

No. MMRDA/MTHL-PIU/JICA/QPR-24/2178/2023

Date: 18<sup>th</sup> July 2023

**To,**  
**Chief Representative,**  
Japan International Cooperation Agency (JICA)  
Mumbai Trans Harbour Link Project (I)  
16<sup>th</sup> Floor, Hindustan Times House,  
18-20, Kasturba Gandhi Marge, New Delhi-110-001

**Sub :** Mumbai Trans Harbour Link Project (I) (ID-P255)  
- **Quarterly Progress Report (QPR) No. 24 for January 2023 to March 2023.**

Sir,

The Quarterly Progress Report (QPR) No. 24 for the Mumbai Trans Harbour Link Project (I) for the period of January 2023 to March 2023 is enclosed herewith for information please.

Thanking you.

Yours faithfully,

**Encl.:** QPR-24 (January 2023 to March 2023)

  
(S. A. Wandhekar)  
Engineer- In- Chief



AECOM

PADECO

dar

TYLIN  
INTERNATIONAL

General Consultant for Mumbai Trans Harbour Link Project

587

Ref No: MTHL/GC/MMRDA/LT/QPR-3642/2023

19<sup>th</sup> April 2023

अभियंत्रिकी (सं. ५२२१)  
आवक क्र. ५२२१  
दिनांक १९/०६/२०२३

To,  
**Engineer-in-Chief**  
Engineering Division  
Mumbai Metropolitan Regional Development Authority (MMRDA)  
2<sup>nd</sup> Floor, New MMRDA Building,  
Plot No R-06 & R-12, 'E' Block  
Bandra Kurla Complex, Bandra (E),  
Mumbai, Maharashtra, India 400051.

**Sub: General Consultancy services for Mumbai Trans Harbour Link (MTHL) project –  
Submission of the Draft Quarterly Progress Report (QPR) No. 24 for January –  
February-March 2023 for review**

Dear Sir,

With reference to the above subject, please find enclosed a hard copy of the draft for Quarterly Progress Report (QPR) No. 24 along with the updated attachments for the period of January to March 2023 for your review.

Thanking you,  
Yours faithfully,

For

K.R. Shiv ananda

**Dr. S H Robin Sham, CBE**  
(BSc, PhD, DIC, FCGI, FRSA, CEng, FICE, FStructE, FHKIE)  
The Engineer  
General Consultant (MTHL)

**Encl: A draft copy of the Quarterly Progress Report No. 24 (January– March 2023)**

**CC:** Superintending Engineer – MMRDA - Mr. Purushottam Nimje  
Executive Engineer – MMRDA – Mr. Arjun Korgaonkar  
Superintending Engineer – MMRDA - Mr. Yatin Sakhalkar  
Executive Engineer – MMRDA – Mr. Abhijit Bhisikar  
Executive Engineer – MMRDA – Mr. M. P. Singh

By Email



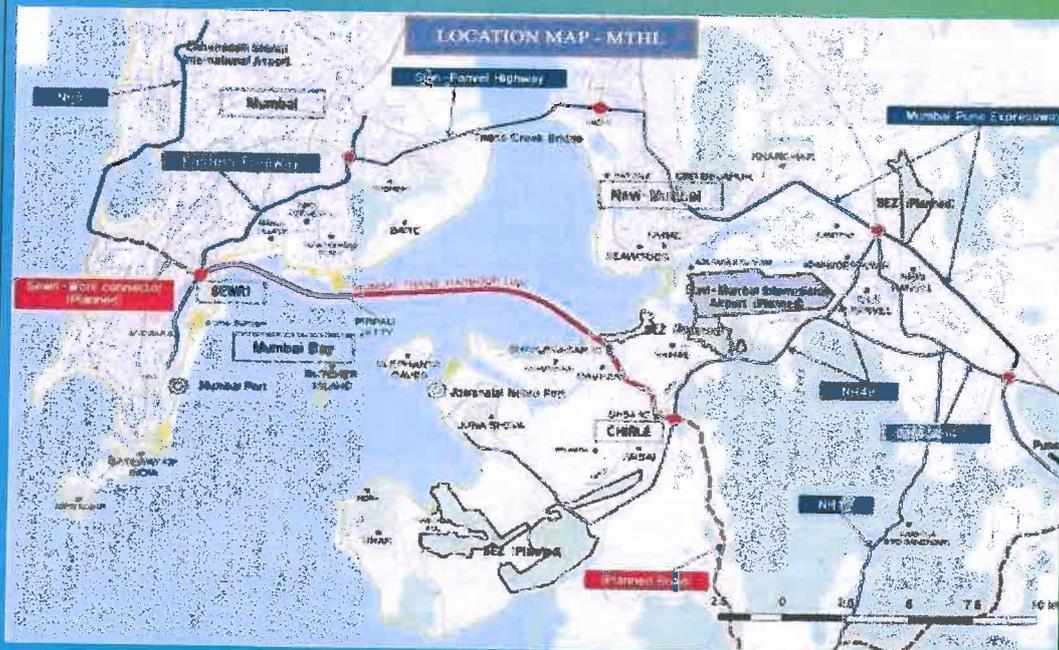
एम एम आर डी ए  
MMRDA

Mumbai Metropolitan Region Development Authority

# Mumbai Trans Harbour Link Project

## Quarterly Progress Report - No. 24

(From 1<sup>st</sup> Jan 2023 to 31<sup>st</sup> March 2023)



**Mumbai Trans Harbour Link Project**  
**Quarterly Progress Report No. 24**  
**1<sup>st</sup> Jan 2023 to 31<sup>st</sup> March 2023**  
**Loan Agreement No. ID-P255 (Tranche-I), ID-P283 (Tranche-II) & ID-307**  
**(Tranche-III)**

**ORGANIZATION INFORMATION**

<b>Borrower</b>	<b>Mumbai Metropolitan Region Development Authority</b>	
	Person in Charge	<b>Metropolitan Commissioner, MMRDA</b>
	Contact Address	M.M.R.D.A. New Office Building, Bandra-Kurla Complex, Plot no. R-5, R-6 & R-12, E Block, Bandra (East), Mumbai - 400051 Phone: +91-22-26594000 Fax No:+91-22-2659 1264
<b>Executing Agency</b>	<b>Mumbai Trans Harbour Link Project Implementation Unit</b>	
	Headed by:	Engineer-In-Chief Mumbai Trans Harbour Link Project Implementation Unit
	Contact Address	M.M.R.D.A. New Office Building, Bandra-Kurla Complex, Plot no. R-5, R-6 & R-12, E Block Bandra (East), Mumbai - 400 051 Phone: +91-22-2659 4034 Fax No: +91-22-2659 4179

**Details of JICA Loan**

<b>Source of Finance</b>	JICA ODA Loan Portion:	238,572 million Japanese YEN (JPY)
	Tranche-I:	144,795 million Japanese YEN (JPY) (Loan Agreement signed on 31 <sup>st</sup> Mar 2017)
	Tranche-II:	66,909 million Japanese YEN (JPY) (Loan Agreement signed on 27 <sup>th</sup> Mar 2020)
	Tranche-III:	30,755 million Japanese YEN (JPY) (Loan Agreement signed on 27 <sup>th</sup> Feb 2023)
<b>Terms and Conditions of JICA ODA Loan (Tranche-1)</b>	Repayment Period:	30 years, including 10 years of the grace period.

**Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 24 (Jan-Mar 2023)**

**DOCUMENT VERIFICATION AND REVISION RECORD**

PROJECT NAME		Mumbai Trans Harbour Link Project			
DOC NO.		24	DATE OF ISSUE		16/04/2023
DOC TITLE		Quarterly Progress Report No. 24			
REV No.	DATE OF ISSUE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY
R0	05/07/2017	Quarterly Progress Report No. 1 (Apr-Jun 17)	J Senthil	Dr T K Sundaram	Dr Robin Sham
R0	05/10/2017	Quarterly Progress Report No. 2 (Jul-Sep 17)	J Senthil	Dr T K Sundaram	Dr Robin Sham
R0	05/01/2018	Quarterly Progress Report No. 3 (Oct-Dec 17)	J Senthil	Dr T K Sundaram	Dr Robin Sham
R0	05/04/2018	Quarterly Progress Report No. 4 (Jan-Mar 18)	J Senthil	Dr T K Sundaram	Dr Robin Sham
R0	24/07/2018	Quarterly Progress Report No. 5 (Apr-Jun 18)	Prashant B	Dr T K Sundaram	Dr Robin Sham
R0	10/10/2018	Quarterly Progress Report No. 6 (Jul-Sep 18)	Prashant B	Dr T K Sundaram	Dr Robin Sham
R1	08/02/2019	Quarterly Progress Report No. 7 (Oct-Dec 18)	Prashant B	J Senthil/ Dr T K Sundaram	Dr Robin Sham
R0	05/04/2019	Quarterly Progress Report No. 8 (Jan-Mar 19)	Prashant B	J Senthil	V. D. Sharma/ Dr Robin Sham
R0	18/09/2019	Quarterly Progress Report No. 9 (Apr-Jun 19)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	13/11/2019	Quarterly Progress Report No. 10 (Jul-Sep 19)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	11/02/2020	Quarterly Progress Report No.11 (Oct-Dec 19)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	25/11/2020	Quarterly Progress Report No.12 (Jan-Mar 20)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	15/12/2020	Quarterly Progress Report No.13 (Apr-Jun 20)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	06/01/2021	Quarterly Progress Report No.14 (Jul-Sept 20)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	12/02/2021	Quarterly Progress Report No.15 (Oct-Dec 20)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	06/05/2021	Quarterly Progress Report No.16 (Jan-Mar 21)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	30/07/2021	Quarterly Progress Report No.17 (Apr-Jun 21)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	11/11/2021	Quarterly Progress Report No.18 (Jul - Sep 21)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	17/01/2022	Quarterly Progress Report No.19 (Oct-Dec 21)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	22/04/2022	Quarterly Progress Report No.20 (Jan - Mar 22)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	12/07/2022	Quarterly Progress Report No.21 (Apr-Jun 22)	Prashant B	Mr. Som Ghosh	Dr Robin Sham
R0	18/10/2022	Quarterly Progress Report No.22 (Jul-Sep 22)	Prashant B	Mrs. Mayil. K	Dr Robin Sham
R0	10/01/2023	Quarterly Progress Report No.23 (Oct-Dec 22)	Mrs. Mayil.	Mr. Som Ghosh	Dr Robin Sham
R0	16/04/2023	Quarterly Progress Report No.24 (Jan-Mar 23)	Mrs. Mayil.	Mr. Som Ghosh	Dr Robin Sham



## Contents

<b>1.0 PROJECT DESCRIPTION.....</b>	<b>5</b>
1.1 Project Objective .....	5
1.2 Necessity of the Project.....	5
1.3 Rationale of the Project Design.....	7
<b>2.0 PROJECT IMPLEMENTATION.....</b>	<b>8</b>
2.1 Project Scope .....	9
2.2 Implementation Schedule.....	11
2.3 Project Cost.....	13
2.3.1. a Comparison of Originally Planned and Actually Incurred Cost by ITEM .....	13
2.3.1.b Comparison of Originally Planned and Actually Incurred Cost by YEAR .....	15
2.4 Organization for Implementation .....	16
2.4.1 Executing Agency .....	16
2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:.....	17
2.4.2.1 Procurement & Consultant.....	17
2.4.2.2 Performance.....	18
Consultant's Progress:.....	18
Contractor's Progress: .....	19
Package-1 Physical Progress till 31 <sup>st</sup> March 2023.....	19
Package-2 Physical Progress till 31 <sup>st</sup> March 2023.....	20
Package-3 Physical Progress till 31 <sup>st</sup> March 2023.....	21
Package-4 (ITS) Progress till 31 <sup>st</sup> March 2023 .....	21
Health & Safety and Environment (HSE) .....	22
Package-1 Safety Report.....	22
Package-2 Safety Report.....	23
Package-3 Safety Report.....	24
Package-4 Safety Report.....	25
<b>3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS) .....</b>	<b>25</b>
Operational and Physical Condition.....	26
3.2 Precautions (Measures to be adopted/ Points which require special attention) .....	26
3.3 Environmental and Social Impacts.....	27
3.4 Qualitative and Quantitative Data of Monitoring Indicators.....	31
3.5 Monitoring Plan for the indicators.....	32
3.6 Achievement of the Project Objective .....	32
<b>4.0 OPERATION AND MAINTENANCE (O&amp;M) (SUSTAINABILITY) .....</b>	<b>32</b>
4.1 O&M and Management .....	32
4.2 O&M Cost and Budget .....	33
<b>5.0 EVALUATION.....</b>	<b>33</b>
5.1 JICA and Borrower / Executing Agency performance.....	33
5.2 Overall Evaluation .....	33
5.3 Lessons Learnt and Recommendations.....	33
ATTACHMENT 1- MMRDA & PIU ORGANIZATION CHART .....	34
ATTACHMENT 2- ENVIRONMENTAL & SOCIAL IMPACTS .....	37
ATTACHMENT 3- JICA'S CONCURRENCE STATUS .....	38
ATTACHMENT 4- PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31 <sup>ST</sup> MAR 2023 .....	40
ATTACHMENT 5- FINANCIAL S-CURVE FOR CUMULATIVE PLANNED VS ACTUAL AMOUNT IN RS CRORES... 42	
ATTACHMENT 6- PACKAGE-1'S CONSTRUCTION PROGRAMME UPDATED AS OF 25 <sup>TH</sup> MAR 2023 .....	43
ATTACHMENT 7- PACKAGE-2'S CONSTRUCTION PROGRAMME UPDATED AS OF 25 <sup>TH</sup> MAR 2023 .....	44
ATTACHMENT 8- PACKAGE-3'S CONSTRUCTION PROGRAMME UPDATED AS OF 25 <sup>TH</sup> MAR 2023 .....	45
ATTACHMENT 9- PROJECT PROGRESS PHOTOS FOR MAR 2023.....	46



## 1.0 PROJECT DESCRIPTION

### 1.1 Project Objective

#### Original:

To improve connectivity in Mumbai Metropolitan region by constructing the Mumbai Trans Harbour Link connecting Mumbai with Navi Mumbai, thereby contributing to mitigation of traffic congestion and promoting regional economic development.

#### Actual (P/R, PCR)

There is no change in the Project Objective.

### 1.2 Necessity of the Project

The Project is consistent with the development policy, sector plan, national/regional development plans and demand of target group of the recipient country.

#### Benefits from MTHL Project

- Saving in travel time for commuters from Mumbai to Navi Mumbai.
- Improved comfort and accessibility between the island and the mainland.
- Reduced operating costs of vehicles due to lesser congestion.
- Smooth traffic flow from Navi Mumbai airport to Mumbai Island.
- Accelerated economic development of Navi Mumbai and nearby regions.
- Greater economic integration of Mumbai Island with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug.
- Improvement in environment and reduced pollution levels.
- Improved safety due to reduction in accidents.
- Improvement in trade competitiveness through faster and improved logistics.
- Accelerated growth of Navi Mumbai.
- Decongestion of Mumbai Island and dispersal of population to Navi Mumbai region & beyond.

#### Necessity of the Project

1. Although the urbanization in India has been rapidly progressing, infrastructure development in the urban areas has not caught up its progress. Particularly, the traffic congestion in the urban areas due to a lack of road network hinders the economic development. Thus, Government of India (GOI) places transport and connectivity as one of the "Growth Enablers" and plans to enhance road network in the "Three Year Action Agenda 2017-2018 to 2019-20 (NITI Aayog)".
2. Mumbai Metropolitan Region, which includes Mumbai and Navi Mumbai, has about 18.4 million people in population as of 2011 (Census 2011) and the population density reaches 20,694 people per square km in the center of Mumbai, which is one of the most overpopulated and high-density cities in the world.
3. Mumbai, the narrow stretch of land that has traditionally been the epicentre of India's commerce, has seen a steady increase in population in the last three decades despite obvious spatial constraints. Thus, the development of Navi Mumbai has been identified as an urgent requirement for broad development in Mumbai Metropolitan Region.
4. The Government of Maharashtra (GoM), of which Mumbai Metropolitan Region is under

jurisdiction, has been facilitating various development plans particularly in Navi Mumbai area, which stands at the opposite site of Mumbai across the Mumbai Bay and still has spacious area for development, such as a new international airport, Special Economic Zone (SEZ) and expansion of Jawaharlal Nehru Port in order to promote the sustainable economic development in Mumbai Metropolitan Region.

5. Furthermore, a lack of connectivity in Mumbai has stunted its growth. The GoM has given importance to construct the faster connection with Mumbai to Navi Mumbai International Airport, Jawaharlal Nehru Port, Mumbai-Pune expressway and main hinterland.
6. Accordingly, the Mumbai Trans Harbour Link (MTHL) has been identified as the important infrastructure to improve the connectivity between Mumbai and Navi Mumbai and continue economic development in Mumbai Metropolitan Region.

The MTHL is proposed to be developed as an expressway link comprising of a dual three-lane main carriageway bridge connecting Sewri in Mumbai to Chirle in Navi Mumbai. When completed, MTHL will reduce the distance between Mumbai and Navi Mumbai and will help save approximately an hour in travel time. Also, development of Navi Mumbai along with the imminent construction of the Navi Mumbai airport will lead to increased traffic between Mumbai and Navi Mumbai. Consequently, the project is envisaged to; improving accessibility between Mumbai and Navi Mumbai, accelerating growth of Navi Mumbai, smooth traffic flow from Navi Mumbai airport to Mumbai, accelerating economic development of Navi Mumbai and surrounding regions, greater economic integration of Mumbai with Navi Mumbai and extended regions of Pune, Goa, Panvel and Alibaug, and decongestion of Mumbai and dispersal of population to Navi Mumbai region and beyond.

7. The Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region which was guided by Mumbai Metropolitan Region Development Authority (MMRDA) and supported by World Bank, was completed in July 2008, which was over 25 years after the issuance of the last comprehensive transport study. The report provided a vision for Mumbai's future transportation as seamless and integrated system, in which commuters can make their journeys safely and conveniently by various modes of transport, particularly by public transport, and recommended the development of Multi Modal Corridor to take care of the varied travel demands of the region for the period up to 2031. The CTS proposed to develop the highway network in the region. The MTHL has been regarded as the priority road for Mumbai, considering its function and importance connecting between Mumbai and Navi Mumbai.
8. Necessity of the Project: - To promote economic development in Mumbai Metropolitan Region it is essential to improve the connectivity between Mumbai and Navi Mumbai, by constructing MTHL.

