City of Mountain View

MEMORANDUM

Public Works Department

DATE: November 12, 2025

TO: Urban Forestry Board

FROM: Damtew Ayele, Senior Civil Engineer
Faryal Saiidnia, Senior Project Manager
David Printy, Principal Project Manager
Edward Arango, Assistant Public Works Director

VIA: Jennifer Ng, Public Works Director

SUBJECT: **Solar Arrays—Senior Center, Mountain View Sports Pavilion, and Whisman Sports Center, Project 24-48**

RECOMMENDATION

Review the proposed Heritage tree mitigation for Senior Center, Mountain View Sports Pavilion, and Whisman Sports Center, Project 24-48, and forward a recommendation to the City Council to approve the mitigation of one Heritage tree at a 2:1 tree replacement ratio, with the planting of two 24" box trees for the Senior Center site.

BACKGROUND

In April 2023, the City applied for the Net Energy Metering (NEM) 2.0 program to reserve incentives to install photovoltaic or solar array systems at various public facilities, including the Mountain View Senior Center, Mountain View Sports Pavilion, and Whisman Sports Center. These projects help reduce greenhouse gas emissions and have significant energy cost-saving benefits. In addition to payback from the utility savings, the Federal Investment Tax Credit program (known as Direct Pay) can cover $1,527,418 of the project costs after completion. The utility savings realized over 20 years, along with project costs, are shown in Table 1. The City is utilizing the Energy Conservation Contracting process for all three projects, as authorized in California Government Code Sections 4217.10 through 4217.18. This streamlined process allows public agencies to select a qualified energy services contractor for both design and construction, allowing for a design-build contract. This contracting process was created by the state to encourage energy efficiency within existing public facilities by allowing public agencies to use the ensuing energy savings as an alternative funding source to finance infrastructure upgrades that were deemed a net benefit and cost-effective.

Table 1: Project Costs and Savings

Facility	Total Project Cost After Incentive	Utility Savings Over 20 Years
Senior Center	$2,369,662	$5,957,062
Whisman Sports Center	513,971	1,363,830
Mountain View Sports Pavilion	1,533,752	2,545,147
TOTAL	**$4,417,385**	**$9,866,039**

NEM 2.0 projects must be operational by April 2026 to be eligible for the incentive. The Senior Center is owned and operated by the City. The Mountain View Sports Pavilion and Whisman Sports Center are jointly owned by the City and the Mountain View Whisman School District (School District). The gymnasiums are maintained by the City under the following agreements:

- **Whisman Sports Center at Crittenden Middle School:** Agreement for the Mutual Construction, Ownership, Maintenance, and Operation of a Sports Center (1992).

- **Mountain View Sports Pavilion at Graham Middle School:** Joint Ownership and Use Agreement, Graham School Gymnasium (1984), and Maintenance Agreement Between the City of Mountain View and the Mountain View Whisman School District (Graham Middle School), County of Santa Clara, State of California, for Joint Use of Graham Middle School for Park and Recreation Purposes and Maintenance of the Mountain View Sports Pavilion (2003).

The above agreements require joint decisions on enhancements and upgrades, such as installing solar arrays. On April 18, 2024, the school board directed their staff to work with City staff to install the solar array projects at the gymnasiums.

On June 25, 2024, the City Council adopted a Resolution with the following actions:

1. Approved a Midyear Capital Improvement Program Project: Solar Arrays at the Mountain View Senior Center, Mountain View Sports Pavilion, and Whisman Sports Center;

2. Transferred and appropriated $750,000 to fund the project;

3. Awarded an energy services contract to Syserco Energy Solutions, Inc., for the design and installation of solar arrays at the project sites for a total amount not to exceed $5,944,803;

4. Found that the project collectively and each project site individually met the requirements of California Government Code Section 4217.12; and

5. Found that the project is categorically exempt as Class 1, Existing Facilities, under the California Environmental Quality Act (CEQA) Guidelines Section 15301 and on a separate and independent basis is Exempt as Class 3, Construction of Small Structures, under CEQA Guidelines Section 15301.

