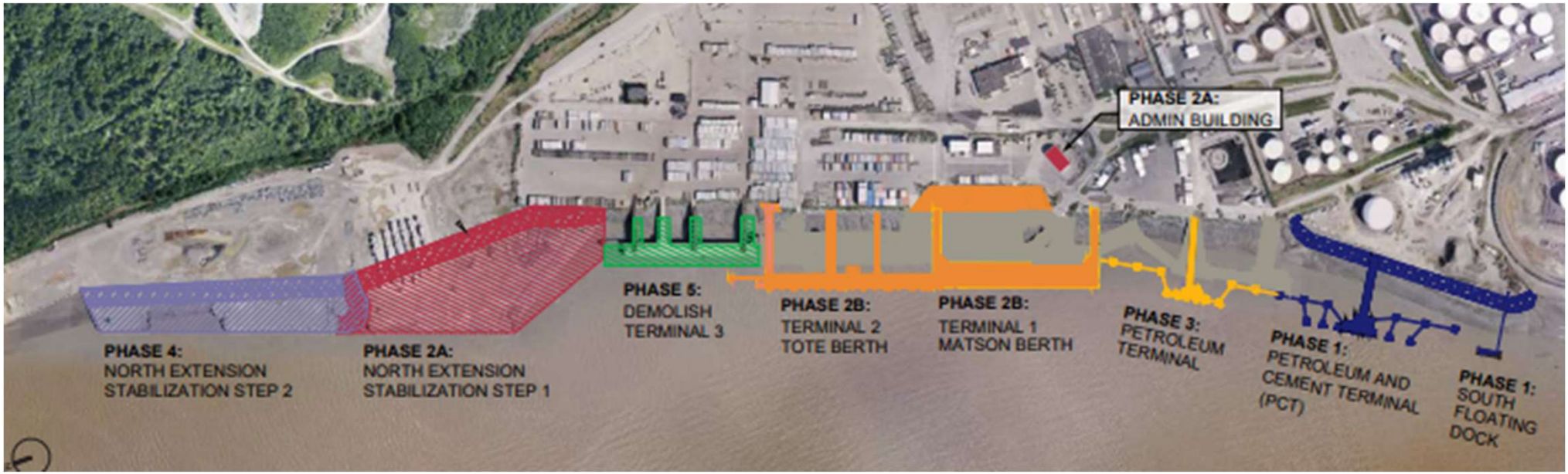
APP Conference

John Daley PE PAMP Engineering Manager

January 25, 2024

Port of Alaska - Anchorage

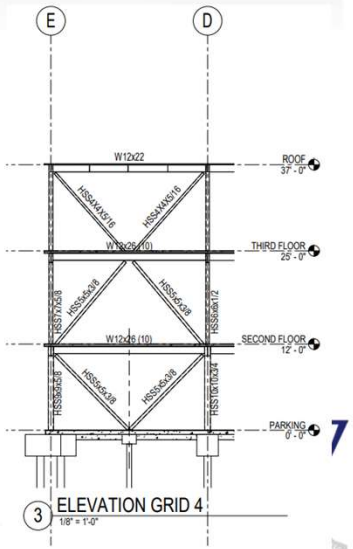
Modernization Program



PHASE 1 PCT complete

