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Revised:	May 13, 2014
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Terminal 5 Briefing

T-5 Modernization for Big Ships



T-46

T-18

T-30

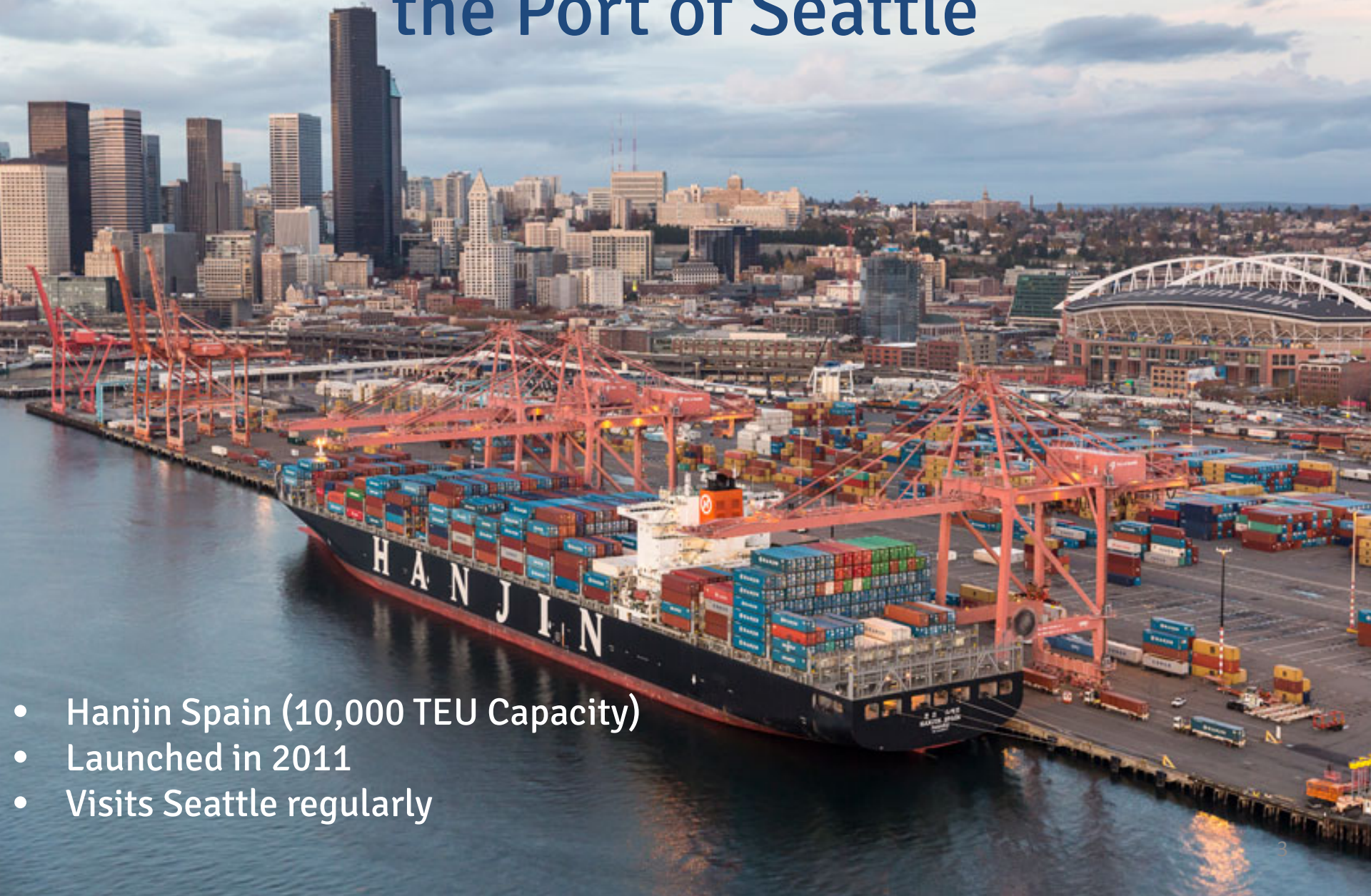
T-5

E. Marginal Way

Spokane Street Viaduct

W. Marginal Way

Bigger ships are starting to call at the Port of Seattle



- Hanjin Spain (10,000 TEU Capacity)
- Launched in 2011
- Visits Seattle regularly