The preliminary conceptual design included installation of solar arrays on the Senior Center's rooftop and new carports in the parking lot (Figure 1). Staff's preliminary analysis estimated up to seven non-Heritage trees would need to be removed and advised Council at the June 25, 2024 meeting that the project mitigation measures would be at a 1:1 tree replacement ratio with 24" box native species trees, either on- or off-site.

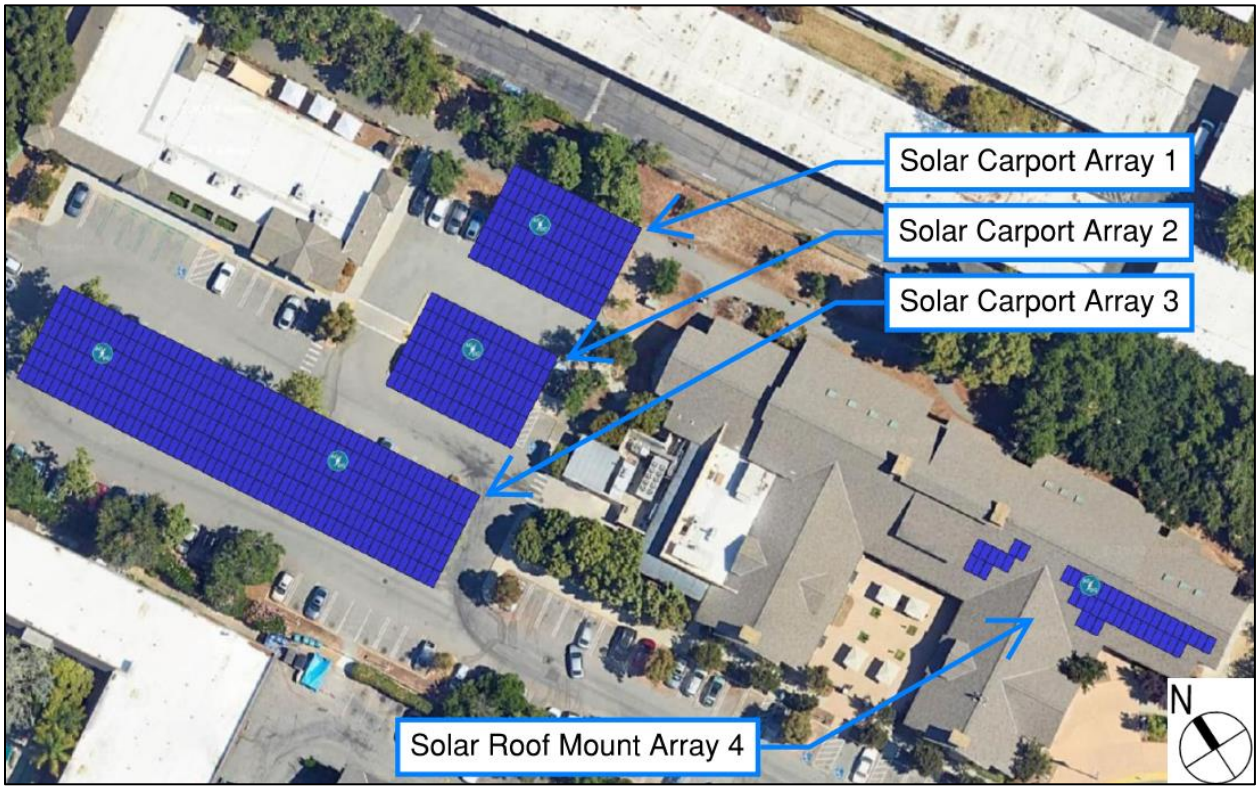


Figure 1: Senior Center Solar Arrays Preliminary Locations

Project Scope and Status

The design for the Senior Center solar arrays was finalized in August 2025, and a permit has been issued by the City's Building Division. During the design phase, higher-efficiency solar panels were incorporated on the solar carports, which reduced the total number of panels necessary to generate the required energy production. This reduced the solar arrays from 586 panels on the preliminary design to 558 on the final design.

The construction of the Senior Center solar arrays is being implemented in two phases, with the latter phase tightly coordinated with another project (Senior Center Electrification Project 22-34) that will impact the Senior Nutrition program. By overlapping the construction of these two projects on the same site, staff is seeking to minimize impacts to the Senior Nutrition program. Furthermore, construction and activation of the arrays must be completed on this site by March 2026 to meet the PG&E NEM 2.0 deadline to retain the incentive and to be grandfathered into more financially favorable compensation rates for up to 20 years.