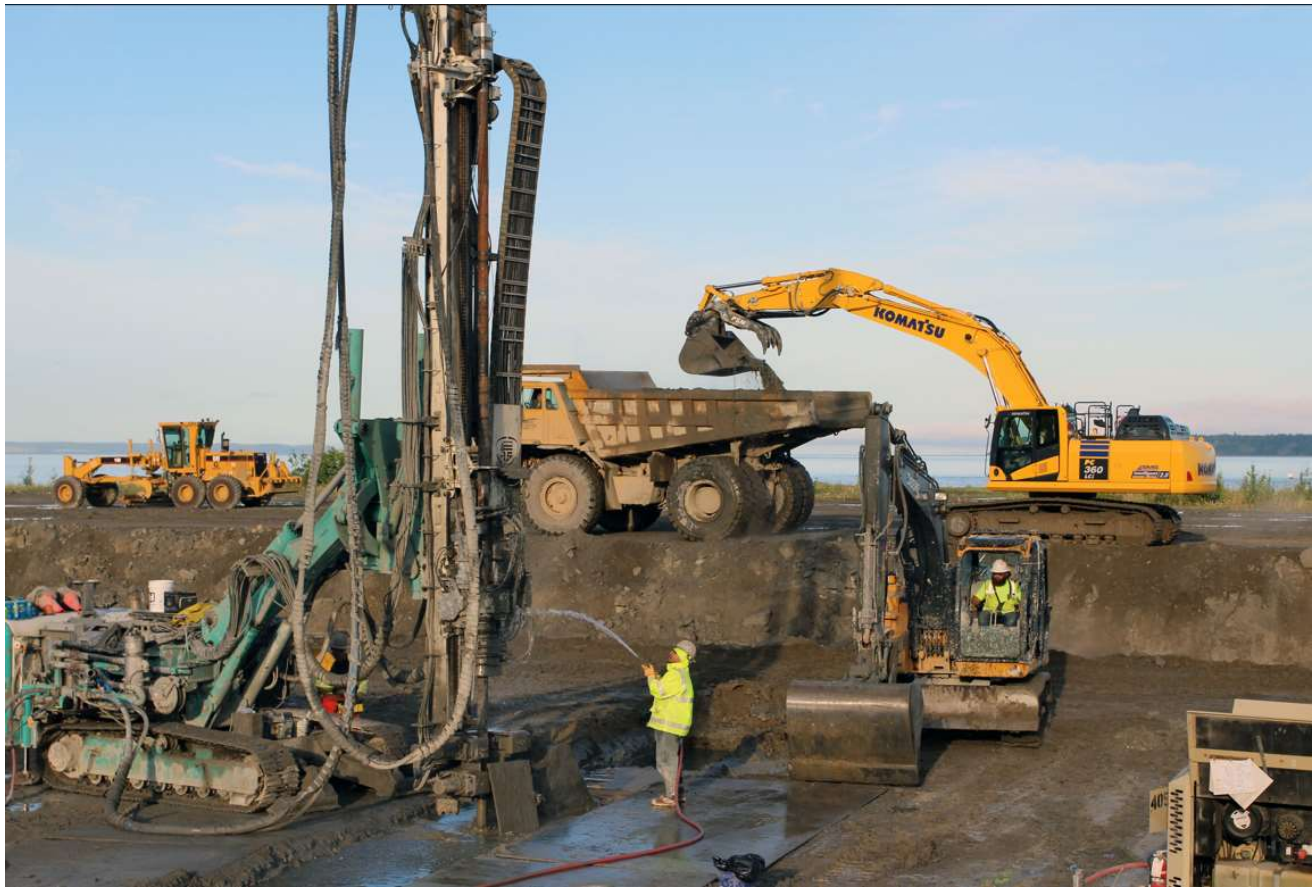
New Administration Building- April 2024?

- Design-Build Contract
- Contract value: $10 million
- Construction completion: April of 2024
- Prime contractor: STG Pacific
- Concentrically braced frame on pile foundation

