclosures to locate roots. PA will review roots & provide recommendations for design adjustment. PA may provide additional tree protection measures. PA to approve & monitor all work within TPZ. After demolition, install 6' chain-link protection fencing as close to proposed foundation as feasible (#279) & 5' from P/L fence (#280-291). Apply a 4" thick layer of mulch over exposed soil within the TPZ. Tree #279: Lay 6" of mulch with ¾" plywood on top OR place steel plates between proposed foundation & protection fencing. During landscape phase, tilling of soil or irrigation trenching in the TPZ shall be done with an air spade. Amend soil with compost & cover with a 4" thick layer of mulch. If root encroachment is high & design adjustments cannot be made, some trees may need to be removed (**will require neighbor's permission**).
280	Lombardy Poplar (*Populus nigra* 'Italica')	14	G	G-F	5	5	5	10	M	X	M +/-	**Neighbor's tree.** Trunk location & DBH estimated by arborist. Tag on fence. *3' from proposed trash enclosure.*	
281	Lombardy Poplar	14	G	G-F	10	5	5	5	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Epicormic shoots on lower 15' of trunk. *8' from proposed walkway & 5' from proposed trash enclosure.*	
282	Lombardy Poplar	12	G/G-F	G-F	5	5	5	10	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	
283	Lombardy Poplar	15	G	F/F-P	10	10	5	5	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Codominant stems at 15' with tight union and slight bulge below union on N side. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	
284	Lombardy Poplar	12	G	G-F	5 all				M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	
285	Lombardy Poplar	12	G	G-F	10	5	5	5	M	X	M +/-	**Neighbor's tree.** Trunk location & DBH estimated by arborist. Tag on fence. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	
286	Lombardy Poplar	12	G	F/F-P	10	10	5	5	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Codominant stems at 10' with wide attachment, no bulge. Old 6"-8" branch appears to have been removed at 15' growing under roof. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	
287	Lombardy Poplar	11	G	G-F	10	0	5	5	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	Age	DE	CI	Comments	Recommendations
288	Lombardy Poplar	12	G/G-F	G-F	10	10	5	5	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Epicormic shoots on bottom 15' of trunk. Oozing on old cut. Bulge on S side of stem at 15', possibly old branch removed. *8' from proposed walkway & 8' from proposed trash enclosure.*	PA on-site to monitor asphalt demolition within 15' of P/L fence. After demolition, dig exploratory trench with an air spade along proposed walkways & trash enclosures to locate roots. PA will review roots & provide recommendations for design adjustment. PA may provide additional tree protection measures. PA to approve & monitor all work within TPZ. After demolition, install 6' chain-link protection fencing as close to proposed foundation as feasible (#279) & 5' from P/L fence (#280-291). Apply a 4" thick layer of mulch over exposed soil within the TPZ. During landscape phase, tilling of soil or irrigation trenching in the TPZ shall be done with an air spade. Amend soil with compost & cover with a 4" thick layer of mulch. If root encroachment is high & design adjustments cannot be made, some trees may need to be removed (**will require neighbor's permission**).
289	Lombardy Poplar	14	G	G-F	10	0	10	10	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Epicormic shoots on bottom 15' of trunk. Nice central leader. *3' from proposed trash enclosure.*	
290	Lombardy Poplar	12	G	F/F-P	10	10	5	0	M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Codominant stems at 15' with wide attachment. Slight bulge beneath union on W side. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway & 5' from proposed trash enclosure.*	
291	Lombardy Poplar	7	G	G	5 all				Y-M	X	M +/-	**Neighbor's tree.** DBH estimated. Tag on fence. Nice central leader. Epicormic shoots on bottom 15' of trunk. *8' from proposed walkway.*	

Tree Encroachment Summary

- Trees that will need to be removed: 14 trees (#261-265 & 266-274)
    - Recommend #261-265 be removed regardless of construction due to very poor structure
- Trees to be saved that will be subjected to dripline encroachment if root encroachment is low to moderate: 13 trees (#279-291)
    - If root encroachment is high & design adjustments cannot be made, some trees may need to be removed (with neighbor's approval)
- Trees that have been removed: 4 trees (#275-278)

Discussion

All the on-site trees are located in existing planting areas on the north side of the property and will need to be removed (figure 1). Proposed improvements are either in direct conflict with their trunks or will result in excessive root loss.

