



Memo

To: The Atherton Planning Commission
From: Sally D Bentz-Dalton, Town Arborist
CC: Radha Hayagreev, Senior Planner
Date: 9/27/23
Re: Tree Protection Zone (TPZ) Exception 89 Douglass

I have reviewed the application at 89 Douglass Way . and offer the following observations and recommendation for your review:

The applicant is applying for Planning Commission TPZ exceptions for the following trees:

Tree #5	Pier 2 within 6x TPZ, pier 1 and 4 within 10x TPZ	Grade beam within 6x TPZ but fully located in area of previous concrete walkway
Tree #6	Pier 2 within 8x TPZ, pier 4 within 6x and pier 3 within 10x	Grade beam within 6x TPZ
Tree #19	Pier 5 within 8x TPZ	Grade beam within 8x TPZ
Tree #12	Pier 6 and 8 within 8x, pier 7 within 6x TPZ	Grade beam within 6x TPZ

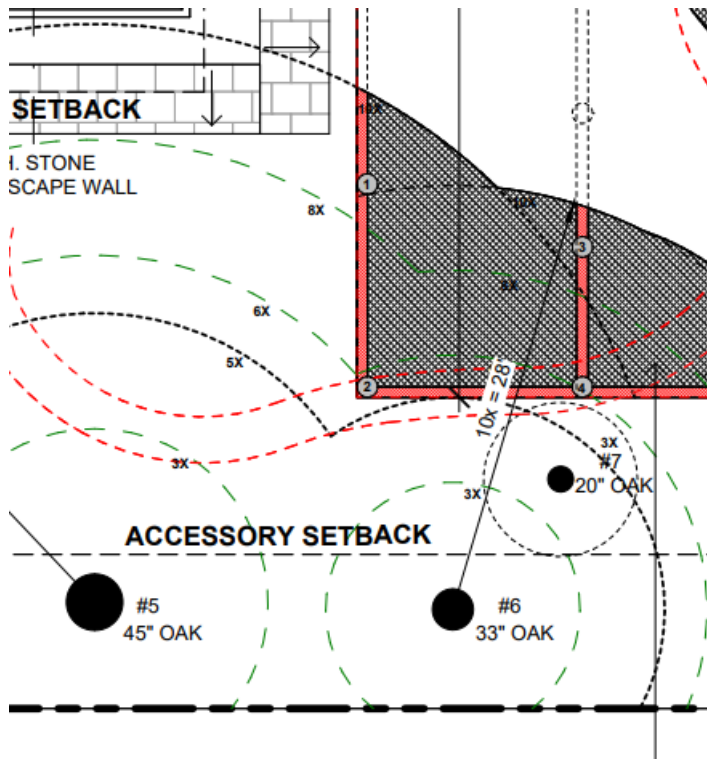
On August 24th, 2023, an Arborist report and inventory was conducted for the trees by Kielty Arborist Services LLC.

Tree Tag #	Protected Tree	Preserve or Remove	Common Name / Scientific Name	Trunk 1 (in.)	Six Times the Diameter in (ft.)	Eight Times the Diameter in (ft.)	Ten Times the Diameter in (ft.)	Height (ft.) / Canopy Spread (ft.)	Health Rating (Good, Fair, Poor)	Structural Rating (Good, Fair, Poor)	Form Rating (Good, Fair, Poor)	Suitability for Preservation (Good, Fair, Poor)	Overall Condition (0-100%)	Tree Summary - Comments
5	Yes	(P)	Coast live oak (<i>Quercus agrifolia</i>)	41.5	20.8	27.7	34.6	45/30	Good	Fair	Fair	Good	70	Lions tailed. Good trunk flare. Compacted soil. Needs mulch. Don't allow water to hit or come near trunk. Sycamore borer (aesthetic). Acute angle of attachment between stems. Consider support cable. Slightly thin canopy with leaf necrosis.
6	Yes	(P)	Coast live oak (<i>Quercus agrifolia</i>)	31.5	15.8	21.0	26.3	45/30	Fair	Fair	Fair	Good	65	Heavy sycamore borer infestation. Leaf necrosis. Epicormics. Lions tailed. Compacted soil. Needs mulch. Small circling root. Minor acute angles of attachments.
10	Yes	(P)	Coast live oak (<i>Quercus agrifolia</i>)	20.5	10.3	13.7	17.1	30/15	Fair	Fair	Fair	Good	60	Leaf necrosis. Good trunk flare. Acute angles of attachments. Sycamore borer (aesthetic). Lions tailed.
12	Yes	(P)	Coast live oak (<i>Quercus agrifolia</i>)	28.5	14.3	19.0	23.8	35/25	Fair	Fair	Fair	Good	60	Leaf necrosis. Acute angles of attachments between codominant stems. Good trunk flare. Thin canopy. Lions tailed. Consider support cable.