The first phase of the Senior Center carports installation (the foundations) was completed on September 1, 2025 (Labor Day weekend). During this construction phase, the Senior Center Nutrition Program was temporarily relocated to the Mountain View Community Center, utilizing catering services. The second phase of the solar array construction is scheduled to begin in early January 2026.

Tree Removals

As part of the project, existing trees are required to be removed to accommodate the installation of the solar arrays. Staff requests that the Urban Forestry Board (UFB) provide a recommendation to the City Council for the number, size, and location of replacement trees, which is the focus of the UFB's purview, as defined in the following Municipal Code Section 32.33, City Capital Improvement Projects:

> "City capital improvement projects which propose the removal of any heritage tree shall be submitted by the city project staff to the city's arborist for review and recommendation of appropriate mitigation measures. The arborist's recommendations shall be forwarded by city project staff to the urban forestry board for their recommendation on the number, size and location of replacement trees. The recommendation of the urban forestry board shall be forwarded by city project staff to the city council for their consideration with the approval of the project."

When the City Council approved the creation of the project in June 2024, it was anticipated that up to seven non-Heritage trees would need to be removed to accommodate the solar carport installation. With the progression of final design development, further analysis revealed that six

trees are located within the footprint of the solar carport. Of these six trees, one was identified as a Heritage tree. This tree was initially classified as non-Heritage during the preliminary tree impact assessment but was later confirmed to meet the Heritage criteria.

The design completion and more detailed final tree survey further revealed that seven additional trees located outside the immediate solar carport footprint also need to be removed due to branches physically conflicting with the proposed solar panels and tree canopy obstructing the system's energy generation capacity. A reduction in the solar generation capacity compromises the energy savings needed to accomplish the project's payback goals.

Alternative design options were evaluated to minimize tree impacts, including expanding rooftop solar installations. However, the geometry and orientation of the Senior Center roof do not support sufficient panel coverage and energy generation to replace or substantially reduce the need for the carport-mounted solar arrays. Furthermore, a separate, concurrently approved project will install solar thermal panels on the roof for domestic water heating, further limiting available rooftop space for photovoltaic panels.

Tree trimming was evaluated in lieu of removal, but the amount of trimming needed would be at significant expense to the health of the trees. At the Senior Center location, a total of 13 trees need to be removed to facilitate the solar installation.

ANALYSIS

Syserco's subconsultant, Bionic Landscape Architecture, and the City arborist evaluated the project layout and identified a total of 13 trees within the project site that will require removal. The trees recommended for removal consist of 12 non-Heritage trees and one Heritage tree (see Figures 2 and 3). The Heritage tree is a Western sycamore.

A notice of planned removal was posted on the one Heritage tree in the Senior Center parking lot from August 20 to August 29, 2025, and no appeals were received. An additional notice stating that this item will be presented at the Parks and Recreation Commission meeting on November 12, 2025 was posted on the tree starting on October 22, 2025.