**Actual (P/R, PCR)**

There is no change in the Necessity of the Project preamble.





### 1.3 Rationale of the Project Design

- Timing, Scale, Technology of the Project:

#### Demand Analysis

1. At the opening year 2022, the daily traffic on the main bridge is expected to be 39,300 PCU. The traffic is projected to increase up to 103,900 by 2032 and up to 145,500 by the year 2042. The daily breakdown by vehicle class on the main bridge link is presented in the Table 1.3.1 below:

Vehicle Type	Between Sewri Interchange and Shivaji Nagar Interchange			Between Shivaji Nagar Interchange and Chirle Interchange		
	2022	2032	2042	2022	2032	2042
Car	24,100	66,400	94,100	4,900	21,300	43,300
Taxi	2700	14,100	20,200	100	400	2,300
Bus	2,700	3,700	3,700	2,700	3,700	3,700
LCV	2,200	4,100	5,600	700	1,300	1,800
HCV	3,000	6,500	8,100	1,000	2,000	2,200
MAV	4,600	9,100	13,800	400	900	1,700
<b>Total</b>	<b>39,300</b>	<b>103,900</b>	<b>145,500</b>	<b>9,800</b>	<b>29,600</b>	<b>55,000</b>

LCV: Light Commercial Vehicle; HCV: Heavy Commercial Vehicle; MAV: Multi Axle Vehicle

2. At the opening year in 2022, the traffic flow on MTHL represents a diversion of 10% on the traffic across Thane creek which will increase up to 16% in 2032. If only Thane Creek Bridge is considered, then the diverted traffic from the bridge will be 21% in 2022 which will rise up to 35% in 2032.
3. 6-lane of main carriageway was decided by GoM. It was reviewed based on the forecasted result of future traffic volume by Manual of Specification and Standards for Expressways (IRC: SP:99-2013). The result of the review shows that 6-lane will be required in 2032 (10 years later after traffic open). Although, 8-lane will be required in 2042, it is assumed that the level of service of MTHL would be maintained as additionally metro might be constructed in parallel with MTHL.

#### Design Parameters / Overall Design

4. The MTHL which is 21.8 km long road bridge partly on the land and partly over the creek across the Mumbai Bay between Sewri in Mumbai and Chirle in Navi Mumbai, is to be constructed with the approach sections and interchanges. ITS (Intelligence Transport System) and the other necessary facilities will be provided for full access-controlled bridges.
5. As per the provisions of IRC (Indian Road Congress) SP:99-2013, the Width of each lane of the Main Carriageway is 3.5 meters.
6. When the design speed is 100 km/h according to the traffic demand forecast the large vehicle, ratio will be as low as 9.4% (2022).
7. The shoulder width of bridge towards outside of each carriageway is 2.5 meters and towards median side of each carriageway is 0.75 meters.
8. The major portion of MTHL structure is on sea and partly towards ends is on land with different type and with different span, viz., PC box girder with 50 m spans which is

typically applied on marine viaduct since, it is economical, easy to construct and maintain.

9. On the land portion, the PC box girder having span of generally 30m is used.
10. As far as the location in which long span (150-180 m) is required to cross significant obstacles, such as navigation channels, pipelines and creeks, the steel box girder bridge with steel deck is proposed with large block erection method to shorten the construction period.
11. The project is coded with three lanes of traffic in each direction. The reference toll is presented in the Table 1.3.2 below for each vehicle class in Year 2022 (based on 2015 monetary value reflecting price escalation).

**Table 1.3.2: Base Toll Rates (Rs) for different class of vehicles between Interchanges**

Vehicle Type	Sewri to Shivaji Nagar	Shivaji Nagar to Chirle	Total
Car	180	60	240
Bus	420	130	550
LCV	240	70	310
HCV	420	130	550
MAV	600	180	780

**Intelligent Transport Systems (ITS) and Toll Management System (TMS)**

12. The Toll Management System will be implemented in MTHL to collect tolls from all road users of MTHL. Two types of toll collection method will be adopted: Electronic Toll Collection (ETC) and Manual (paying by cash).
13. The lanes corresponding to these toll collection methods are dedicated ETC lanes and Manual lanes, and Manual system shall be installed to ETC lanes for backup to be able to cope at the time of the trouble of ETC equipment failure.

**Traffic management System**

14. Traffic Management System is a support system to Manage the traffic on MTHL safely and efficiently. The System consists of the information collection system including Closed-Circuit Television (CCTV), Emergency Call Box (ECB), Automatic Traffic Counter-Cum-Classifer (ATCC) and Meteorological Data System (MDS), and Information Dissemination System including Variable message Sign (VMS).
15. CCTV Cameras shall be installed at around three places per 1 km, on Both side of main route and the monitoring of the traffic condition of the whole stretch of MTHL will be almost enabled in the Traffic Control Centre and VMS displays the appropriate information for road users on the collated information.
16. The Information collected by these devices shall be transmitted to the Command Control Centre through the medium of an Optical Fiber Cable laid in MTHL.

Actual (P/R, PCR)

There is no change in the Rationale of the Project Design.

**2.0 PROJECT IMPLEMENTATION**



## 2.1 Project Scope

Refer Table 2.1.1 and 2.1.2 for details on Scope of the Project.

**Table 2.1.1 Comparison of Original and Actual location**

<b>Location</b>	<b>Original: (P/M)</b> Mumbai Metropolitan Region Development Authority, Mumbai, State of Maharashtra	<b>Actual: (P/R and PCR)</b>
-----------------	--	------------------------------

**Table 2.1.2 Comparison of Original and Actual Scope**

Items	Original	Actual
<b>Construction work: 6-lane Marine Bridge Road (21.8 km)</b>		
Package-1 Ch 0+000-10+380 (10.380 km)	<ul style="list-style-type: none"> <li>• 1 Interchange (Sewri)</li> <li>• Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder)</li> <li>• Viaduct Substructure (RC Concrete Structure)</li> <li>• Viaduct Foundation (Bored piles)</li> <li>• Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	<i>(P/R and PCR)</i>
Package-2 Ch 10+380-18+187 (7.80 km)	<ul style="list-style-type: none"> <li>• 1 Interchange (Shivaji Nagar)</li> <li>• Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder)</li> <li>• Viaduct Substructure (RC Concrete Structure)</li> <li>• Viaduct Foundation (Bored piles)</li> <li>• Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	<i>(P/R and PCR)</i> Actual: No View Barriers
Package-3 Ch 18+187-21+800 (3.61 km)	<ul style="list-style-type: none"> <li>• 2 Interchanges (State Highway-54, National Highway-4B)</li> <li>• Viaduct superstructure (Marine Portion: PC Box Girder &amp; Steel Box Girder with Steel Slab Land Portion: PC Box Girder &amp; PC-I Girder &amp; Steel Truss Girder for Rail-over-Bridges (ROB))</li> <li>• Viaduct Substructure (RC Concrete Structure)</li> <li>• Viaduct Foundation (Bored piles)</li> <li>• Cutting Section (6-lane with Slope Protection)</li> </ul>	<i>(P/R and PCR)</i> Actual: No Noise Barriers & View Barriers

Items	Original	Actual
	<ul style="list-style-type: none"> <li>Road Furniture and roadside facilities (Traffic Signs and Pavement Marking, Traffic Safety Devices, Crash Barrier, Drainage Structures, Noise Barriers, View Barriers)</li> </ul>	
Package-4 ITS (Intelligent Transport System)	<ul style="list-style-type: none"> <li>Administrative Buildings</li> <li>Toll Booths (1 for main alignment and each on and off rumps for 3 interchanges)</li> <li>Traffic Management System (Traffic Control Centre, Closed Circuit Television (CCTV), Meteorological Observation System (MET), Emergency Call Box (ECB), Automatic traffic Counter-cum-Classifer (ATCC), Variable Message Sign (VMS))</li> <li>Highway Lighting (Whole sections Low-positioned lighting for some sections)</li> <li>Electrical Powering System including HV/ LV Ring Network across the Bridge.</li> </ul>	(P/R and PCR)
Consulting Services	<ul style="list-style-type: none"> <li>Tender Assistance</li> <li>Construction Supervision</li> <li>Facilitation of Implementation of Environmental Management Plan (EMP), Environmental Monitoring plan (EMoP).</li> </ul>	(P/R and PCR)



## 2.2 Implementation Schedule

### 2.2.1 The Original Implementation Schedule

**Table 2-2-1 Comparison of Original and Actual Schedule**

Items	Original	Status (P/R and PCR) as on 31 <sup>st</sup> Mar 2023
1) Completion of Land Acquisition and Resettlement	Mar 2019	Dec 2022
2) Consulting Services		
a) Selection of Consultant	May – Dec 2016	May – Dec 2016
b) Consultancy Works	Dec 2016 – Sep 2022	Oct 2022 – Mar 2024 (Extended)
3) Selection of Contractor		
Package-1, Package-2 & Package-3 (Civil)		
a) Pre-Qualification Process	May – Dec 2016	May – Dec 2016
b) Main Bidding	Jan– Dec 2017	Jan – Dec 2017
c) JICA's Concurrence of Contract	Feb-2018	Feb-2018
Package-4 (ITS)		
a) Pre-Qualification Process	Single Stage Bidding as concurred by JICA	
b) Main Bidding	June 2019 – Sep 2020	Jan 2021 – Dec 2021
4) Civil Construction		
Package-1 and Package-2	Mar 2018 – Sep 2022	Mar 2018–Sep 2023 (Extended)
Package-3	Mar 2018 – Sep 2021	Mar 2018 – Mar 2023 (Extended)
Package-4	June 2022 – Sep 2023	June 2022 – Sep 2023
5) Defect Liability Period		
Package-1 and Package-2	Oct 2022 – Sep 2024	Oct 2023 – Sep 2025
Package-3	Oct 2021 – Sep 2023	Apr 2023 – Mar 2025
Package-4	Oct 2023 – Sep 2025	Oct 2023 – Sep 2025
For ITS	Sep 2025- Sep 2028	Sep 2025- Sep 2028

**Attachment 6, 7 & 8: Package wise construction schedules (progress) updated at the end of 3<sup>rd</sup> Quarter (Oct – Nov - Dec 2022).**



**2.2.2 Reasons for changes of the schedule and their effects to the Project**

(P/R and PCR)

No change in the Implementation Schedule except the selection of O&M Organization timeline.

Cost Breakdown	Foreign Currency Portion			Local Currency Portion			Total		
	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	37,249	37,249	0	43,708	43,708	0	112,426	112,426	0
Package-2	29,247	29,247	0	33,283	33,283	0	86,494	86,494	0
Package-3	804	804	0	8,360	8,360	0	15,184	15,184	0
Package-4 (ITS)	0	0	0	3,770	3,770	0	6,484	6,484	0
Package-5 (Geotechnical Investigation)	0	0	0	147	0	147	253	0	253
Dispute Boards (Package-1, 2, 3 & 4)	0	0	0	58	58	0	99	99	0
Price Escalation	390	390	0	403	403	0	1,082	1,082	0
Physical Contingency	5,077	5,077	0	6,730	6,719	11	16,652	16,633	19
Consulting Services	1,611	1,611	0	1,423	1,423	0	4,058	4,058	0
Land Acquisition*	0	0	0	10,495	0	10,495	18,052	0	18,052
Administration Cost	0	0	0	4,548	0	4,548	7,823	0	7,823
GST	0	0	0	16,935	0	16,935	29,128	0	29,128
Import Tax	0	0	0	12,691	0	12,691	21,830	0	21,830
Interest during construction	3,349	0	3,349	0	0	0	3,349	0	3,349
Front End Fee	485	0	485	0	0	0	485	0	485
<b>Total</b>	<b>78,211</b>	<b>74,377</b>	<b>3,833</b>	<b>142,550</b>	<b>97,723</b>	<b>44,828</b>	<b>323,396</b>	<b>242,459</b>	<b>80,938</b>



**2.3 Project Cost**

**2.3.1. a Comparison of Originally Planned and Actually Incurred Cost by ITEM**

**Table 2.3.1.a.(I) Originally Planned Cost by ITEM**

Cost Breakdown	Foreign Currency Portion			Local Currency Portion			Total		
	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total Rs. mil)	JICA Portion Rs. mil)	Others Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	37,249	37,249	0	43,708	43,708	0	112,426	112,426	0
Package-2	29,247	29,247	0	33,283	33,283	0	86,494	86,494	0
Package-3	804	804	0	8,360	8,360	0	15,184	15,184	0
Package-4 (ITS)	0	0	0	3,770	3,770	0	6,484	6,484	0
Package-5 (Geotechnical Investigation)	0	0	0	147	0	147	253	0	253
Dispute Boards (Package-1, 2, 3 & 4)	0	0	0	58	58	0	99	99	0
Price Escalation	390	390	0	403	403	0	1,082	1,082	0
Physical Contingency	5,077	5,077	0	6,730	6,719	11	16,652	16,633	19
Consulting Services	1,611	1,611	0	1,423	1,423	0	4,058	4,058	0
Land Acquisition*	0	0	0	10,495	0	10,495	18,052	0	18,052
Administration Cost	0	0	0	4,548	0	4,548	7,823	0	7,823
GST	0	0	0	16,935	0	16,935	29,128	0	29,128
Import Tax	0	0	0	12,691	0	12,691	21,830	0	21,830
Interest during construction	3,349	0	3,349	0	0	0	3,349	0	3,349
Front End Fee	485	0	485	0	0	0	485	0	485
<b>Total</b>	<b>78,211</b>	<b>74,377</b>	<b>3,833</b>	<b>142,550</b>	<b>97,723</b>	<b>44,828</b>	<b>323,396</b>	<b>242,459</b>	<b>80,938</b>

Note - 1. Exchange Rate: US\$1=Rs. 78.1, US\$1=JPY 134.0, Rs.1 = JPY 1.72

2. Price Escalation (a) Foreign Currency Portion: 2.06% p.a.

(b) Local Currency Portion: 4.50% p.a.

3. Physical Contingency: 7.5%

4. Base Year for Cost Estimation: July 2022

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



Table 2.3.1.a.(ii) Actually Incurred Cost by ITEM

Cost Breakdown	Foreign Currency Portion			Local Currency Portion			Total		
	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)	Total (Rs. mil)	JICA Portion (Rs. mil)	Others (Rs. mil)	Total (JPY mil)	JICA Portion (JPY mil)	Others (JPY mil)
Package-1	36,107	36,107	-	43,761	43,761		104,463	104,463	
Package-2	25,481	25,481	-	30,642	30,642		73,478	73,478	
Package-3	752	752	-	7,996	7,996		13,038	13,038	
Package-4 (ITS)	-		-	355	355		579	579	
Package-5 (Geotechnical Investigation)	-			196		196	337		337
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		-
Price Escalation	-								-
Physical Contingency	-			-			-		-
Consulting Services	253	253		362	362		2,051	2,051	-
Land Acquisition*	-			8,807	① 8,807	8,807	15,148		15,148
Administration Cost	-			2,667	② 2,667	2,667	4,587	② 4,587	4,587
GST	-			17,665	③ 17,665	17,665	30,384		30,384
Import Tax	-			-			-		-
Interest during construction	339		339	-		④ 339	339		339
Front End Fee	423		423				423		423
<b>Total</b>	<b>63,355</b>	<b>62,594</b>	<b>762</b>	<b>112,451</b>	<b>83,115</b>	<b>29,334</b>	<b>244,827</b>	<b>193,609</b>	<b>51,217</b>

- Note - 1. Exchange Rate: Rs.1 = JPY 1.72 for MMRDA Portion only  
 2. Price Escalation (a) Foreign Currency Portion: 2.06% p.a.  
 (b) Local Currency Portion: 4.50% p.a.  
 3. Physical Contingency: 7.5%  
 4. Base Year for Cost Estimation: July 2022





2.3.1.b Comparison of Originally Planned and Actually Incurred Cost by YEAR

Table 2.3.1.b.(i) Originally Planned Cost by YEAR (All Figures are in JPY mil)

Cost Breakdown	Total	JICA Portion				Others (MMRDA Portion)
		Tranche I	Tranche II	Tranche III	Sub Total	
FY 2015	82	0	0	0	0	82
FY 2016	247	0	0	0	0	247
FY 2017	22,806	10,041	0	0	10,041	12,765
FY 2018	39,813	23,631	0	0	23,631	16,182
FY 2019	41,797	33,549	0	0	33,549	8,248
FY 2020	35,348	26,354	0	0	26,354	8,994
FY 2021	63,583	48,460	0	0	48,460	15,123
FY 2022	50,198	2,759	39,911	0	42,670	7,528
FY 2023	46,007	0	26,998	11,247	38,245	7,762
FY 2024	15,494	0	0	12,907	12,907	2,587
FY 2025	8,022	0	0	6,601	6,601	1,421
<b>Total</b>	<b>323,396</b>	<b>144,794</b>	<b>66,909</b>	<b>30,755</b>	<b>242,458</b>	<b>80,938</b>

Table 2.3.1.b.(ii) Actually Incurred Cost by YEAR (All Figures are in JPY mil)

Cost Breakdown	Total	JICA Portion				Others (MMRDA Portion)
		Tranche I	Tranche II	Tranche III	Sub Total	
FY 2017	13,738 ✓	9,232	-	-	9,232	4,506 ✓
FY 2018	26,813 ✓	21,695	-	-	21,695	5,118 ✓
FY 2019	40,410 ✓	31,014	-	-	31,014	9,396 ✓
FY 2020	31,822 ✓	23,885	-	-	23,885	7,937 ✓
FY 2021	53,977 ✓	43,204	-	-	43,204	10,773 ✓
FY 2022	78,067	13,734	50,846		64,579	13,487
FY 2023						
FY 2024						
<b>Total</b>	<b>244,827</b>	<b>142,764</b>	<b>50,846</b>	<b>-</b>	<b>193,609</b> ✓	<b>51,217</b>

e) 1. Exchange Rate used: Rs.1 = JPY 1.72 for MMRDA Portion only

2. Fiscal Year starting from 1<sup>st</sup> April and ending on 31<sup>st</sup> Mar.



2.3.2 Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

(P/R and PCR)

There is no major gap between the original and actual cost.