The applicant is proposing a pickleball court on raised piers with minimal surface touching grade. The piers are strategically placed and are connected with grade beams. Pier to be hand dug to 10". After void form decompose will be at 6".

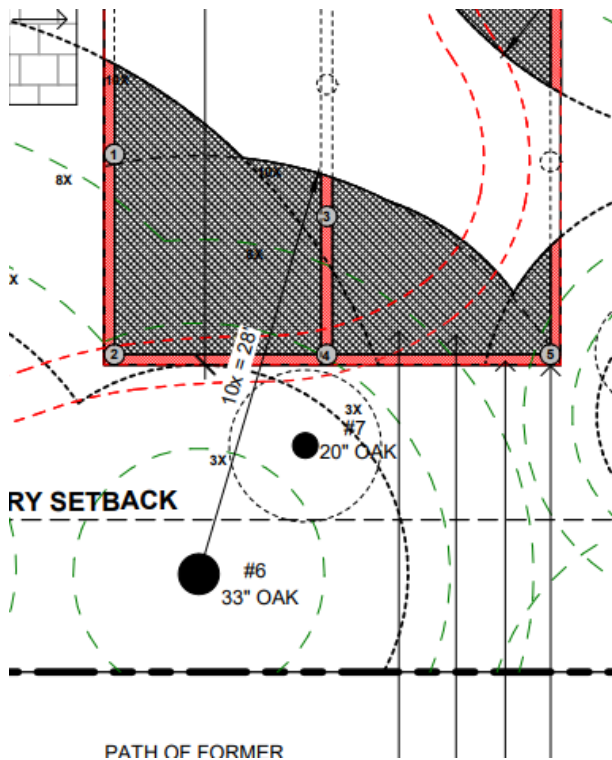
Request #1- Tree #5:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 2 within 6x, pier 1 within 10x and grade beam within 6x TPZ.



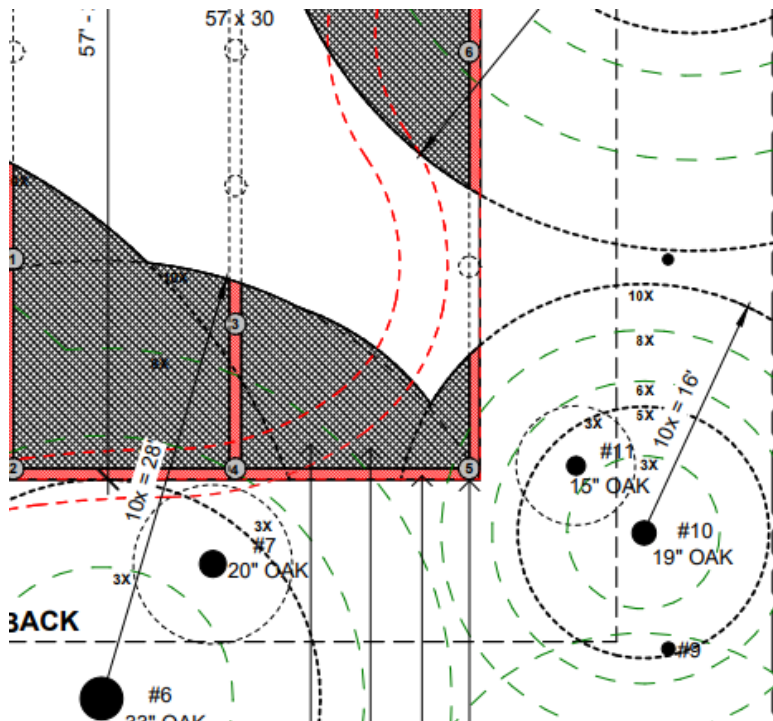
Request #2 – Tree #6:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 2 within 8x, pier 4 within 6x and pier 3 within 10x. Grade beam within 6x TPZ.



