Lifting and Moving Technology
SEHO ENGINEERING

PROJECT WORK REPORT

MUMBAI TRANS HARBOUR LINK PROJECT

Marine & Installation Work Design, Analysis

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MUMBAI TRANS HARBOUR LINK PROJECT PACKAGE 2

MTHL Project

The MTHL project is proposed 21.8km freeway grade road bridge connecting the Indian city of Mumbai with Navi mumbai, its satellite city. When completed, it will be the longest sea bridge in India. It is national project ordered by MMRDA(Mumbai Metropolitan Region Development Authority), and the total estimated construction cost is about $2.76 billion. This project is divided into 3 package, and DWST and "TATA project limited" are awarded the Service contract for Package 2. SEHO provides engineering services for transportation, erection and overall design of package 2.

Project Period

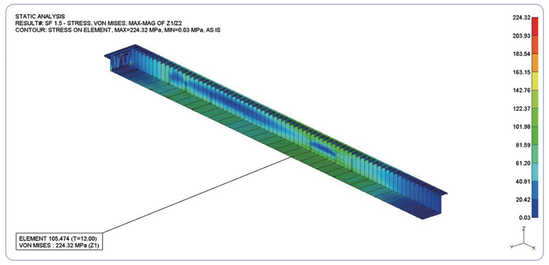
2019.10 ~ 2023.04

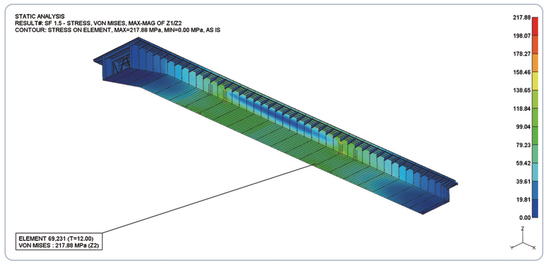
Scope of Work

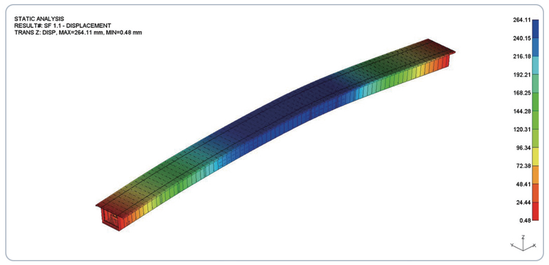
1) Review and Refinement of Construction Methodology
2) Review Design Criteria, Operating Conditions and Environmental Conditions
3) Equipment Selection for Transportation and Erection
4) SPMT Transportation Plan
5) Loading Ramp-way Design
6) Barge Mooring/Ballast Plan
7) Barge Strength Check
8) Barge Deck Grillage Design
9) Sea-Transportation /Block Installation Motion Analysis
10) Sea-Fastening Design
11) Barge Stability Check
12) Barge Towing Plan
13) Barge Mooring Plan for Block Installation
14) Girder Block Lifting Plan (Mega Jack System)
15) Girder Strength & Deflection Check
16) Girder Local Strength Check
17) Local Reinforcement Design
18) Barge Ballast Plan for Block Lifting
19) Barge Dynamic Analysis by MOSES
20) Provision of Technical Support and Task Management Through Personnel Dispatch