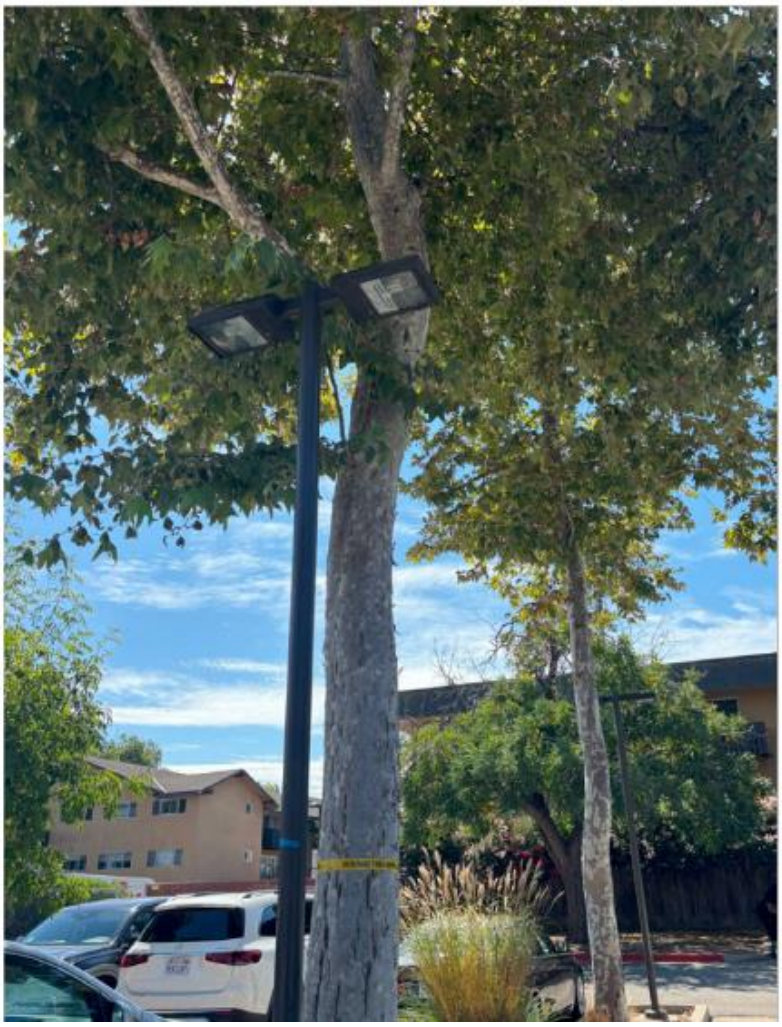
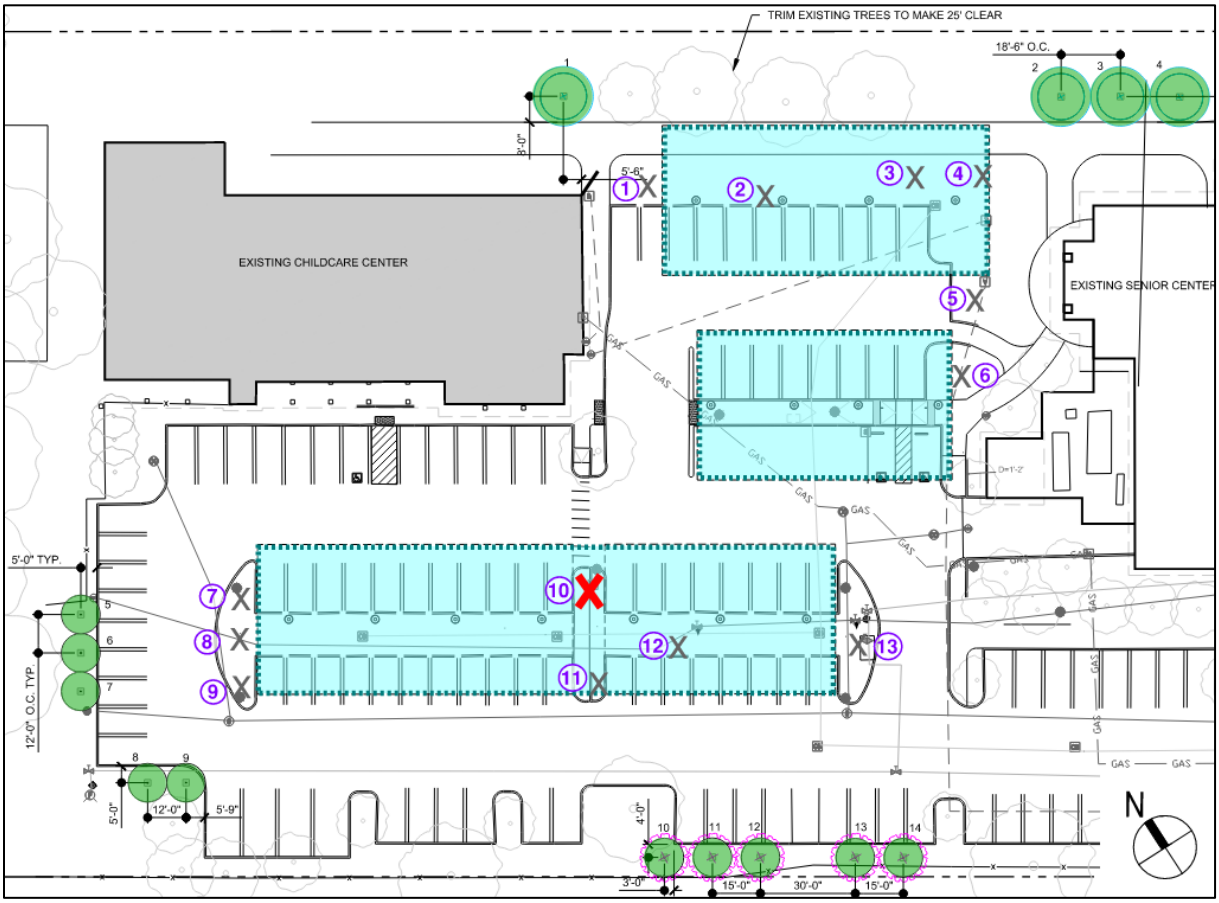