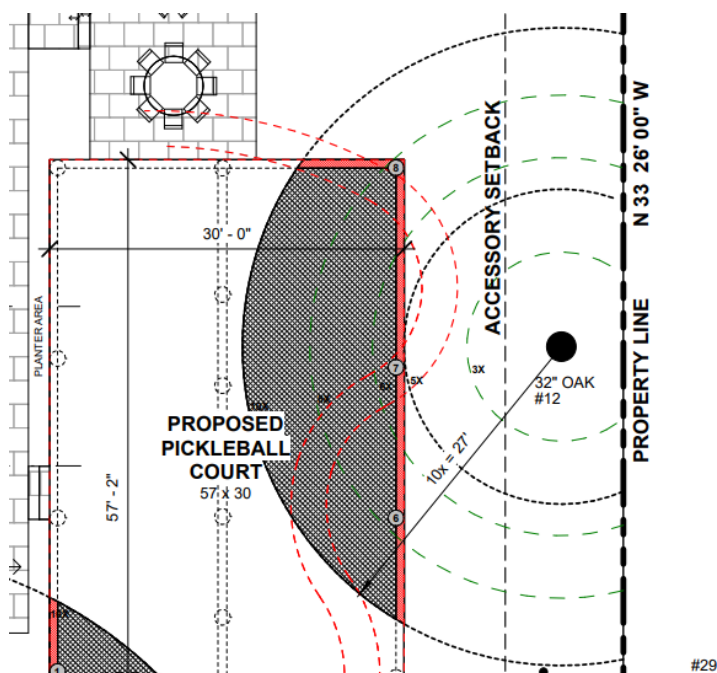
Request #3 – Tree #10:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 5 within 8x and grade beam within 8x TPZ.



Request #4 – Tree #12:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 6 and 8 within 8x and pier 7 within 6x and grade beam within 6x TPZ.



David Beckham the private arborist with Kielty Arborist Services LLC stated the plan for the pickleball court design has been revised multiple times to reduce impacts on the retained trees as much as possible. The pickleball court is now proposed to be built using a void form/pier and grade beam type foundation to reduce impacts to the trees as much as possible as seen in the structural drawings by North Coast Engineering. This way the majority of tree roots can be bridged over. Piers will be placed strategically to avoid roots through hand excavation under the Project Arborist's supervision. None of the piers are to be located closer than 5x the diameter of a retained tree (critical root zone). With the recommended mitigation measures applied, impacts are expected to be minor.