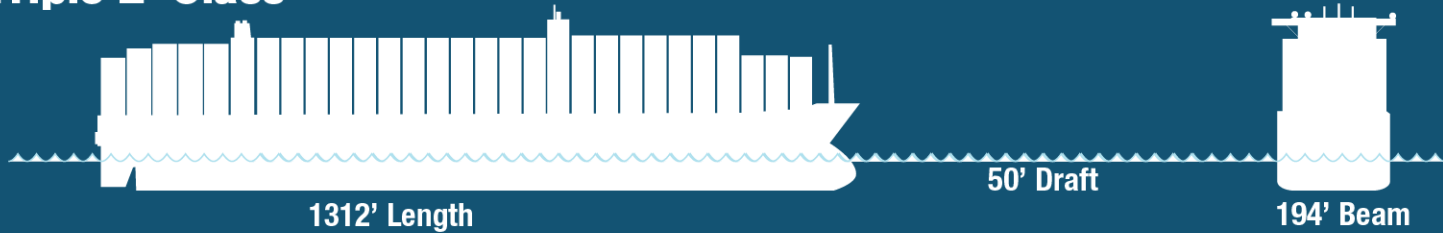
Biggest Ship: Triple-E Maersk

- Maersk EEE (18,000 TEU Capacity) entered service July 2013
- Economy of scale, energy efficiency and environmentally improved
- 20 ships ordered / 6 delivered



So how big is the EEE?