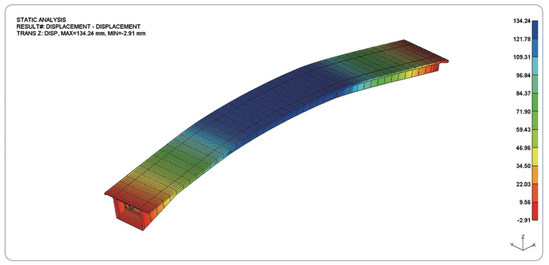
Structural Analysis

● Structural Strength Check for Girder

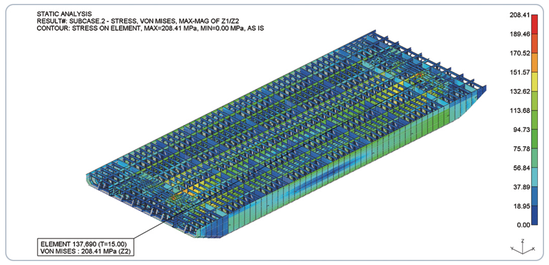


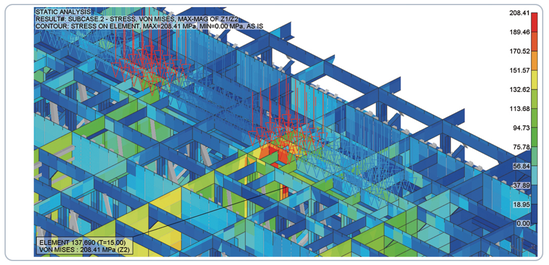




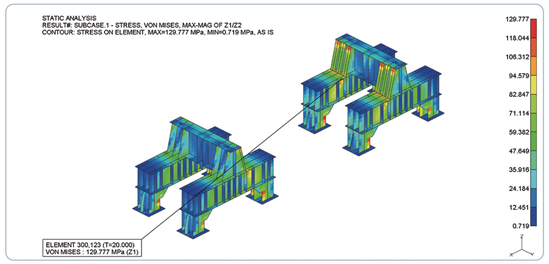


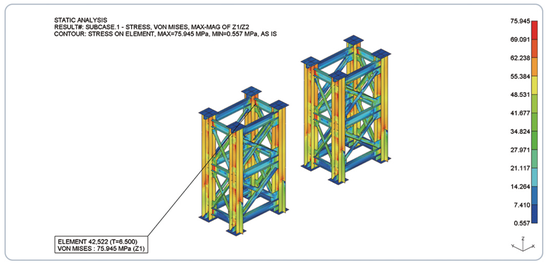
● Structural Strength Check for Barge Deck



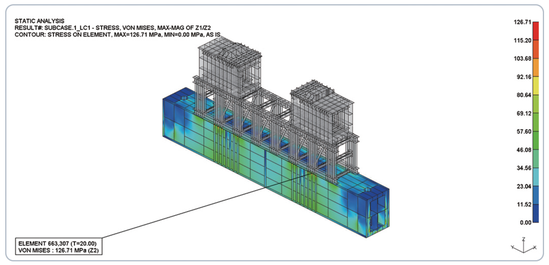


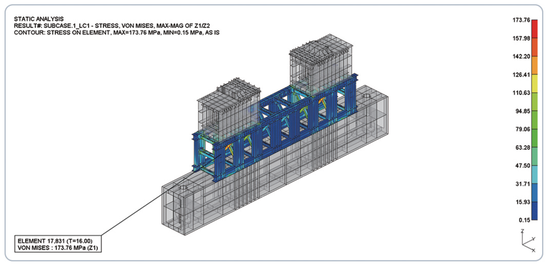
● Structural Strength Check for Lifting Tower