Neighboring trees (#279-291) along the south property line may be able to be retained with extreme care and clear communication between engineers, designers, contractors, and the Project Arborist (PA). Preliminary recommendations are discussed below, but will need to be reevaluated after the existing asphalt is demolished and the PA reviews root encroachment.

Trees #279-291

The poplars and English walnut are located in the backyards of multi-family homes south of the project site (figures 2-3). The trunks are within 2'-3' of the existing fence. Based on this distance, I would expect that large structural roots are growing into the subject property. These roots found closest to the trunk are responsible for anchoring the tree in the soil. Notably, Lombardy poplars are especially susceptible to uprooting if primary structural roots are damaged. English walnuts are intolerant of root damage and even minor construction impacts can cause them to decline in health.

Figure 3. The neighbor's Lombardy poplars, #280-291 are 2'-3' from the property line. It is likely that large structural roots are growing into the subject site. The extent of root encroachment will need to be determined after the asphalt has been removed by digging an exploratory trench along the proposed walkways & trash enclosures. After the project arborist has reviewed the exposed roots, they shall provide additional design & protection recommendations.

On the subject site, the soil has been paved over with asphalt up to the south property line. Soil compaction during standard asphalt preparation decreases the pore space available for water, air, and root growth. Assuming the backyards on the property to the south are not as compacted, I would expect to find more roots on the neighboring property than on the subject site.

Typically, I would recommend excavating an exploratory trench to determine the extent of root encroachment prior to finalizing design plans. However, the existing asphalt on the subject property prevents exploratory work at this time. Thus, my recommendations are preliminary and will need to be reevaluated once the asphalt has been demolished. After the removal of the existing pavement, an exploratory trench shall be dug along the proposed walkways and trash enclosures with an air spade, a tool which uses compressed air to dislodge soil without harming a tree's roots. The PA shall review the uncovered tree roots and provide design guidance for the proposed walkways and trash enclosures. In general, avoiding grading, soil compaction, excavation, and fill within the Tree Protection Zone (TPZ) will minimize root loss. Plans should be flexible enough to accommodate roots within this area. If root encroachment is high and adjustments cannot be made, some trees may need to be removed. As these trees are located off-site, their removals must be approved by the neighboring property owner.

Demolition & Construction
During demolition and construction, equipment can easily fracture roots, causing them to break closer to the trunk. Fractured roots become entryways for pathogens and are slower to regenerate. To prevent the fracturing of roots, the PA shall be on-site to monitor demolition of the existing asphalt within 15' of the southern property line, adjacent to trees #279-291.

The existing asphalt is protecting the roots growing beneath it. Once the asphalt is removed, the roots will be exposed to potential construction impact from heavy machinery, staging of materials, and constant foot traffic, which crush roots and compact soil. Therefore, after demolition, contractors shall install temporary 6' chain-link protection fencing to create a Tree Protection Zone (TPZ) to keep out construction-related activity and prevent damage to tree roots. Due to construction access, the entire root zone of tree #279 cannot be protected with fencing. Therefore, contractors will need to either apply a 6" thick layer of mulch with ¾" plywood on top or lay down steel plates between the proposed foundation and the protection fencing. This will serve as a buffer between construction activity and soil.

Soil within the proposed planting strips on the south side of the lot will need to be improved to mitigate potential root loss. I recommend loosening the soil with hand tools and an airspade, a tool that uses compressed air to remove soil without harming tree roots. I also recommend amending with compost and applying a 4" thick layer of mulch on top to improve soil quality over time. Moreover, contractors shall irrigate with soaker hoses along the south property line until permanent irrigation for new plantings is installed.

Palms #261-265
Approximately 1/3-1/2 of the root systems of these palms have grown over the existing concrete curb, preventing them from properly anchoring into the soil (figure 4). As the trees grow in height and mass, this increases stress on their compromised root systems. Although the trees appear to be in good health, high winds or rains could put them past their holding capacity and cause them to fail. *Regardless of construction, I recommend these palms be removed due to their increased susceptibility to failure.* Removal will require approval from the neighboring property owner.