## 2.4 Organization for Implementation

### 2.4.1 Executing Agency

**Original:**

#### Executing Agency

Mumbai Metropolitan Region Development Authority (MMRDA) was established on 26<sup>th</sup> Jan 1975 in accordance with the Mumbai Metropolitan Development Act, 1974 to make Mumbai Metropolitan Region (MMR) a destination for economic activity by promoting infrastructure and regional planning. MMRDA takes all the necessary measures, required from time to time, in an effective manner and be fully responsible for the Project implementation. After completion of the Project, MMRDA continues to be responsible for the efficient operation and maintenance of the Project.

The GoM appointed MMRDA as the implementing/ executing agency of MTHL vide Government Resolution dated 4th Feb 2009 and further the ownership of MTHL would be with MMRDA vide Government Resolution dated 8th June 2011.

#### Organization's Role

To construct, execute, carryout, improve, work, develop, administer, manage, control or maintain in MMR all types of roads, highways, express routes, paths, streets, bridges, sideways, tunnels and other infrastructure, works and conveniences, approach road, etc. Under the Project, MMRDA is responsible for all the tendering process including employment of consultants, as well as for the construction process.

#### Project Implementation Unit (PIU)

The PIU is in charge of the Projects. The PIU is headed by Chief Engineer, comprising of 6 Divisions/Cells (Finance Division, Social Development Cell, Engineering Division, Land Cell, Administrative Division and Environmental Cell), Supervision/ ITS Consultant and supporting staff.

#### Procurement

MMRDA shall have to adopt the JICA's Standard Bidding Documents of the latest version, as stipulated in Section 4.01 (2) of "Guidelines for Procurement under Japanese ODA Loans.

Procurement of goods and services, except for consulting services, converted by the Japanese ODA Loan should be implemented in accordance with "Guidelines for Procurement under Japanese ODA Loans", dated in Apr 2012. Employment of consultants should be implemented in accordance with "Guidelines of Employment of Consultant under Japanese ODA Loans", dated in Apr 2012. "Principles of Procurement under the Project" is attached for a brief explanation of the above Guidelines.

**Actual, if changed: (P/R and PCR)**

There is no change made in the original Organisation Set-up & Implementation methods. Refer Annexure III Organisation Chart.

**2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:**

**2.4.2.1 Procurement & Consultant**

**Table 2.4.2 Procurement of Contractor(s)/ Supplier(s) and Consultant(s)**

Contract Package	Selection Method		
	Original: (P/M)	Actual: (P/R and PCR)	
<b>Construction Works</b>			
1	<u>Package-1:</u> From CH 0+000 - To CH 10+380 (10.38 km)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change
2	<u>Package-2:</u> From CH 10+380 - To CH 18+187 (7.80 km)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change
3	<u>Package-3:</u> From CH 18+187 - To CH 21+800 (3.61 km)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	No Change
4	<u>Package-4:</u> To install ITS (Toll Management System and Highway Traffic Management System)	International Competitive Bidding Process (With PQ, Single stage with two envelopes)	International Competitive Direct Bidding Process without Pre-Qualification
5	<u>Package-5:</u> To conduct the geotechnical investigation	Local Competitive Bidding Process	No Change
<b>Consulting Services</b>			
1	Consulting Service for Supervision	Short List Method (QCBS)	No Change



#### 2.4.2.2 Performance

##### Consultant's Progress:

##### January 2023:

- i) GC scrutinized & certified the following invoices claimed by the Contractors:
- o Package-1: IPC-60-100% Certified and IPC-62 -80% Certified by GC.
  - o Package-2: IPC-56 100% Certified and IPC-57 -80% Certified by GC.
  - o Package-3: IPC-50 100% Certified and IPC-52 -80% Certified by GC.

##### February 2023:

- GC scrutinized & certified the following invoices claimed by the Contractors:
- o Package-1: IPC-61 100% certified and IPC-63 80% Ad-hoc certified by GC.
  - o Package-2: IPC-57 100% certified & IPC-58-80% Ad-hoc certified by GC.
  - o Package-3: IPC-52 100% certified & IPC-53-80% Ad-hoc certified by GC.

##### March 2023:

- GC scrutinized & certified the following invoices claimed by the Contractors:
- o Package-1: IPC-62-100% Certified and IPC-64 -80% Certified by GC.
  - o Package-2: IPC-58 100% Certified and IPC-59 -80% Certified by GC.
  - o Package-3: IPC-53 100% Certified by GC.
  - o Package-4: IPC-01 80% certified by GC.

GC has prepared and submitted a total reimbursement claim of 9986.63 million JPY to MMRDA / JICA in Mar 2023. (Please refer Annexure-2)

100% of the Technical Design Modules across all the 3 Packages have been given "NONO" by the GC & Package design submission is in progress.

100% of the Construction (GFC – Good for Construction) Design Modules across all the 3 Packages have been given "NONO" by the GC.

Package-1 – 100%, Package-2 – 100%, Package-3 -100%.

**Contractor's Progress:**

**Package-1 Physical Progress till 31<sup>st</sup> March 2023**

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
<b>1</b>	<b>Permanent Bridge Works - Land/ Interchange Zone</b>					
1.1	Piles	523	No.	523	100.00%	
1.2	Pile Caps	158	No.	158	100.00%	
1.3	Piers	228	No.	228	100.00%	
1.4	Pier Caps	215	No.	215	100.00%	
<b>2</b>	<b>Permanent Bridge Works - Intertidal Zone</b>					
2.1	Piles	312	No.	312	100.00%	
2.2	Pile Caps	75	No.	75	100.00%	
2.3	Piers	146	No.	146	100.00%	
2.4	Pier Caps	146	No.	146	100.00%	
<b>3</b>	<b>Permanent Bridge Works - Marine Zone</b>					
3.1	Piles	403	No.	403	100.00%	
3.2	Pile Caps	80	No.	80	100.00%	
3.3	Piers	162	No.	162	100.00%	
3.4	Pier Caps	162	No.	162	100.00%	
<b>4</b>	<b>Permanent Bridge Works - Total</b>					
4.1	Piles	1238	No.	1238	100.00%	
4.2	Pile Caps	313	No.	313	100.00%	
4.3	Piers	536	No.	536	100.00%	
4.4	Pier Caps	536	No.	536	100.00%	
<b>5</b>	<b>Precast Segments</b>					
5.1	Segment Casting	6714	No.	6714	100.00%	
5.2	Segment (Span) Erection+ Cast-in-Situ Slab	478	No.	444	92.89%	
<b>6</b>	<b>OSD Structural Steel</b>					
6.1	Fabrication	53703	MT	53703	100.00%	
6.2	Assembly (Large Blocks)	53703	MT	49100	91.43%	
6.3	OSD Span Erection	38	No.	31	81.58%	
<b>7</b>	<b>Crash Barrier</b>					
7.1	Crash Barrier - Median	20718	Rmt	10735	51.81%	
7.2	Crash Barrier - Outer	31099	Rmt	15669	50.38%	

**Package-2 Physical Progress till 31<sup>st</sup> March 2023**

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
<b>1 Permanent Bridge Works - Land/ Interchange Zone</b>						
1.1	Open Foundation	113	No.	113	100.00%	
1.2	Piers	119	No.	119	100.00%	
1.3	Pier Caps	105	No.	105	100.00%	
1.4	Portal Beams- Land	6	No.	6	100.00%	
1.5	Pier Head Segments -Land	42	No.	42	100.00%	
<b>2 Permanent Bridge Works - Intertidal &amp; CRZ Zone</b>						
2.1	Piles	280	No.	280	100.00%	
2.2	Pile Caps	72	No.	72	100.00%	
2.3	Piers	72	No.	72	100.00%	
2.4	Pier Caps	18	No.	18	100.00%	
2.5	Pier Head Segments	54	No.	54	100.00%	
<b>3 Permanent Bridge Works - Marine Zone</b>						
3.1	Piles	504	No.	504	100.00%	
3.2	Pile Caps	120	No.	120	100.00%	
3.3	Piers	120	No.	120	100.00%	
3.4	Pier Caps	48	No.	48	100.00%	
3.5	Pier Head Segments	74	No.	74	100.00%	
<b>4 Permanent Bridge Works - Total</b>						
4.1	Open Foundation	113	No.	113	100.00%	
4.2	Piles	784	No.	784	100.00%	
4.3	Pile Caps	192	No.	192	100.00%	
4.4	Piers	311	No.	311	100.00%	
4.5	Pier Caps/ Portal Beams	177	No.	177	100.00%	
4.6	Pier Head Segments	170	No.	170	100.00%	
<b>5 Precast Segments</b>						
5.1	Segment Casting	3132	No.	3132	100.00%	
5.2	Segment (Span) Erection + Cast-in-Situ Slabs	272	No.	254	93.98%	
<b>6 OSD Structural Steel</b>						
6.1	Fabrication	34726	MT	34,726	100%	
6.2	Assembly (for Large Block)	34726	MT	31,724	90.06%	
6.3	OSD Span Erection	32	No.	26	81.25%	
<b>7 Crash Barrier</b>						
7.1	Crash Barrier - Median	15614	Rmt	8562	54.84%	
7.2	Crash Barrier - Outer	20945	Rmt	11,438	54.61%	



**Package-3 Physical Progress till 31<sup>st</sup> March 2023**

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
<b>1</b>	<b>Permanent Bridge Works</b>					
1.1	Open Foundations	221	No.	221	100.00%	
1.2	Piles	24	No.	24	100.00%	
1.3	Pile Caps	4	No.	4	100.00%	
1.4	Piers	242	No.	242	100.00%	
1.5	Pier Caps	189	No.	189	100.00%	
1.6	Segment Casting	834	No.	834	100.00%	
1.7	Segment (Span) Erection	59	No.	59	100.00%	
1.8	Cast in-situ Slab	108	No.	108	100.00%	
1.9	Rail Overbridge (ROB) Span	20	No.	12	60.00%	
1.10	Crash Barrier – Median	5500	Rmt	3142	57.13%	
1.11	Crash Barrier - Outer	9000	Rmt	5663	62.92%	

**Package-4 (ITS) Progress till 31<sup>st</sup> March 2023**

1. Design & Drawings submission is in progress.
2. Geotechnical Investigation for Sub admin building & Service Road is completed.
3. Gahavan main admin building foundation & Column is in progress.

Please refer Attachment 9 - Site Progress Photos showing the development of the project.



**Health & Safety and Environment (HSE)**

The HSE Plans have been submitted by the respective construction agencies for the Packages which are being monitored by the GC on a regular basis.

**Package-1 Safety Report**

S No.	Description	Unit	Jan-Feb-Mar 2023	Cumulative
1	Average Daily Manpower (all Workmen & Staff)	Numbers	4,207	2,789
2	Man-Days Worked	Days	481,586	6,599,459
3	Man-Hours Worked	Hours	3,852,685	56,250,690
4	Accident-Free Man Hours	Hours	3,073,609	4,175,838
5	Fatal Accidents (Reportable)	Incidents (Nos.)	1	6
6	Fatality Cases.	Fatalities (FAT)	1	7
7	Lost Time Injury Incidents (Reportable)	Incidents (Nos.)	0	8
8	Lost Time Injury Cases (Persons Injured)	# Injured Persons	0	10
9	Restricted Work Medical Case	RWMC (#Incidents)	0	0
10	Medical Treatment Cases	MTC (#Incidents)	0	2
11	First Aid Cases.	FAC (#Cases)	13	319
12	Near Miss Incidents.	NMI (#Incidents)	10	130
13	Dangerous Occurrences.	DO (#Numbers)	1	6
14	Reportable Sick Cases (Succumbed due Covid)	Sick (#Persons)	0	2
15	Man-Hours Lost	Hours	48,720	345,296
16	Man-Days Lost	Days	6,090	43,171
17	Reportable Incident Frequency Rate / Million Man Hours	# (FAT+ Injuries)/MMH	1	0.302
18	Reportable Incident Severity Rate / Million Man Hours	Days Lost/MMHr	5,764	767
19	Total Injury Incident Frequency Rate / 1M Man Hours	TIFR	1	0.338
20	Toolbox Talks	Sessions	11,804	1,51,270
21	Safety Walk down Inspections (Joint & CFT)	Numbers	32	245
22	Routine Safety Inspections (Safety Team with Reports)	Numbers	140	4,142
23	Total Observations Raised (Safety)	Numbers	3,993	90,452
24	Health & Hygiene Inspections	Numbers	30	67
25	Total Observations Raised (Health & Hygiene)	Numbers	204	819
26	Training Sessions done for Offices & Sites	Sessions	89	3,668
27	Personnel Attended Training Sessions (Classroom & Site)	Persons	2,412	49,026
28	Contractor Safety Committee Meetings	Numbers	3	42
29	Critical Excavations	Numbers	0	86
30	Pre-employment Medical check-ups	Persons	2,956	46,956
31	Safety Inductions completed	Persons	2,956	48,843
32	Mock drills Conducted	Numbers	3	38
33	Contractor's Internal Audits Conducted	Numbers	3	55





Package-2 Safety Report

S No.	Description	Unit	Jan-Feb-Mar 2023	Cumulative
1	Average Daily Manpower (all Workmen & Staff)	Numbers	3,523	2,117
2	Man-Days Worked	Days	268,673	3,088,283
3	Man-Hours Worked	Hours	2,955,403	34,462,495
4	Accident-Free Man Hours	Hours	2,955,403	5,017,056
5	Fatal Accidents (Reportable)	Incidents (Nos.)	0	0
6	Fatality Cases.	Fatalities (FAT)	0	0
7	Lost Time Injury Incidents (Reportable)	Incidents (Nos.)	0	13
8	Lost Time Injury Cases (Persons Injured)	# Injured Persons	0	13
9	Restricted Work Medical Case	RWMC (#Incidents)	1	7
10	Medical Treatment Cases	MTC (#Incidents)	0	14
11	First Aid Cases.	FAC (#Cases)	6	197
12	Near Miss Incidents.	NMI (#Incidents)	25	419
13	Dangerous Occurrences.	DO (#Numbers)	2	19
14	Reportable Sick Cases (Succumbed due Covid)	Sick (#Persons)	0	3
15	Man-Hours Lost	Hours	0	6,680
16	Man-Days Lost	Days	0	835
17	Reportable Incident Frequency Rate / Million Man Hours	# (FAT+ Injuries)/MMH	0	0.377
18	Reportable Incident Severity Rate / Million Man Hours	Days Lost/MMHr	0	24
19	Total Injury Incident Frequency Rate / 1M Man Hours	TIFR	1	0.987
20	Toolbox Talks	Sessions	1,182	14,258
21	Safety Walk down Inspections (Joint & CFT)	Numbers	13	196
22	Routine Safety Inspections (Safety Team with Reports)	Numbers	336	2,268
23	Total Observations Raised (Safety)	Numbers	2,380	27,456
24	Health & Hygiene Inspections	Numbers	0	4
25	Total Observations Raised (Health & Hygiene)	Numbers	0	16
26	Training Sessions done for Offices & Sites	Sessions	217	1,613
27	Personnel Attended Training Sessions (Classroom & Site)	Persons	4,559	31,215
28	Contractor Safety Committee Meetings	Numbers	3	57
29	Critical Excavations	Numbers	0	0
30	Pre-employment Medical check-ups	Persons	750	18,680
31	Safety Inductions completed	Persons	754	19,125
32	Mock drills Conducted	Numbers	4	49
33	Contractor's Internal Audits Conducted	Numbers	0	0



Package-3 Safety Report

S No.	Description	Unit	Jan-Feb-Mar 2023	Cumulative
1	Average Daily Manpower (all Workmen & Staff)	Numbers	394	423
2	Man-Days Worked	Days	49,085	918,112
3	Man-Hours Worked	Hours	392,678	7,344,984
4	Accident-Free Man Hours	Hours	392,678	1,537,525
5	Fatal Accidents (Reportable)	Incidents (Nos.)	0	0
6	Fatality Cases.	Fatalities (FAT)	0	0
7	Lost Time Injury Incidents (Reportable)	Incidents (Nos.)	0	3
8	Lost Time Injury Cases (Persons Injured)	# Injured Persons	0	3
9	Restricted Work Medical Case	RWMC (#Incidents)	0	0
10	Medical Treatment Cases	MTC (#Incidents)	0	0
11	First Aid Cases.	FAC (#Cases)	3	133
12	Near Miss Incidents.	NMI (#Incidents)	4	51
13	Dangerous Occurrences.	DO (#Numbers)	0	1
14	Reportable Sick Cases (Succumbed due Covid)	Sick (#Persons)	0	0
15	Man-Hours Lost	Hours	0	2,216
16	Man-Days Lost	Days	0	277
17	Reportable Incident Frequency Rate / Million Man Hours	# (FAT+ Injuries)/MMH	0	0.408
18	Reportable Incident Severity Rate / Million Man Hours	Days Lost/MMHr	0	38
19	Total Injury Incident Frequency Rate / 1M Man Hours	TIFR	0	0
20	Toolbox Talks	Sessions	380	9,053
21	Safety Walk down Inspections (Joint & CFT)	Numbers	12	205
22	Routine Safety Inspections (Safety Team with Reports)	Numbers	60	725
23	Total Observations Raised (Safety)	Numbers	670	2,098
24	Health & Hygiene Inspections	Numbers	6	20
25	Total Observations Raised (Health & Hygiene)	Numbers	24	93
26	Training Sessions done for Offices & Sites	Sessions	66	449
27	Personnel Attended Training Sessions (Classroom & Site)	Persons	1,552	4,306
28	Contractor Safety Committee Meetings	Numbers	3	53
29	Critical Excavations	Numbers	0	9
30	Pre-employment Medical check-ups	Persons	422	11,612
31	Safety Inductions completed	Persons	422	11,669
32	Mock drills Conducted	Numbers	3	47
33	Contractor's Internal Audits Conducted	Numbers	0	13



