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# South Bank Quay

TVCA Overview and Scrutiny Committee Meeting  
12 January 2023

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# Contents

## Presentation coverage:

- Project need
- Project scope
- Dredging requirements
- Licences and consents
- Timelines
- Project status



Project Need

# Use of the quay and commercial opportunities

- Intended for use by the offshore wind industry for the staging of wind farm components in the short to medium term
- Vessels used are very large, dredging is therefore an essential part of the project to enable access and create a sufficiently deep berth



- Large amount of interest in the project from the offshore wind industry
- Ongoing discussions regarding several major business opportunities

# SeAH Wind

- £400million monopile manufacturing facility
- 1.13million sq ft facility – the biggest of its kind in the world
- Manufacturing 100 -150 monopiles each year
- Monopiles up to 15 metres in diameter, 120m long, weighing up to 3000 tonnes
- Located at South Bank, requiring use of a twin-berth deep-water quay
- Construction commenced July 2022, completes 2024
- 750 direct jobs, with a further 1,500 jobs in the supply chain



# Project Scope

# South Bank Quay Phase 1



# Organisations Involved

## Project Delivery Team



Global Construction Project Management Consultants



Pre-eminent Global Engineering Consultant in Marine Industry



Trans Atlantic specialists in Construction Contract Law



UK's pre-eminent planning and development consultancy

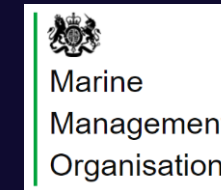


Highly experienced UK Contractor, with a specialism in large scale marine projects



Multi-discipline engineering consultant, specialising in marine projects

## Key Organisations



# Project Overview

- 450m long quay – providing a twin berth facility for large vessels
- 23m quay wall height
- Dredge depth -15.6mCD
- 14m water depth at low tide
- Approx. £100m construction value
- Operational quay required by July 2024
- Construction completes December 2023
- Operational infrastructure installed by March 2024

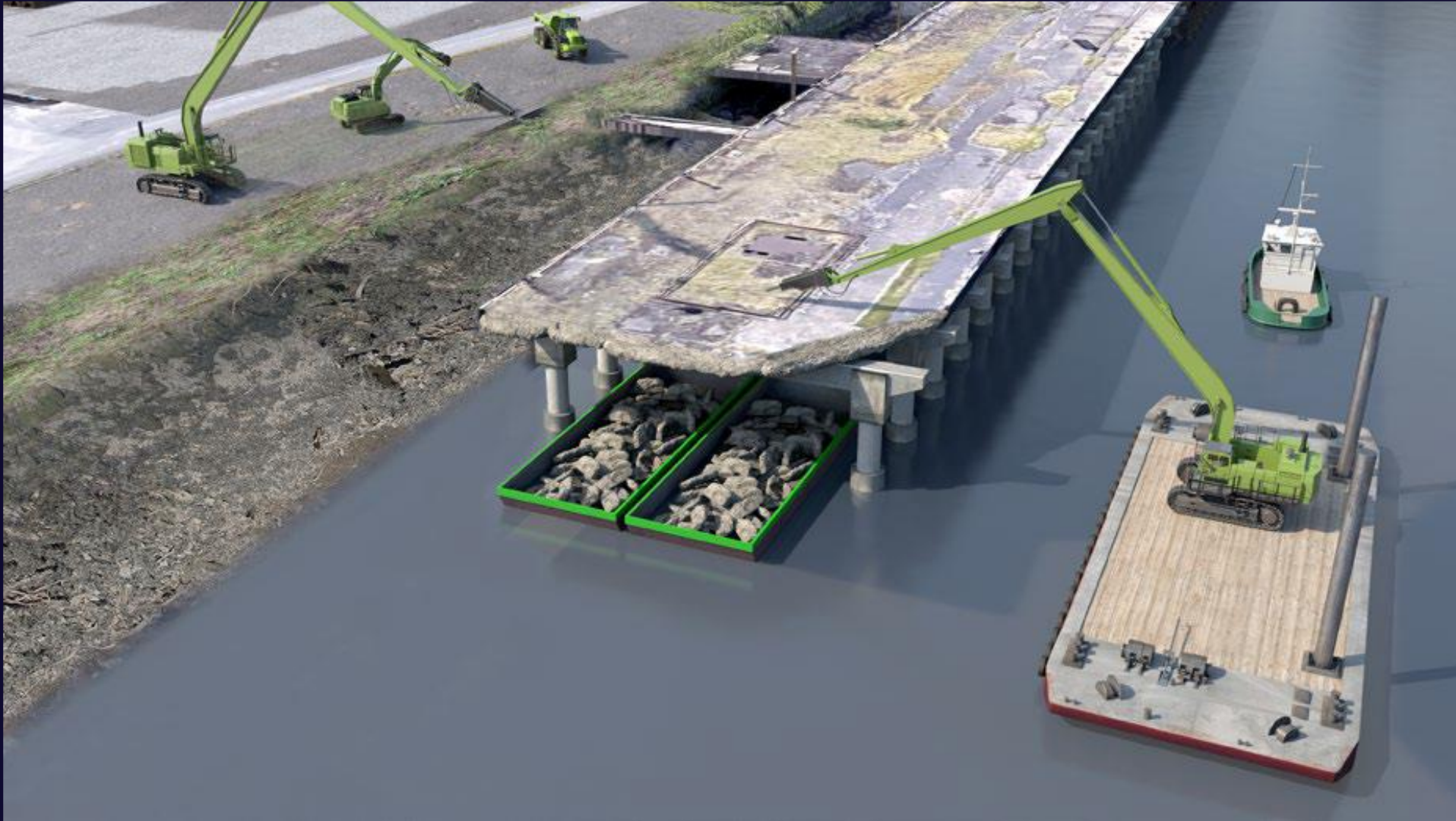


# Project Elements

- Demolition of redundant wharves and jetties
- Construction of a steel combi-pile quay wall
- Tie rod and anchor wall installation
- Concrete capping beam
- Heavy lift platform (30 tonnes per sq m)
- Concrete pavement (10 tonnes per sq m)
- Dredging
- Installation of fenders and bollards
- Mechanical and electrical Installations