Figure 2: Impacted Heritage Tree—Sycamore (*Plantanus x hispanica*/London Plane)

The assessment included the location and species of existing trees (Figure 3) and mitigation recommendations. The circled blue numbers corresponded to the tree numbers in Table 2.



Legend	
Item	**Description**
	New tree to be installed
X	Non-Heritage tree to be removed
X	Heritage tree to be removed
	Solar carport

Figure 3: Senior Center Removal and New Tree Location Plan

Table 2: Existing Tree Removal Schedule

Tree No.	Botanical Name	Common Name	Heritage Tree	Replacement Ratio
1	*Juglans hindsii*	Northern California black walnut	No	1:1
2	*Platanus racemosa*	Western sycamore	No	1:1
3	*Juglans hindsii*	Northern California black walnut	No	1:1
4	*Juglans regia*	English walnut	No	1:1
5	*Corymbia citriodora*	Lemon eucalyptus	No	1:1
6	*Juglans hindsii*	Northern California black walnut	No	1:1
7	*Platanus racemosa*	Western sycamore	No	1:1
8	*Sequoia sempervirens*	Coast redwood	No	1:1
9	*Platanus racemosa*	Western sycamore	No	1:1
10	***Platanus racemosa***	**Western sycamore**	**Yes**	**2:1**
11	*Platanus racemosa*	Western sycamore	No	1:1
12	*Fraxinus uhdei*	Tropical ash	No	1:1
13	*Platanus racemosa*	Western sycamore	No	1:1

The arborist evaluated the trees to be removed for potential transplant. Factors considered for transplant included the following:

- **Species Suitability:** Some trees are intolerant of root loss;
- **Size and Health:** Smaller and healthier trees transplant more successfully;
- **Site Conditions:** Site conditions may limit the ability to capture adequate root balls; and
- **Characteristics of New Site:** Transplant location must be conducive to the tree's needs.

The City's Urban Forest Supervisor reviewed the findings and conducted a follow-up site visit. No trees within the project area were found to be optimal candidates for transplanting. Staff recommends replacement over transplant for all trees for the following reasons:

- There are several existing trees in which the general structure of the trees (the way the tree grows over time) are not conducive to transplant;

- Root systems of the trees close in proximity to each other may make it difficult to separate root systems; and

- There is a lower survivability rate for transplanted trees versus new trees.

Because of these reasons, planting new trees as a mitigation measure is recommended over transplanting trees.

Staff recommends mitigation for the Heritage tree at a 2:1 tree replacement ratio with 24" box tree and replacing the 12 non-Heritage trees at a 1:1 ratio with 24" box trees. This results in 14 new trees, as shown in Figure 3. There is suitable and available space to plant all proposed replacement trees within the project limits (see Figure 3). The tree canopy coverage within the project limits is projected to exceed the current coverage within five to seven years. Three of the trees proposed to be removed are non-California native tree species, and nine of the 14 mitigation trees are California native tree species. Five of the mitigation trees recommended are non-California native tree species and were selected as more appropriate to the location due to conflicts with existing infrastructure and limited grow space.

Staff recommends tree replacement based on the following planting schedule (Table 3).