Package-4 Safety Report

S No.	Description	Unit	Jan-Feb-Mar 2023	Cumulative
1	Average Daily Manpower (all Workmen & Staff)	Numbers	189	74
2	Man-Days Worked	Days	13,760	16,821
3	Man-Hours Worked	Hours	110,080	134,568
4	Accident-Free Man Hours	Hours	110,080	134,568
5	Fatal Accidents (Reportable)	Incidents (Nos.)	0	0
6	Fatality Cases.	Fatalities (FAT)	0	0
7	Lost Time Injury Incidents (Reportable)	Incidents (Nos.)	0	0
8	Lost Time Injury Cases (Persons Injured)	# Injured Persons	0	0
9	Restricted Work Medical Case	RWMC (#Incidents)	0	0
10	Medical Treatment Cases	MTC (#Incidents)	1	1
11	First Aid Cases.	FAC (#Cases)	2	2
12	Near Miss Incidents.	NMI (#Incidents)	3	4
13	Dangerous Occurrences.	DO (#Numbers)	0	0
14	Reportable Sick Cases (Succumbed due Covid)	Sick (#Persons)	0	0
15	Man-Hours Lost	Hours	0	0
16	Man-Days Lost	Days	0	0
17	Reportable Incident Frequency Rate / Million Man Hours	# (FAT+ Injuries)/MMH	0	0
18	Reportable Incident Severity Rate / Million Man Hours	Days Lost/MMHr	0	0
19	Total Injury Incident Frequency Rate / 1M Man Hours	TIFR	24	7
20	Toolbox Talks	Sessions	210	324
21	Safety Walk down Inspections (Joint & CFT)	Numbers	7	7
22	Routine Safety Inspections (Safety Team with Reports)	Numbers	5	5
23	Total Observations Raised (Safety)	Numbers	120	202
24	Health & Hygiene Inspections	Numbers	0	0
25	Total Observations Raised (Health & Hygiene)	Numbers	0	0
26	Training Sessions done for Offices & Sites	Sessions	38	50
27	Personnel Attended Training Sessions (Classroom & Site)	Persons	1,125	1,265
28	Contractor Safety Committee Meetings	Numbers	1	4
29	Critical Excavations	Numbers	0	1
30	Pre-employment Medical check-ups	Persons	125	125
31	Safety Inductions completed	Persons	158	213
32	Mock drills Conducted	Numbers	1	2
33	Contractor's Internal Audits Conducted	Numbers	0	1

**3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)**



**Operational and Physical Condition**

(This section will be developed when the operational plan is available)

Facilities	Description of condition	Problems, its Background and Remedial Action Plan
(P/R and PCR)	(P/R and PCR)	(P/R and PCR)

**3.2 Precautions (Measures to be adopted/ Points which require special attention)**

Original Issues and Countermeasure(s)	Actual Issues and Countermeasure(s)
<p><b>3.2.1 General Issues</b></p> <p><b>1. Toll Arrangement/ Toll Rate</b> Fixed toll rate as per the type of vehicle will be levied for the road users after the completion of the Project. An appropriate tolling policy/ rates will be finalized in consultation with the state government prior to the completion of Civil works.</p> <p><b>2. Operation and Maintenance</b> MMRDA proposes to appoint separate agencies for Operation &amp; Maintenance of the bridge and for Toll Management System. Both the agencies for O &amp; M and Toll Management System may be appointed through open tendering process. Overall monitoring of the two agencies would be done by MMRDA in-house through a separate cell which could be constituted for the purpose. MMRDA has confirmed to allocate an adequate budget for engaging the Contractors.</p>	<p>(P/R and PCR)</p> <p>Appropriate Tolling Policy/ Rates finalization is in progress.</p> <p>A single Operation and Maintenance Contractor finalization is in progress.</p>
<p><b>3.2.2 Environmental and Social Consideration</b></p> <p><b>a. CRZ Clearance</b></p> <p>i. Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. A supplemental EIA report has been disclosed also on the website of MMRDA.</p> <p>ii. Furthermore, renewed CRZ Clearance has been obtained in January 2016.</p> <p>iii. In accordance with the conditions for CRZ Clearance, appropriate measures shall be taken, and necessary budget shall be secured by MMRDA.</p>	<p>(P/R and PCR)</p> <ul style="list-style-type: none"> <li>• MMRDA has disclosed Supplemental EIA &amp; SIA on MMRDA website.</li> <li>• The renewed CRZ clearance was granted on 25/1/2016 from MoEF&amp;CC and the approval conditions have been imposed on the Contractors as the Employer's requirements. MMRDA has actively monitored the compliances of the approval conditions and maintained them throughout the construction phase.</li> <li>• MMRDA appointed Mangroves &amp; Marine Biodiversity Foundation for bird monitoring and implementation of Flamingos and bird monitoring program for the MTHL project during the construction as well as the long-term monitoring after the construction.</li> </ul>



	<ul style="list-style-type: none"> <li>• Rs 91.42 Crore has been transferred to Mangroves &amp; Marine Biodiversity Foundation, Mumbai for the development &amp; conservation of mangrove area and its afforestation. Such funds will be managed by the Mangrove Foundation of Maharashtra State.</li> <li>• As per the renewed CRZ clearance condition, IIT Mumbai has been appointed for the DPR study to develop a Mahul creek Effluent Treatment Plant (ETP). Rs 4.98 Crore was secured for IIT services. The Draft DPR has been reviewed and approved.</li> <li>• Proposal of extension for CRZ clearance submitted vide reference no MCZMA 2022/08/CR-246/3719 dated 4<sup>th</sup> Aug-2022. (Please refer Annexure-3)</li> </ul>
--	--

#### b. Required Permits

The Permits to be obtained by MMRDA/ Contractors and the present status is given in the following Table.

**Table 3.2.2 Present Status of some Important Permits**

Clearance Required	Approving Authority	Responsible Organization	Obtained by when	Remark /Status
Mangrove Cutting	Hon. Bombay High Court	MMRDA/ Contractor	Approval received from Hon. Bombay High Court on 28 <sup>th</sup> Nov 2016	Mangrove cutting operation was completed with full compliance and as of now, no further follow up work is required.
Tree Cutting /Transplantati on	Respective Tree Authorities	Contractor for respective Packages	-	<p><b>Pkg-1:</b> Tree Cutting/ Transplantation permission from the Garden Dept., MCGM obtained on 24<sup>th</sup> Dec 2020.</p> <p><b>Pkg-2:</b> Tree Cutting/ Transplantation permission obtained &amp; completed.</p> <p><b>Pkg-3:</b> Forest Department issued a concurrence on 19/05/2019. CIDCO's permission for Tree Cutting/ Transplantation obtained on 25<sup>th</sup> Nov 2019.</p>
Consent to Establish	Maharashtra Pollution Control Board	Contractor for respective Packages	Pkg-1-18.07.2018 Pkg-2-16.08.2018 Pkg-3-29.05.2019	

#### 3.3 Environmental and Social Impacts

Major environmental and social impacts have occurred during project implementation (e.g. involuntary resettlement, poverty reduction, impacts on the natural environment).

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p><b>1. Establishment of Effective Environmental and Social Cell in PIU</b></p> <p>MMRDA confirmed that Social Development Cell (2 Officers), Land Cell (3 Officers), and Environmental Cell (2 Officers) had been set up.</p>	<p>Cell is established by MMRDA (Annexure III, Organization chart)</p>
<p><b>2. Rehabilitation and Land Acquisition Issues</b></p> <p><b>a. Affected Area and Population</b></p> <p>Due to the Project, 1282 non-titleholders will be involuntary resettled, and 108.4379 ha of land will be handed over by CIDCO.</p>	<p><b>Sewri:</b> Involuntary resettlement in Sewri section has been further validated by Social Development Cell of MMRDA. Out of 297 Project Affected Households (PAHs) have given consents as follows:</p> <ul style="list-style-type: none"> <li>• 164 PAHs Kanjurmarg for residential</li> <li>• 25 PAHs Kanjurmarg for commercial</li> <li>• 7 PAHs (Satsangi Plot) Kanjurmarg for Commercial</li> <li>• 1 PAHs (commercial to residential) for Bhakti Park</li> <li>• 100 PAHs HDIL Kurla for residential</li> </ul> <p><b>Navi Mumbai:</b> CIDCO has been finalizing the land acquisition closely monitored by Land Cell of MMRDA.</p> <p>CIDCO has possessed 106.3542 ha of land and handed over to MMRDA, except private land of 2.0837 ha.</p> <p>0.3937 ha land is under acquisition out of balance 2.0837 ha land. CIDCO is planning to acquire the balance ROW land of with the help of Collector, Raigad.</p>
<p><b>b. Entitlement Policy</b></p> <p>MMRDA prepared the entitlement matrix for resettlement of non-title holders in Sewri, which meets the Resettlement and Rehabilitation Policy for Mumbai Urban Transportation Project (1997, amended in 2000) and JICA guidelines for Environmental and social considerations (2010) ("Guidelines") (Attachment 2-5).</p>	<p>There have been no changes during the enforcement. As per the Attachment 2-5 of JICA MoD, MMRDA has committed to enforce the agreed/ approved policy.</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p><b>c. Compensation to Project affected Fishermen</b></p> <p>Detailed baseline survey will be undertaken by MMRDA in order to identify fishermen who are affected by the Project. Based on the result of the baseline survey, MMRDA will compensate them in accordance with compensation policy prior to the construction. Monitoring will be conducted by MMRDA with assistance of the Consultant to gasp the exact impact during construction and operation phase.</p>	<p>Updated Attachments 2-8 and 2-10 are enclosed in the report.</p>
<p><b>d. Implementation Schedule</b></p> <p>The Implementation schedule for land acquisition, resettlement and rehabilitation is attached as per Attachment 2-10.</p>	<p>Updated Attachment 2-10 is enclosed in the report.</p>
<p><b>e. Grievance Redressal Mechanism</b></p> <p>Grievance Redressal Committee ("GRC") set under MMRDA will deal with grievances raised by PAPs in Sewri and fishermen to be affected by the Project. Any grievances raised by PAPs whose land is acquired by CIDCO shall be resolved by CIDCO.</p>	<p><b>Sewri:</b> FLGRC (Field Level Grievance Redressal Committee) and SLGRC (Senior Level Grievance Redressal Committee) were set as per the RAP and in operation. Compensation Committee has been constituted to address the issues of Compensation to Lease Holders at Sewri.</p> <p><b>Fishermen:</b> GRC for resolving grievances of the fisherfolk was set up as per the compensation policy and is in operation.</p>
<p><b>f. Internal Monitoring</b></p> <p>Internal Monitoring of the Resettlement Action Plan (RAP) implementation will be conducted by MMRDA in accordance with the RAP with necessary assistance of the consultant. RAP Internal Monitoring Form (Attachment 2-8) will be submitted to JICA on a quarterly basis as a part of PSR during the RAP implementation.</p>	<p>Internal Monitoring updates are mentioned in Attachment 2-8.</p>
<p><b>g. Qualitative Independent Evaluation</b></p> <p>An Independent Evaluation Agency will be hired by MMRDA for evaluation of RAP implementation. An external</p>	

Mumbai Trans Harbour Link Project-Quarterly Progress Report No. 24 (Jan-Mar 2023)

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>evaluation report will be submitted to MMRDA at mid-term and end-term. MMRDA would submit the evaluation report to JICA in a timely manner.</p>	<p>Updated <b>Attachment 2-10</b> is enclosed in the report.</p>
<p><b>h. RAP Implementation Budget</b></p> <p>The amount of estimated resettlement and compensation budget is Rs.906.26 Cr MMRDA informed to the JICA Mission that RAP implementation cost would be borne by MMRDA and ensured sufficient and timely allocation of funds for smooth implementation.</p>	<p>As updated in MOD dated 03/09/2019 for MTHL- II, the base cost Budget towards RAP Implementation is updated as Rs 1129.3 Cr.</p>
<p><b>i. Environmental Management Plan (“EMP”)</b></p> <p>The mitigation measures against air pollution, waste, noise, and water pollution etc. shall be taken during construction and operation phase. Mitigation measures such as installation of noise barrier, appropriate waste management, etc. have been prepared by MMRDA. The mitigation measures are listed in the EMP matrix. (<b>Attachment 2-1</b>). During the detailed design stage, MMRDA, with assistance of the Consultant, will update the EMP, as necessary.</p>	<p>EMP will be updated, if required, in due course of construction activities/progress.</p>
<p><b>j. Environmental Monitoring Plan (“EMoP”)</b></p> <p>MMRDA takes overall responsibility for implementation of EMoP. During construction, environmental monitoring will be carried out by contractors under supervision by Construction Supervision consultant. The result shall be reported to the JICA India Office on a quarterly basis as a part of Progress Status Report (PSR) by filling in the Reporting Form of Environmental Monitoring Result. (<b>Attachment 2-4</b>). After completion of the construction, EMoP shall be implemented by MMRDA, and the results shall be submitted to the JICA India Office semi-</p>	<p>Environmental Monitoring Plan with the package wise budgeted cost is reported in <b>Attachment 2-3</b>. Environmental Monitoring Results during the construction phase are reported in <b>Attachment 2-4</b>.</p>



Mumbai Trans Harbour Link Project-Quarterly Progress Report No. 24 (Jan-Mar 2023)

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
annually until two years after complementation of construction. The required amount of estimated environmental monitoring budget is borne by MMRDA.	
<p><b>k. Long Term Bird Monitoring</b></p> <p>MMRDA committed to conduct the long-term monitoring of birds and its habitat in Sewri mudflats with the assistance of hired bird expert. During the long-term monitoring, MMRDA will share information and receive advice from external experts including the one from NGOs and civil society.</p>	<ul style="list-style-type: none"> <li>• MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures &amp; bird monitoring program to Mangrove and Marine Biodiversity Foundation.</li> <li>• Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai for periodical disbursement to BNHS.</li> </ul>

**3.4 Qualitative and Quantitative Data of Monitoring Indicators**

Operation and Effect Indicator EIRR and/ or FIRR

Supporting data for Computing EIRR and/ or FIRR

Indicators	Original (Year 2015)	Target (Year 2024) 2 Years After Commercial Operation
Average Annual Daily Traffic (PCU/ day)	-	47,400
Daily Average Travel Time (min) * 1	61 min	15.8 min
Number of Users (Persons/ year) * 2	-	46,077,504
Cargo Volume (tons/ year) * 3	-	13,511,759

\*1 Section on Sewri – Chirle

\*2 Assumptions: average passengers of car and taxi (2.6 persons), bus (37.2 persons) based on JICA study. Number of passengers of LCV, HCV and MAV is assumed as 1 person each.

\*3 Assumptions: the maximum capacity of respective vehicle (LCV: 1 ton, HCV and MAV: 15 tons) is used for estimation.

<b>EIRR</b>	<p><b>Original:</b> 15.4%</p> <p>Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&amp;M cost, Land Acquisition</p> <p>Benefit: Travel Time cost and Vehicle Operation cost</p> <p>Project Life: 32 Years</p>	<p><b>Actual: (PCR)</b> ____%</p> <p>Cost: Benefit: Project Life: <b>Attachment(s):</b> <b>Supporting data for computing EIRR</b></p>
-------------	---	---

Mumbai Trans Harbour Link Project-Quarterly Progress Report No. 24 (Jan-Mar 2023)

<b>FIRR</b>	<b>Original:</b> 1.5% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years	<b>Actual: (PCR)</b> ____%
-------------	--	-------------------------------

**3.5 Monitoring Plan for the indicators**

Monitoring Methods, Section(s)/ department(s) in charge of monitoring, frequency, the term and so forth are given below:

<p><b>Original: (P/M and PCR)</b></p> <p><u>Monitoring Organization</u></p> <p>PIU shall be In-Charge of Monitoring activities for the Project.</p> <p><u>Submission of QPR and PCR</u></p> <p>The timely submission of the following documents is required by MMRDA.</p> <p><b>a. Quarterly Progress Report (QPR):</b> The progress report for the Project should be submitted by MMRDA to JICA on quarterly basis, not later than 30 days after the concerned quarter, in the form of Project Status Report (PSR) attached hereto as per Annex I; Updated status land Acquisition, milestone achieved with respect to Action Plan with Timetable, the monitoring form for environmental and social consideration should also be appended to the PSR. In addition, MMRDA shall also forward the Monthly &amp; Quarterly Progress Reports (including S-Curve Chart) prepared by the Consultant to JICA India Office on regular basis till project completion.</p> <p><b>b. Project Completion Report (PCR):</b> A project completion report should be submitted by MMRDA to JICA promptly, but in any event not later than six months after completion of the Project, in the form of Project Status Report (PSR) attached hereto as per Annex I.</p>
<p><b>Actual: (P/R and PCR)</b></p> <p><b>Monitoring Organization</b></p> <p>PIU for MTHL has been established for monitoring the Project.</p> <p><b>Submission of QPR and PCR</b></p> <p>This QPR No. 22 is submitted for the period of 1<sup>st</sup> July to 30<sup>th</sup> Sep 2022.</p>

**3.6 Achievement of the Project Objective**

(PCR)
<b>4.0 OPERATION AND MAINTENANCE (O&amp;M) (SUSTAINABILITY)</b>

**4.1 O&M and Management**

- Organization Chart of O&M
- Operational and maintenance system (structure and the number, qualification and skill of staff or other conditions necessary to maintain the outputs and benefits of the project soundly, such as manuals, facilities and equipment for maintenance, and spare part stocks etc.)



**Original: (P/M)**

**Operation & Maintenance, Toll Management and ITS**

MMRDA proposes to engage two separate agencies for O&M and Toll Management System. Though MMRDA will not directly carry out O&M, the overall monitoring over the O&M agency will be the responsibility of MMRDA. O&M Budget will be allocated by MMRDA. O&M and increase in toll rate will be done in accordance with the NHAI's manuals such as "NHAI Works manuals".

**Actual: (PCR)**

**4.2 O&M Cost and Budget**

- The actual annual O&M cost for the duration of the project, as well as the annual O&M budget.

(PCR) This will be reported when the outcome of the above work-study is available.

**5.0 EVALUATION**

**5.1 JICA and Borrower / Executing Agency performance**

**JICA:**

(PCR)

**Borrower/ Executing Agency:**

(PCR)

**5.2 Overall Evaluation**

Please describe your evaluation on the overall outcome of the project.