Figure 4. These co-owned palms are growing over the existing concrete curb, preventing them from properly anchoring into the soil. These palms should be removed due to their hazardous condition. Removal will require the neighbor's permission.

Preliminary Tree Protection Recommendations (to be printed on site plans)
Note: Since existing asphalt does not allow for review of tree roots, these recommendations are preliminary and are not appropriate for use during construction. They shall be updated after the existing asphalt has been demolished and the Project Arborist (PA) has assessed root encroachment for trees #279-291.

Design Phase

- A Tree Protection Zone (TPZ) is noted on the tree protection plan by trees #279-291 – the design should be flexible enough to accommodate roots within this area. These design changes will need to be made after the existing asphalt is demolished and roots are exposed. The Project Arborist (PA) will provide design guidance for walkways & trash enclosures; final design shall be approved by the PA.
    - Potential changes may include: no excavation, fill, or soil compaction & use of biaxial geogrid to disperse weight over soil.
    - If root encroachment is high and design adjustments cannot be made, selected trees may need to be removed. These trees are located off-site, so their removals require owner approval.
- All proposed improvements and construction activities within the TPZ must be approved by the PA.

Pre-Construction Phase

- Prior to construction, contractors shall meet with the Project Arborist (PA) to discuss tree protection measures and working around trees.
- Remove trees #261-265 & 266-274. Trees #261-265 are co-owned and require permission from the neighbor. Retain wood chips on-site for use as mulch by trees #279-291.
- PA shall be on-site to monitor demolition of the existing asphalt within 15’ of property line near trees #279-291.
- After asphalt demolition, an exploratory trench shall be dug with an air spade along the proposed walkways & trash enclosures to locate roots of trees #279-291. The PA will review roots and provide recommendations for design adjustment (see “Design Phase”).
- After the exploratory trench is completed, the contractor shall install temporary 6’ chain-link protection fencing to construct a temporary Tree Protection Zone (TPZ) as close to the proposed foundation as feasible near tree #279 & 5’ from the property line for trees #280-291. The exposed soil within the TPZ shall be covered with 4” of mulch.
- Tree Protection Zone (TPZ) fencing shall remain in an upright sturdy manner from the start of grading until the completion of construction. Fencing shall not be adjusted or removed without consulting the PA.
    - Fencing shall be attached to metal stakes spaced 10’ apart and driven firmly into the ground. They can be supported by stands if over pavement & wired together to avoid easily moving them.
- Provide monthly supplemental irrigation for trees #279-291 after demolition of existing asphalt. Irrigation shall be provided with soaker hoses, laid within the proposed planting strip adjacent to the southern property line. Use the lowest water pressure that allows water to bead out of the entire length of the hose, and leave on for a minimum of 8 hours. Soaker hose irrigation shall be provided until permanent irrigation for new plantings is installed or until PA deems it is no longer needed.

Foundation, Grading, and Construction Phase

- The Project Arborist (PA) shall be on site to monitor & provide recommendations for ground-disturbing work adjacent to trees #279-291. If appropriate, roots shall be cleanly pruned with a handsaw or sawzall, immediately covered, and kept moist till backfilled.
- If needed, pruning shall be performed by personnel certified by the International Society of Arboriculture (ISA). All pruning shall adhere to ISA and American National Standards Institute (ANSI) Standards and Best Management Practices.
- Should Tree Protection Zone (TPZ) encroachment be necessary, the contractor shall contact the PA for consultation and recommendations.
- Contractor shall keep TPZs free of all construction-related materials, debris, fill soil, equipment, etc. The only acceptable material is mulch spread out beneath the trees.
- Should any damage to the trees occur, the contractor shall promptly notify the PA to appropriately mitigate the damage.

Landscaping Phase

- The Tree Protection Zone (TPZ) fencing shall remain in place with the same restrictions until landscape contractor notifies and meets with the Project Arborist (PA).
- Tilling of soil or irrigation trenching in the TPZ by trees #279-291 shall be done with an air spade. Amend soil with compost, and cover with a 4” thick layer of mulch.
- Avoid all fill work, grade changes, and trenching within driplines unless it is performed by hand.
- Pipes shall be threaded under or through large roots without damaging them.

