

SHELL LA MOTEMS



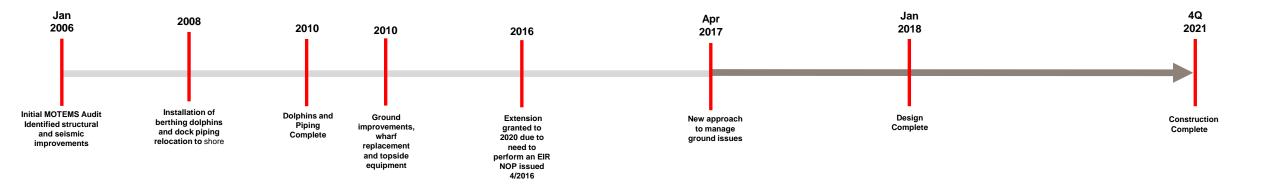
Shell LA MOTEMS Presentation Sequence

- Shell Mormon Island Tour
- MOTEMS Timeline
- Project Challenges
- Phased Project Execution
- Model Snap Shot

SHELL MORMON ISLAND TERMINAL



Shell Morman Island MOTEMS Project Timeline



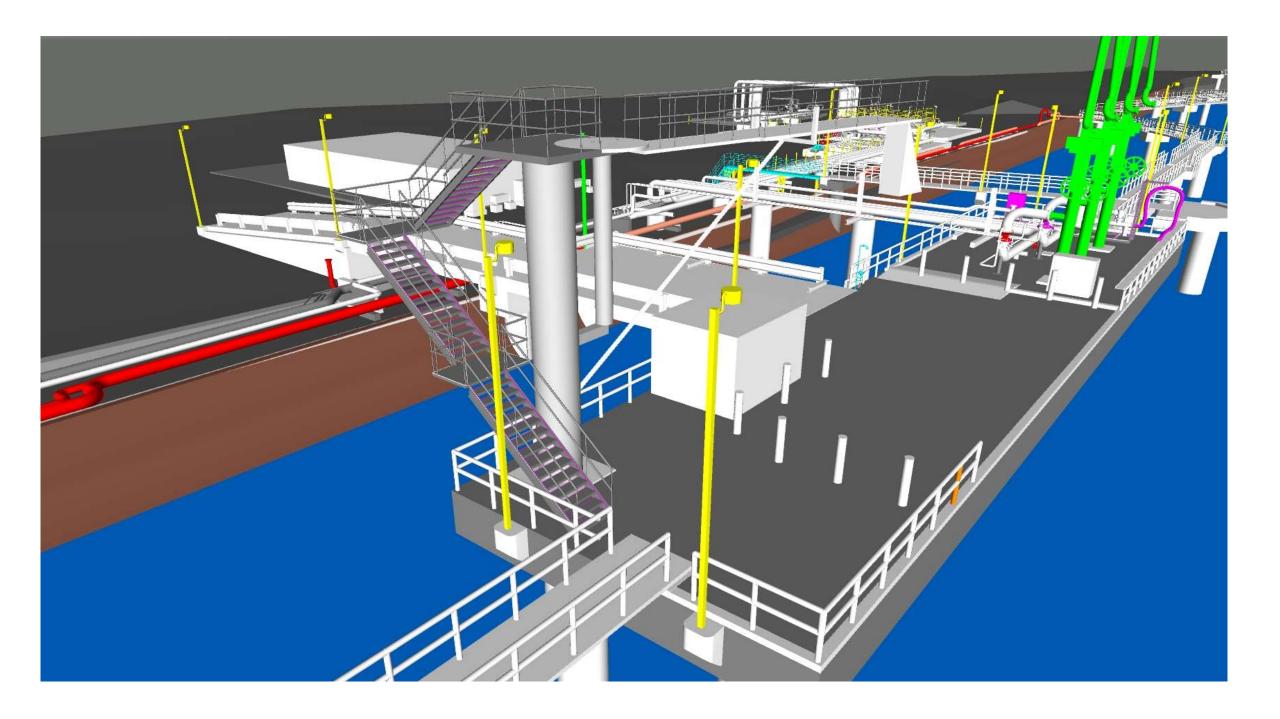


Project Challenges

- Future Uncertainty
- Significant Capital Investment
- Lack of benchmarks for these types of projects in the LA Basin
- Onerous CEQA process
- Design Parameters
 - Meeting the seismic stability
 - Fit for purpose design scope
 - Vessel Fleet turnover and wharf/mooring/berthing design
 - Phased construction –Shell and POLA executing separate projects and the need for continued operation during construction

Facilities to be Installed

- Jetty Platform- Concrete deck with steel piles
- 2 new mooring dolphins, revisions to a 3rd
- Catwalks for mooring access and jetty egress
- Marine Loading Arms
- Gangway Tower
- Dock House
- Product piping and a new shore side manifold supported on piles
- Dock Safety Unit (DSU) and vapor piping
- Utilities (firewater, power, plant air, potable water, oily water, propane)



THANK YOU

