

# ZAP ENGINEERING QUALIFICATIONS AND CAPABILITIES

## REHABILITATION AND RETROFIT OF EXISTING STRUCTURES



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## Rehabilitation and Retrofit of Structures

### SUMMARY OF QUALIFICATIONS

The ZAP Structural Team routinely provides structural analysis for rehabilitation and retrofit of heavy industrial structures such as structural towers, platforms, equipment supports, pipe racks, silos, conveyors, etc. We excel at finding simple, cost-effective solutions to the complicated problems that arise while operating a facility. We understand that many of the required repairs need to be completed during a shutdown scenario, so we work closely with our Clients and Contractors to ensure our designs can be installed as expeditiously as possible.

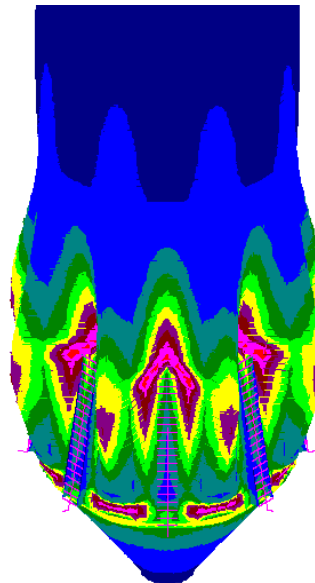
- ✓ Services
  - Retrofit of existing structure for new equipment
  - Structural failure analysis and repair design
  - Post-Earthquake Safety Evaluations and Rehabilitation
- ✓ Analysis
  - Complete inspection of facility to assess existing structure or full extent of damage
  - Detailed structural analysis of structures
- ✓ Retrofit per Authority Having Jurisdiction
  - International Building Code
  - State and Local Adopted Building Codes
  - OSHA/MSHA

#### Software Capabilities:

- ✓ RISA Suite
- ✓ L-PILE
- ✓ AutoCAD/Advance Steel
- ✓ Jetstream

#### Experience and Capabilities Include:

- ✓ Oil & Gas Facilities
- ✓ Mineral Processing Facilities
- ✓ Cement & Mining Facilities
- ✓ Chemical Processing Facilities
- ✓ Bulk Material Handling Plants and Terminals
- ✓ Any New or Existing Industrial or Manufacturing Facility!



#### Excellence in Execution

#### ZAP LEADERSHIP

CEO

*Steve Tzap, PE*

PRESIDENT

*Frank Lousberg, PE*

VP OF ENGINEERING

*James Allan, PE*

STRUCTURAL DIRECTOR

*Jackson Emnott, PE*

#### CONTACT DETAILS

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ZAP appreciates the opportunity to share our qualifications and capabilities with you and your team. Please do not hesitate to contact us if you have any questions or require additional information.

*Thank you!*