Chart by David Beckham:

PROPOSED PICKLE BALL COURT ROOT COVERAGE

ROOT COVERAGE OF FULL COURT (INCLUDING NON-INTRUSIVE VOID FORMS ON TOP OF SOIL)

TREE # 5
TPZ AREA = 4,418 SF
ROOT INTRUSION AREA = 227 SF => 5.14%
(227 SF / 4,418 SF = 0.0514)

TREE # 6
TPZ AREA = 2,452 SF
ROOT INTRUSION AREA = 330 SF => 13.46%
(330 SF / 2,452 SF = 0.1346)

TREE # 10
TPZ AREA = 764 SF
ROOT INTRUSION AREA = 26 SF => 3.40%
(26 SF / 764 SF = 0.034)

TREE # 12
TPZ AREA = 2,290 SF
ROOT INTRUSION AREA = 419 SF => 18.30%
(419 SF / 2,290 SF = 0.1830)

ROOT INTRUSION COVERAGE OF GRADE BEAM ONLY AT 10" GRADE DEPTH

TREE # 5
TPZ AREA = 4,418 SF
ROOT INTRUSION AREA = 30 SF => 0.68%
(30 SF / 4,418 SF = 0.0068)

TREE # 6
TPZ AREA = 2,452 SF
ROOT INTRUSION AREA = 37 SF => 1.51%
(37 SF / 2,452 SF = 0.0151)

TREE # 10
TPZ AREA = 764 SF
ROOT INTRUSION AREA = 8 SF => 1.05%
(8 SF / 764 SF = 0.0105)

TREE # 12
TPZ AREA = 2,290 SF
ROOT INTRUSION AREA = 34 SF => 1.48%
(34 SF / 2,290 SF = 0.0148)

ROOT INTRUSION COVERAGE OF PIERS ONLY AT 16" DIAMETER

TREE # 5
TPZ AREA = 4,418 SF
ROOT INTRUSION AREA = 6 SF => 0.14%
(6 SF / 4,418 SF = 0.00136)

TREE # 6
TPZ AREA = 2,452 SF
ROOT INTRUSION AREA = 8 SF => 0.33%
(8 SF / 2,452 SF = 0.0033)

TREE # 10
TPZ AREA = 764 SF
ROOT INTRUSION AREA = 2 SF => 0.26%
(2 SF / 764 SF = 0.0026)

TREE # 12
TPZ AREA = 2,290 SF
ROOT INTRUSION AREA = 6 SF => 0.26%
(6 SF / 2,290 SF = 0.0026)

In conclusion:

Coast Live Oaks are rated as having a good tolerance to construction impacts. The root intrusion for this project is minimal due to the fact the court is floating, and the piers can be placed to avoid roots over 2". The grade beams and piers to be no closer than 6x.

I can recommend the below 4 requests with the below requirements:

Request #1- Tree #5:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 2 within 6x, pier 1 within 10x and grade beam within 6x TPZ.

Request #2 – Tree #6:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 2 within 8x, pier 4 within 6x and pier 3 within 10x. Grade beam within 6x TPZ.

Request #3 – Tree #10:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 5 within 8x and grade beam within 8x TPZ.

Request #4 – Tree #12:

The applicant is asking for the proposed pickleball court to be within the TPZ zone. Pier 6 and 8 within 8x and pier 7 within 6x and grade beam within 6x TPZ.

The following are requirements:

- All excavation is to be done by hand under the Project Arborist supervision when within 10x the tree's diameter.
- Piers to be placed strategically to avoid roots through hand excavation under the Project Arborist's supervision
- All roots encountered measuring 1" in diameter or larger will need to be documented in the required monthly inspections. Encountered roots are recommended to be cleanly cut with cut root ends on the tree side covered in layers of wetted down burlap. Roots over 2" shall not be cut.
- Soaker hoses to be installed within the tree protection zone fencing as close to the excavation as possible (edge of fencing). Soaker hoses to be turned on every other week during the dry season until the top foot of the soil is saturated. During early spring of 2024, all 3 trees to be deep water fertilized with 300 gallons of water mixed with Nutri Root fertilizer. Add to monthly reports.
- Sufficient tree protection installed.

The information included in this memo is believed to be true and based on sound arboricultural principles and practices.

Sincerely,

Sally Bentz
Town Arborist
Certified Arborist WE#9238AM