# Demolition



# Quay Wall Construction (#1)



# Quay Wall Construction (#2)



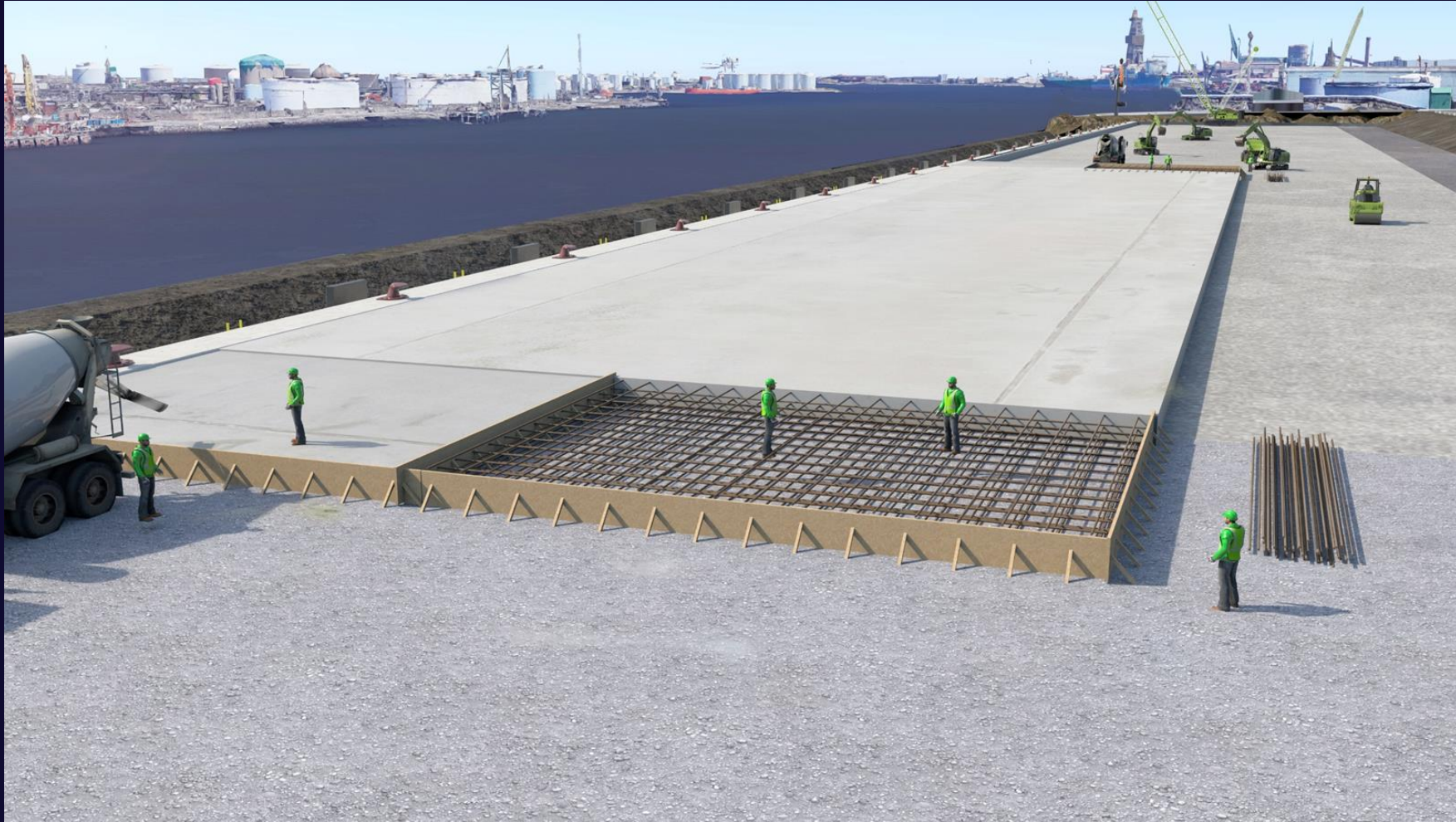
# Anchor Wall Construction



# Heavy Lift Platform Construction



# Concrete pavement works



# Dredging Requirements



# Dredging

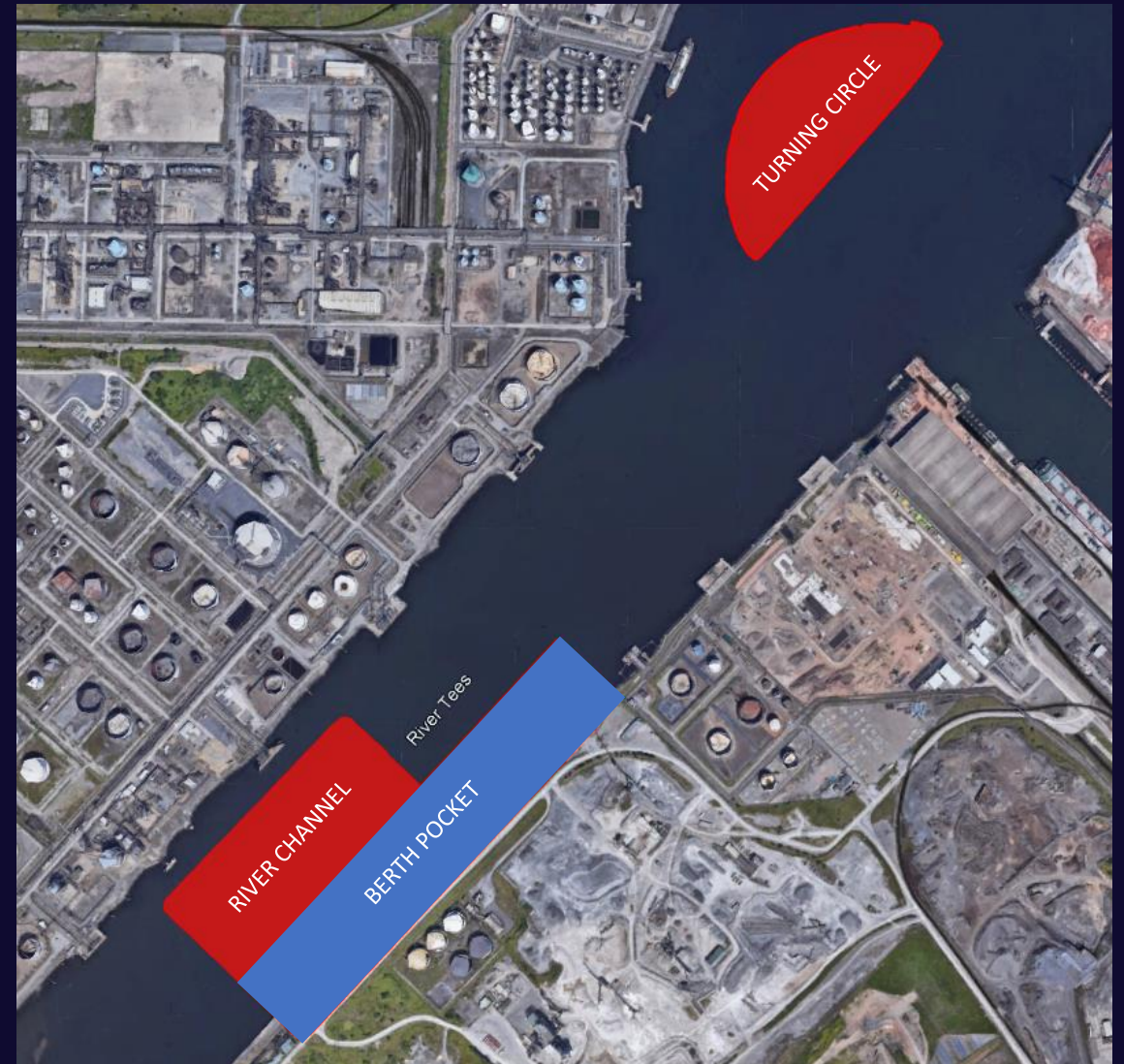
## Two types of dredging.....

- MAINTENANCE Dredging - the routine dredging of harbours, rivers and estuaries to remove deposits of material which build up over time as the result of natural marine processes and maintain navigational clearances
- **CAPITAL Dredging** - dredging to a depth not previously dredged, generally, for new facilities and to deepen berths and channels
- South Bank Quay requires **CAPITAL Dredging** in three areas of the River Tees:
  - Turning Circle
  - River Channel
  - Berth Pocket

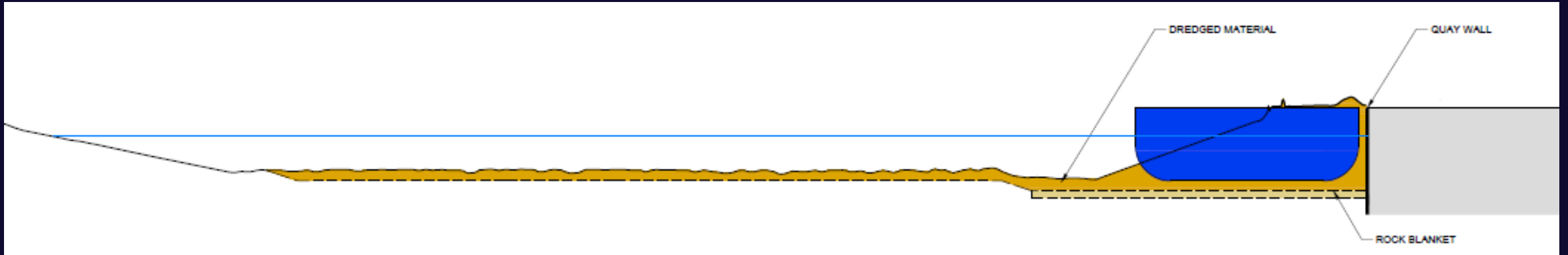


# Requirement for Dredging

- River Channel and Turning Circle 
- Berth Pocket 
- The River Channel and Turning Circle dredging is required for safe navigation and to support vessel manoeuvrability during berthing
- The depth will be consistent with the adjacent areas of the river channel and will be maintained at -10.4m CD



# Requirement for Dredging



- Berth Pocket dredging is required to enable vessels to come alongside the quay
- The Berth Pocket dredge depth is designed to accommodate
  - Vessel draft
  - Underkeel clearance
  - Rock blanket
  - Siltation over time
- The Berth Pocket width is designed to accommodate
  - Vessel beam (width)
  - Transverse loading of the offshore wind components

# Licences, Consents and Timelines

# Marine Works – Licences and Consents

South Bank Quay required a Marine Licence for the following activities:

- Demolition of redundant wharves and jetties
- Dredging
- Disposal of dredged material
- Rock blanket installation
- Other construction activities

