State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Serious drought.
Help save water!

To: STRUCTURE POLICY BOARD
Deputy Division Chiefs
Division of Engineering Services

Date: November 3, 2016

From: THOMAS A. OSTROM
Deputy Division Chief
Structure Policy & Innovation
Division of Engineering Services

Subject: **UPDATE TO *MEMO TO DESIGNER (MTD) 20-15* LATERAL SPREADING ANALYSIS FOR NEW AND EXISTING BRIDGES**

This update covers the latest advances in the field of liquefaction/lateral spreading by improving the current practice of MTD 20-15 from a "force based" design to the Caltrans' preferred "deformation based" design. The conservative assumptions made in the current lateral spreading approach results in extensive and costly foundation retrofit work on existing bridges. The new MTD 20-15 is prepared in close cooperation with Geotechnical Services and it should result in more reasonable and focused designs for lateral spreading hazards. The Geotechnical Designer and the Bridge Designer will cooperate to estimate the lateral spreading hazard demand and the Bridge Designer will determine the foundation deformation capacity.

For questions or concerns on application to a specific project, consultants/local agencies should contact the Structure Liaison Engineer. Caltrans staff may contact Senior Bridge Engineer, Fadel Alameddine at (916) 227-8512.

c: Chief – Division of Design
Chief – Division of Local Assistance
Chief – Structure Maintenance and Investigation
Chief – Division of Engineering Services
Manual Editor—Structure Policy and Innovation