Table 3: Tree Planting Schedule—Senior Center

Quantity	Botanical Name	Common Name	Box Size
5	*Cercis occidentalis*	Western redbud	24"
4	*Platanus racemosa*	Western sycamore	24"
5	*Acer x freemanii 'Armstrong'*	Armstrong maple	24"

Tree plantings and new irrigation lines will be included as part of construction.

Related Work at Mountain View Whisman School District Sites

The Heritage tree at the school site is not subject to the City Heritage Tree Ordinance as it is located on School District property, which is under the jurisdiction of the State of California, Division of the State Architect (DSA). The following is an update regarding tree removal mitigation measures that are planned for these non-City-owned sites. While the project involves both owners, the one Heritage tree removal is exclusively on the School District property and is outside the footprint of the canopy. The School District approved the removal of this Heritage tree so that it does not shade the solar arrays and affect the energy production.

The Mountain View Sports Pavilion includes rooftop solar arrays and a solar carport (Figure 4). On June 25, 2024, the City Council was informed of the planned removal of five non-Heritage trees for the carport portion of the solar arrays and of the proposed on-site tree mitigation at a 1:1 replacement ratio with 24" box native-species trees. Transplant is not recommended for these trees for similar reasons stated above regarding the Senior Center trees—essentially, unfavorable candidates for transplant and likelihood of not surviving transplant.

The Whisman Sports Center will have only rooftop solar arrays and does not require any tree removal.