● Structural Strength Check for Lifting Device



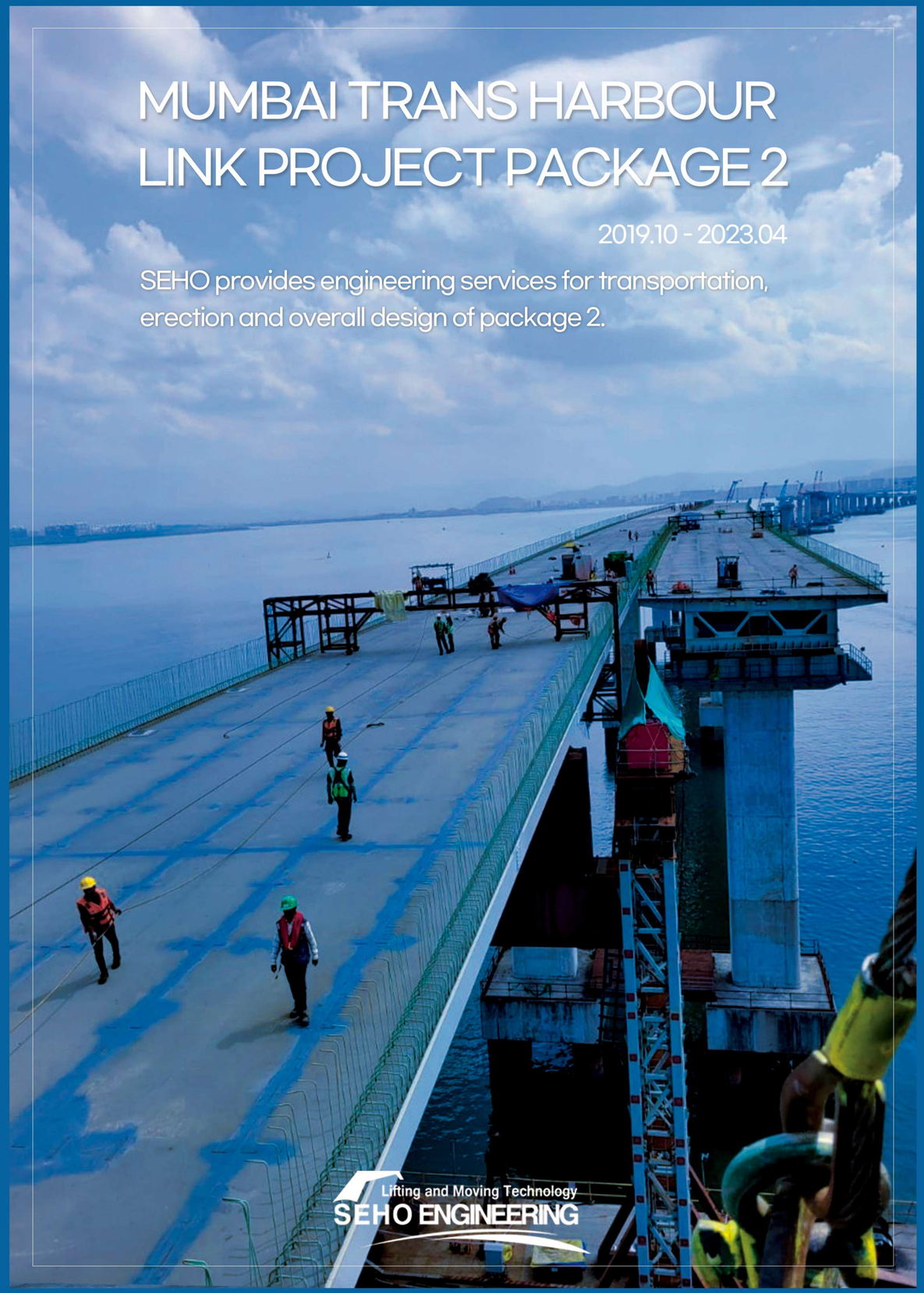


MTHL Project Site

MUMBAI TRANS HARBOUR LINK PROJECT PACKAGE 2

2019.10 - 2023.04

SEHO provides engineering services for transportation, erection and overall design of package 2.



Work Performance Records for the last 3-years

No.	Project Name	Company / Contractor	Duration	Remarks
14	ITER - VS - Coil in Situ Winding Work - Staging & Prototype Design	IO / Yujin MS	2022~2023	On-going
13	Vacuum Insulated Pipe Design & Analysis	DuckCheun	2022~2023	On-going
12	Artificial Structure for Display	Government / GSI	2023	On-going
11	HD-10,000 F/C Mooring Design & Analysis	SK Ocean Plant	2023	On-going
10	Consulting of Method Statement for FOWT	SK Ecoplant	2022	Finish
9	Design of Special Lifter for Ship's Propulsion	Zvezda / DH Ent	2021~2023	Finish
8	Barossa FPSO - Structural Analysis	BWO / FG Ind.	2021~2022	Finish
7	Mumbai Trans Harbour Link Project - Marine Work & Installation Analysis	Daewoo TATA / DWST	2021~2023	Finish
6	Cable Protection System(CPS) Design Analysis	DWNT / Panduite	2022	Finish
5	ITER - Bracing Tools Manufacturing Design	IO / Yujin MS	2022	Finish
4	Lifting Work Procedure for Floating Crane	Kumyong	2022	Finish
3	Vibration Analysis for SCR	WK Industry	2021	Finish
2	Power System Design of Air Boat	Government / KUMHA	2021~2022	Finish
1	Development of Mine Laying System Design	Government / KUMHA	2020~2022	Finish

Software & Tools

ANSYS
Structural Analysis

ENGYS
Applications by Industry
CFD & Optimisation

Orca3D
Orca3D
Marine Design for
Rhinoceros

OrcaFlex
Dynamic Analysis Software
for Offshore Marine Systems

SACS
Structure Analysis
Computer System for
Offshore Plant

PATRAN & FEA2007
Hull and General
Structural Analysis
Program

Rhino
Geometric
Modeling

MIDAS-NFX
Structural Analysis
& Civil Engineering

MOSES
Multi-Operational Structural
Engineering Simulator,
Motion & Stability Analysis

OPTI-MOOR
Mooring Analysis

NASTRAN
Analysis Solver

AUTO-CAD
2D & 3D Drawing

3D MAX
3D Drawing

IN-HOUSE SOFTWARE
Ballasting Calculation,
Towing Calculation,
Lug Calculation,
Welding Calculation and Etc.

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