Thank you for the opportunity to provide this report, and please do not hesitate to contact me if there are any questions or concerns.

Please see attached tree protection plan.

Sincerely,

Maija Wigoda-Mikkila
Certified Arborist #WE-12986A
ISA Tree Risk Assessor Qualified

PRELIMINARY TREE PROTECTION RECOMMENDATIONS
NOTE: SINCE EXISTING ASPHALT DOES NOT ALLOW FOR REVIEW OF TREE ROOTS, THESE RECOMMENDATIONS ARE PRELIMINARY AND ARE NOT APPROPRIATE FOR USE DURING CONSTRUCTION. THEY SHALL BE UPDATED AFTER THE EXISTING ASPHALT HAS BEEN DEMOLISHED AND THE PROJECT ARBORIST (PA) HAS ASSESSED ROOT ENCROACHMENT FOR TREES #279-291.

DESIGN PHASE

- A TREE PROTECTION ZONE (TPZ) IS NOTED ON THE TREE PROTECTION PLAN BY TREES #279-291 – THE DESIGN SHOULD BE FLEXIBLE ENOUGH TO ACCOMMODATE ROOTS WITHIN THIS AREA. THESE DESIGN CHANGES WILL NEED TO BE MADE AFTER THE EXISTING ASPHALT IS DEMOLISHED AND ROOTS ARE EXPOSED. THE PROJECT ARBORIST (PA) WILL PROVIDE DESIGN GUIDANCE FOR WALKWAYS & TRASH ENCLOSURES; FINAL DESIGN SHALL BE APPROVED BY THE PA.
  - POTENTIAL CHANGES MAY INCLUDE: NO EXCAVATION, FILL, OR SOIL COMPACTION & USE OF BIAXIAL GEOGRID TO DISPERSE WEIGHT OVER SOIL.
  - IF ROOT ENCROACHMENT IS HIGH AND DESIGN ADJUSTMENTS CANNOT BE MADE, SELECTED TREES MAY NEED TO BE REMOVED. THESE TREES ARE LOCATED OFF-SITE, SO THEIR REMOVALS REQUIRE OWNER APPROVAL.
- ALL PROPOSED IMPROVEMENTS AND CONSTRUCTION ACTIVITIES WITHIN THE TPZ MUST BE APPROVED BY THE PA.

PRE-CONSTRUCTION PHASE

- PRIOR TO CONSTRUCTION, CONTRACTORS SHALL MEET WITH THE PROJECT ARBORIST (PA) TO DISCUSS TREE PROTECTION MEASURES AND WORKING AROUND TREES.
- REMOVE TREES #261-265 & 266-274. TREES #261-265 ARE CO-OWNED AND REQUIRE PERMISSION FROM THE NEIGHBOR. RETAIN WOOD CHIPS ON-SITE FOR USE AS MULCH BY TREES #279-291.
- PA SHALL BE ON-SITE TO MONITOR DEMOLITION OF THE EXISTING ASPHALT WITHIN 15' OF PROPERTY LINE NEAR TREES #279-291.
- AFTER ASPHALT DEMOLITION, AN EXPLORATORY TRENCH SHALL BE DUG WITH AN AIR SPADE ALONG THE PROPOSED WALKWAYS & TRASH ENCLOSURES TO LOCATE ROOTS OF TREES #279-291. THE PA WILL REVIEW ROOTS AND PROVIDE RECOMMENDATIONS FOR DESIGN ADJUSTMENT (SEE "DESIGN PHASE").
- AFTER THE EXPLORATORY TRENCH IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY 6' CHAIN-LINK PROTECTION FENCING TO CONSTRUCT A TEMPORARY TREE PROTECTION ZONE (TPZ) AS CLOSE TO THE PROPOSED FOUNDATION AS FEASIBLE NEAR TREE #279 & 5' FROM THE PROPERTY LINE FOR TREES #280-291. THE EXPOSED SOIL WITHIN THE TPZ SHALL BE COVERED WITH 4" OF MULCH.
- TREE PROTECTION ZONE (TPZ) FENCING SHALL REMAIN IN AN UPRIGHT STURDY MANNER FROM THE START OF GRADING UNTIL THE COMPLETION OF CONSTRUCTION. FENCING SHALL NOT BE ADJUSTED OR REMOVED WITHOUT CONSULTING THE PA.
  - FENCING SHALL BE ATTACHED TO METAL STAKES SPACED 10' APART AND DRIVEN FIRMLY INTO THE GROUND. THEY CAN BE SUPPORTED BY STANDS IF OVER PAVEMENT & WIRED TOGETHER TO AVOID EASILY MOVING THEM.
- PROVIDE MONTHLY SUPPLEMENTAL IRRIGATION FOR TREES #279-291 AFTER DEMOLITION OF EXISTING ASPHALT. IRRIGATION SHALL BE PROVIDED WITH SOAKER HOSES, LAID WITHIN THE PROPOSED PLANTING STRIP ADJACENT TO THE SOUTHERN PROPERTY LINE. USE THE LOWEST WATER PRESSURE THAT ALLOWS WATER TO BEAD OUT OF THE ENTIRE LENGTH OF THE HOSE, AND LEAVE ON FOR A MINIMUM OF 8 HOURS. SOAKER HOSE IRRIGATION SHALL BE PROVIDED UNTIL PERMANENT IRRIGATION FOR NEW PLANTINGS IS INSTALLED OR UNTIL PA DEEMS IT IS NO LONGER NEEDED.

