



Darwin Ship Lift

Local Industry Forum - 14 December 2020



Forum Agenda

- NTG procurement process and current status
- The BESIX Watpac story
- Ship Lift Project overview
- Composition of the Northern Lift consortium
- Introduce consortium team members present
- Outline opportunities for subcontractors and suppliers - work package/trade information including materials and quantities
- Consortium Targets and Opportunities – Indigenous and Training
- Questions from the floor before we break for networking
- Attendees can meet particular team members present and ask questions specific to their businesses
- Refreshments available

NTG Procurement Process

One of five shortlisted consortia for the Darwin Ship Lift Project

Stage 1 - Expressions of Interest (EOI)

Complete

Stage 2 - Request for Proposal (RFP)

About to commence.

Further details relating to project teams, commercial arrangements, capability, past performance, local development and participation plans and the proposed delivery model. Respondents will also be required to submit a pricing proposal.

NTG will select up to two preferred respondents to participate in a competitive design development stage.

Stage 3 - Request for Detailed Design (RFDD)

During this stage the final two respondents may be required to prepare detailed designs and final costings, specifications, project plans and risk assessments.

- Leading Australian multi-disciplinary construction company
- A wholly owned subsidiary of the award-winning international contractor BESIX Group
- Specialise in complex construction
- Together with Watpac's four decades of trusted experience and partnerships, we bring the best of the world's capability together
- BESIX Group - more than \$7.6B work in hand, 25 countries, 15,000 staff
- The world's tallest tower, the iconic Burj Khalifa, showcases our innovation and engineering distinction.
- BESIX Watpac – Short Video



Burj Khalifa

Northern Lift Consortium



Led by BESIX Watpac with complementary expertise of our consultants and specialist contractor:

- **Aurecon** – Onshore designer
- **Royal Haskoning DHV (RHDHV)** - Offshore designer
- **FSG Geotechnics and Foundations (FSG)** - Piling design
- Specialist Contractor - **Brady Marine and Civil** - Offshore structures

Consortium Team Members Present

- **BESIX Watpac**

- › James Alley – National Indigenous Affairs Manager
- › Mark Dixon – Submission Manager
- › Tim Lyne – National Training Manager
- › Alex Smith – National External Relations Manager
- › Michael Schaumburg – Bid Director

- **Aurecon**

- › Alex Hatzivalsamis
- › Kevan Blake

- **Royal Haskoning DHV**

- › Kevin Watte



Darwin Ship Lift Project Overview

What is a Ship Lift?



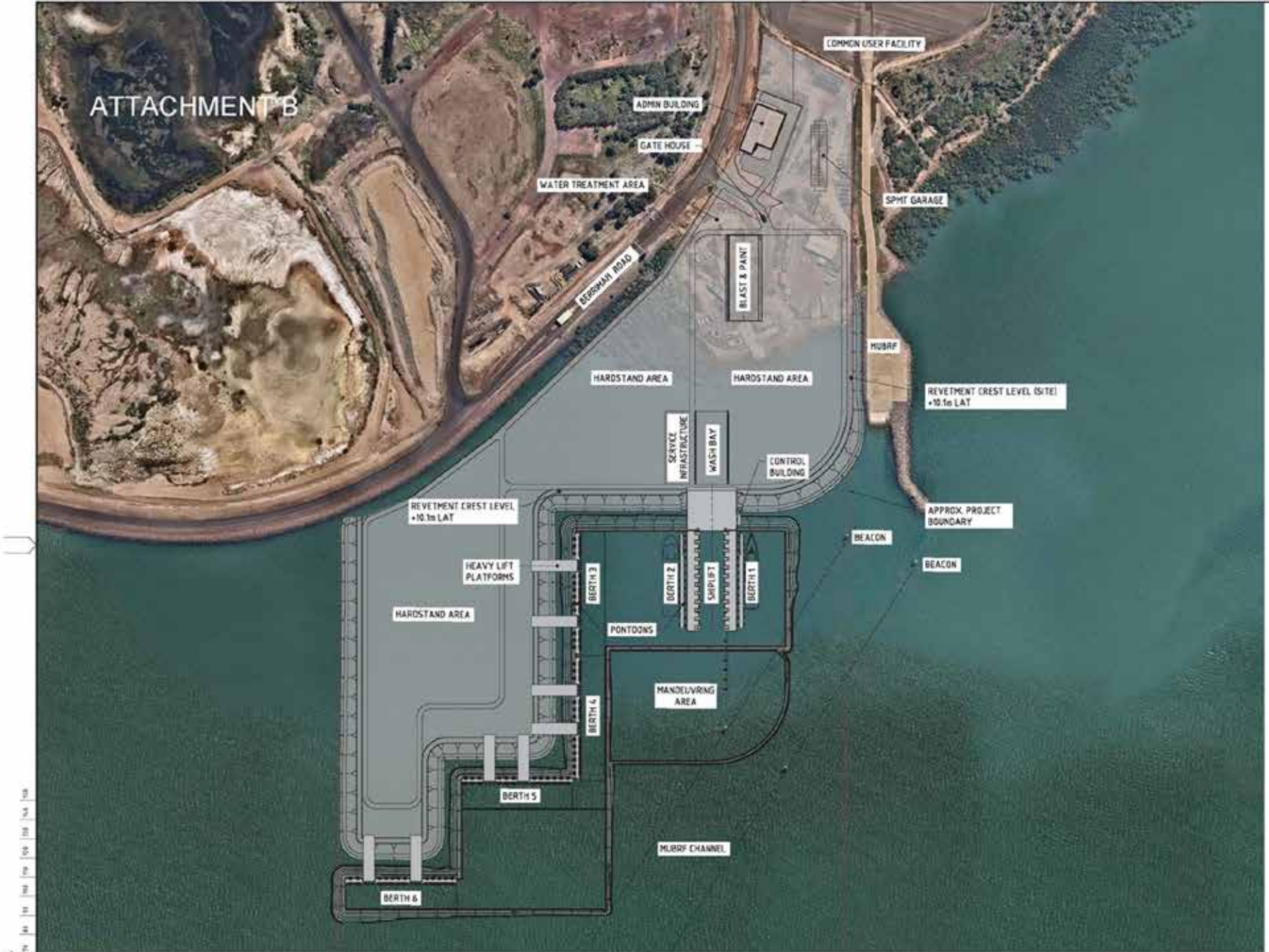
What are SPMT's?



