



October 21, 2015

Delivery Strategy for the Anchorage Port Modernization Project

2015 AAPA Facilities Engineering Seminar

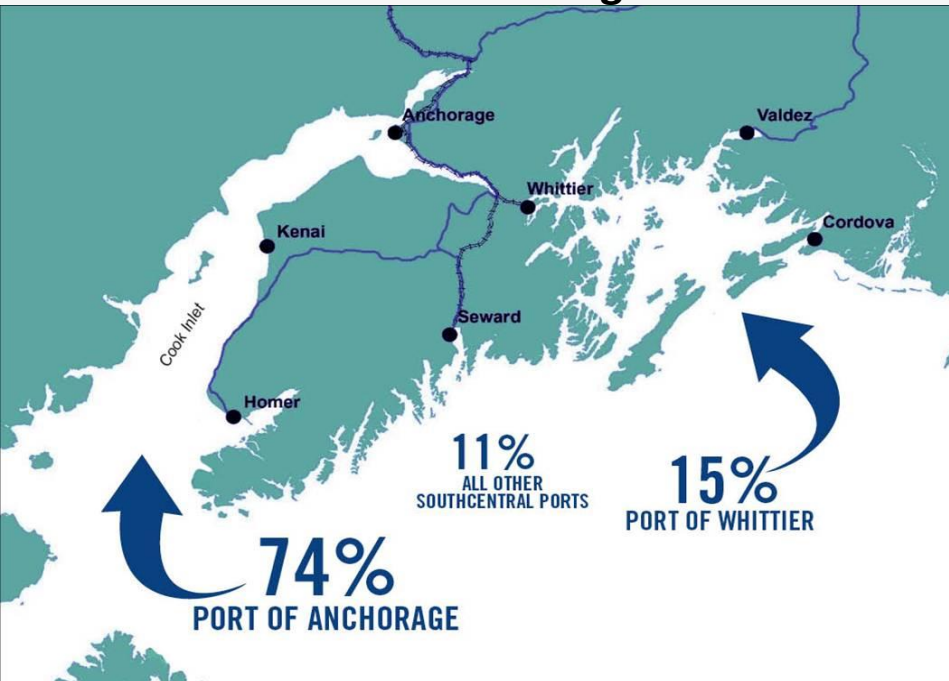
Presented by:
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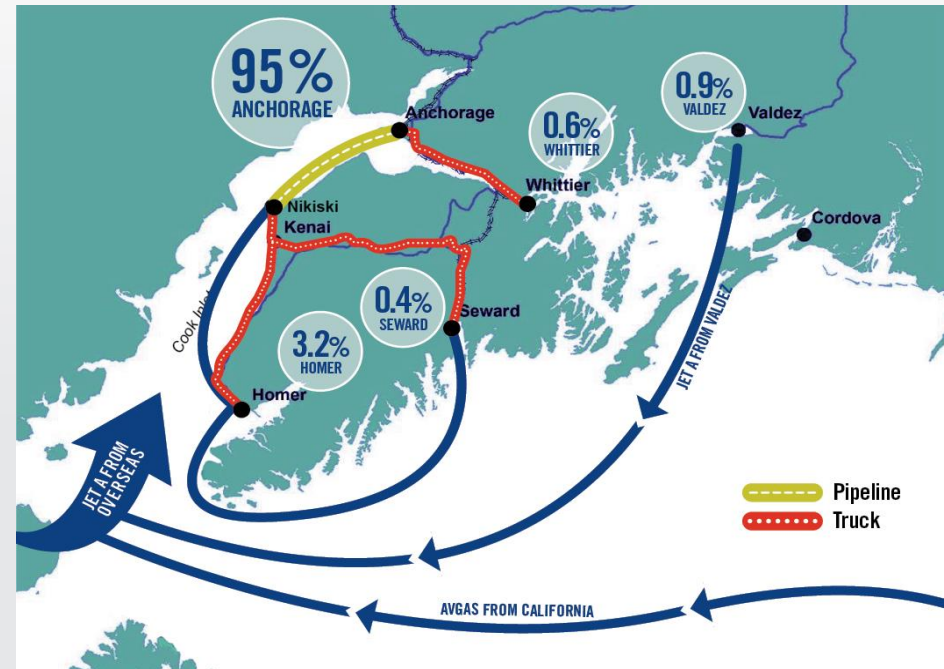
Port of Anchorage Overview

