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# CITY OF LOS ANGELES

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BUREAU OF  
ENGINEERING

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May 5, 2014

The Honorable Joe Buscaino, Chair  
Public Works and Gang Reduction Committee  
Los Angeles City Council

c/o Michael Espinosa  
City Clerk  
City Hall, Room 395

## **COUNCIL FILE: 13-0865 - FIRST STREET BRIDGE OVER FIGUEROA STREET / IMPROVEMENTS OR REPLACEMENT / FUNDING AVAILABILITY**

Dear Councilmember Buscaino and Honorable Members:

### **RECOMMENDATION**

Allocate \$15,000 in the FY 2014-15 Capital Improvement Expenditure Program (CIEP) to perform a study to provide measurements of noise and vibration experienced by residents living near the First Street Bridge over Figueroa Street. Based on the results of the noise and vibration study, determine if it is necessary to seek a grant to replace the bridge at an estimated project cost of \$15 to \$20 million.

### **DISCUSSION**

The First Street Bridge over Figueroa Street is located in the northwestern edge of the downtown Civic Center area and carries approximately 30,000 daily vehicle trips of mainly commuter traffic. In 1998, the bridge was retrofitted with seismic base isolators to resist major seismic activity since the bridge has no abutments. At that time it was cost prohibitive to replace the bridge. However, the seismic isolators require the use of large metal expansion joints which have created a noise and vibration issue for nearby residents when vehicles drive over the joints.

The Bureau of Engineering and the Bureau of Street Services have implemented several noise mitigation measures over the past years, and although some have



provided temporary relief from the noise, none of them have been successful in adequately addressing the issue for more than a short period of time.

In 2010, a Request for Physical Plant Project Financing (Form 38C) was submitted to the CAO in the amount of \$980,000 to replace the existing joints with another type of seismic expansion joint system. This request was denied since there was no guarantee that the noise associated with the joint could be permanently eliminated, even with the new joint system.

The Bureau of Engineering is of the opinion that the only means of guaranteeing complete elimination of the noise associated with the expansion joints is to replace the existing bridge with a concrete ductile frame bridge at an estimated project cost of \$15 to \$20 million. An initial review of the sufficiency rating and structural condition suggests a medium to high likelihood that a Federal Highway Bridge Program Grant could be secured. Such a grant would require a City matching contribution of approximately \$2 to \$3 million, which would have to be identified.

However, before moving forward with applying for the grant and committing the local matching funds, we recommend performing a noise and vibration study to determine the extent and severity of the noise and vibrations created by traffic traveling over the joints. By measuring and quantifying the noise and vibration levels against established City and Federal standards, the Bureau will have a better basis on which to craft our recommendations. At that time, the Bureau will also provide a more detailed Class O cost estimate.

If you have any questions, please contact Steven Chen of my staff at (213) 485-4516.

Sincerely,



Deborah Weintraub, AIA, LEED<sub>AP</sub>  
Interim City Engineer

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cc: Miguel Vargas, Council District 1  
Ron Olive, Street Services  
David Harano, Chief Administrative Officer's Office  
Maria Souza-Rountree, Chief Legislative Analyst's Office  
Shailesh Patel, Bureau of Engineering  
Richard Liu, Bureau of Engineering