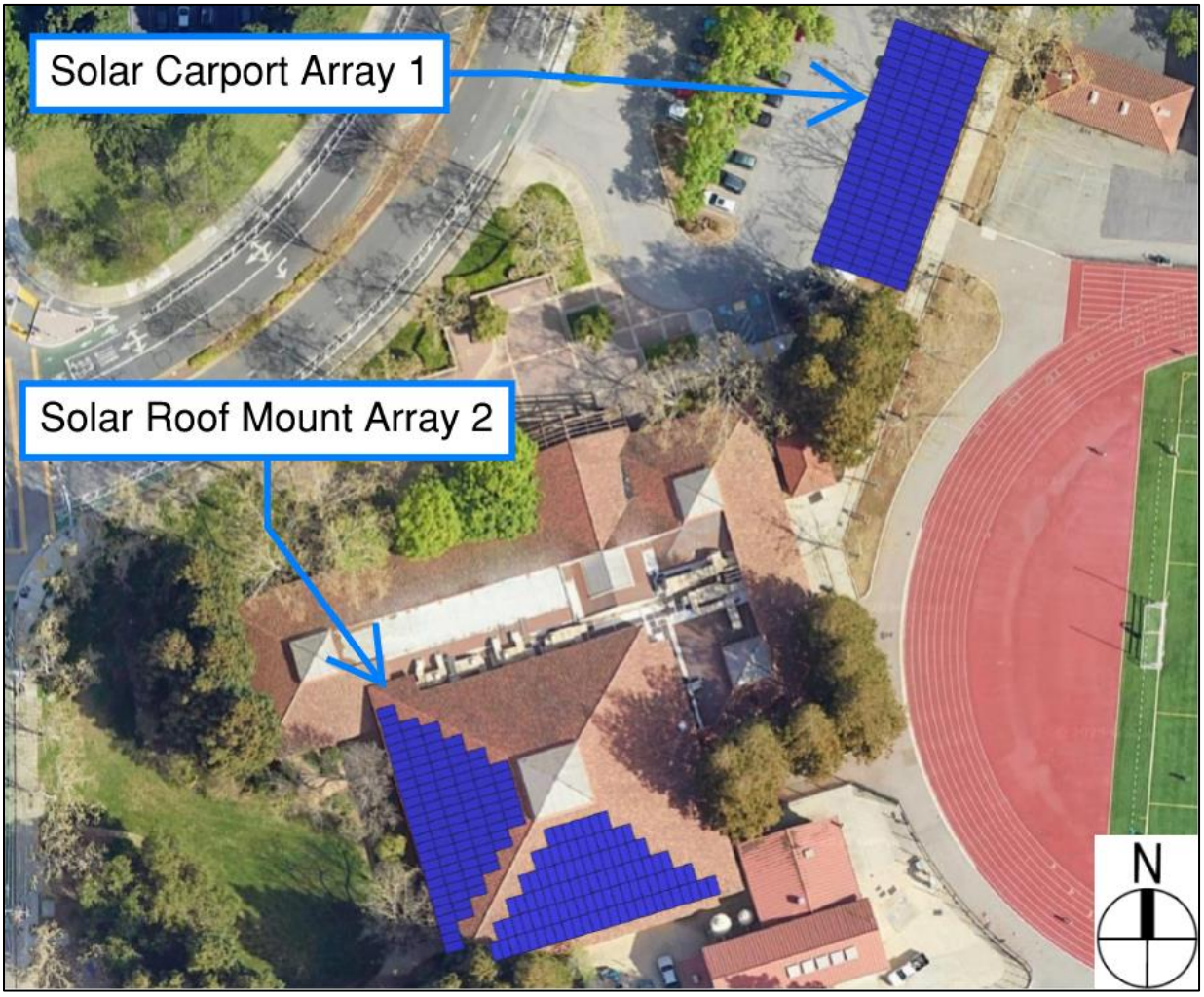


Figure 4: Mountain View Sports Pavilion Sports Center—Preliminary Design

City staff conducted a field review of the proposed Mountain View Sports Pavillion solar array preliminary design with Syserco. As noted to the City Council in the June 2024 report, five

non-Heritage trees would be impacted by being underneath the carport solar arrays. After finalizing the design, three additional non-Heritage trees adjacent to the solar arrays will cause significant shading, thereby reducing energy production as well as branch conflicts with the array. In total, eight non-Heritage trees will be removed.

Table 4: Details of Existing Trees—Mountain View Sports Pavilion

Tree No.	Botanical Name	Common Name	Heritage Tree	Replacement Ratio
1	*Fagus sylvatica*	European beach	No	1:1
2	*Platanus acerifolia 'Yarwood'*	London plane	No	1:1
3	*Fagus sylvatica*	European beach	No	1:1
4	*Platanus acerifolia 'Yarwood'*	London plane	No	1:1
5	*Platanus acerifolia 'Yarwood'*	London plane	No	1:1
6	***Platanus acerifolia 'Yarwood'***	**London plane**	**Yes**	**2:1**
7	*Platanus acerifolia 'Yarwood'*	London plane	No	1:1
8	*Platanus acerifolia 'Yarwood'*	London plane	No	1:1

