



PUBLIC WORKS DEPARTMENT

CITY HALL
10300 TORRE AVENUE • CUPERTINO, CA 95014-3255
TELEPHONE: (408) 777-3354 • FAX: (408) 777-3333
CUPERTINO.ORG

CITY COUNCIL INFORMATIONAL MEMORANDUM

Meeting: July 18, 2023

To: Cupertino City Council

From: Chad Mosley, Director of Public Works

Re: Streetlight Transition Assessment Report

Background

The Streetlight Transition Assessment Report evaluates the feasibility of transitioning from existing street light fixtures to Light Emitting Diode (LED) fixtures. The report finds LED fixtures are “dark sky” compliant, provide sufficient light intensity and quality to meet street lighting needs, and would result in significant cost savings over the next twenty years. Acceptance of the report allows staff to move forward with initiating a project to transition existing streetlights to LED.

On April 6, 2021, the City Council enacted Ordinance No. 21-2225 regarding Dark Sky Design (Dark Sky Ordinance – CMC section 19.102.040). Subsequently, the City Lighting LED Transition Assessment was included in the FY 21-22 City Work Plan as well as the FY 21-22 Capital Improvement Program.

The Streetlight Transition Feasibility report, prepared by Tanko Lighting, was presented to Council on September 20, 2022. Council directed staff to bring the report back to Council with a request for additional information based upon Council input. The requested additional information included an LED fixture pilot program and revisions to the report.

Per Council direction, LED fixtures were installed at three locations in close proximity to Cupertino Civic Center (see attachment C – Location Map). In addition, Tanko Lighting modified the Streetlight Transition Assessment Report to address Council comments and prepared a supplemental Pilot Project Report which includes pre- and post-installation photometric data for each pilot location.

The City’s streetlight system is comprised of various fixture types, including Induction (IND), High Pressure Sodium (HSP), Metal Halide (MH), and some LED. All locations selected for the pilot project had existing IND fixtures. For observational purposes only,

City staff also installed one LED fixture manufactured by CREE to demonstrate a typical LED fixture that has been utilized by the City.

The Pilot Project report found that piloted fixtures provide adequate lighting to meet City streetlighting needs and provide a quality of light that is consistent with the City's Dark Sky Ordinance. Furthermore, the Street Light Transition Report concluded that a citywide transition to Dark Sky compliant LED streetlighting could provide a cumulative energy and maintenance cost reduction of nearly \$2,000,000 over a 20-year period. The initial LED conversion cost of approximately \$1,000,000, is accounted for in the cost saving analysis.

Next steps for this project include finalizing design, developing plans and project specifications, and advertising the project for bid. The City will evaluate the bids received and will present the construction contract to City Council for consideration in late 2023.

Sustainability Impact

This action does not have any direct sustainability impact.

Fiscal Impact

This action does not have any direct fiscal impact.

Prepared by: Jo Anne Johnson, Project Manager

Reviewed by: Chad Mosley, Director of Public Works

Reviewed by: Matt Morley, Assistant City Manager

Approved for Submission by: Pamela Wu, City Manager

Attachments:

A – Streetlight Transition Assessment Report

B - LED Streetlight Fixture Pilot Report

C – Memo to Council Re: Pilot LED Installations