Project Locality



Facility Layout



NT Govt Objectives

NT Govt Headlines

- A \$400M project to drive local industry, create local jobs
- Further advance Darwin's position as a hub for marine maintenance and servicing.
- Vessel Servicing capability - offshore petroleum, fishing, pearling, defence and Border Force vessels.
- Create 100 jobs - construction phase
- 400 long-term (operational) jobs plus \$260M in additional economic activity each year.
- Intended that Paspaley Group will operate and maintain the facility.
- Common user facility, enable vessel owners to choose and manage their own service and maintenance providers.

High Level Project Scope

———— Total Works Area - 15 ha (approx.)

The common user ship lift facility will include:

- A ship lift 26m wide, 103m long and 6m deep
 - Lifting capability of 5,000 tonnes
 - Self Propelled Modular Transportation (SPMT) vessel transfer system
 - Six wet berths (wharves)
 - 15 ha of hard stand area for ship repair and maintenance works.
 - Vessel wash bay
 - Site services and utilities
 - Security infrastructure
- Ancillary facilities including:
 - Administration building
 - Ship Lift control room
 - SPMT Storage facility
 - Blast and Paint facility
 - Access channel and dredged manoeuvring areas and berth pockets
 - Quay structures

Packaging

- Detailed design
 - Dredging and reclamation
 - Marine civil works
 - Marine armour protection supply and/or installation
 - Marine mechanical assets supply and/or installation
 - Land side civil works, infrastructure and surfacing
 - Security and utilities
 - Corrosion protection systems
- Equipment
 - § SPMT
 - § Ship lift mechanics
 - § Ship lift platform
 - § Trestles
 - § Navigation Aids

Approximate Component Details

Steel Fabrication

- **Ship Lift Platform**
 - › 100m long x 26m wide
 - › 2.5m deep
 - › 1,200T
 - › Decking – 350T
 - › Cradle/Trestles – 350T
- **Pontoon Units**
 - › 6 wet berths
 - › 90m long each berth
 - › Width – at least 6m
 - › Depth of unit – 2.0 to 2.5m
- **Pontoon Gangways**
 - › 14 gangways in total
 - › Berths 1 and 2 - 1 per berth
 - › Berths 3 to 6 - 3 per berth

Approximate Component Details

Steel Piles

- **Pontoon Locating Piles**
 - › 72 piles - 800mm dia
 - › 6 wet berths
 - › 12 piles per berth
- **Finger Wharves Approach**
 - › 36 piles - 800mm dia
 - › 6 piles per bent
 - › 6 bents
- **Finger Piers**
 - › 72 piles – 800mm dia
 - › 3 piles per bent
 - › 12 bents
 - › 2 piers
- **Heavy Lift Platforms**
 - › 192 piles
 - › 8 platforms
 - › 50m long
 - › 12m wide
 - › 3 piles per bent
 - › 8 bents

Approximate Component Details

Concrete – Cast insitu or combination of cast insitu and precast

- **Finger Pier Approach**
 - › 50m long x 40m wide
 - › Assume 0.5m deep
 - › 1,000m³
- **Finger Piers**
 - › 2 piers
 - › 110m long x 12 m wide
 - › Assume 0.5m deep
 - › 1,320m³
- **Heavy Lift Platforms**
 - › 8 platforms
 - › 50m long x 12 m wide
 - › Assume 0.5m deep
 - › 2,400m³
- **Headstocks**
 - › Various

Approximate Component Details

Dredging, Bund Wall and Reclamation

- **Dredging**
 - › Surface Area – 120,000m²
 - › Soft Material – 190,000m³
 - › Hard Material – 350,000m³
- **Bund Wall**
 - › Length – 1,450m
 - › Core Material – 330,000m³
 - › Rock Revetment – 48,000m³
- **Reclamation**
 - › 800,000m³
- **Pavement**
 - › The reclamation volume includes the hard stand pavement which will be > 500mm in a number of layers.

Approximate Component Details

Miscellaneous

- **Ship Lift**
 - › 24 Winches
 - › 300T to 400T Capacity
- **SPMT**
 - › 40T – 60T+ axle load
 - › Trains, power packs axles etc all vary
- **Buildings**
 - › Admin
 - › SPMT garage
 - › Control room
 - › Vessel maintenance
 - › Vessel Painting
- **Services**
 - › Ship Lift - Mech/Elec
 - › Lighting
 - › Comms
 - › Security
- **Civil Structures**
 - › Drainage
 - › Washdown areas
 - › Waste collection

Questions from Attendees