(PCR)

**5.3 Lessons Learnt and Recommendations**

*Please raise any lessons learned from the project experience, which might be valuable for the future JICA assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.*

(PCR)

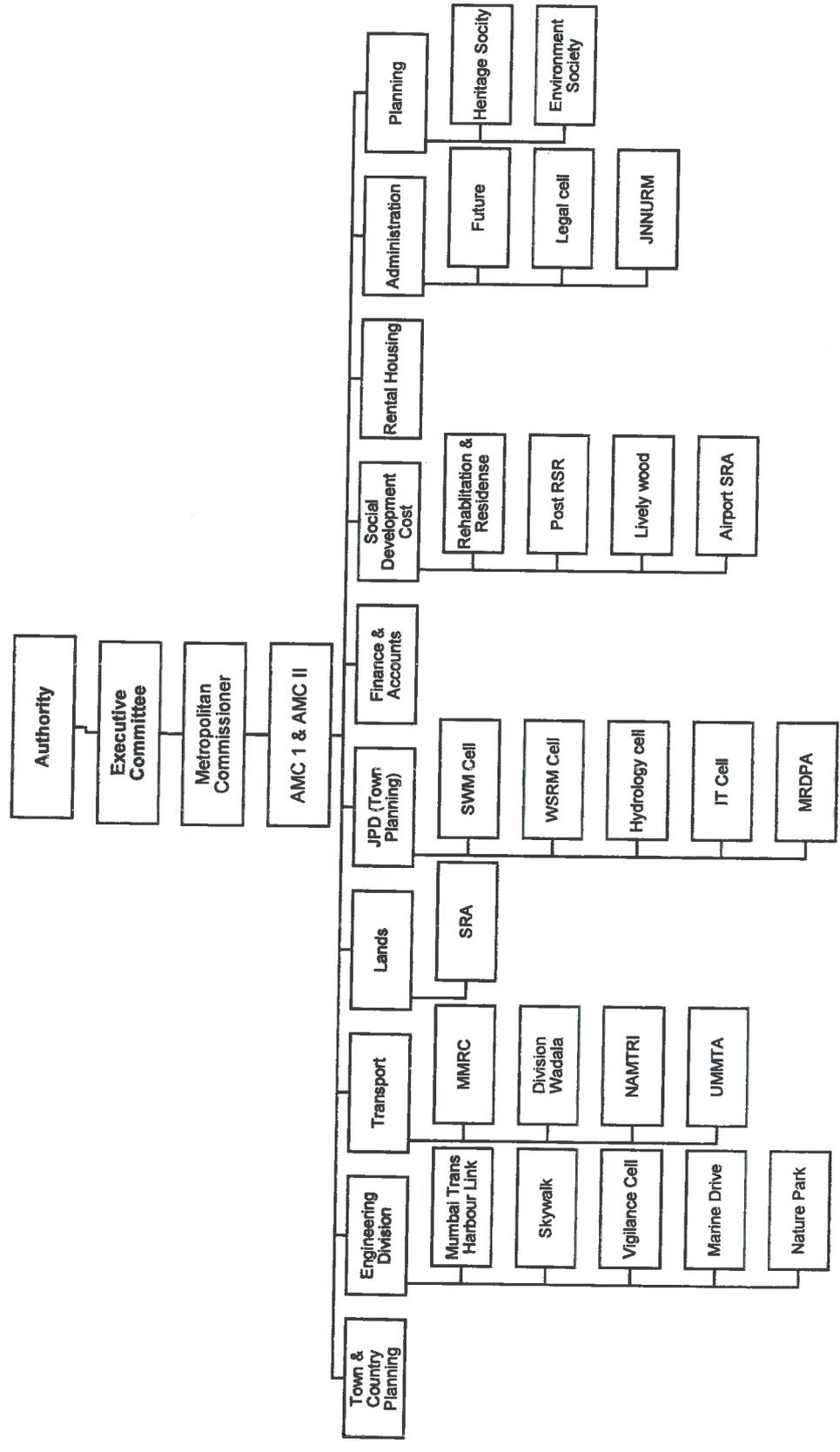


## Attachment 1- MMRDA & PIU Organization Chart

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



**MMRDA Organization chart**



1st Jan 2023 to 31st Mar 2023



## **Attachment 2- Environmental & Social Impacts**

**Attachment 2-3 – Envi. Monitoring Plan with Package-wise Estimated Cost**

**Attachment 2-4 – Environmental Monitoring Result Reporting Form**

**Attachment 2-6 – MTHL Land Acquisition Status**

**Attachment 2-8 – RAP Internal Monitoring Form**

**Attachment 2-10 – Schedule of the RAP Implementation**



Environmental Monitoring Plan with Packagewise Estimated Cost

Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) - Ministry of Environment & Forest (MoEF)	Remarks
Pollution	1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , O <sub>3</sub> , CO, (6 Items)	National Ambient Air Quality Standards, 2009	1. Sewri & Sewri bay area for package I	Fortnightly at all locations except 2 locations each near Batching plants	1,800,000	15,000,000	1,800,000	742,500	17,542,500	National Ambient Air Quality Standards (NAAQS) by Central Pollution Control Board (CPCB)	P1 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						(Standard for 24hrs: Industrial and Residential/ Ecological Sensitive area)	P 2 contractor Monitoring plan has been designed as per EIA of 2015
					3. Gavhan & Chirle for package III	Fortnightly only for 3 months (Jan-2019 to Mar-2019). Then quarterly monitoring as per MOEF and CPCB norms						SO <sub>2</sub> : 80 / 80µg/m <sup>3</sup>	P3 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
												NO <sub>2</sub> : 80 / 80µg/m <sup>3</sup>	P 1 received Consents CTE & CTO from MPCB and they are following MPCB frequency in addition to frequency set by Environment Expert from GC. The NAAQ standards are showing High rate as that is the usual procedure. The frequency of monitoring is set by us which varies for different parameters as either Statutory requirements or as required by us to ensure we have sufficient data in hands if there are additional claims for Compensation in C5 category. Summary : Although the contract conditions for all packages were same at the time of bidding. Later modifications suggested by GC were not accepted by P 2. P1 and P3 accepted the modifications and hence the difference. Second point is P 1 carrying out monitoring as per the obtained CTE and CTO. Both other packages have applied for CTE but haven't obtained it yet. So we expect the monitoring frequency would change after obtaining CTE.
	2	Water pollution	pH, BOD, DO, Turbidity and O&G	IS / AWWA	1. Sewri & Sewri bay area for package I	Quarterly	810,000	2,400,000	810,000	0	3,210,000	Marine water quality Standards - Class SW-IV Harbour Waters (MPCB)	Water Pollution not applicable for Pkg. 3
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						pH : 6.5-9	
					3. Gavhan & Chirle for package III	Not applicable						DO: 3 mg/l	
												Turbidity: 30 NTU	
												BOD: 5 mg/l	
												O & G: 10 mg/l	
	3	Waste	Volume of waste soil, cutting tree and domestic garbage	Volumetric	1. Sewri & Sewri bay area for package I	Daily	500,000	299,200,000	500,000	600,000	300,300,000		The cost of waste disposal for P1 includes C&D waste, Pile muck etc. from all areas like, interchange, intertidal and marine. The disposal location is at MCGM approved location Bhayandarpada, Thane.







Category	No.	Impacted Item on JICA Guidelines	Parameter	Method	Location	Frequency a year	Cost (INR)	Cost Pkg.1 (INR)	Cost Pkg.2 (INR)	Cost Pkg.3 (INR)	Total Cost (INR)	Standard Central Pollution Control Board (CPCB) - Ministry of Environment & Forest (MoEF)	Remarks	
Natural environment			4. Monitoring of sedimentation soil and ecological parameter (18 items on Supplemental EIA Table 6.1.15 for soil and 7 items such as 1) Net primary productivity, 2) Chlorophyll-a, 3) Phosphate, 4) Nitrate, 5) Nitrite, 6) Particulate Organic Carbon, 7) SiO <sub>2</sub> )	1-2: Mangrove density and community survey								Detailed monitoring plan will be setup during basic design stage		
				1-3: Benthos Survey										
				2-1: Cutting trees confirmation									Standard for Soil; Supplemental EIA Table 6.1.15	
				3-1: Mangrove survey in the replanted area									Standard for Ecological Parameter:	
													Net primary Productivity	
													<1,500 mgC/m <sup>3</sup> /day at surface	
													Chlorophyll-a	
													<4mg/m <sup>3</sup>	
													Phosphate: 0.1-90µg/l	
													Nitrate: 1.0-500µg/l	
												Nitrite: <125µg/l		
												Particulate Organic Carbon: 10-100mg/m <sup>3</sup>		
												SiO <sub>2</sub> : 10-5,000µg/l		
	11	Hydrology	Flooding situation	Flood level measurement during high precipitation periods	Not applicable for Package I		350,000	0	350,000	0	350,000	Project activities and structures does not cause flooding and impacts on tidal conditions	Not applicable for Pkg. 1 & 3	
					2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	4 Times / Year								
					Not applicable for Package III									
	12	Topography and Geology	Conditions in embankment area	Visual survey about Stability of embankment	Not applicable for Package I		115,000	0	115,000	0	115,000	Embankment shall be stabilized without any landslide and cracks	Not applicable for Pkg. 1 & 3	
					Interchange in Shivaji Nagar for Package II	4 Times / Year								
					Not applicable for Package III									
	13	Local economy such as employment and livelihood			Affected area		As per Actuals							
	14	Local conflict of interests	Construction worker's township	Confirmation of workers list from contractor	2 Locations (camp site in Sewri and Shivaji Nagar) for Package II	2 Times / Year	125,000	0	125,000	0	125,000	Employment opportunity shall be provided fairly		
	15	Infectious diseases such as HIV/AIDS	Number of infected patient	Confirmation of health check list from contractor	2 Locations	4 times / year x 4.5 years	525,000	0	525,000	0	525,000	Infection disease rate shall not be caused by the project		
	16	Labour Environment	Construction worker's condition	Confirmation of safety devices and conditions via interviews	2 Location (camp site in Sewri and Shivaji Nagar) for Package II	2 times / year	500,000	0	500,000	0	500,000	"Building And Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996", "The building and other construction worker's welfare cess Act, 1996" and international standards such as "IFC Performance Standard 2 Labor and Working Conditions"		
	17	Accidents	Number of accidents	Confirmation of accidents list from local government and State Traffic Police Department	2 Locations (camp site in Sewri and Shivaji Nagar) for Package II	4 Times / Year	400,000	0	400,000	0	400,000	Any accidents are not caused by construction		
							<b>8140500</b>	<b>325,354,000</b>	<b>12,000,000</b>	<b>2,211,500</b>	<b>339,565,500</b>			



1. Environmental Monitoring during Construction for 4.5 years

Area	No.	Item	Parameter	Location	Frequency a year	Item and Standard	Monitoring Result				Remark - reasons why the data is exceeding standard - counter measures when the data is exceeding							
							Location 1- Pkg 1	Location 2 - Package 2	Location 3- Pkg 3	Location 4								
1	Air pollution	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>	1. Sewri & Sewri bay area for package I	Quarterly monitoring is conducted at all locations.	National Ambient Air Quality Standards (NAAQS)	Sewri	Shivaji Nagar	Chirle										
			2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	(Standard for 24hrs: Industrial and Residential)													
			3. Gavhan & Chirle for package III	From march -2019 onwards monitoring is conducted quarterly as per MOEF and CPCB norms	1. SO <sub>2</sub> : 80µg/m <sup>3</sup>						9.17	BDL	32	BDL- Below Detectable Limit				
					2. NO <sub>2</sub> : 80µg/m <sup>3</sup>						35.58	34	50					
					3. PM <sub>10</sub> : 100µg/m <sup>3</sup>						272.67	91	86					
					4. PM <sub>2.5</sub> : 60µg/m <sup>3</sup>						49.67	21	45					
					5.CO:02mg/m <sup>3</sup>						1.33	1.5	0.73					
					6.VOCs						1.01	3.1	1.05					
			2	Water pollution	pH, BOD, DO, Turbidity and O&G						1. Sewri & Sewri bay area for package I	Quarterly	Marine water quality Standards – Class SW-JV Harbour Waters (MPCB)	Zone I	Zone II	Zone III/ Package-03		
											2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	1. pH : 6.5-9	7.5	7.7	Not applicable		
3. Gavhan & Chirle for package III	Not applicable	2. DO: 3 mg/l				4.7	5.8	Not applicable										
		3. Turbidity: 30 NTU				17.2	21.1	Not applicable										
		4. BOD: 5 mg/l				2.8	BDL	Not applicable										
		5. O & G: 10 mg/l				BDL[DL=2]	BDL	Not applicable										
3	Waste	Volume of waste soil, cutting tree and domestic garbage	1. Sewri & Sewri bay area for package I	Daily	Municipal Solid Waste Management Rules, 2013	80.6 Tonnes for 3 months	Shivaji Nagar Camp Site	Chirle Camp Site										
			2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year	Generated waste soil (t) total		Approx. 2000 CuM Collected in jumbo bags and Disposed off in EBB Location.	NA										
			3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.	Generated cutting tree (ha) total			Tree cutting work completed and Half yearly report submitted to Client (April, 2022)	Both of forest and CIDCO area (234+75)= 309									
					Generated domestic waste (t/month) total	80.6 Tonnes for 3 months	3.5 T/quarter.	2.1 T for the quarter										
					Confirmation of adequate disposal (visual survey)	Waste is disposed through Municipal Corporation.	It is disposed through CIDCO daily.	Waste is disposed through Municipal Corporation.										
						1. Sewri & Sewri bay area for package I	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year	Soil Pollution Standard in India (MOEF)	Sediment sample at Sewri	Muck Testing Done on September 2021 and Reports submitted to GC	Not applicable	Kindly check the letter No.Ref No. MTHL/P3/L&T/GC/LT/HSE-2226/2020 dated on 12.12.2020						
2. Nhava temporary bridge & casting yard in Gavhan for package II		1. Cadmium: 0.01mg/l				BDL[DL=2]	BDL											
3. Gavhan & Chirle for package III	*If any spillage/ leakage take place from chemical, fuel storage area. *One time grab sample to be collected during Bridge Construction *Pre & Post Monsoon at	2. total cyanide : not detected				NA	<0.005	There is no reportable Oil spillage in project										
		3. organic phosphorus: not detected				NA	8.5	One time Soil test done (Report has been submitted )										



The Project for Construction of Mumbai Trans Harbour Link  
Reporting Form of Environmental Monitoring during Construction  
Attachment 2-4

Attachment 2-4

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all parameters in EMOF are covered.

1. Environmental Monitoring during Construction for 4.5 years

		Monitoring Period -Jan - March 2023												
Pollution	4	Soil Contamination/sedimentation	Heavy Metals & Oil & Grease	Storage area only	4. lead: 0.01mg/l	BDL[DL=0.6]	0.17	There is no huge quantity of oil storage area, Oil requirement fulfill by portable oil tanker (Indian Oil) on frequent basis. Only small quantity of Oil <1000 ltr is stored in well established oil storage area (Covered and banded wall from all side)		Hazardous Storage is situated in low laying area at Gavan area. Due to this reason complete ground area is covered by boulders to avoid further water logging in rainy season. Therefore soil sample is impossible to taken out from in and around the Oil & chemical storage area. Same has witnessed by GC during February-2020 monitoring.				
				5. chromium (VI): 0.05mg/l	Not detected	BDL								
				6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)	BDL[DL=1]	BDL								
				7. total mercury: 0.005mg/l	BDL[DL=2]	BDL								
				8. alkyl mercury: not detected	Not detected									
				9. PCBs: not detected	Not detected	BDL								
				10. copper: 125mg/kg (only paddy field soil)	154									
				11. dichloromethane: 0.02mg/l	Not detected	BDL								
				12. carbon tetrachloride: 0.002mg/l	Not detected	BDL								
				13. 1,2-dichloroethane: 0.004mg/l	Not detected	BDL								
				14. 1,1-dichloroethylene: 0.02mg/l	Not detected	BDL								
				15. cis-1,2-dichloroethylene: 0.04mg/l	Not detected	BDL								
				16. 1,1,1-trichloroethane: 1mg/l	Not detected	BDL								
				17. 1,1,2-trichloroethane: 0.006 mg/l	Not detected	BDL								
				18. trichloroethylene: 0.03mg/l	Not detected	BDL								
				19. tetrachloroethylene: 0.01mg/l	Not detected	BDL								
				20. 1,3-dichloropropene: 0.002mg/l	Not detected	BDL								
				21. thiram: 0.006mg/l	Not detected	BDL								
				22. simazine: 0.003mg/l	Not detected	BDL								
				23. thiobencarb: 0.02mg/l	Not detected	BDL								
				24. benzene: 0.01mg/l	Not detected	BDL								
				25. selenium: 0.01mg/l	Not detected	BDL								
				5	Noise and vibration	Ambient and road side noise (dB(A)Laeq)	1. Sewri & Sewri bay area for package I	Fortnightly	Construction area Standard 85 dB(A) daytime (Japan standard) Not construction area : Ambient Noise Standard in India (dB(A) Laeq)	Sewri (ST 200-500) (Industrial area)	Sea Section (ST5000-5500) Migratory Bird Area (no standard on sea section)	Shivaji Nagar (Commercial area)	Chirle (package-III) Commercial area	
							2. Nhava temporary	2 Times / Year	Day time : 6-22 hr (continuous) dB(A)	69.73	70.5		63.35	
							3. Gavhan & Chirle for package III	Fortnightly	Night time: 22-6 hr (continuous) dB(A) (only sea section)	64.12	63.4		52.69	
		Day time : 6-22 hr (10 min during 9-17 hrs)	71.27											
		Night time: 22-6 hr (10 min 22-24 hr)	65.6											
		Note (standard values in Not construction area)												
		1.Industrial Area												
		Day Time: 75 (6-22hr)												
		Night Time: 70 (22-6hr)												
		2.Commercial Area:												
		Day Time: 65 (6-22hr)												
		Night Time: 55 (22-6hr)												
		1 Location Gavan area for package III	Half yearly	Construction area Standard 75 dB daytime (Japan standard) Not construction area : Vibration Standard (Japan Standard along the road)	Sewri (ST 200-500) (Industrial area)	Shivaji Nagar (Commercial area)	Chirle							
				Day time : 6-22 hr (continuous)	Not applicable	Not applicable	Not applicable							
				Night time: 22-6 hr (continuous)										
				Note (standard values in Not construction area)										
				1. Commercial /Industrial Area										
				Day Time: 70 (7-20hr)										
				Night Time: 65 (20-7hr)										
		Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction Period	Standard is not existing, but quantity and quality should not be worsen	Sewri side (ST500-5500)	Sea Section (ST5500-16000)	Shivaji Nagar side (app. ST16000-19000)	Mangrove Replantation area appointed by State Government						

Kindly check the letter No.Ref No. MTHL/P3/L&T/GC/LT/HSE-2226/2020 dated on 12.12.2020



Monitoring Period -Jan - March 2023

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all parameters in EMOIP are covered.