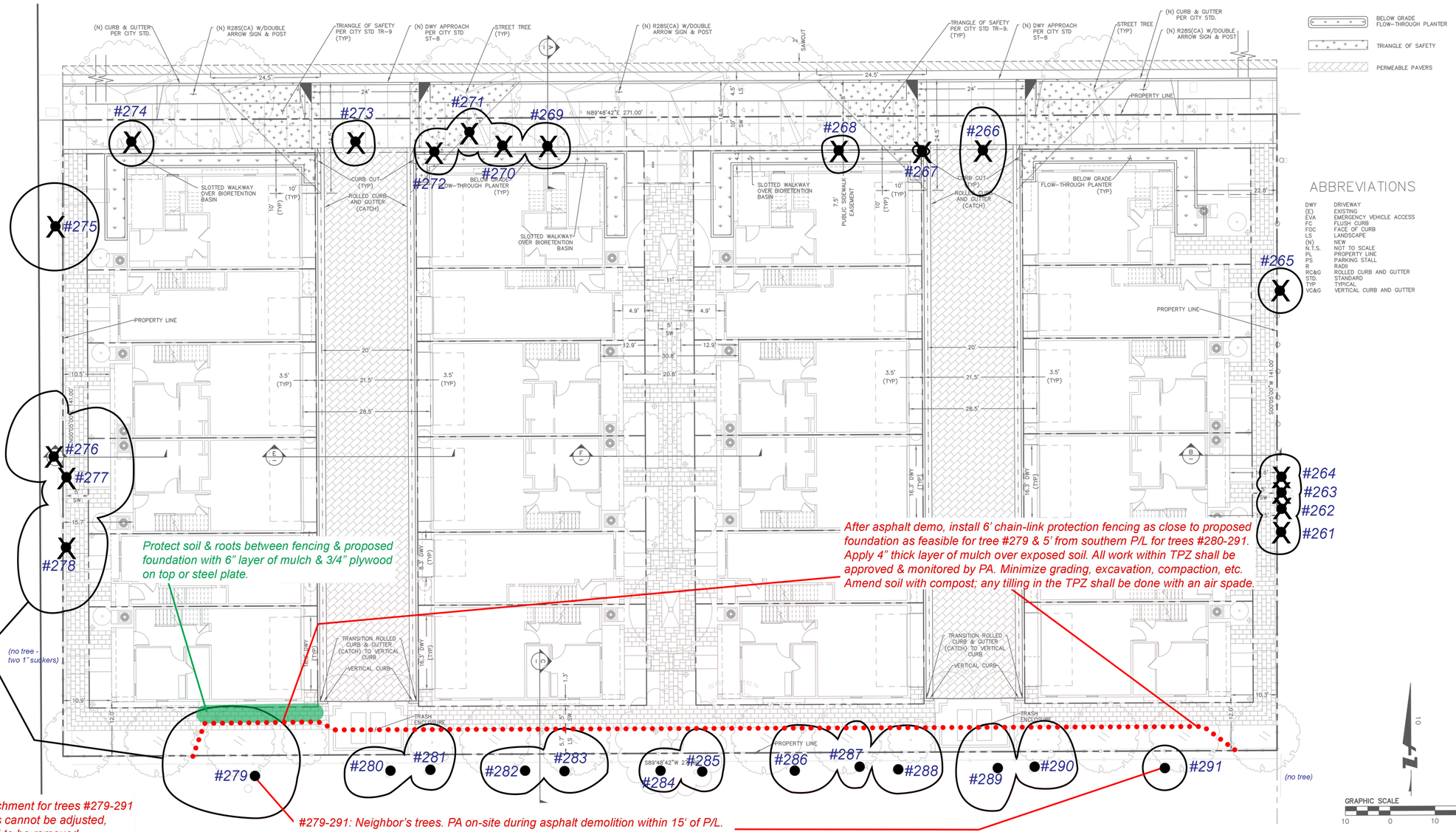
FOUNDATION, GRADING, AND CONSTRUCTION PHASE