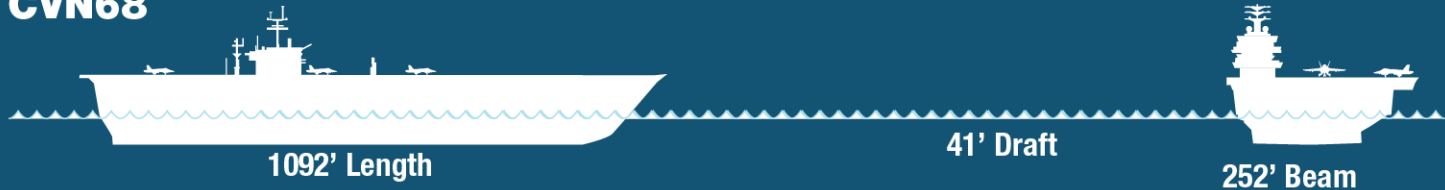
Maersk 'Triple E' Class



RMS Titanic



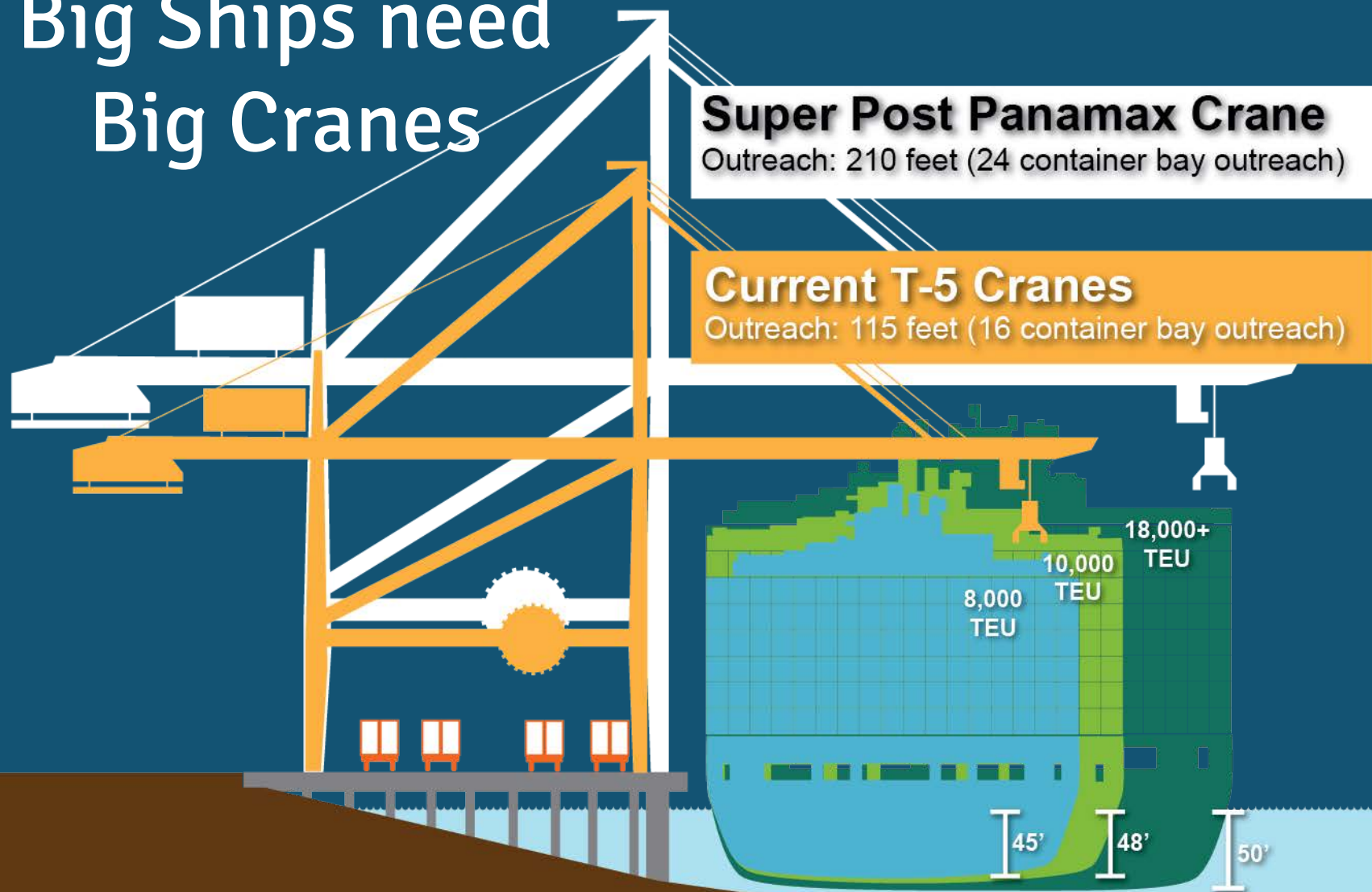
USS Nimitz CVN68



The Empire State Bld.



Big Ships need Big Cranes



Super Post Panamax Crane
Outreach: 210 feet (24 container bay outreach)