- Landlord Port / Department of the Municipality of Anchorage
- Cargo: Petroleum, Cement, Container, Project Cargo
- Critical to Alaska (~3.5M tons of cargo)
- Dept. of Defense Designated National Strategic Seaport

Southcentral In-Bound Freight Distribution



Southcentral Refined Petroleum Distribution



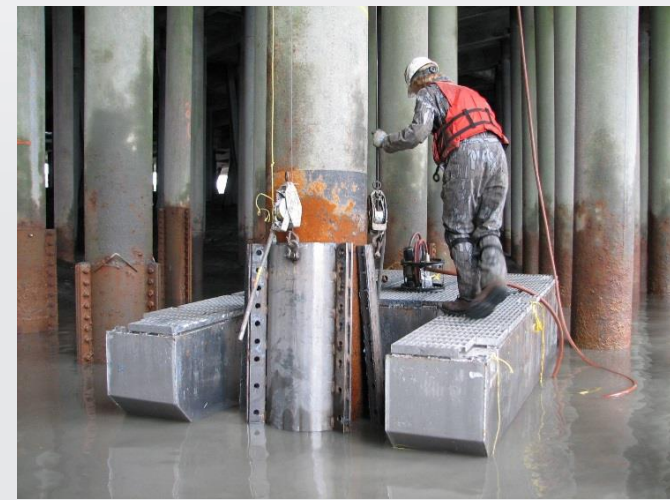
Conditions in the Knik Arm of Cook Inlet

- Over 29' average tide swing
- Tidal currents and eddies
- Ice flow and encasement
- Glacial sediment
- Endangered Beluga Whales



Existing Wharf Pile Conditions as of 2014

| Terminal/POL | Age (years) | Min. Thickness Observed | Percent Loss |
|----------------|-------------|-------------------------|--------------|
| Terminal 1 | 54 | 0.15" | 67% |
| POL Terminal 1 | 50 | 0.15" | 67% |
| Terminal 2 | 46 (avg) | 0.20" | 55% |
| Terminal 3 | 40 (avg) | 0.18" | 59% |
| POL Terminal 2 | 20 | 0.13" | 71% |





Port of Anchorage Overview





Project Team, Goals & Constraints

Project Team

- Owner: Municipality of Anchorage / Port of Anchorage
- PM/CM: CH2M-HDR

Project Goals

- Replace T2 & T3
 - Minimize investment in the North Extension
- Provide modern, safe, and efficient port facilities
- Provide for future growth
 - Support larger vessels
 - Allow for deeper draft (*-45' berth depth*)

Operational Constraint: Keep Cargo Moving

- Keep one POL terminal in operation at all times
- Keep existing container terminals operating until new terminals are complete
- Must complete both container terminals once started

Funding Constraints

- \$130M Initially Available



Project Stakeholders

- Municipality of Anchorage (*MOA*)
 - Geotechnical Advisory Commission (*GAC*)
- Port of Anchorage (*POA*)
- Totem Ocean Trailer Express (*TOTE*)
- Horizon Lines (now Matson)
- ABI Cement
- Cook Inlet Tug & Barge
- Southwest Alaska Pilots Association
- US Army Corps of Engineers Alaska District (*USACE*)
- CH2M/HDR Project Team



