Council Meeting of
January 9, 2007

Honorable Mayor and Members
of the City Council
City Hall
Torrance, California

Members of the Council:

**SUBJECT: Public Works – Purchase of Light Emitting Diode (LED) Traffic Signal Modules from JTB Supply Company. Expenditure: $117,776.00 (sales tax included).**

## RECOMMENDATION

The Public Works Director recommends that the City Council authorize a purchase order to be issued to JTB Supply Company of Orange, California in the amount of $117,776.00, as a cooperative purchase with the City of Long Beach, to furnish Dialight amber colored LED traffic signal modules for all City maintained signalized intersections within the City.

### Funding

Funding is available from Amber colored signal LED replacements project (FEAP 470) and the Public Works Operating Budget.

## BACKGROUND/ANALYSIS

Over the last six years the Public Works Department has been replacing incandescent traffic signal bulbs with light emitting diode (LED) modules at all of the City maintained signalized intersections. To date, all of the intersections have had the green and red incandescent bulbs replaced with green and red LED modules. All that remain to be replaced are the amber colored incandescent bulbs. In addition to replacing the amber colored incandescent bulbs, we will also be purchasing additional red and green replacement LED modules so we have replacements available when the existing red and green modules installed need replacement.

LED's are a semiconductor diode, essentially a lamp, about the size of a pencil eraser. LED's are more efficient than incandescent lamps because little electricity is wasted in heat generation. Individually, LED's are not as bright as incandescent lamps; therefore many LED's are required to duplicate the light output of an incandescent lamp. Unlike incandescent lamps, LED's seldom burn out. Instead, the light output degrades over time to a point where the intensity falls below acceptable levels for use in traffic signal applications. This is anticipated to be approximately six years (50,000 hours). Incandescent traffic signal lamps are rated at 10,000 hours (1.14 years).

The LED modules are very efficient and have reduced electrical consumption at the City maintained signalized intersections by over 50%. Additional savings will be realized with installation of the remaining amber colored LED modules. The modules have a five year warranty and we have had very few failures.

The City of Long Beach recently awarded a contract to JTB Supply Company for the purchase of Dialight LED traffic signal modules. This contract is available for use by other public agencies to receive the same unit pricing (although on a smaller scale than the City of Long Beach) and we are requesting Your Honorable Body to approve this purchase based on the cooperative purchase language of the Torrance Municipal Code.

The Torrance Municipal Code, "SECTION 22.3.15. EXCEPTION; COOPERATIVE PURCHASES", states

a) The provisions of the Article shall not apply to purchases made pursuant to any cooperative governmental purchase program, which purchases shall be made in accordance with such procedures and regulations as shall be established by the City Manager.

b) For the purposes of this Section, the term cooperative governmental purchase program shall mean any combination between the City of Torrance and any other public agency or public agencies for the joint purchase of property or services.

Respectfully submitted,

ROBERT J. BESTE
Public Works Director

By John Drakodaidis
Sr. Administrative Analyst

CONCUR:

Steven Cooper
Street Operations Manager

Robert J. Beste
Public Works Director

LeRoy J. Jackson
City Manager