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California Building Standards Commission
Attn: Mia Marvelli, Executive Director
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833
via email: cbsc@dgs.ca.gov
DSAccommunication@dgs.ca.gov

Dear Ms. Marvelli:

I am writing to express my support for the proposed "shade tree" requirements in Title 24, Part 11, Section 5.107, and offer some suggestions for amendments. My organization is also one of the sign-ons to the letter from Green Schoolyards America, led by Sharon Danks, so I will focus on new points here that relate to my experiences planting trees in Oakland, including on school campuses, for the past several years.

Trees for Oakland, a project fiscally sponsored by the Oakland Parks and Recreation Foundation, has a mission of contributing to the urban forest in all of Oakland by planting and maintaining trees in the city, with emphasis in areas with limited canopy. By doing so, we aim to educate people about trees, combat climate change, and provide a more equitable distribution of trees within Oakland.

Most of our funding comes from a state Urban Forestry Grant (8GG144416, "Trees for the Oakland Flatlands"), part of the California Climate Investments program administered by the California Department of Forestry and Fire Protection (CAL FIRE). In case you do not know, CAL FIRE has an extensive Procedural Guide governing these grant.

My suggestions and questions:

Requirement for "irrigation" or other water: The draft says "Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6." Section 5.304.6 in turn refers to MWEL0 and Title 23. In the typical modern sense of a system of pipes and an electronic controller, irrigation is probably not necessary and might add needless cost to a project. It is best to choose species or varieties of trees that can become established and need no supplemental water in their maturity. In my experience planting and maintaining trees in Oakland, a landscape irrigation system is not necessary if someone gives infrequent and deep watering (by hose or bucket, for example) to a 15-gallon tree through its first 2 to 3 summers. A smaller-container tree might become established even faster, after only 1 or 2 summers of supplemental watering. A temporary irrigation system may be useful, if it is designed to be abandoned or removed after the trees are established. For comparison, the guidelines of our CAL FIRE grant allow for "Young tree establishment costs such as ... water-wise irrigation," but will not pay for "Inefficient irrigation valves, pumps, sprinkler control timers or overly elaborate irrigation systems" or "Trees that rely upon excessive amounts of water to survive." I suggest revising this sentence to say "Water shall be provided as needed to establish and maintain tree health, and landscape irrigation (if any) shall comply with Section 5.304.6." This would allow exceptions for hand-watering or temporary irrigation.

Definition of "shade trees": I did not see how the code defined "shade trees", if at all, but that is not necessarily bad. All trees have shadows, of course, but they may be deciduous or evergreen, with canopies that are naturally denser or sparser (making solid shadows or sun-dappled shadows). California has a broad range of climatic zones and microclimates, so there should not be a list of allowed or disallowed trees in the code. Instead, the code should empower the designer (such as a landscape architect) to choose locally appropriate species and arrange them to best suit each specific situation at the school.

Specifying that the shade percentage is for high noon on the spring equinox: Many deciduous trees are leafless on the spring equinox and therefore would not provide much shade under their canopies, so someone making the calculation might be confused -- am I supposed to measure the shade cast by bare trunks or branches? It might be clearer to specify the autumn equinox instead, which has the same sun angle, but most deciduous trees are not dormant then.

Minimum size at planting: Rather than a minimum container size of #10 ("10-gallon"), I would specify a minimum size of the tree in the container. For example, when we plant trees according to our CAL FIRE grant, trunk thickness, the tree must be at least 3/4-inch caliper, measured 6 inches above the root crown. Generally this means a #15 tree, but some trees in #10 or even #7 containers have satisfied the 3/4-inch standard. I would also allow for smaller-container plantings (#5, #1, DeePot, TreePot, bare-root, etc.), especially in groves or patches that the school community can protect from trampling, sports balls, etc. Although smaller-container trees start out more fragile and vulnerable to damage, they are less expensive, and often catch up after a few years with the trees planted from larger containers.

Area of open soil at each tree: Also similar to the wording of my CAL FIRE grant, I suggest that the new DSA language require enough open soil at each tree to support its long-term health. I have seen many trees at schools in Oakland struggling in small openings (such as 3'x3' or even 2'x2') cut out of the existing asphalt. A tree simply cannot grow well in such a confined space. Our CAL FIRE grant requires a minimum of 24 sq.ft. of open soil per tree and encourages larger spaces where possible. Large spaces of open soil for trees at schools (especially groups of trees in a common opening) would also reduce the burden on groundskeepers / maintenance staff, since they could allow fallen leaves to lie on the soil instead of sweeping or blowing them off of the asphalt surrounding a small cutout.

If you have questions of me, please ask. I look forward to seeing this revision lead to more trees at California schools, and therefore happier and healthier people at the schools and the neighborhoods around them.

Sincerely,

Derek Schubert

Coordinator, Trees for Oakland

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