1. Environmental Monitoring during Construction for 4.5 years

S.No	Category	Sub-Category	Location	Frequency	Criteria for evaluation	Monitoring Period -Jan - March 2023		Remarks					
						Monitoring Period -Jan - March 2023	Monitoring Period -Jan - March 2023						
6	Protected Area	1. Monitoring of mudflat conditions including fauna-flora 2. Monitoring of Cutting Tree and replantation/transplantation area 3. Monitoring of Mangrove Plantation area appointed by MoEF 4. Monitoring of sedimentation soil and ecological parameter (25 items on EIA main text Table 6.1.15 for soil and 7 items such as 1) Net primary productivity, 2) Chlorophyll-a, 3) Phosphate, 4) Nitrate, 5) Nitrite, 6) Particulate Organic Carbon, 7) SiO2)	Along MTHL alignment and mangrove replant area for package II	4 Times / Year	1-1. Fauna-Flora (number of species and quantity)	Bird monitoring is being done by a separate agency BNHS	Bird monitoring is being done by a separate agency BNHS	N/A	N/A	Birds Monitoring report by BNHS has been submitted separately.			
			(1) Number of species of bird	28									
			(2) Number of species of fish (3) Estimated number of Flamingo	25 >20,000									
							1-2: Mangrove density and community survey	Avicennia marina	Being carried out by Mangrove Foundation			Mangrove foundation report has been submitted separately.	
			(1) Number of species of mangrove	Dominant - Avicennia sp.									
			(2) Density of mangrove (xx trees/10m x 10m)	EIA - Not disturbed.									
							1-3: Benthos Survey	Flora, fauna, phytoplankton, zooplankton, Benthos					
							(1) Number of species and quantity by species						
							2-1: Cutting tree confirmation	1. Tree Cutting: 407 trees (Till Mar 2023) 2. Transplanting: 500 Trees (Till Mar 2023)	20 trees were cut with approval of Forest Department on 29-10-2018. Compensatory plantation of 40 trees were done in casting yard area during the period 15-10-2020 to 18-10-2020.	Cutting of tree - 341 Transplantation - 84			
							(1) Number of cutting tree and species	407	20	341			
							3-1: Mangrove survey in the replant area	Being carried out by Mangrove Foundation	Being carried out by Mangrove Foundation	NA			Mangrove foundation report has been submitted separately.
							(1) Number of species of mangrove (2) Density of mangrove (xx trees/10m x 10m)						
							4. Ecological Parameter						
							(1) Net primary Productivity : <1,500 mgC/m3/day at surface	500					
							(2) Chlorophyll-a: <4mg/m3	4.5					
				(3) Phosphate: 0.1-90µg/l	5								
				(4) Nitrate: 1.0-500µg/l	6								
				(5) Nitrite: <125µg/l	BDL(DL=2)								
				(6) Particulate Organic Carbon: 10-100mg/m <sup>3</sup>	1.01%								
				(7) SiO2: 10-5,000µg/l	30.86								
7	Hydrology	Flooding situation	Not applicable for Package I		Criteria for evaluation Project activities and structures does not cause flooding and impacts on tidal conditions	Sewri	Shivaji Nagar						
			2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	4 Times / Year	Monitoring of flooding situation	No Flooding	No Flooding						
			Not applicable for Package III										
8	Topography and Geology	Conditions in embankment area	2 Locations (1. Embankment of Inter Change in Shivaji Nagar and 2 Cutting area at toll gate in Chirle)	4 times / year x 4.5 years	Criteria for evaluation Embankment shall be stabilized without any landslide and cracks	Shivaji Nagar		Chirle					
					Monitoring of embankment	No changes in the embankment noticed	No changes in the embankment noticed	Rock filling activity is carried out as per agreement.					
9	Local conflict of interests	Construction worker's township	2 Locations (major camp site in Sewri and Shivaji Nagar)	4 times / year x 4.5 years	Criteria for evaluation Employment opportunity shall be provided fairly	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle					
					Number of hired workers by community	around 1000	125-150	62					
					Criteria for evaluation Infection disease rate shall not be caused by the project	Sewri Camp Site	Shivaji Nagar Camp Site						



The Project for Construction of Mumbai Trans Harbour Link  
Reporting Form of Environmental Monitoring during Construction  
Attachment 2-4

Attachment 2-4

Monitoring Period -Jan - March 2023

This form is prepared for reporting the monitoring results to JICA India Office. Only minimum required parameters are included in this form, and not all parameters in EMOP are covered.

1. Environmental Monitoring during Construction for 4.5 years

	10	Infectious diseases such as HIV/AIDS	Number of infected patient	2 Locations (major camp site in Sewri and Shivaji Nagar)	4 times / year x 4.5 years	Confirmation of health check record and inspect project site	Doctor on call checks site specific infections.. minor and major incidents . 24x7 ambulance service , ERT team with trained first aiders available	Regular health checks-ups are done. In-house doctors are appointed at site and labour camps along with Male nurses, Trained first aiders and 24x7 ambulance services.	Regular Health check up is carried out by site Doctor.	
	11	Labour Environment	Construction worker's condition	2 Locations (major camp site in Sewri and Shivaji Nagar)	2 times / year x 4.5 years	Criteria for evaluation "Building And Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1986", "The building and other construction worker's welfare cess Act, 1996" and International standards such as "IFC Performance Standard 2 Labor and Working Conditions"	Distribution of Safety kits to 225 Workers Medical Camp organised; wherein > 500 workers were consulted. 220 No. of Malaria tests carried out. Glucose Distribution at Site during Summer Season for workmen. Organised Street Play for workers . Health Talk by Dr Akshay Shah Haemato Oncology on Hazards of Smoking & Chewing Tobacco and Preventive Measures. Inner health incentive program with co-ordination with Bhramakumaris Sanstha.	Shivaji Nagar Camp Site	Gavan Camp site	
Other	12	Accident	Number of accidents	2 Locations (major camp site in Sewri and Shivaji Nagar)	4 times / year x 4.5 years	Criteria for evaluation Any accidents are not caused by construction	Sewri Site	Shivaji Nagar Camp Site	Chirle/Other area	
						Number of recorded accident	1	Nil	Nil	



**MTHL - ROW Land Acquisition Status (Attachment 2-6):**

The total land required on the Navi Mumbai side is 108.4379 ha

Land acquired by MMRDA – 108.4379 ha

Land in possession of MMRDA – 106.3542 ha

Balance land under acquisition – 0.3937 ha

Note: The acquisition of 0.3937 ha of ROW land is in progress and likely to complete.

ROW Land Required in ha (for Package-3)	ROW land acquired by MMRDA In ha	ROW Land in possession of MMRDA in ha	Balance ROW to be handed over (Possession to be taken + Under acquisition)	Anticipated date for 100% ROW Land Acquisition	Remarks
108.4379	108.0442	108.0442	2.0837 (1.6900+0.3937)	31-1-2023	The payment status to the land owners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.



## Attachment 2-8

**RAP Implementation Monitoring Form  
For Mumbai Trans Harbour Link Project (MTHL)**

**1. General Information**

a. RAP Implementation Monitoring Results:	Progress Status Report (PSR) for the 4 <sup>th</sup> quarter of 2022- 2023
b. Date of Preparing This form	31-03-2023
c. Person Preparing This form	Name: Robin Sham Position: Engineer and Team Leader Department/Organizations: General Consultants

**2. Scale of Impact****2.1 Project Affected Households (PAHs) and Project Affected Persons (PAPs) for Sewri side**

Total Project Affected Households (PAHs)	231Hhs	Titleholders: 0 Hhs
		Non-titleholders: 231Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons
		Non-titleholders:1,282 persons*
PAHs who need relocation (as residents)	231Hhs	Titleholders: 0persons
		Non-titleholders:231 (1,088persons) *
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons
Commercial PAPswho need relocation	66 (194persons) *	Titleholders: 0 persons
		Non-titleholders:66(194persons) *
Commercial PAPswho do not need relocation	0 persons	Titleholders: 0 persons
		Non-titleholders: 0 persons

\* - Figures for number of persons do not include no. of family members of few additional PAPs.





**Structures**

<b>Structures</b>	Residential:231 Commercial:65 Residential + Commercial: 1 (counted in Commercial) Community:9 (Religious Properties 6, Public Toilets3) Government:16 (MbPT Structures 9, Occupants of Leased Plots 6 & Police Chowki 1) Total: 322
-------------------	--

**2.2 Fishery**

Categories of Fisher-folks	Identified Number		Total	Remarks
	Mumbai side	Navi Mumbai side		
C1: Fishing stakes and nets in RoW (250 m.)	178	54	232	Funds for 232 nos C1 category fishermen are transferred to Commissioner of Fisheries in 2017-22.
C2: Fishing Stakes and Nets within 500 m. of RoW (Southern side)	268	493	761	1. Funds for 704 nos C2 category fishermen are transferred to Commissioner of Fisheries in 2017-22. 2. 57 nos C2 category fishermen are verified and disbursement in process.
C3: Hand Pickers	1492	4040	5532	Funds for 5229 nos of C3 category fishermen are already transferred to the Commissioner of Fisheries and the balance of 302 Nos. of C3 category fishermen are in process of fund transfer to the Commissioner of Fisheries.
C4: Commercial and Artisanal Fisher-folks (Loss of Time and Increased	Will be observed during the construction period	Will be observed during the construction period	—	Nil



QPR No. 24 (Jan to March 2023) Attachment 2-8

Operating Costs)				
C5: Fisher-folks with Loss due to Turbidity	Will be observed during the construction period	Will be observed during the construction period	---	Nil
C6: Fisher-folks with Damages due to Accidents	Will be observed during the construction period	Will be observed during the construction period	---	Nil

**2.3 Land Acquisition / Transfer**

Location	Land Required in Ha.	Land Acquired in Ha.	Balance ROW to be Handed over in Ha	Remarks
Sewri	10.089	10.089	0	
Navi Mumbai	108.4379	108.0442	2.0837	1.69 Ha yet to over to the Contractor & 0.3937 Ha is under acquisition
<b>Total</b>	<b>118.179</b>	<b>118.1332</b>	<b>2.0837</b>	

**3. Monitoring Results**

**3.1 Sewri Section**

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, if Any
Resettlement	No. of Residential PAHs provided with Allotment Letters of Alternate Tenements	231	226	0	227	98%	
	No. of Residential PAHs given possession of Alternate Tenements	231	226	0	227	98%	



QPR No. 24 (Jan to March 2023) Attachment 2-8

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	62	0	62	94%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	62	0	62	94%	
	No. of Occupants of MbPT Leased Plots provided Compensation	6	6	0	6	100%	
	No. of Religious properties Relocated / Removed	6	6	0	6	100%	
	No. of Other Community properties Relocated / Removed	4	4	0	4	100%	
	No. of Structures in possession of MbPT Dismantled / Cleared	9	9	0	9	100%	
	No. of PAHs/PAPs provided Shifting Charges / Arrangement	297	0	0	0	0%	
Rehabilitation	No. of PAHs / PAPs identified for Livelihood Support in Post Resettlement Assessment						



QPR No. 24 (Jan to March 2023) Attachment 2-8

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, If Any
	No. of PAHs / PAPs provided Livelihood Support under Program-I (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-II (to be identified)						
	No. of PAHs / PAPs provided Livelihood Support under Program-III (to be identified)						
	No. of new enterprises started						
Grievance Redress	No. of Grievances Received by FLGRC	4					
	No. of Grievances Disposed by FLGRC	3	1	0	1	100%	
	No. of Grievances Received by SLGRC	1	0	0	0		
	No. of Grievances Disposed by SLGRC	0					
Post Resettlement Assistance	No. of CHSs Registration helped						
	No. of CHSs provided Tenements for Social Amenities						
	No. of CHSs' Maintenance Fund Invested						



QPR No. 24 (Jan to March 2023) Attachment 2-8

Activity	Indicator	Total Target	Progress till Last Quarter	Progress during reporting Quarter	Cumulative Progress till Current Quarter	Cumulative Achievement of Total Target (%)	Remarks, if Any
	No. of CHSs' Office Bearers provided training						

**SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Influence Zone of 24 villages)**

Up to 31-03-2023

Sr.No.	Village Name	Total number of forms Received	Total approved eligible family units			
			C1	C2	C3	Total
1	Bamandongri	273	1	1	28	30
2	Belapur	110	0	5	15	20
3	Belpada	1185	0	7	478	485
4	Diwale	455	12	201	52	265
5	Ganeshpuri	276	0	37	35	72
6	Gavhan	2162	0	14	1317	1331
7	Jasai	926	0	0	18	18
8	Jawale	51	0	1	0	1
9	Kombadbhuja	413	1	23	134	158
10	Kopar	994	2	5	228	235
11	Karave	178	0	44	67	111
12	Mahul	1062	129	77	604	809
13	Moha	475	22	25	134	181
14	Mora	818	0	102	375	477
15	Morave	539	14	21	88	123
16	Nhava	1646	0	32	307	339
17	Sarsole	266	0	30	83	113
18	Sewri	305	0	1	72	73
19	Shelghar	241	0	0	15	15
20	Shivajinagar	202	1	4	61	66
21	Trombay	1208	49	219	823	1091
22	Ulwe	218	1	3	14	18
23	Uran & Hanuman Koliwada	683	0	11	600	611
24	Vahal	411	0	2	1	3
	<b>Total</b>	<b>15097</b>	<b>232</b>	<b>865</b>	<b>5548</b>	<b>6645</b>



QPR No. 24 (Jan to March 2023) Attachment 2-8

Total applications	15097
Duplicate/Repeated Application	2428
Net Applications	12669
Approved applications	6645

**Grievance Redressal Committee (GRC) for Fisher-folk Compensation**

No. of Cases referred to GRC	No. of Cases		No. of Cases Rejected	No. of Cases under Consideration
	Allowed	Compensation Paid		
Nil	Nil	Nil	Nil	Nil



**Implementation Schedule for Fisher-folks Compensation & Land Acquisition in Navi Mumbai**

**A. Implementation Schedule for Fisher-folks Compensation: -**

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
1	Approval of fisherfolk's compensation Policy	Fisher-folks Compensation Committee (FCC)	08-10-2015	23-12-2015
2	Approval by MMRDA	MMRDA	10-12-2015	23-12-2015
3	Submission to JICA	MMRDA	--	04-01-2016
4	A detailed list of PAP and compensation plan	1. Detailed list of Fisher-folk PAP up to list 1 (1165 Nos) & 2 (1399 Nos) are finalized by the Fisheries Department. 2. From 2018, FEVC committee is the approval authority of PAF and approved C1- 232 Nos. C2 - 761 Nos and C3- 5532 Nos are approved.	23-12-2015	Up to 31-03-2023 1. Total up to date applications scrutinized = 12669 Nos. 2. Eligible = 6645 Nos. 3. Rejected = 6024 Nos.
	Validation of compensation plan	Fisher-folks Compensation Committee (FCC)	23-12-2015	1. Approval to the Fisher-folk PAP list obtained from Fisheries Department for Fisherfolk from Sewri, Mahul & Trombay (Mumbai side) – 12th September 2017 and 20th November 2018 for C-2 & C3 Category only.



QPR No. 24 (Jan to March 2023) Attachment 2-10

Sr. No.	Task Designation	Approving authority	Start Date	Completion Date
			23-12-2015	2. Approval to the Fisher-folk PAP list obtained from Fisheries Department for Fisherfolk of Navi Mumbai of C2 & C3 on 25th April 2018. 3. Validation of compensation is in progress and would be completed in phases.
6	Approval of compensation plan	FCC	23-11-2015	28-12-2017
7	Approval by MMRDA	MMRDA	23-11-2015	09-03-2021

**B. Implementation Schedule for Land Acquisition in Navi Mumbai: -**

ROW Land Required in Ha.	ROW Land Acquired by MMRDA in Ha.	ROW Land in Possession of MMRDA in Ha	Balance Land to be acquired in Ha	Anticipated date for 100% ROW Land Acquisition	Remarks
108.4379	108.0442	108.0442	0.3937	30-4-2023	





**Implementation Schedule for SIA (Sewri Section)**

Task No.	Task Designation	Start Date	Completion / Forecast Date
<b>1</b>	<b>Preparation of Final SIA</b>		
1.1	MMRDA Approval	October 2015	January 2016
1.2	JICA Approval	November 2015	January 2016
1.3	Posting of project Information on MMRDA		
1.4	Translation and disclosure of entitlement policy in local language to all PAP's	December 2015	January 2016
<b>2</b>	<b>LARP Implementation</b>		
2.1	Grievance redress mechanism established	August 2016	August 2016
2.2	Staff deployment SIA implementation	June 2016	Dec. 2021
2.3	Staff Deployment Public Relation	June 2016	June 2016
2.4	Hiring of Independent Evaluation Agency	November 2018	November 2020
2.5	Preparation and issue of allotment letters to PAPs	June 2018	Dec. 2022
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	Nov. 2021
2.7	Allotment of dwelling units to PAPs	September 2016	Dec. 2022
2.8	Shifting of PAPs to resettlement Colony	December 2018	Nov. 2021
2.9	Transfer of compensation/allowance/ assistance to PAPs	December 2018	Dec. 2022
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	March 2023
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over)	September 2019	March 2023
2.12	Registration of Co-operative housing societies transfer of maintenance funds. (6 months period)	December 2019	April 2023
2.13	Signing of Civil Contract		January 2018
2.14	Notice of Civil works to proceed		March 2018
<b>3</b>	<b>Monitoring &amp; Evaluation</b>		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	July 2020
3.2	Independent Evaluation Mid-term and End term evaluation Mid Term End Term	May 2019 November 2019	June 2020 March 2023