- THE PROJECT ARBORIST (PA) SHALL BE ON SITE TO MONITOR & PROVIDE RECOMMENDATIONS FOR GROUND-DISTURBING WORK ADJACENT TO TREES #279-291. IF APPROPRIATE, ROOTS SHALL BE CLEANLY PRUNED WITH A HANDSAW OR SAWZALL, IMMEDIATELY COVERED, AND KEPT MOIST TILL BACKFILLED.
- IF NEEDED, PRUNING SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA). ALL PRUNING SHALL ADHERE TO ISA AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARDS AND BEST MANAGEMENT PRACTICES.
- SHOULD TREE PROTECTION ZONE (TPZ) ENCROACHMENT BE NECESSARY, THE CONTRACTOR SHALL CONTACT THE PA FOR CONSULTATION AND RECOMMENDATIONS.
- CONTRACTOR SHALL KEEP TPZS FREE OF ALL CONSTRUCTION-RELATED MATERIALS, DEBRIS, FILL SOIL, EQUIPMENT, ETC. THE ONLY ACCEPTABLE MATERIAL IS MULCH SPREAD OUT BENEATH THE TREES.
- SHOULD ANY DAMAGE TO THE TREES OCCUR, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE PA TO APPROPRIATELY MITIGATE THE DAMAGE.

LANDSCAPING PHASE

- THE TREE PROTECTION ZONE (TPZ) FENCING SHALL REMAIN IN PLACE WITH THE SAME RESTRICTIONS UNTIL LANDSCAPE CONTRACTOR NOTIFIES AND MEETS WITH THE PROJECT ARBORIST (PA).
- TILLING OF SOIL OR IRRIGATION TRENCHING IN THE TPZ BY TREES #279-291 SHALL BE DONE WITH AN AIR SPADE. AMEND SOIL WITH COMPOST, AND COVER WITH A 4" THICK LAYER OF MULCH.
- AVOID ALL FILL WORK, GRADE CHANGES, AND TRENCHING WITHIN DRIPLINES UNLESS IT IS PERFORMED BY HAND.
- PIPES SHALL BE THREADED UNDER OR THROUGH LARGE ROOTS WITHOUT DAMAGING THEM.

PRELIMINARY TREE PROTECTION PLAN for 3378-3386 El Camino Real
By: Maija Wigoda-Mikkila
Certified Arborist # WE-12986A
Traverso Tree Service, Inc.
August 19, 2022
(drawn on Preliminary Site Plan by BKF Engineers dated 8-19-22)



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3378-3386 E. EL CAMINO REAL
ENTITLEMENT SUBMITTAL
PRELIMINARY SITE PLAN
SANTA CLARA COUNTY CALIFORNIA
SANTA CLARA

Revisions
No.

Date 8/19/2022
Scale AS SHOWN
Design AC
Drawn AC
Approved AC
Job No

Drawing Number:
C2.0
2 OF 9