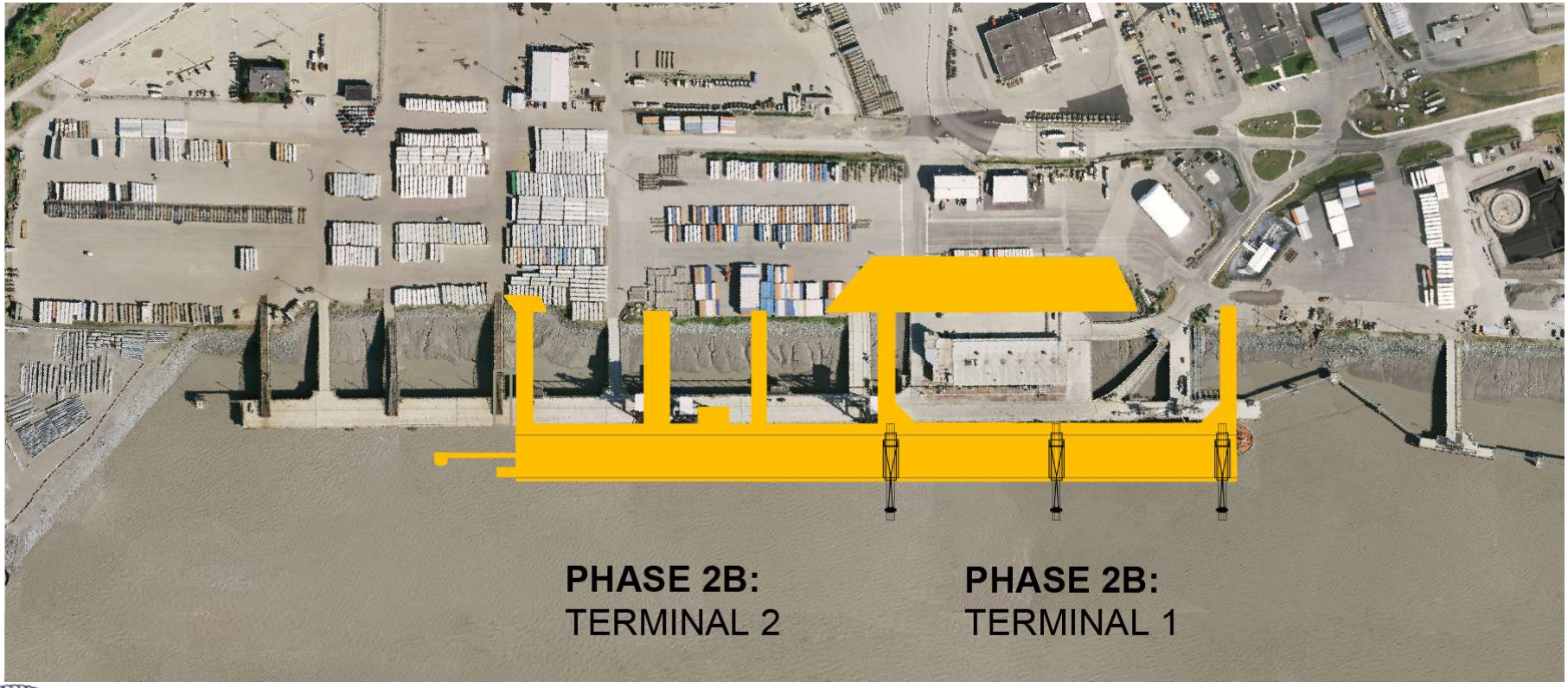


North Extension Stabilization Step 1 (NES1)

North Extension Stabilization - Jet Grout



Phase 2B new Cargo Terminals



Basic Steps

- Masterplan that incudes market forecast and infrastructure needs. Drivers include:
  - Fleet and vessel sizes.
  - New technology including electrification
- Preliminary design and cost estimate - 6 months.
- Permitting - 1 to 2 years? NEPA?
- Develop funding and cash flow requirements.
- Grant application(s)- 1 year?
- Final design - 9 months
- Bidding and contracting- 3 months
- Construction – 1 to 2 years
- Commissioning and close out – 6 months

Easily 5 years from planning to completion!

Lessons Learned

- Grant applications need to be strategic
  - Be somewhat vague so that scope can be slightly malleable (provide a new container terminal dock)
  - Being too specific can cause issues (provide a new dock 900’-6” long by 11’-8” wide and 34’ 6” deep at the face)
- NEPA is required for and prior to most Federal funding.
  - Authorized pre-agreement costs
  - This may affect cash flow for engineering and permitting.
- Most Federal funding is reimbursable so the initial financing must be done by the owner
  - TIFIA Loan
- Grant management is a project within the project.

Lessons Learned

- Grant agreement should be budgeted at a major asset as opposed to minor component level.
  - Asset: Petroleum Cement Terminal
  - Components
    - Loading platform
    - Mooring and berthing dolphins
    - Fendering system
    - Cathodic protection system
    - Petroleum piping
    - Cement offloading system

Component 1.1: Mooring and Berthing Dolphins Eligible Costs	
PIDP Funds:	$1,071,658
BUILD Funds:	$10,176,896
Local Funds (Port of Alaska (POA)):	$6,634,685
Total:	$17,883,239

Component 1.2: Fendering System Eligible Costs	
PIDP Funds:	$917,518
BUILD Funds:	$9,840,074
Local Funds (POA):	$6,345,102
Total:	$17,102,694

Component 1.3: Induced Current Cathodic Protection System Eligible Costs	
PIDP Funds:	$497,625
BUILD Funds:	$4,983,030
Local Funds (POA):	$3,270,375
Total:	$8,751,030

Component 1.4: Petroleum Offloading System/Port of Alaska Valve Yard (POAVY) Eligible Costs	
PIDP Funds:	$10,354,679
Local Funds (POA):	$6,107,450
Total:	$16,462,129

Can this be moved?

Lessons Learned

- Having an approved masterplan can save significant re-work.
  - If you are still arguing about the basic details in final design, you are in trouble.
  - Having the core stakeholders on board will save significant re-work.
- Plan for a long project which may be completed by staff members not currently working on it.
  - Clear records are critical – project controls.
- Waterfront cost estimates are notoriously difficult and can be unreliable.
- Marine foundation work (pile driving etc) is notoriously difficult and change orders are common.

Thank You