### Attachment 3- JICA's Concurrence Status

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



### Status of JICA'S Concurrence

Sl. No.	Brief description	Procurement procedure	Bid Cost		JICA'S Concurrence on					
			Local Currency (Cr Rs.)	Total (Cr Rs)	PQ Documents	PQ Evaluation	Bid Documents	Technical Evaluation	Financial Evaluation	Contract
1.	Package-1 (CH 0+000 km to CH10+380 km)	ICB with PQ (2P)	7637.30	7637.30	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 22nd Dec 2016	JICA's Concurrence - 4th Jan 2017	JICA's Concurrence - 12th Sep 2017	JICA's Concurrence - 12th Oct 2017	JICA's Concurrence - 15th Feb 2018
2.	Package-2 (CH 10+380 km to CH18+187 km)	ICB with PQ (2P)	5612.61	5612.61	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 22nd Dec 2016	JICA's Concurrence - 4th Jan 2017	JICA's Concurrence - 12th Sep 2017	JICA's Concurrence - 12th Oct 2017	JICA's Concurrence - 15th Feb 2018
3.	Package-3 (CH18+187 to CH21+800)	ICB with PQ (2P)	1013.79	1013.79	JICA's Concurrence - 9th May 2016	JICA's Concurrence - 4th Jan 2017	JICA's Concurrence - 4th Jan 2017	JICA's Concurrence - 15th Sep 2017	JICA's Concurrence - 12th Oct 2017	JICA's Concurrence - 15th Feb 2018
4.	Package-4 Intelligent Transport System	ICB with PQ (2P)	427.00	427.00	JICA's Concurrence - 23rd Aug 2019	NA	JICA's Concurrence - 24th Aug 2021	JICA's Concurrence - 15th Feb 2022	JICA's Concurrence - 21st Apr 2022	JICA's Concurrence - 13th Oct 2022



## Attachment 4- Project Procurement and Financial Status till 31<sup>st</sup> Mar 2023

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



**PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31<sup>st</sup> March 2023**

Type	Contract	Awarded or Estimated Value (in Rs. Crore)	Current Status	Contractors	Project Commencement Date	Stipulated Project Completion Date	Revised Project Completion Date After granting the Extension of Time (EOT)	% of Overall Works Progress (Design, Material Procurement and Construction) as per the Primavera Baseline Schedule Updated as of 31 <sup>st</sup> March 2023	% of Financial Progress till 31 <sup>st</sup> March 2023 (GC Certified) (Excluding Mobilization Advance, Price Adjustment and Work Variation)
CIVIL	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Awarded	L&T-IHI Consortium	Mar 2018	21-Sep-2022	30-Sep-2023	93.85%	91.20%
	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO-TPL JV	Mar 2018	21-Sep-2022	27-Sep-2023	93.85%	88.76%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	Mar 2018	21-Sep-2021	03-Mar-2023	89.02%	90.31%
ITS	Package-4 Intelligent Transport System (ITS)	449.00	Awarded	Strabag GmbH JV	June 2022	30-Sep-2023	-	Baseline programme submitted on 3 <sup>rd</sup> Apr 2023 and its under GC review	11.49%

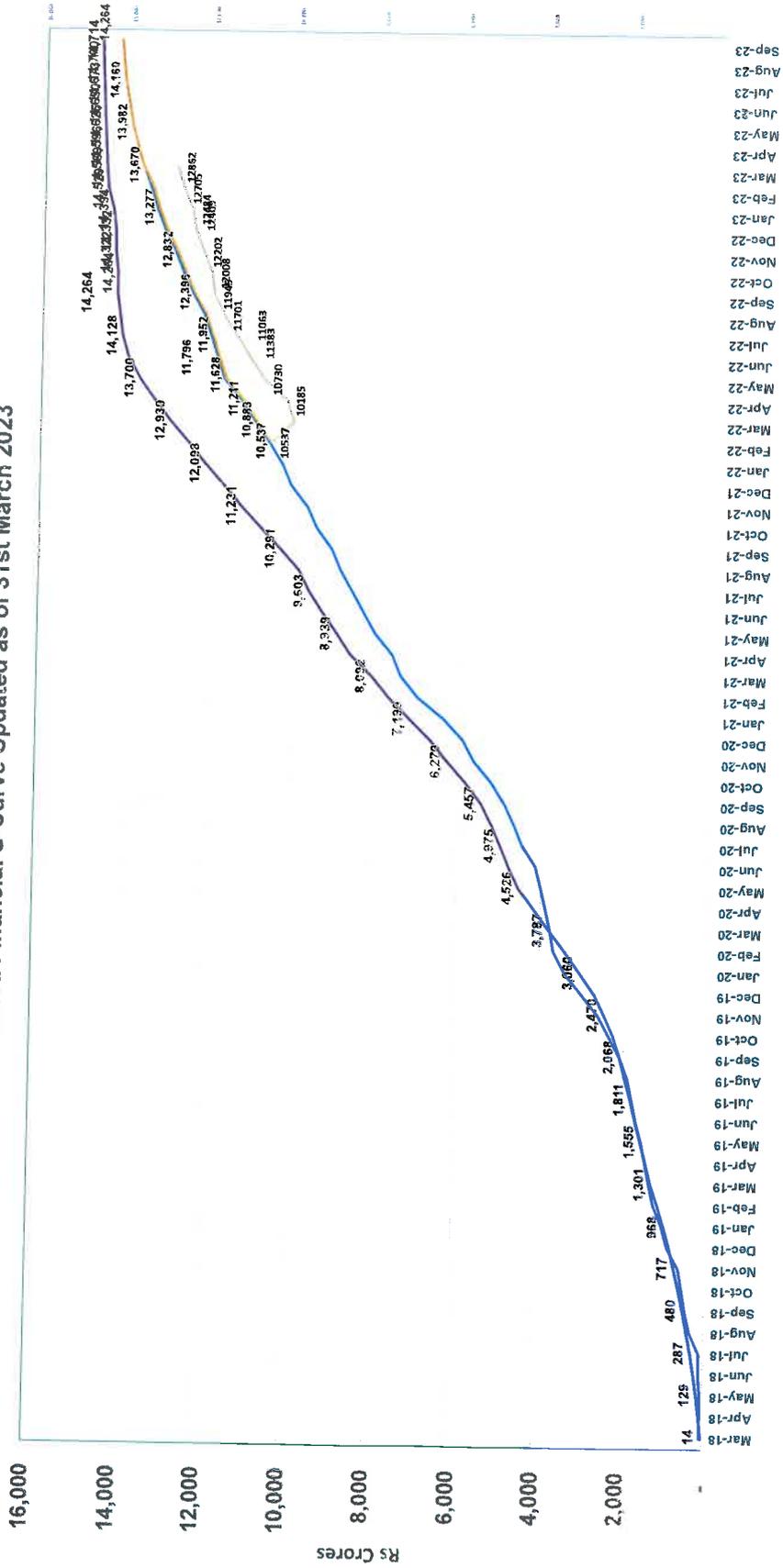


## Attachment 5- Financial S-Curve for Cumulative Planned Vs Actual Amount in Rs Crores

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



### MTHL - Combined Financial S-Curve Updated as of 31st March 2023



— Actual Claimed Invoice in Rs Crores  
— Planned Invoice as per the Catch-Up Plan  
— Planned Invoice in Crores



**Attachment 6- Package-1's Construction Programme  
Updated as of 25<sup>th</sup> Mar 2023**

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023







MUMBAI TRANS HARBOUR LINK PACKAGE 1,
UPDATED DESIGN SUBMISSION PROGRAM FOR MARCH 2023



General Consultant for Mumbai Trans Harbour Link Project

Main project schedule table with columns for Activity ID, Activity Name, BL1 Duration, BL1 Start, BL1 Finish, Original Duration, Start, Finish, Schedule % Complete, Performance % Complete, Variance - BL1 Start Date, Variance - BL1 Finish Date, Total Float, and a monthly Gantt chart grid from 2018 to 2024.

Legend for Gantt chart: Actual Level of Effort, Remaining Work, Actual Work, Critical Remaining Work, Milestone, Summary





MUMBAI TRANS HARBOUR LINK PACKAGE 1,
UPDATED DESIGN SUBMISSION PROGRAM FOR MARCH 2023



General Consultant for Mumbai Trans Harbour Link Project

Activity ID, Activity Name, BL1 Duration, BL1 Start, BL1 Finish, Original Duration, Start, Finish, Schedule % Complete, Performance % Complete, Variance - BL1 Start Date, Variance - BL1 Finish Date, Total Float. Includes Gantt chart for 2018-2024.

Legend for Gantt chart: Actual Level of Effort, Remaining Work, Actual Work, Critical Remaining Work, Milestone, Summary.





MUMBAI TRANS HARBOUR LINK PACKAGE 1,
UPDATED DESIGN SUBMISSION PROGRAM FOR MARCH 2023



AECOM

ADECO

CEI

TYLIN

General Consultant for Mumbai Trans Harbour Link Project

Main project schedule table with columns for Activity ID, Activity Name, BL1 Duration, BL1 Start, BL1 Finish, Original Duration, Start, Finish, Schedule % Complete, Performance % Complete, Variance - BL1 Start Date, Variance - BL1 Finish Date, Total Float, and a Gantt chart grid for years 2018-2024.

Legend for Gantt chart: Actual Level of Effort, Remaining Work, Actual Work, Critical Remaining Work, Milestones, summary





MUMBAI TRANS HARBOUR LINK PACKAGE 1,
UPDATED DESIGN SUBMISSION PROGRAM FOR MARCH 2023



General Consultant for Mumbai Trans Harbour Link Project

Table with columns: Activity ID, Activity Name, BL1 Duration, BL1 Start, BL1 Finish, Original Duration, Start, Finish, Schedule % Complete, Performance % Complete, Variance - BL1 Start Date, Variance - BL1 Finish Date, Total Float. Includes a Gantt chart on the right showing activity timelines from 2018 to 2024.



Legend for Gantt chart: Actual Level of Effort, Remaining Work, Actual Work, Critical Remaining Work, Milestone, Summary.

**Attachment 7- Package-2's Construction Programme  
Updated as of 25<sup>th</sup> Mar 2023**



#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1	<b>MTHL-PKG2-DETAILED WORK PROGRAMME_25032023_APPROVED_MPR.60</b>																		
2	<b>PROJECT PRE-COMMENCEMENT ACTIVITY</b>																		
3	<b>PRE-COMMENCEMENT ACTIVITY</b>																		
4	<b>JV FORMATION AND REGISTRATION</b>																		
5	<b>PROJECT EVENT MILESTONE</b>																		
6	<b>PROJECT KEY MILESTONE</b>																		
7	<b>INTERFACE MILESTONE_ERG19</b>																		
8	<b>PHYSICAL PROGRESS AND INTERFACE DATE_ADD2-ATTACHMENT 25</b>																		
9	<b>CONSTRUCTION KEY MILESTONE S</b>																		
10	<b>MANAGEMENT</b>																		
11	<b>SITE ORGANISATION</b>																		
12	<b>DEVELOPMENT OF MANAGEMENT SYSTEM</b>																		
13	<b>DEVELOPMENT OF WORK PROGRAMME</b>																		
14	<b>OTHER CONTRACTUAL SUBMITTALS</b>																		
15	<b>PERMIT &amp; APPROVAL</b>																		
16	<b>DESIGN</b>																		
17	<b>EARLY STAGE DESIGN WORK / INFORMATION COLLECTION</b>																		
18	<b>TEMPORARY WORK</b>																		
19	<b>CONCRETE MIX DESIGN</b>																		
20	<b>JFE DESIGN PROGRAMME</b>																		
21	<b>PROCUREMENT, MANUFACTURING AND LOGISTICS</b>																		
22	<b>SURVEY &amp; INVESTIGATION</b>																		
23	<b>TEMPORARY WORK</b>																		
24	<b>MAIN WORK SUBCONTRACT WORK</b>																		
25	<b>EQUIPMENTS</b>																		
26	<b>PRECAST MOULD AND SYSTEM FORM</b>																		
27	<b>MATERIAL SUPPLIERS</b>																		
28	<b>MATERIAL PROCUREMENT</b>																		
29	<b>PROCUREMENT OF STEEL GIRDER</b>																		
30	STEEL PLATE FOR (RHS STEEL MOUDLE-2_MP177 - MP182)																		
31	STEEL PLATE FOR (LHS STEEL MOUDLE-2_MP177 - MP182)																		
32	STEEL PLATE FOR (RHS STEEL MOUDLE-3_MP183 - MP186)																		
33	STEEL PLATE FOR (LHS STEEL MOUDLE-3_MP183 - MP186)																		
34	STEEL PLATE FOR (RHS STEEL MOUDLE-1_MP176 - MP171)																		
35	STEEL PLATE FOR (LHS STEEL MOUDLE-1_MP176 - MP171)																		
36	<b>IMPACT OF COVID-19</b>																		
37	<b>CONSTRUCTION</b>																		
38	<b>TEMPORARY WORK</b>																		
39	<b>PREPARATION WORK</b>																		
40	<b>ESTABLISHMENT OF EMPLOYER &amp; CONTRACTOR OFFICE</b>																		
41	<b>ESTABLISHMENT OF LABOUR CAMP</b>																		
42	<b>ESTABLISHMENT OF CONCRETE CASTING YARD</b>																		
43	<b>ESTABLISHMENT OF STEEL SPAN ASSEMBLY YARD</b>																		
44	<b>TEMPORARY BRIDGE</b>																		
45	<b>PERMANENT WORK</b>																		
46	<b>PRE-FABRICATION AND ASSEMBLY</b>																		
47	<b>CONCRETE PRE-FABRICATION AT THE CASTING YARD</b>																		
48	<b>PC-HOUSE PRE-CASTING</b>																		
49	<b>CONCRETE GIRDER PRE-CASTING</b>																		
50	<b>STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP INCLUDING LOGISTIC</b>																		
51	<b>STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP</b>																		
52	<b>STEEL MODULE-02_MP182 - MP177 (FABRICATION AT JFE)</b>																		
53	<b>STEEL MODULE-03_MP186 - MP183 (FABRICATION AT JFE)</b>																		
54	<b>STEEL MODULE-01_MP176 - MP171 (FABRICATION AT JFE)</b>																		
55	<b>STEEL SPAN MATERIAL OCEAN FREIGHT TO THE MUMBAI PORT INCLUDING CUSTOM CLEARANCE</b>																		
56	<b>STEEL MODULE-01_MP176 - MP171 (OCEAN FREIGHT)</b>																		
57	<b>STEEL MODULE-02_MP182 - MP177 (OCEAN FREIGHT)</b>																		

█ Actual Level of Effort    █ Critical Remaining Work  
█ Actual Work    ◆ Milestone  
█ Remaining Work    ─ summary