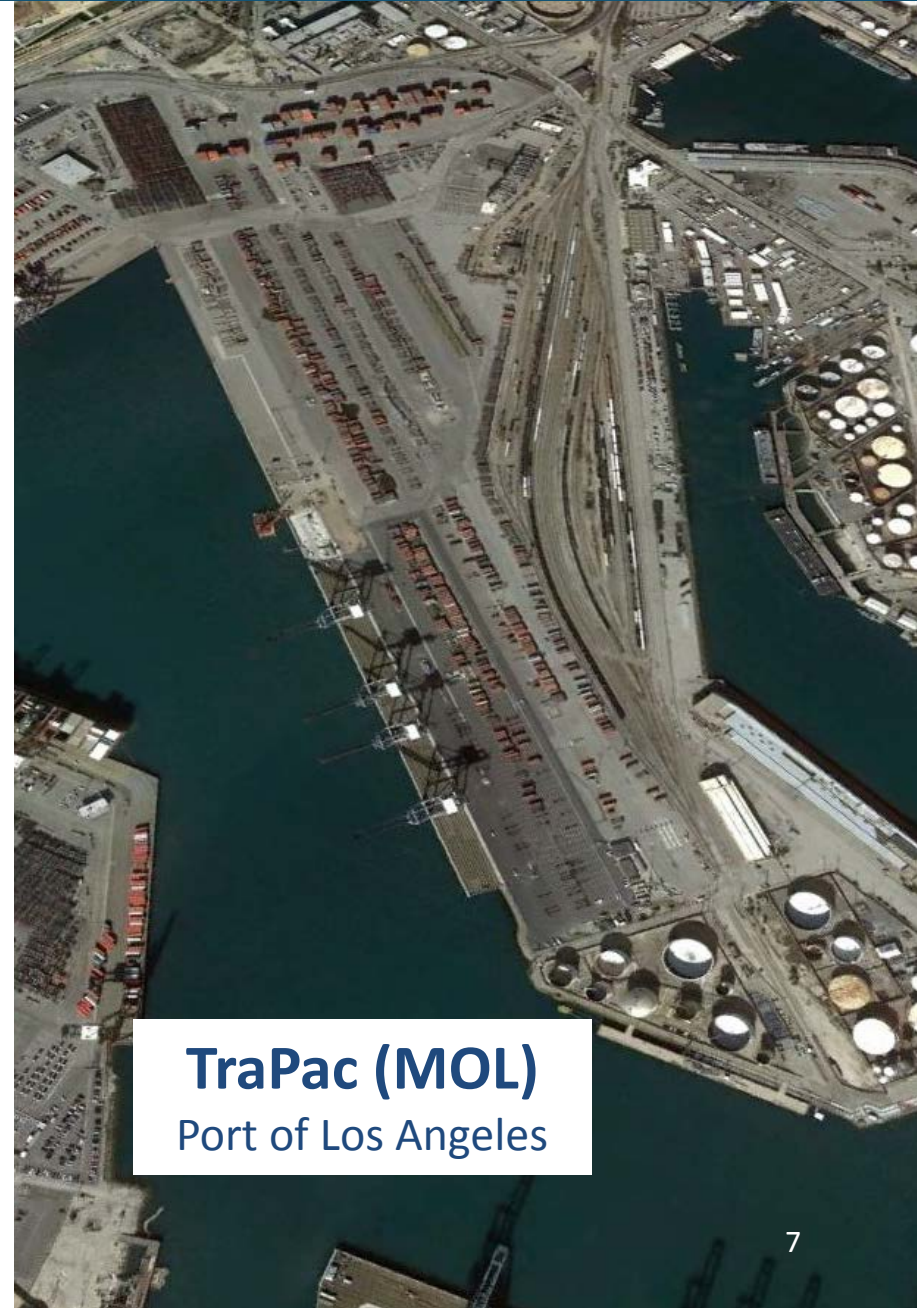
Current T-5 Cranes
Outreach: 115 feet (16 container bay outreach)

- Post-Panamax: 136' —
- Hanjin Spain: 150' —
- Maersk Triple "E": 193' —

Productivity and Automation for Big Ships



Middle Harbor (OOCL)
Port of Long Beach



TraPac (MOL)
Port of Los Angeles

Modernization Components for Big Ships

- Crane Rail
- Fender System
- Deck Panels
- Pile Caps
- Power
- Berth
- Permitting