**US Army Corps
of Engineers**
Alaska District



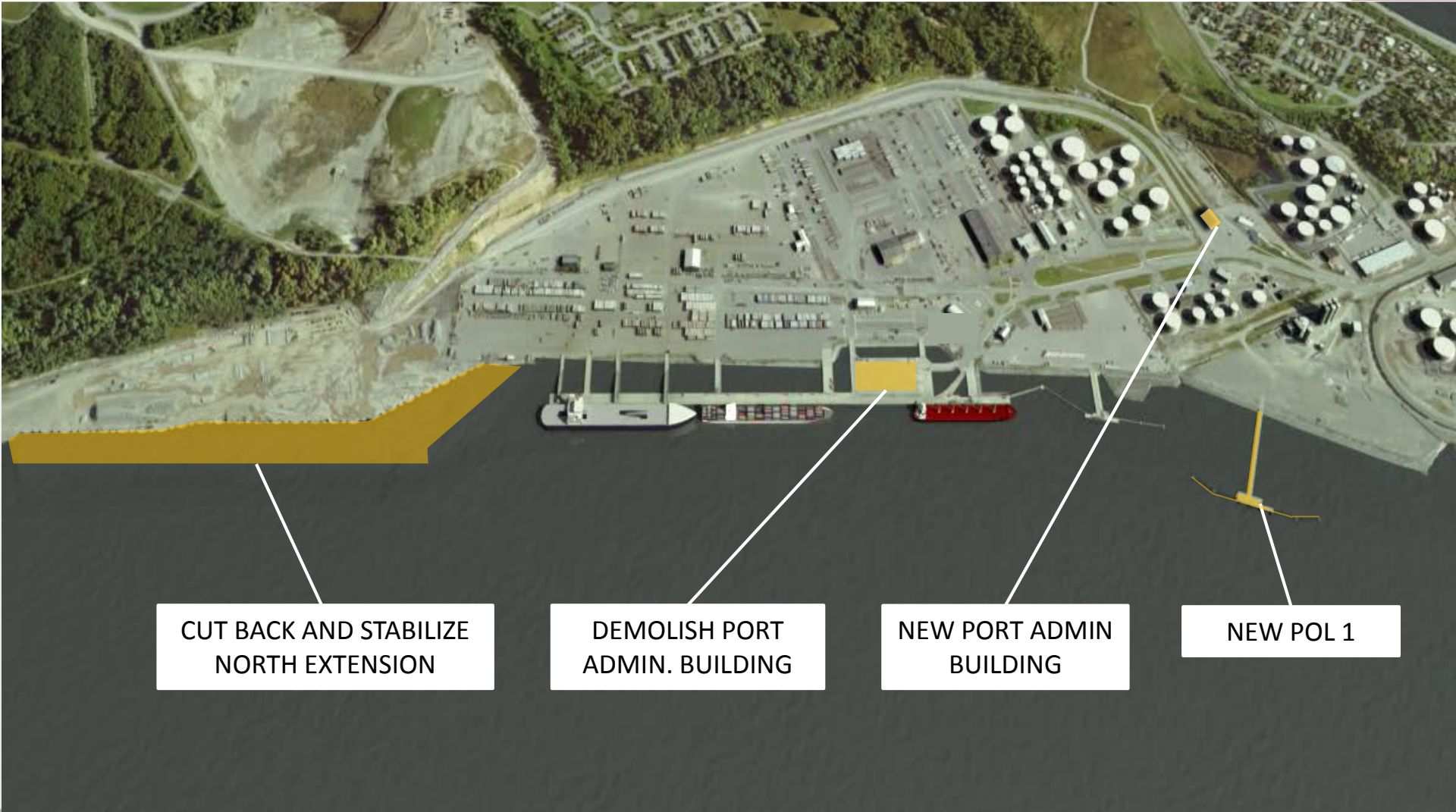


Anchorage Port Modernization Project - Overview





PHASE 1



CUT BACK AND STABILIZE
NORTH EXTENSION

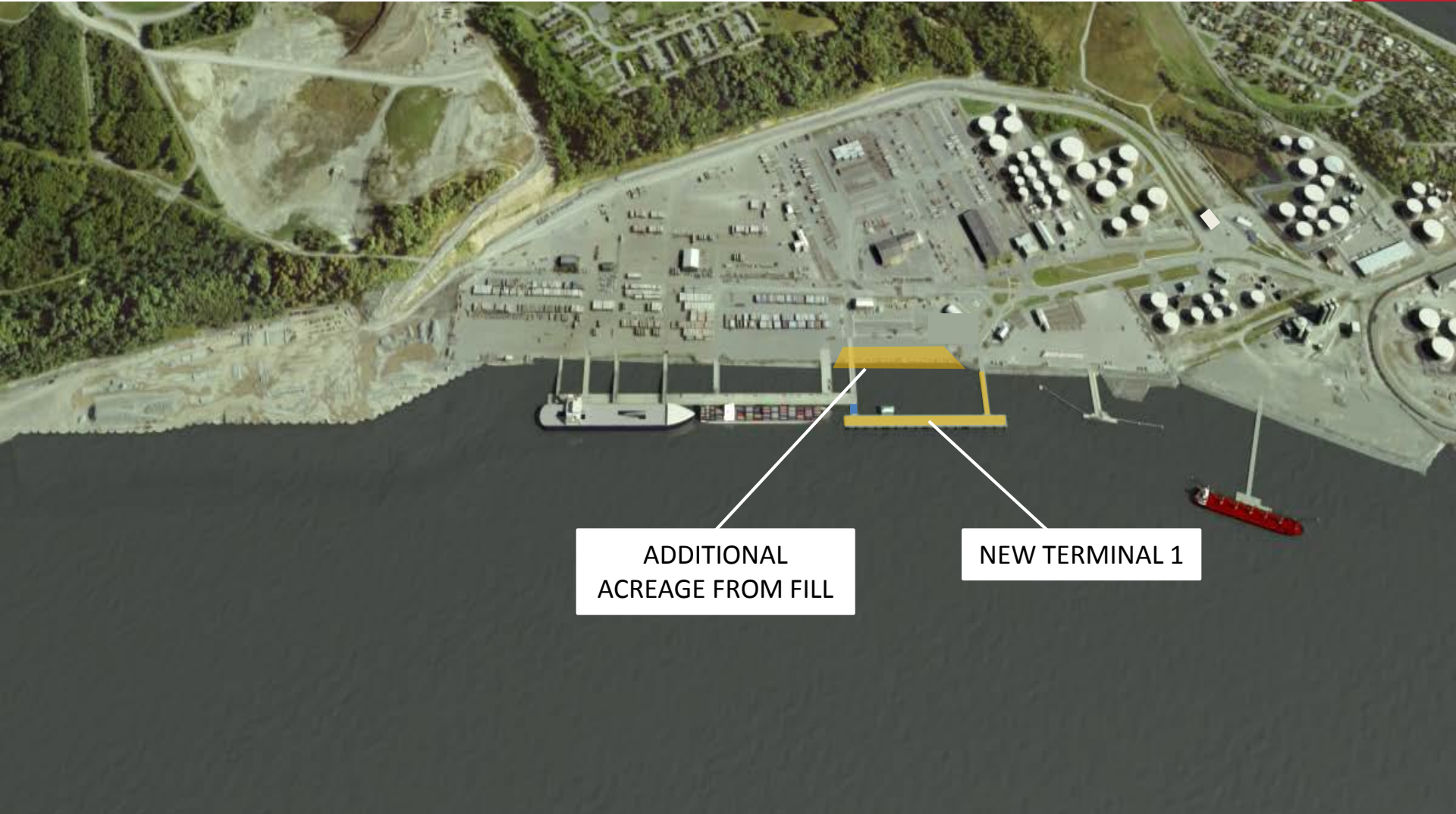
DEMOLISH PORT
ADMIN. BUILDING

NEW PORT ADMIN
BUILDING

NEW POL 1



PHASE 2



ADDITIONAL
ACREAGE FROM FILL

NEW TERMINAL 1



PHASE 3



NEW TERMINAL 2 WITH
TEMPORARY TRESTLES



PHASE 4





PHASE 5





PHASE 6



NEW POL 2



Anchorage Port Modernization Project - Complete





APMP Delivery Strategy

Replace Port Administration Bldg → Design-Build

- Have sufficient funding for both design & construction
- Programming has been completed
- Building requirements are not specialized
- Seeking rapid delivery



APMP Delivery Strategy

Replace Marine Terminals → Design-Bid-Build

- Sufficient funding available to perform design, but not construction
- Concept design has been completed
- Executing test pile program to reduce design risk
 - Collecting additional geotechnical data
 - Confirming pile structural performance and constructability
 - Collecting acoustic information and testing in-water noise mitigation measures to facilitate permitting
- Owner controlled design process best ensures stakeholder requirements are met
- Planning two design teams
 - Container Terminals
 - POL Terminals



APMP Delivery Strategy

Stabilize North Extension → Progressive Design-Build

- Concept design has been completed
- Seeking early builder involvement to arrive at GMP
- Project can be scaled to available funding
- Risks are primarily means & methods driven and best managed by the builder
- Design is conventional



Before



After



Questions?

Thank You!

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