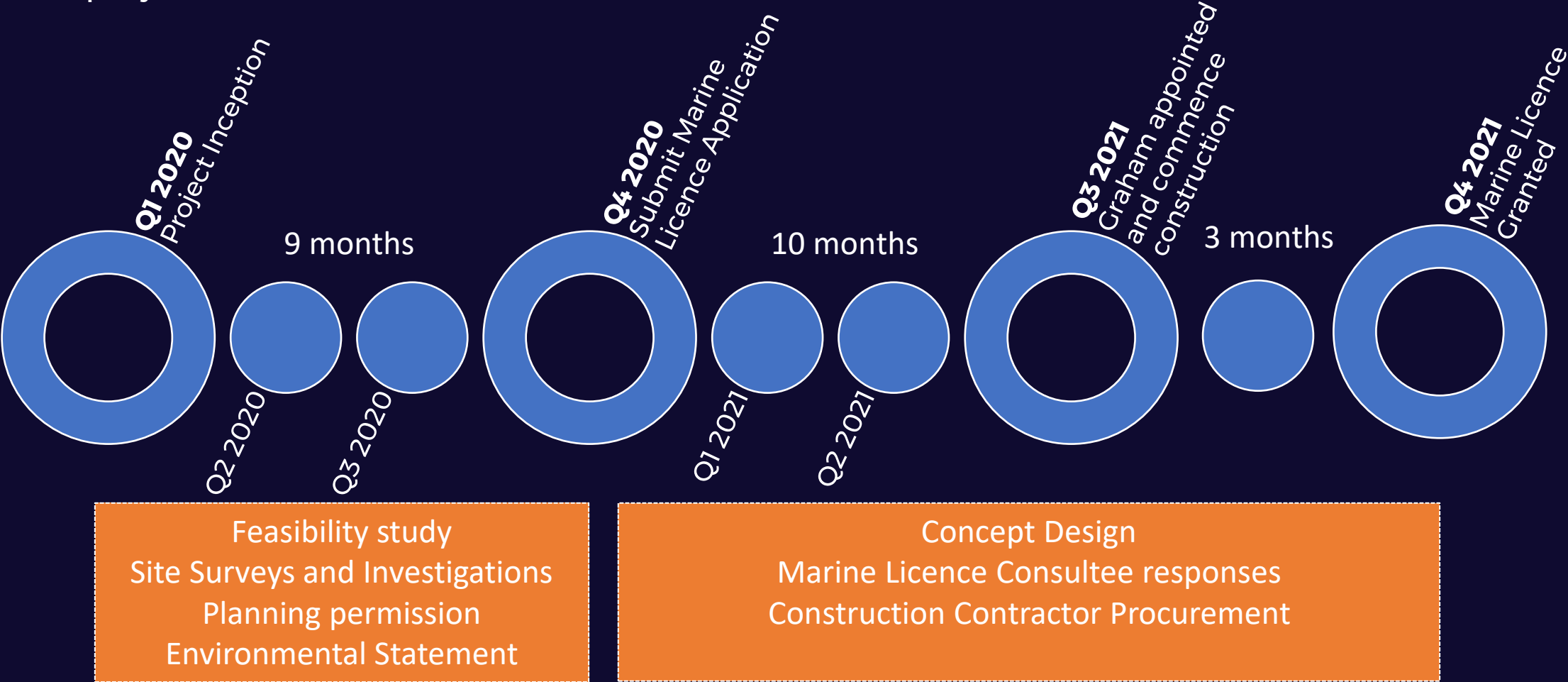
Licence granted by the Marine Management Organisation (MMO) following engagement with statutory consultees, e.g.,

- Cefas (*Centre for Environment, Fisheries and Aquaculture Science*)
- Environment Agency
- Natural England



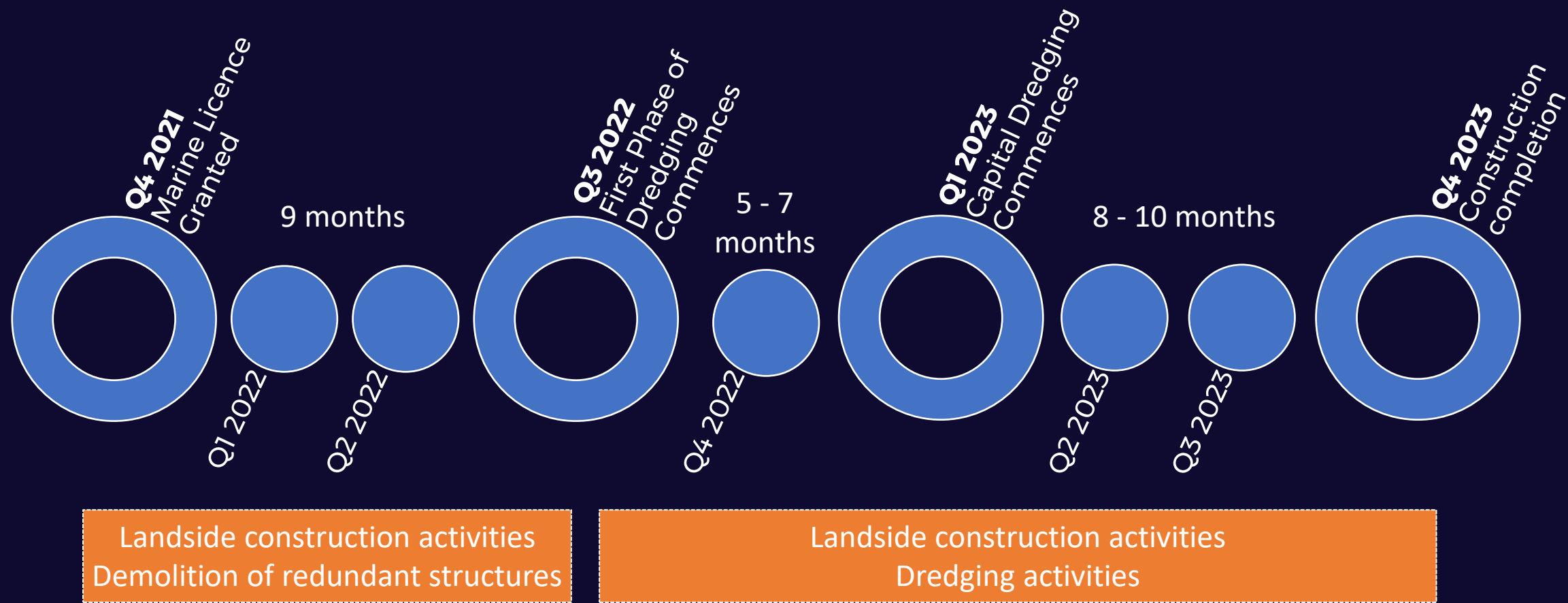
# Project Timeline (#1)

