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February 8, 2019

The Honorable London N. Breed
Mayor, City of San Francisco
City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

The Honorable Libby Schaaf
Mayor, City of Oakland
City Hall
1 Frank H. Ogawa Plaza
Oakland, CA 94612

RE: Transbay Transit Center Peer Review

Dear Mayor Breed and Mayor Schaaf:

I write you to provide the fourth update on the scope and progress of the work of the Peer Review Panel (PRP) assembled by MTC to review the cause and repair of fractured girders at the Transbay Transit Center.

The scope and status of the following reviews is summarized below:

1. Shoring capacity: Complete
2. Sampling and testing plan: Complete
3. Cause of failure: In progress
4. Other areas impacted by the steel fractures: In progress
5. Repair solution: In progress

The PRP concurs with the initial hypothesis on the cause of failure as based on the analysis of material test results: that the fractures were caused by the combination of specific material properties, existence of an initiating crack, and stress in the girder. LPI, Inc., a consultant of the Transbay Joint Powers Authority (TJPA), is currently performing finite element and fracture mechanics analyses to validate the initial hypothesis and provide further detail on the relative influence of the contributing factors.

TJPA's engineer of record, Thornton Tomasetti, has developed a repair that bolts new plates across the fractured surfaces of the two girders over Fremont Street. In addition, enough similarities exist between the condition of those girders and two girders over First Street that the TJPA plans to retrofit the First Street girders in a similar manner. The PRP concurs with this plan and with LPI and Thornton Tomasetti's assessment that the cause of failure is understood with enough certainty to proceed with the repairs. TJPA has ordered the materials and expects to receive them on site by March.

The PRP recommended and the TJPA project team has initiated a search through construction documents for other locations at the facility that might have the same combination of factors that contributed to the girder fractures. Thornton Tomasetti will

Mayor Breed and Mayor Schaaf
Page 2 of 2
February 8, 2018

develop a list of such locations susceptible to fracture, if they exist, and will then review existing project records and conduct visual inspections, if necessary, to determine if any additional repairs are needed. The PRP will review updates on this progress and provide recommendations. After the review of documents is complete and a list of susceptible locations identified, we expect TJPA will be better able to project when the Transit Center will reopen for public use.

As progress is made, we will continue to keep you updated. Please do not hesitate to contact me with any questions or concerns in the meantime.

Sincerely,



Steve Heminger
Executive Director

Cc:

Jake MacKenzie, Chair, Metropolitan Transportation Commission
Mohammad Nuru, Chair, Transbay Joint Powers Authority
Mark Zabaneh, Executive Director Transbay Joint Powers Authority
Ramakrishna Pochiraju, P.E. Executive Director of Planning & Engineering, AC Transit