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Barbara Barker
Project Manager - Master Planning
Santa Barbara Museum of Natural History
2559 Puesta del Sol, Santa Barbara, CA 93105
bbarker@sbnature2.org

ARBORIST FIELD REPORT: Sound Wall at Museum of Natural History

BACKGROUND AND ASSIGNMENT

The Santa Barbara Museum of Natural History is preparing to build a sound wall along the northern property line. There are several young oaks and shrubs within the project area. I was retained to assess potential impacts to the trees from the project and prepare a report with my findings and recommendations.

OBSERVATIONS, FINDINGS, and RECOMMENDATIONS

The sound wall will be 120' in length and 6' - 8' high. It will be supported by pile footings that are 18" in diameter and a maximum of 54" deep. The pile footings will be placed not more than 5' apart. The footings and sound wall will be 1' to the north of the edge of the asphalt parking lot.

Within the parameters of the project are 6 small California Live Oaks (*Quercus agrifolia*), several Toyon, and Catalina Cherry. Two of the small oaks will be removed. The first is 3.5" in diameter measured at 54" above ground and is within the line of the sound wall. The second oak is 4.5" in diameter and has a trunk that will conflict with the vertical plane of the wall several feet above the ground. The option of pushing this small oak to the north, back from the wall, is not recommended. That action will place the trunk under pressure and will cause more severe conflicts in the future. Three toyon and one cherry will also be removed.

It should also be noted that these six oaks are all within very close proximity to each other. Removing two of them will provide more space for adjacent oaks to grow, especially with all of them overhanging the parking lot.

There may be some concern about the pile footings in close proximity to the oak trees. However, the footings have been placed to minimize conflicts with the oak roots. Although some roots may need to be cut, they will be small in diameter as roots taper significantly as they move a short distance away from the trunk. In addition, the trees are very small and young, and will not be impacted by this project. If roots are encountered, they should be cleanly cut back to the edge of the soil profile.

There will not be any increased flood potential, erosion, soil loss, or water quality hazards incurred from removal of these trees.

According to *Historic Landmark Committee General Design Guidelines* Section 2.4.2 any tree that is 4" in diameter and greater measured at 54" above ground shall be replaced at a minimum of 1:1 to 3:1 ratio. As a result, the one 4.5" oak needs to be mitigated with one or three one-gallon *Quercus agrifolia* planted on site. The smaller oak does not require mitigation.

However, due to the number of small oaks that sprout on site within the oak woodland (as these two trees), I am of the opinion that mitigation should not be required. Note that Santa Barbara and other Counties commonly use the 6" minimum diameter that warrant mitigation.

Please contact me with any questions.

Prepared by:

Bill Spiewak

Bill Spiewak
Registered Consulting Arborist #381
American Society of Consulting Arborists

Board Certified Master Arborist #310B
International Society of Arboriculture