High level project timeline



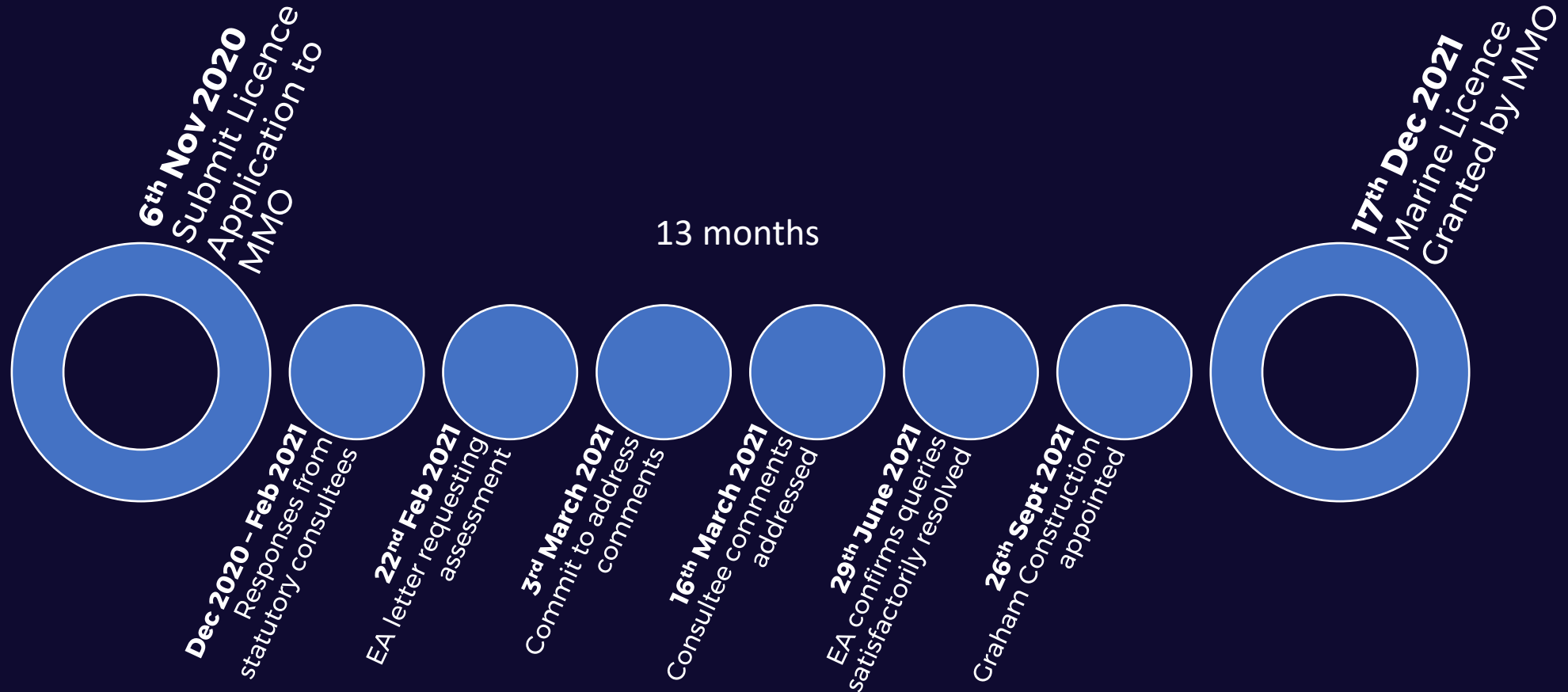
# Project Timeline (#2)

High level project timeline



# Timeline – Marine Licence Application

The Marine Licence application was submitted upon completion and issue of the Environmental Impact Assessment (EIA) report for the project



# Marine Licence Conditions

The Marine Licence was granted with specific conditions:

- Designation of some dredge material as being not suitable for offshore disposal
- Restrictions on the times of year dredging can be undertaken
- Limitations on simultaneous dredging operations on both sides of the channel
- Restrictions on dredging at the same time as dredging operations for other capital projects

The image shows a document titled "Marine Management Organisation Marine Licence" with the following sections visible:

- 1 Introduction**

This is a licence granted by the Marine Management Organisation on behalf of the Secretary of State to authorise the licence holder to carry on activities for which a licence is required under Part 4 of the Marine and Coastal Access Act 2009.

**1.1 Licence number**  
The licence number for this licence is L/2021/00333/1

**1.2 Licence holder**  
The licence holder is the person or organisation set out below:

Name / company name	
Company registration number (if applicable)	
Address	
Contact within company	
Position within company (if applicable), State company officer or director	

**1.3 Licence**  
Version  
Licence start date  
Licence end date  
Date of original issue

**1.4 Licence**  
This version of this date.
- 5 Licence conditions**

**5.1 General conditions**

**5.1.1 Notification of commencement**  
The MMO must be notified prior to the commencement of the first instance of any licensed activity. This notice must be received by the MMO no less than five working days before the commencement of that licensed activity.

**5.1.2 Licence conditions binding other parties**  
Where provisions under section 71(5) of the 2009 Act apply, all conditions attached to this licence apply to any person who for the time being owns, occupies or enjoys any use of the licensed activities for which this licence has been granted.