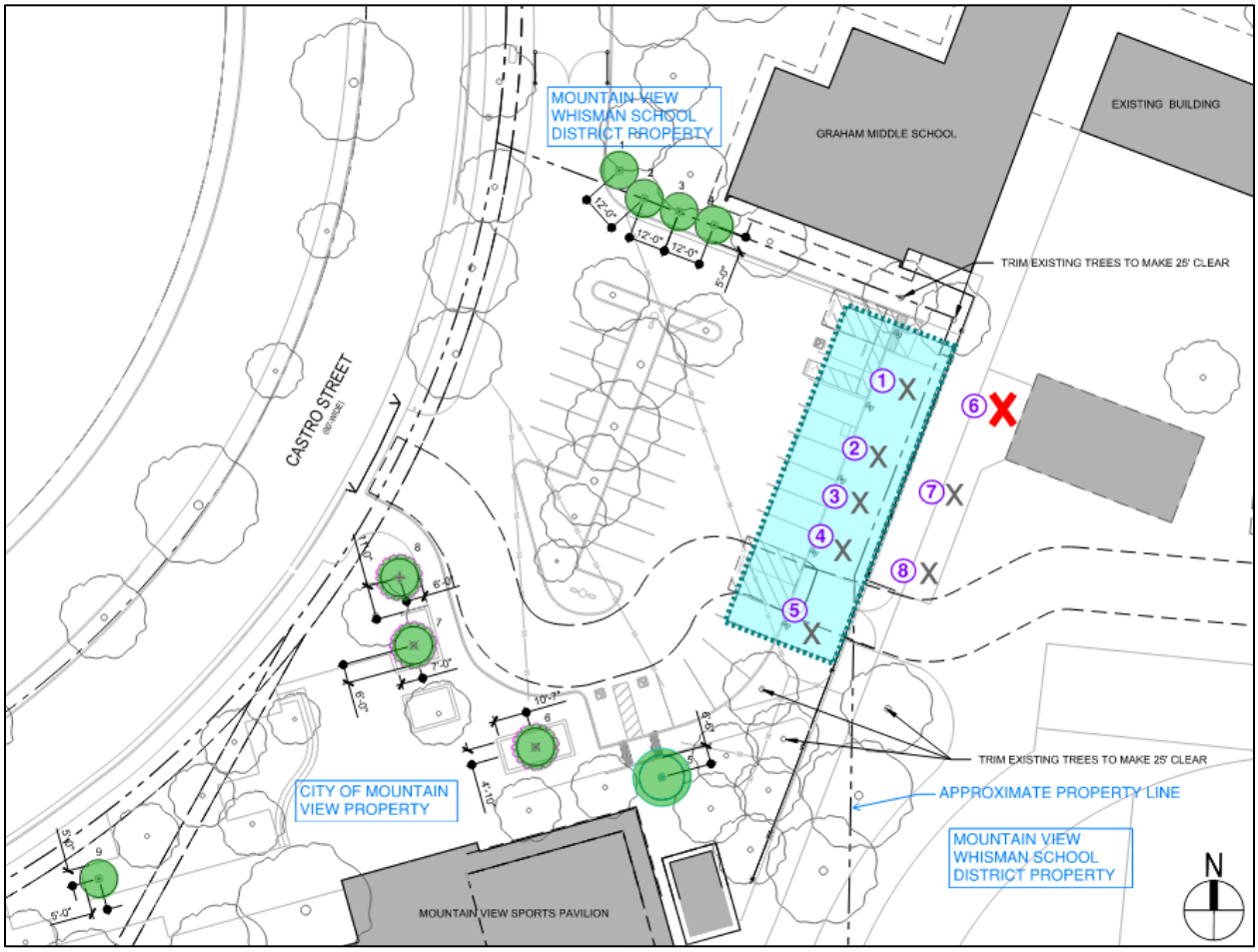
The School District has agreed with a plan to plant nine 24" box trees on site as part of the voluntary mitigation measures (Table 5). There is suitable and available space to plant all proposed replacement trees within the project limits (see Figure 5). The tree canopy coverage within the project limits is projected to exceed the current coverage within five to seven years. All eight trees proposed to be removed are non-California native tree species, and all nine mitigation trees are California native tree species.

Staff recommends tree replacement based on the following planting schedule (Table 5).

Table 5: Tree Planting Schedule—Mountain View Sports Pavilion

Quantity	Botanical Name	Common Name	Box Size
5	*Cercis occidentalis*	Western redbud	24"
3	*Chilopsis linearis*	Desert willow	24"
1	*Sequoia sempervirens 'Aptos Blue"*	Aptos blue coast redwood	24"

The blue circled numbers in Figure 5 below correspond to the tree number in Table 4.



Legend	
Item	**Description**
	New tree to be installed
X	Non-Heritage tree to be removed
X	Heritage tree to be removed
	Solar carport

Figure 5: Mountain View Sports Pavilion New Tree Locations

FISCAL IMPACT

Solar Arrays—Senior Center, Mountain View Sports Pavilion, and Whisman Sports Center, Project 24-48, is currently funded as follows:

Table 6: Funding Sources

Funding Source	Amount
Park Land Dedication Fund	$4,500,000
Other Reserves	1,600,000
Construction/Conveyance Tax Fund	1,065,000
General Non-Operating Fund	250,000
Whisman School District	163,000
Total	**$7,578,000**

Tree mitigation for the on-site trees will be funded from the current project budget.

PUBLIC NOTICING

In addition to the standard agenda posting, staff posted a notice on the tree identifying it for removal from August 20 to August 29, 2025, and no appeals were received. Staff posted another notice on the tree identifying it for removal from October 22 to November 12, 2025 to provide information for attending this Urban Forestry Board meeting. Notices were mailed to occupants and property owners within 1,000' of the project site.

PWK/AF/DA-11-12-25M
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cc: PWD, APWD—Arango, PPM—Printy, SCE—Ayele, SPM—Saiidnia, F/c (24-48)