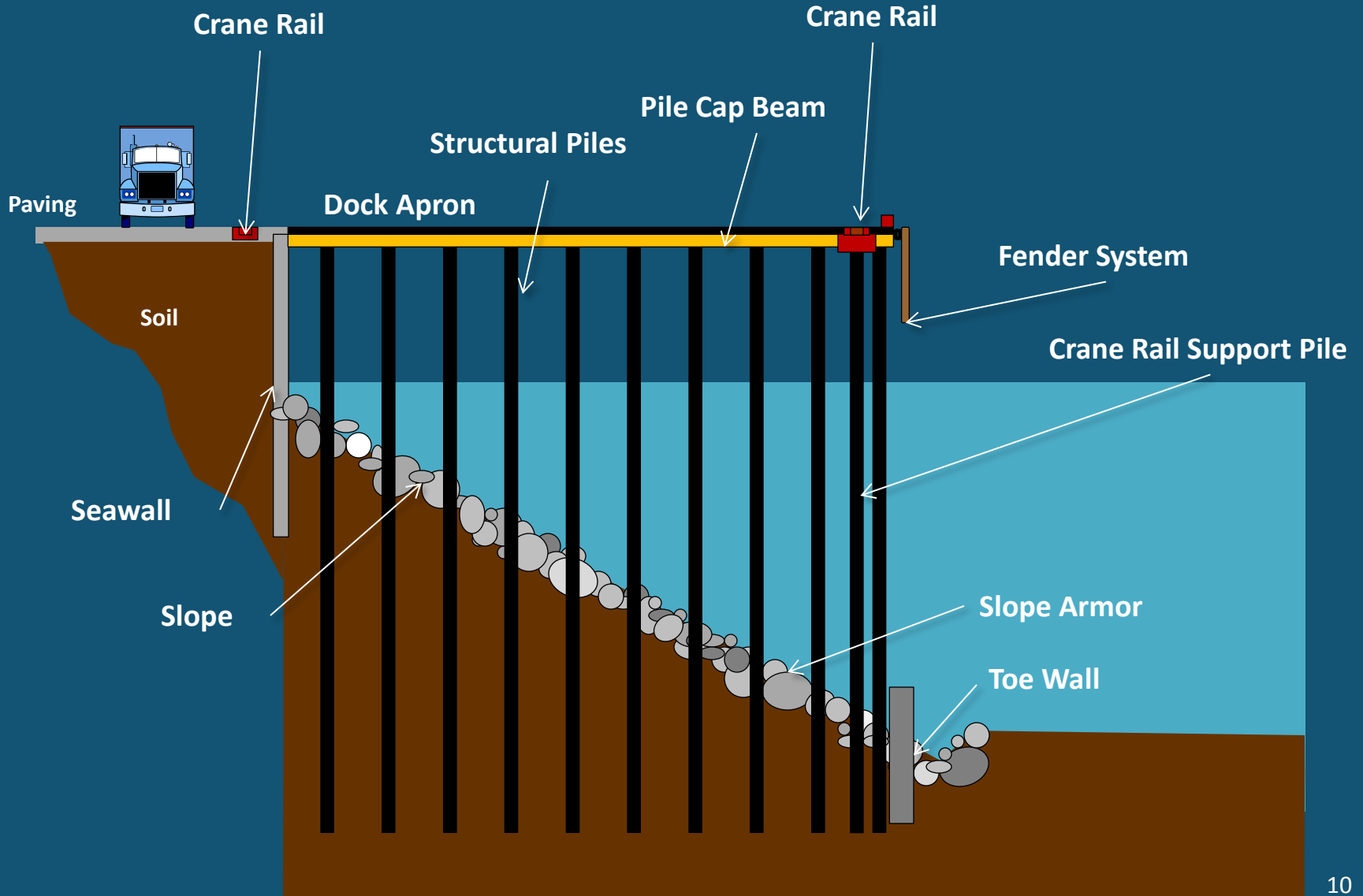


Dock
Strengthening

Berth
Deepening

Power
Upgrades

Dock System – Container Terminal



Pile Cap & Deck Panel Repairs for Big Ships

Before

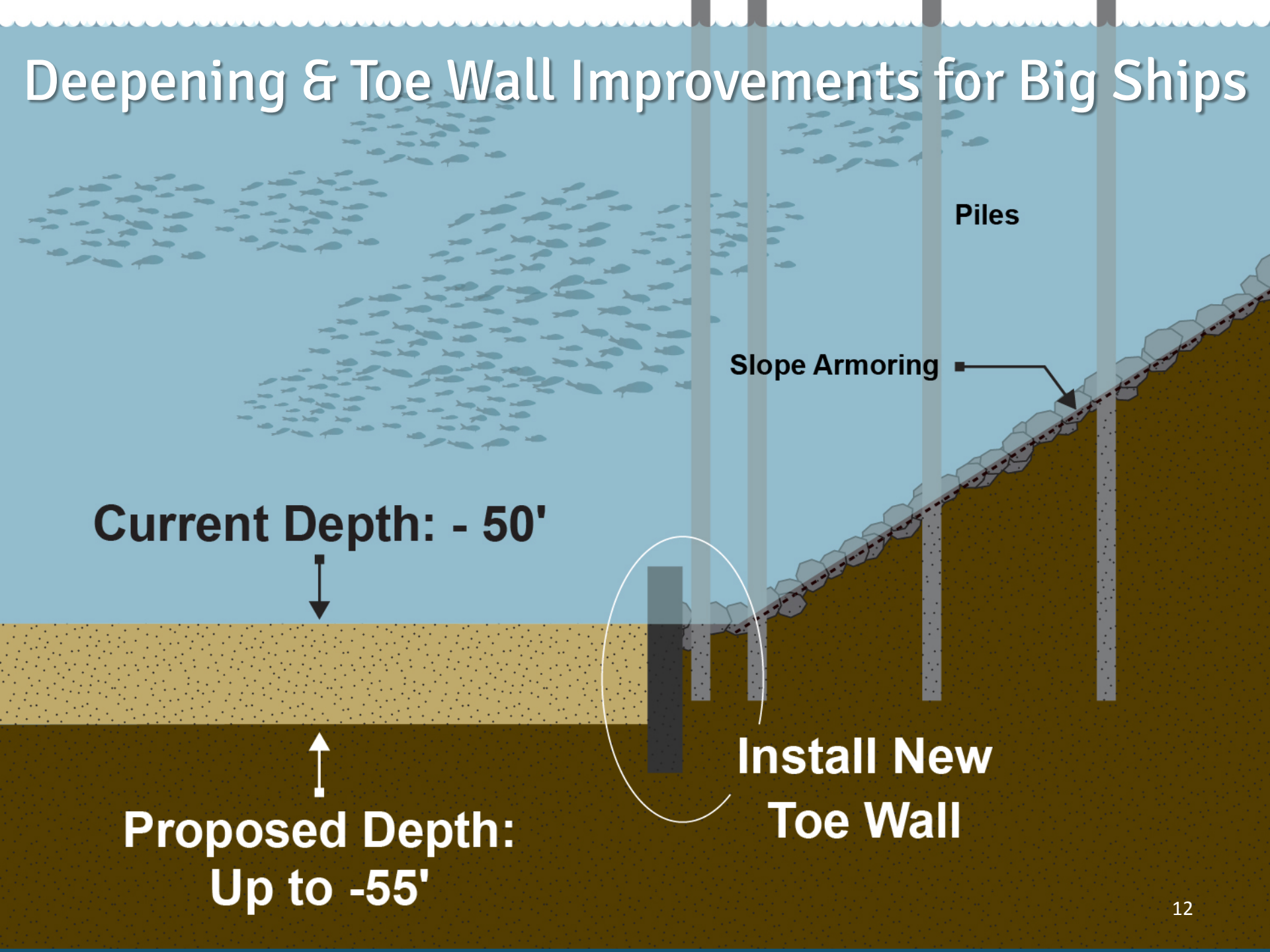


During



After

Deepening & Toe Wall Improvements for Big Ships



Piles

Slope Armoring

Current Depth: - 50'



Proposed Depth:
Up to -55'



Install New
Toe Wall



Power Upgrades for Big Ships

Terminal 5

Delridge Way SW

W Marginal Way SW



Possible trunk line upgrades



Seattle City Light
Delridge Substation

5 kV
Current Needs

15 kV
Future Needs
For new cranes

Permitting



Questions?