**5.1.3 Agents / contractors / sub-contractors**  
The MMO must be notified in writing of any agents, contractors or sub-contractors that will carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity.  
A copy of this licence and any subsequent revisions or amendments must be provided to, read and understood by any agents, contractors or sub-contractors that will carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder.

**5.1.4 Vessels**  
The MMO must be notified in writing of any vessel being used to carry on any licensed activity listed in section 4 of this licence on behalf of the licence holder. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company.  
A copy of this licence and any subsequent revisions or amendments must be read and understood by the masters of any vessel being used to carry on any licensed activity listed in section 4 of this licence, and that a copy of this licence must be held on board any such vessel.

**5.1.5 Changes to this licence**  
Should any of the information on which the granting of this licence was based changed or is likely to change, the MMO must be notified at the earliest opportunity. Failure to do so may render this licence invalid and may lead to enforcement action.

**5.1.6 Licence quantities**

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# First Phase Dredging

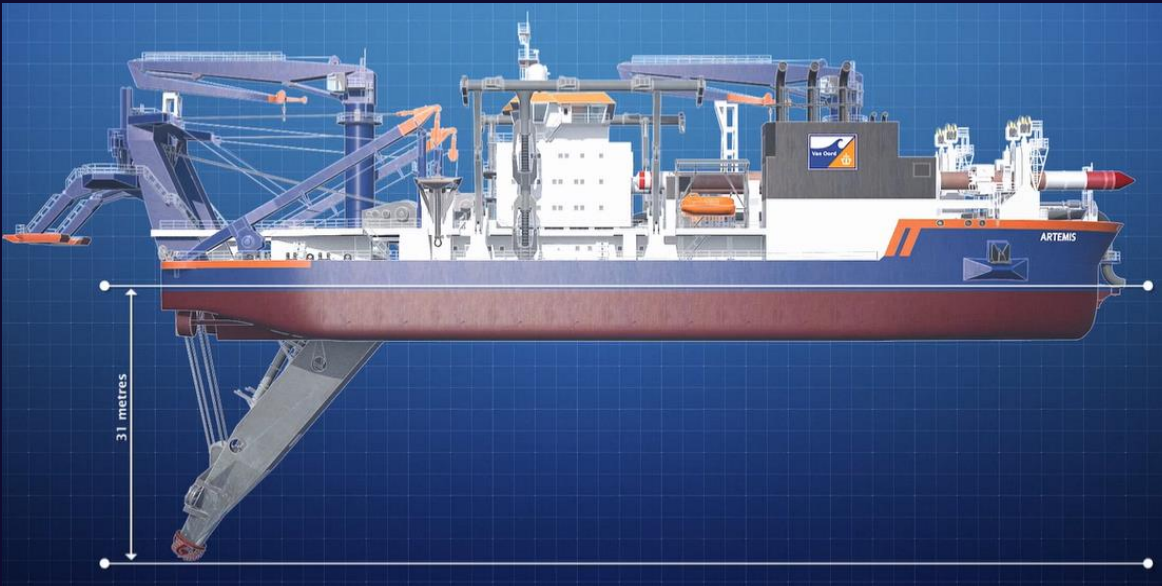
- Material deemed unsuitable for offshore disposal
- Commenced in September 2022
- Approx. 100,000m<sup>3</sup> of material to be dredged
- Enclosed bucket dredging methodology as directed by the Marine Licence conditions
- Material placed in barges and recovered to land
- Works expected to complete by 31 January 2023



# Marine Licence Variation 1

MMO has granted Licence Variation 1

- Application for variation arising from Value Engineering opportunity
- Change to Cutter Suction Dredger (CSD) methodology for the majority of the Capital Dredge
- Other, minor changes

