

Agenda Report

TO: CITY COUNCIL January 12, 1998
FROM: City Manager
SUBJECT: Approval of Reduced Street Lighting Intensity Standards for Old Pasadena

RECOMMENDATION:

It is recommended that the City Council:

1. Allow the Old Pasadena lighting intensity standard approved by the City Council in April of 1996 to be lowered to the intensity standards established by the Illuminating Engineering Society to allow the use of a lamp with a Kelvin temperature of approximately 3000 degrees and a minimum color rendering index of 85.
2. Approve the use of the Master Color lamp for street lighting in Old Pasadena as this lamp meets the requirements as set above.
3. Direct staff to set aside sufficient funds from the current Old Pasadena Streetscapes and Alley Walkways Project, Budget Account No. 73934, to fund the installation of higher wattage Master Color lamps when they become available.

BACKGROUND:

The Old Pasadena Streetscapes and Alley Walkways Core Group, consisting of property owners, business owners, advisory body representatives and staff, was established to facilitate the preparation of the Old Pasadena Streetscapes and Alley Walkways Plan and to oversee the design and implementation of various improvements consistent with the Plan. Among the improvements reviewed by the Core Group is the proposed street lighting with regard to the type of hardware and the light source, including the color and intensity.

In April of 1996, the City Council approved specific lighting intensities for this project, specifically, 3.0 footcandles (fc) and 2.0 fc on Colorado Boulevard and Fair Oaks Avenue respectively and 1.0 to 1.5 fc on all other streets. Since that time, City staff, at the request of the Core Group, has installed

a series of hardware samples and light sources for viewing in the field. Through these field reviews and supplemental lectures from experts in lighting, a consensus among the Core Group has been built that favors the "quality" of the lit environment over a strictly quantitative measure of light levels. It was determined that chief among these qualitative issues is the color rendering ability of the lamp. The principal is that if color is rendered more accurately and more of the color spectrum can be seen, then objects can be more easily identified and "seeability" is increased. Earlier this year, a lighting consultant was retained to assist in determining the best light source for the project. These efforts have resulted in a consensus on the lamp color the Core Group would like to use and that this lamp be incorporated into the final design.

The consultant has identified a "Master Color" lamp by Philips which provides a very accurate color rendition of 85 on the color rendering index. Unfortunately, the maximum size currently available is only 100 watts, making it impossible to meet the intensity standards approved by the City Council in 1996.

In order to use the proposed "Master Color" lamp, the Core Group is requesting that the intensity standards for the Old Pasadena project be revised to reflect the Illuminating Engineering Society (IES) standards. The staff recommendation is that the IES standards be adopted as minimum intensities.

The IES standards would be 1.2 FC on Colorado Boulevard, Fair Oaks Avenue and Arroyo Parkway and 0.8 FC on all other streets. The lower standards would permit the installation of 100 watt "Master Color" lamps in both the proposed decorative post top fixtures and the existing high mast lighting standards on those streets where the new standard can be met. On the remaining streets when the new standard cannot be met, the existing high pressure sodium or metal halide lamps would remain until such time as higher wattage "Master Color" lamps become available. Philips has indicated that these lamps are currently in development and should be on the market within two years, though no specific time table has been set.

Approval of the staff recommendation will facilitate the immediate use of better color rendering lamps, provide a defensible standard of practice in lighting related litigation and upon future availability of larger Master Color lamps, allow the District's lighting intensity to be increased, if so desired. The approval to lower the intensity is subject to the use of lamps that provide the increased color rendition as stated in the staff recommendation.

Staff has no information that more accurate color rendition compensates for reduced lighting intensity. The experience of the Public Works and Transportation Department has been that the businesses want more, not less light. As a result of requests from businesses, the lighting intensity was increased on several streets in 1993. Even so, staff has no objection to the lowering of the intensity standards in Old Pasadena, pending review of a

test area (see attached memorandum from Chief of Police Bernard Melekian). The project specifications will require the contractor to immediately install the proposed lighting on a small section of a street. While work continues on the underground portion of the remainder of the project, the design staff, Core Group, Police Department and business owners will be able to view and evaluate the quality of the Master Color lamps and the resulting lower intensity. If there is significant objection to the Master Color lamps or lower intensities, changes can be made prior to installation of the remainder of the project. Otherwise, the project will be completed as designed.

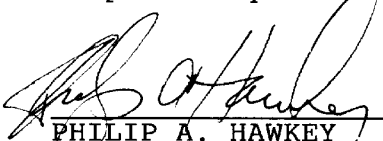
The proposal to install Master Color lamps and to reduce the intensity standards in Old Pasadena is the result of nearly two years of reviewing lighting hardware and lamp sources. While it had previously been difficult for all involved to reach consensus on this project, the recommendations presented above have more support than any other proposals reviewed to date.

A status report on the Old Pasadena lighting, including the proposal to lower the intensity standards for this project in conjunction with the use of a lamp that provides more accurate color rendition, was presented to the Design Commission for information on December 22, 1997. The Commission concurred with this proposal.

FISCAL IMPACT:

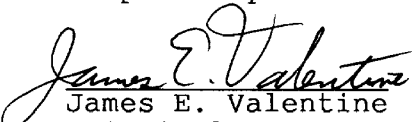
Approval of the recommendations will not significantly affect the cost of this project. Funds for this project are available in Budget Account No. 73934.

Respectfully submitted,

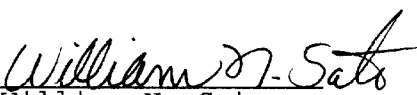


PHILIP A. HAWKEY
City Manager

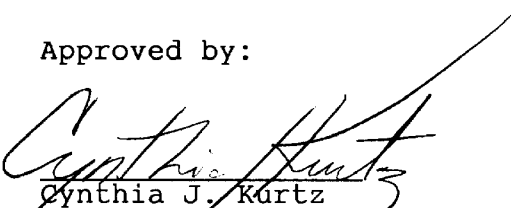
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