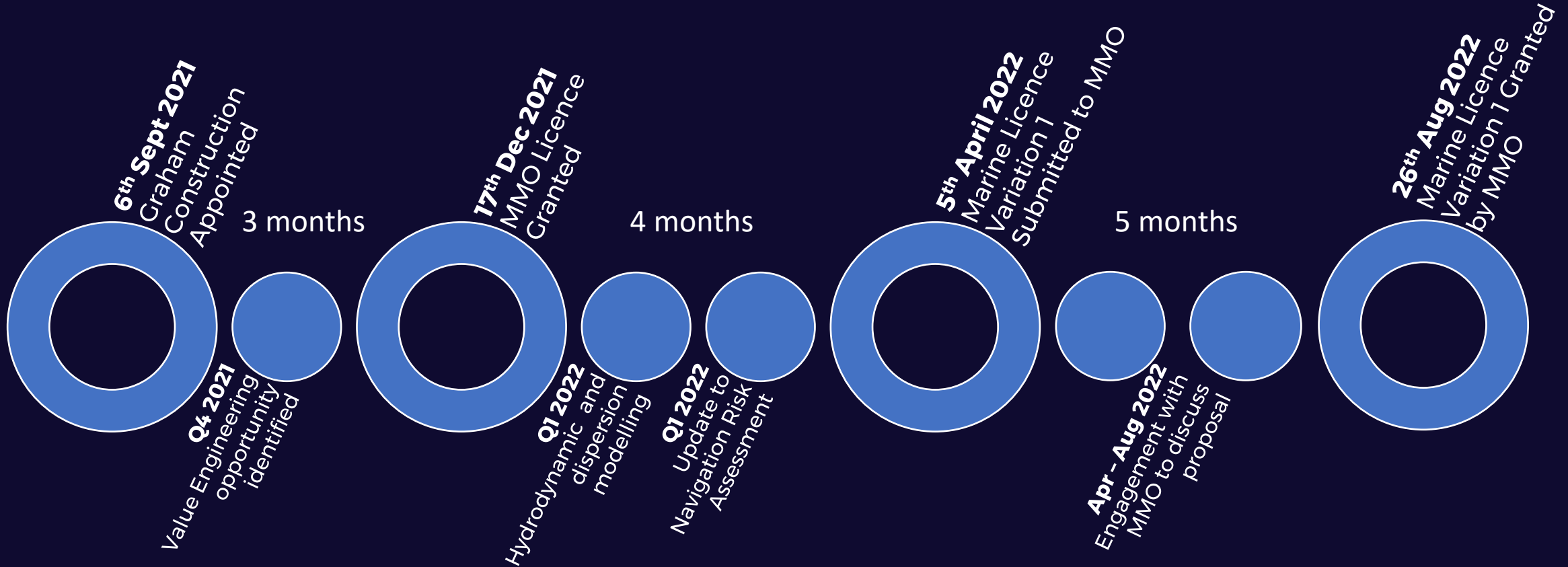


## Advantages of CSD

- Ability to handle a range of material types
- High production rates
- Reduced number of vessel mobilisations
- Significant reduction in dredging programme
- Reduced disruption to other river users
- More cost effective

# Timeline – Marine Licence Variation 1

The first Marine Licence Variation request was submitted in April 2022 and granted in August 2022.



# Marine Consents - Status

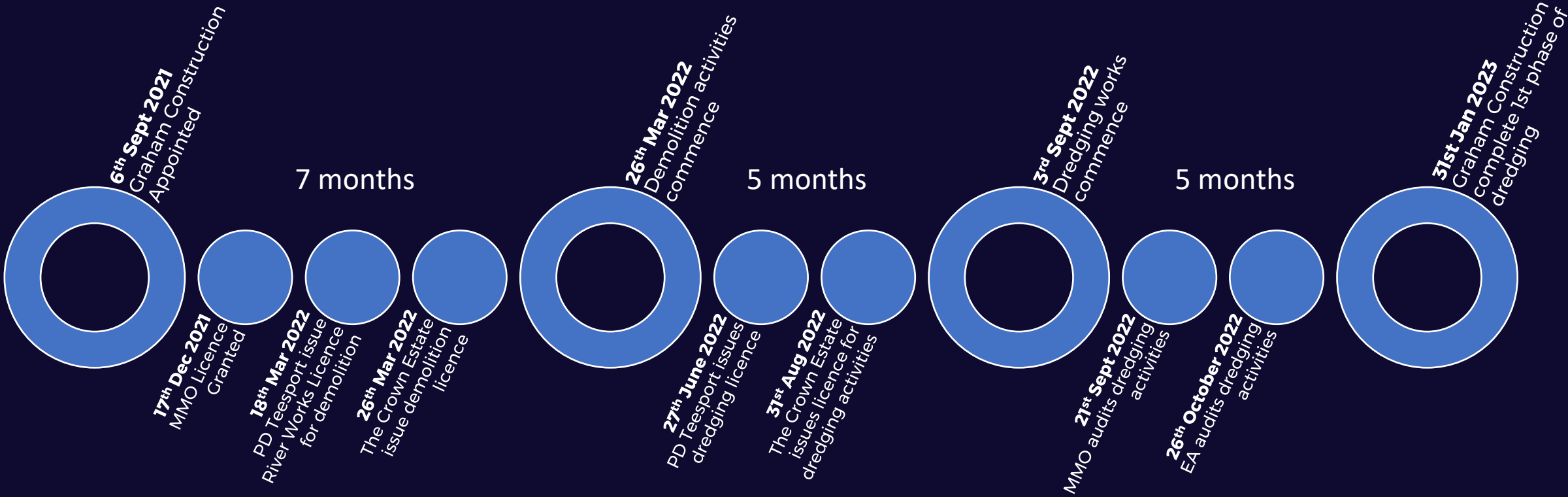
In addition to the Marine Licence, the following licences and consents for marine activities have been secured:

- Crown Estate licence for demolition
- Statutory Harbour Authority (SHA) River Works Licence for demolition
- Crown Estate licence for dredging
- SHA Dredging Licence for Capital Dredging of material not suitable for offshore disposal
- SHA Dredging Licence for Capital Dredging of material suitable for offshore disposal



# Marine Works Timeline (to date)

## Key milestones for marine works



# Project Status

# Project Progress

	Completion
• Demolition works	95%
• Main quay wall construction	100%
• Anchor wall	100%
• Land-based earthworks	60%
• Dredging	15%
• Construction of heavy lift platform	25%
• Concrete pavements	10%
• Overall progress	60%

# Progress Image #1 – Marine Demolitions



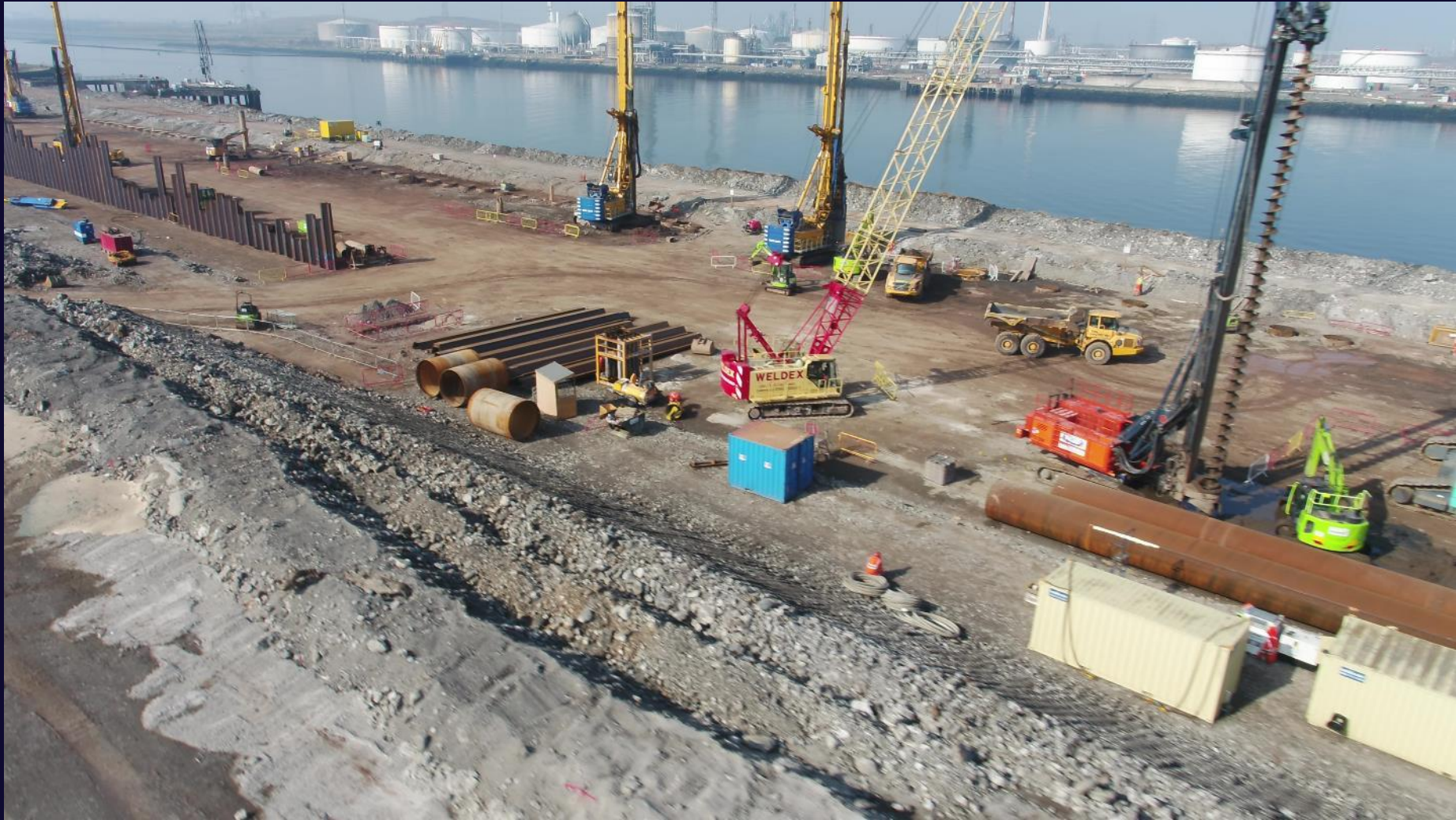
# Progress Image #2 – Earthworks



# Progress Image #3 – Tubular Pile Installation



# Progress Image #4 – Quay Wall/Anchor Wall



# Progress Image #5 – Capping Beam/Heavy Lift Platform



# Progress Image #6 – First Phase Dredging



# Upcoming Activities

Several key activities scheduled for coming months



## Capital Dredge

- Approx. 800,000m<sup>3</sup> of further dredging under current consents, for disposal offshore
- Commencement: Q1 2023



## Rock Blanket Installation

- Installation of 200,000m<sup>3</sup> of rock blanket in the bed of the berth pocket
- Commencement: Q2 2023



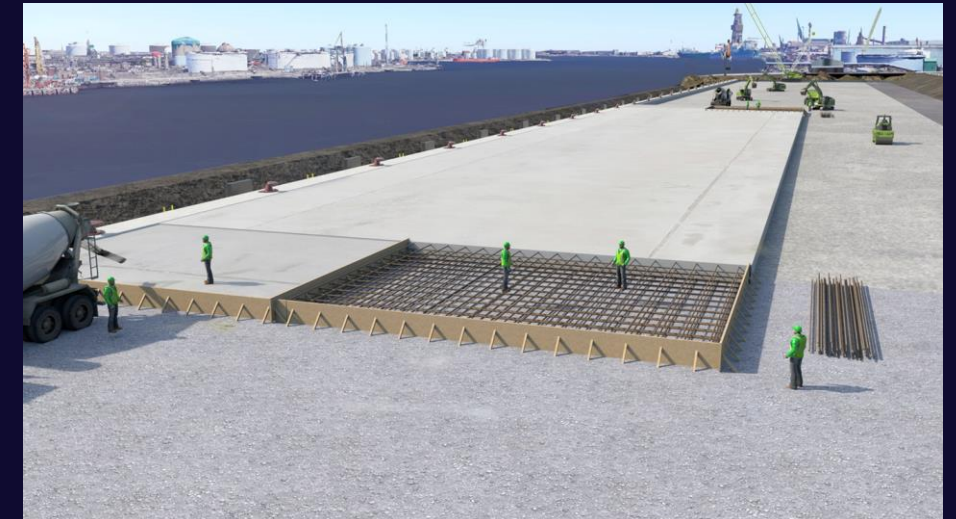
## Quayside Infrastructure

- Installation of fenders, bollards, ladders, etc
- Commencement: Q2/Q3 2023



## Landside works

- Operational infrastructure (drainage, M&E, etc)
- Concrete pavements and heavy lift platform
- Works ongoing



# Summary

# Summary

- Robust consenting process, informed by extensive surveys, investigations, technical analysis and reports –22 months
- 19 months from project inception to commencement of construction
- 13 months to obtain Marine Licence
- Rigorous process applied in determining disposal routes for dredged material
- Stringent conditions attached to the Marine Licence and River Works Licences
- Overall project duration 46 months (almost 4 years)
- Construction is 60% complete
- Main capital dredge commences: Q1 2023
- Contract Completion: December 2023
- Operational Date for Quay: July 2024



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