**EMPLOYER:**  
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
(MMRDA)

**CONTRACTOR:**  
DAEWOO-TPL JV

Date	Revision	Checked	Approved
25-Mar-23	R0		





#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
116		MAIN BRIDGE PILE FOUNDATION_INTERTIDAL 14+800-15+880 FROM MP206 TO MP225	417	27-Feb-19	05-Jun-20	15-Oct-19	28-Aug-20	100%	100%										
117		MODULE-10_MP211 - MP207	243	12-Mar-20	06-Jun-20	01-Nov-19	18-Feb-20	100%	100%										
118		MODULE-11_MP216 - MP212	277	27-Feb-19	03-Apr-20	15-Oct-19	24-Feb-20	100%	100%										
119		MODULE-12_MP221 - MP217	225	06-Apr-19	30-Oct-19	25-Feb-20	26-Aug-20	100%	100%										
120		MODULE-13_MP226 - MP222	313	30-Oct-19	06-Feb-20	24-Jan-20	16-Jun-20	100%	100%										
121		MAIN BRIDGE PILE FOUNDATION_MARINE 13+610-14+800 FROM MP187 TO MP205	531	12-Dec-18	28-Nov-20	01-Oct-19	07-Feb-22	100%	100%										
122		MODULE-09_MP206 - MP202	340	12-Dec-19	06-Mar-20	01-Oct-19	13-Oct-20	100%	100%										
123		MODULE-08_MP201 - MP197	262	22-Feb-20	19-May-20	19-Feb-20	25-Dec-20	100%	100%										
124		MODULE-07_MP196 - MP192	146	02-May-20	06-Sep-20	12-Oct-20	07-Feb-22	100%	100%										
125		MODULE-06_MP191 - MP187	82	21-Aug-20	28-Nov-20	31-Aug-20	10-Dec-20	100%	100%										
126		MAIN BRIDGE PILE FOUNDATION_MARINE (STEEL) 11+880-13+610 FROM MP171 TO MP186	578	27-Nov-19	23-Jan-21	17-Mar-20	21-Feb-22	100%	100%										
127		STEEL MODULE-03_MP186 - MP183	80	30-May-20	21-Nov-20	06-Oct-20	15-Feb-21	100%	100%										
128		STEEL MODULE-02_MP182 - MP177	336	27-Nov-19	10-Sep-20	17-Mar-20	25-Jan-21	100%	100%										
129		STEEL MODULE-01_MP176 - MP171	185	30-Jul-20	23-Jan-21	19-Apr-21	21-Feb-22	100%	100%										
130		MAIN BRIDGE PILE FOUNDATION_MARINE 10+380-11+880 FROM MP146 TO MP170	723	24-Nov-18	28-Dec-19	19-Feb-19	21-Dec-21	100%	100%										
131		MODULE-05_MP171 - MP167	183	19-Jun-19	16-Oct-19	24-Feb-21	21-Dec-21	100%	100%										
132		MODULE-04_MP166 - MP162	507	24-Nov-18	18-Feb-19	19-Feb-19	20-Feb-21	100%	100%										
133		MODULE-03_MP161 - MP157	363	22-Jan-19	18-Apr-19	03-Apr-19	25-Mar-21	100%	100%										
134		MODULE-02_MP156 - MP152	94	16-Apr-19	27-Jul-19	21-Dec-20	27-Mar-21	100%	100%										
135		MODULE-01_MP151 - MP146	107	04-Oct-19	28-Dec-19	23-Dec-20	03-Apr-21	100%	100%										
136		MAIN BRIDGE PILE CAP INSTALLATION	1135	22-Dec-18	23-Mar-21	01-May-19	13-Oct-22	100%	100%										
137		MAIN BRIDGE PILE CAP BOTTOM SLAB INSTALLATION	1008	22-Dec-18	17-Feb-21	19-Aug-19	23-Sep-22	0%	0%										
138		MAIN BRIDGE PILE CAP BOTTOM SLAB_CRZ 15+880-17+414 FROM MP226 TO MP250	356	17-Jan-19	12-Dec-19	19-Aug-19	28-May-20	0%	0%										
139		MODULE-14_MP231 - MP227	168	28-Sep-19	12-Dec-19	24-Dec-19	28-May-20	0%	0%										
140		MODULE-15_MP236 - MP232	71	05-Apr-19	11-Sep-19	02-Nov-19	21-Feb-20	0%	0%										
141		MODULE-16_MP240 - MP237	142	17-Jan-19	20-Mar-19	19-Aug-19	23-Feb-20	0%	0%										
142		MODULE-17_MP245 - MP241	44	17-Apr-19	03-Jul-19	22-Oct-19	04-Jan-20	0%	0%										
143		MODULE-18_MP249 - MP246	63	19-Feb-19	12-Apr-19	06-Nov-19	10-Feb-20	0%	0%										
144		MAIN BRIDGE PILE CAP BOTTOM SLAB_INTERTIDAL 14+800-15+880 FROM MP206 TO MP225	166	06-Apr-19	18-Jul-20	30-Dec-19	30-Nov-20	0%	0%										
145		MODULE-10_MP211 - MP207	95	15-Apr-20	18-Jul-20	30-Dec-19	30-Sep-20	0%	0%										
146		MODULE-11_MP216 - MP212	126	06-Apr-19	15-Apr-20	09-Mar-20	19-Oct-20	0%	0%										
147		MODULE-12_MP221 - MP217	74	10-May-19	12-Nov-19	11-Sep-20	30-Nov-20	0%	0%										
148		MODULE-13_MP226 - MP222	59	03-Dec-19	18-Feb-20	27-Apr-20	26-Oct-20	0%	0%										
149		MAIN BRIDGE PILE CAP BOTTOM SLAB_MARINE 13+610-14+800 FROM MP187 TO MP205	420	21-Jan-20	10-Dec-20	16-Nov-19	09-May-22	0%	0%										
150		MODULE-09_MP206 - MP202	289	21-Jan-20	20-Mar-20	16-Nov-19	11-Nov-20	0%	0%										
151		MODULE-08_MP201 - MP197	50	23-Mar-20	30-May-20	11-Nov-20	25-Feb-21	0%	0%										
152		MODULE-07_MP196 - MP192	153	30-May-20	06-Oct-20	15-Oct-20	09-May-22	0%	0%										
153		MODULE-06_MP191 - MP187	77	06-Oct-20	19-Dec-20	20-Nov-20	26-Jan-21	0%	0%										
154		MAIN BRIDGE PILE CAP PRECAST SHELL_MARINE (STEEL) 11+880-13+610 FROM MP171 TO MP186	422	08-Jan-20	17-Feb-21	11-Oct-20	23-Sep-22	0%	0%										
155		STEEL MODULE-01_MP176 - MP171	167	02-Nov-20	17-Feb-21	06-Nov-21	23-Sep-22	0%	0%										
156		STEEL MODULE-02_MP182 - MP177	118	08-Jan-20	26-Sep-20	11-Oct-20	26-Feb-21	0%	0%										
157		STEEL MODULE-03_MP186 - MP183	194	07-Aug-20	03-Dec-20	19-Jan-21	20-May-22	0%	0%										
158		MAIN BRIDGE PILE CAP BOTTOM SLAB_MARINE 10+380-11+880 FROM MP146 TO MP170	300	22-Dec-18	21-Jan-20	28-Jan-21	22-Jan-22	0%	0%										
159		MODULE-05_MP171 - MP167	108	24-Aug-19	28-Oct-19	26-Mar-21	05-Jan-22	0%	0%										
160		MODULE-04_MP166 - MP162	199	22-Dec-18	01-Mar-19	15-Feb-21	22-Jan-22	0%	0%										
161		MODULE-03_MP161 - MP157	111	01-Mar-19	19-May-19	28-Jan-21	29-Oct-21	0%	0%										
162		MODULE-02_MP156 - MP152	53	15-May-19	16-Aug-19	15-Feb-21	17-May-21	0%	0%										
163		MODULE-01_MP151 - MP146	168	01-Nov-19	21-Jan-20	11-Feb-21	24-Oct-21	0%	0%										
164		MAIN BRIDGE PILE CAP INSTALLATION	1119	27-Dec-18	23-Mar-21	01-May-19	13-Oct-22	100%	100%										
165		MAIN BRIDGE PILE CAP_LAND 17+414-18+188 FROM MP251 TO MP266	377	27-Dec-18	13-Jun-19	01-May-19	27-Jun-20	100%	100%										
166		MODULE-21_MP261 - MP257	248	27-Dec-18	30-Mar-19	15-Oct-19	27-Jun-20	100%	100%										
167		MODULE-22_MP266 - MP262	207	02-Apr-19	13-Jun-19	01-May-19	16-May-20	100%	100%										
168		MODULE-20_MP256 - MP255	54	01-Jan-19	06-Feb-19	29-Nov-19	23-May-20	100%	100%										
169		MODULE-19_MP254 - MP250	218	08-Feb-19	13-May-19	23-Nov-19	20-Jun-20	100%	100%										
170		MAIN BRIDGE PILE CAP_CRZ 15+880-17+414 FROM MP226 TO MP250	328	04-Mar-19	08-Jan-20	28-Aug-19	19-Sep-20	100%	100%										
171		MODULE-14_MP231 - MP227	230	24-Oct-19	08-Jan-20	11-Jan-20	19-Sep-20	100%	100%										
172		MODULE-15_MP236 - MP232	201	02-Sep-19	22-Nov-19	16-Nov-19	18-Sep-20	100%	100%										
173		MODULE-16_MP240 - MP237	146	02-Jul-19	26-Sep-19	28-Aug-19	05-Mar-20	100%	100%										

█ Actual Level of Effort     █ Critical Remaining Work  
█ Actual Work     ◆ Milestone  
█ Remaining Work     ⇨ summary

**EMPLOYER:**  
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
(MMRDA)

**CONTRACTOR:**  
DAEWOO-TPL JV

Date	Revision	Checked	Approved
25-Mar-23	R0		





MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807KM LONG BRIDGE SECTION  
(CH 10 380 - CH 18 187) ACCROSS THE MUMBAI BAY INCL SHIVAJNAGAR INTERCHANGE  
UNDER IDENTIFICATION NO MMRDA/ENG/000753

ANNEXURE-5 CONSTRUCTION UPDATED  
PROGRAMME\_ABSTRACT (PACKAGE 2)

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026
174		MODULE-17_MP245 - MP241	38	29-Apr-19	16-Aug-19	17-Nov-19	24-Jan-20	100%	100%									
175		MODULE-18_MP249 - MP246	84	04-Mar-19	10-Jul-19	13-Nov-19	14-Feb-20	100%	100%									
176		MAIN BRIDGE PILE CAP_INTERTIDAL 14+800-15+800 FROM MP206 TO MP225	199	18-Apr-19	05-Sep-20	29-Jan-20	07-Dec-20	100%	100%									
177		MODULE-10_MP211 - MP207	50	27-Apr-20	06-Sep-20	25-Jan-20	07-Oct-20	100%	100%									
178		MODULE-11_MP216 - MP212	157	19-Apr-19	13-May-20	31-Aug-20	24-Oct-20	100%	100%									
179		MODULE-12_MP221 - MP217	111	22-May-19	03-Dec-19	17-Sep-20	07-Dec-20	100%	100%									
180		MODULE-13_MP226 - MP222	94	14-Dec-19	17-Mar-20	16-Sep-20	19-Nov-20	100%	100%									
181		MAIN BRIDGE PILE CAP_MARINE 13+610-14+800 FROM MP187 TO MP205	413	01-Feb-20	05-Jan-21	13-Jan-20	23-May-22	100%	100%									
182		MODULE-09_MP206 - MP202	293	01-Feb-20	16-Apr-20	13-Jan-20	20-Nov-20	100%	100%									
183		MODULE-08_MP201 - MP197	63	03-Apr-20	06-Jul-20	23-Nov-20	04-Mar-21	100%	100%									
184		MODULE-07_MP196 - MP192	57	15-Jun-20	11-Nov-20	01-Dec-20	23-May-22	100%	100%									
185		MODULE-06_MP191 - MP187	90	21-Oct-20	06-Jan-21	14-Dec-20	30-Jan-21	100%	100%									
186		MAIN BRIDGE PILE CAP_MARINE (STEEL) 11+880-13+610 FROM MP171 TO MP186	465	20-Jan-20	23-Mar-21	18-Nov-20	13-Oct-22	100%	100%									
187		STEEL MODULE-01_MP176 - MP171	154	21-Nov-20	23-Mar-21	13-Dec-21	13-Oct-22	100%	100%									
188		STEEL MODULE-02_MP182 - MP177	158	20-Jan-20	02-Nov-20	18-Nov-20	08-Mar-21	100%	100%									
189		STEEL MODULE-03_MP186 - MP183	330	27-Aug-20	07-Jan-21	28-Jan-21	28-May-22	100%	100%									
190		MAIN BRIDGE PILE CAP_MARINE 10+380-11+880 FROM MP146 TO MP170	323	03-Jan-19	17-Feb-20	08-Feb-21	23-Mar-22	100%	100%									
191		MODULE-05_MP171 - MP167	119	10-Sep-19	25-Nov-19	13-Apr-21	22-Jan-22	100%	100%									
192		MODULE-04_MP166 - MP162	283	03-Jan-19	29-Mar-19	01-Mar-21	23-Mar-22	100%	100%									
193		MODULE-03_MP161 - MP157	141	14-Mar-19	08-Jun-19	08-Feb-21	28-Oct-21	100%	100%									
194		MODULE-02_MP156 - MP152	54	27-May-19	26-Sep-19	06-Mar-21	27-May-21	100%	100%									
195		MODULE-01_MP151 - MP146	192	14-Nov-19	17-Feb-20	22-Feb-21	03-Nov-21	100%	100%									
196		MAIN BRIDGE SUB-STRUCTURE	1261	09-Jan-19	24-Sep-21	04-Nov-19		100%	99.81%									
197		MAIN BRIDGE PIER INSTALLATION	1242	09-Jan-19	28-Jul-21	04-Nov-19	28-Nov-22	100%	100%									
198		MAIN BRIDGE PIER LAND 17+414-18+188 FROM MB251 TO MB256	681	09-Jan-19	08-Nov-19	05-Nov-19	27-Aug-21	100%	100%									
199		MODULE-21_MP261 - MP257	301	14-Jan-19	12-Jul-19	27-May-20	03-May-21	100%	100%									
200		MODULE-22_MP266 - MP262	315	04-May-19	08-Nov-19	06-Nov-19	02-Feb-21	100%	100%									
201		MODULE-23_MP268 - MP265	225	09-Jan-19	17-May-19	11-May-20	21-Jun-21	100%	100%									
202		MODULE-19_MP264 - MP260	336	28-Feb-19	20-Sep-19	15-Jun-20	27-Aug-21	100%	100%									
203		MAIN BRIDGE PIER CRZ 15+880-17+414 FROM MB226 TO MB250	303	26-Mar-19	06-Feb-20	04-Nov-19	11-Aug-21	100%	100%									
204		MODULE-14_MP231 - MP227	228	05-Dec-19	06-Feb-20	02-Feb-20	22-Jan-21	100%	100%									
205		MODULE-15_MP236 - MP232	134	16-Oct-19	19-Dec-19	06-Jan-20	06-Nov-20	100%	100%									
206		MODULE-16_MP240 - MP237	85	13-Aug-19	30-Oct-19	04-Nov-19	27-Jun-20	100%	100%									
207		MODULE-17_MP245 - MP241	171	22-May-19	25-Sep-19	24-Dec-19	23-Jun-20	100%	100%									
208		MODULE-18_MP249 - MP246	238	26-Mar-19	06-Jun-19	02-Mar-20	11-Aug-21	100%	100%									
209		MAIN BRIDGE PIER_INTERTIDAL 14+800-15+800 FROM MB206 TO MB225	417	11-May-19	16-Oct-20	10-Feb-20	08-Jun-21	100%	100%									
210		MODULE-10_MP211 - MP207	338	24-Feb-20	16-Oct-20	10-Feb-20	03-Feb-21	100%	100%									
211		MODULE-11_MP216 - MP212	386	11-May-19	17-Jul-20	13-Nov-20	22-Mar-21	100%	100%									
212		MODULE-12_MP221 - MP217	97	17-Jun-19	03-Jan-20	30-Nov-20	08-Jun-21	100%	100%									
213		MODULE-13_MP226 - MP222	235	08-Jan-20	15-May-20	29-Oct-20	20-Feb-21	100%	100%									
214		MAIN BRIDGE PIER_MARINE 13+610-14+800 FROM MB187 TO MB205	316	19-Mar-20	18-Feb-21	04-Jan-21	17-Nov-22	100%	100%									
215		MODULE-06_MP191 - MP187	173	13-Nov-20	18-Feb-21	18-Oct-21	24-Jan-22	100%	100%									
216		MODULE-07_MP196 - MP192	176	17-Jul-20	19-Dec-20	28-Apr-21	17-Nov-22	100%	100%									
217		MODULE-08_MP201 - MP197	162	25-Apr-20	03-Sep-20	04-Jan-21	16-Oct-21	100%	100%									
218		MODULE-09_MP206 - MP202	88	19-Mar-20	23-May-20	18-Jan-21	18-Mar-21	100%	100%									
219		MAIN BRIDGE PIER_MARINE (STEEL) 11+880-13+610 FROM MB171 TO MB186	538	17-Feb-20	28-Jul-21	08-Feb-21	28-Nov-22	100%	100%									
220		STEEL MODULE-01_MP176 - MP171	230	23-Dec-20	28-Jul-21	21-Jan-22	28-Nov-22	100%	100%									
221		STEEL MODULE-02_MP182 - MP177	170	17-Feb-20	15-Jan-21	08-Feb-21	18-Jan-22	100%	100%									
222		STEEL MODULE-03_MP186 - MP183	280	06-Oct-20	03-Apr-21	12-Oct-21	10-Nov-22	100%	100%									
223		MAIN BRIDGE PIER_MARINE 10+380-11+880 FROM MB146 TO MB170	187	07-Feb-19	13-Mar-20	20-Sep-21	17-May-22	100%	100%									
224		MODULE-01_MP151 - MP146	128	10-Dec-19	13-Mar-20	20-Sep-21	07-Jan-22	100%	100%									
225		MODULE-02_MP156 - MP152	77	11-Jul-19	04-Nov-19	25-Oct-21	29-Jan-22	100%	100%									
226		MODULE-03_MP161 - MP157	61	22-Apr-19	01-Aug-19	31-Dec-21	12-Mar-22	100%	100%									
227		MODULE-04_MP166 - MP162	84	07-Feb-19	06-May-19	24-Jan-22	28-Apr-22	100%	100%									
228		MODULE-05_MP171 - MP167	89	10-Oct-19	31-Dec-19	18-Feb-22	17-May-22	100%	100%									
229		MAIN BRIDGE PIER CAP INSTALLATION	936	08-Feb-19	27-Aug-21	25-Feb-20		100%	99.6%									
230		MAIN BRIDGE PIER CAP LAND 17+414-18+188 FROM MB251 TO MB256	313	08-Feb-19	23-Nov-19	13-Nov-20	17-Jan-22	100%	100%									
231		MODULE-21_MP261 - MP257	159	13-Feb-19	05-Aug-19	11-Feb-21	14-Oct-21	100%	100%									

<ul style="list-style-type: none"> <li>Actual Level of Effort</li> <li>Actual Work</li> <li>Remaining Work</li> </ul>	<ul style="list-style-type: none"> <li>Critical Remaining Work</li> <li>Milestone</li> <li>summary</li> </ul>	<b>EMPLOYER:</b> MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)	<b>CONTRACTOR:</b> DAEWOO-TPL JV	Date 25-Mar-23	Revision R0	Checked	Approved
---	---	---	-------------------------------------	-------------------	----------------	---------	----------



#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
232		MODULE-22_MP266 - MP262	114	03-Jun-19	23-Nov-19	13-Nov-20	13-Mar-21	100%	100%										
233		MODULE-20_MP256 - MP255	182	08-Feb-19	01-Jun-19	07-Jan-21	22-Nov-21	100%	100%										
234		MODULE-19_MP254 - MP250	212	30-Mar-19	08-Oct-19	01-Mar-21	17-Jan-22	100%	100%										
235		MAIN BRIDGE PIER CAP_CRZ 15+890-17+414 FROM MB226 TO MB230	405	18-Apr-19	25-Feb-20	25-Feb-20	24-Sep-21	100%	100%										
236		MODULE-14_MP231 - MP227	83	30-Dec-19	25-Feb-20	27-Dec-20	28-May-21	100%	100%										
237		MODULE-15_MP236 - MP232	64	11-Nov-19	07-Jan-20	12-Oct-20	22-Feb-21	100%	100%										
238		MODULE-16_MP240 - MP237	132	21-Sep-19	19-Nov-19	14-May-20	23-Dec-20	100%	100%										
239		MODULE-17_MP245 - MP241	163	05-Jul-19	16-Oct-19	25-Feb-20	22-Dec-20	100%	100%										
240		MODULE-18_MP249 - MP246	201	19-Apr-19	02-Jul-19	22-Oct-20	24-Sep-21	100%	100%										
241		MAIN BRIDGE PIER CAP_INTERTIDAL 14+800-15+890 FROM MB206 TO MB225	277	08-Jun-19	05-Nov-20	04-Feb-21	14-Jan-22	100%	100%										
242		MODULE-10_MP211 - MP207	174	20-Mar-20	05-Nov-20	02-Aug-21	14-Jan-22	100%	100%										
243		MODULE-11_MP216 - MP212	209	08-Jun-19	18-Aug-20	21-Jun-21	26-Nov-21	100%	100%										
244		MODULE-12_MP221 - MP217	100	24-Jul-19	22-Jan-20	01-Mar-21	24-Sep-21	100%	100%										
245		MODULE-13_MP226 - MP222	187	30-Jan-20	04-Jun-20	04-Feb-21	07-Jul-21	100%	100%										
246		MAIN BRIDGE PIER CAP_MARINE 13+610-14+800 FROM MB187 TO MB205	195	23-Apr-20	10-Mar-21	03-May-21		100%	98.51%										
247		MODULE-06_MP191 - MP187	160	18-Dec-20	10-Mar-21	20-Jan-22	10-Jan-23	100%	100%										
248		MODULE-07_MP196 - MP192	195	10-Sep-20	07-Jan-21	18-Nov-21		100%	95.37%										
249		MODULE-08_MP201 - MP197	114	01-Jun-20	29-Sep-20	03-May-21	08-Mar-22	100%	100%										
250		MODULE-09_MP206 - MP202	46	23-Apr-20	15-Jun-20	09-Dec-21	09-Feb-22	100%	100%										
251		MAIN BRIDGE PIER CAP_MARINE (STEEL) 11+880-13+610 FROM MB171 TO MB186	384	30-Apr-20	27-Aug-21	23-Aug-21	28-Feb-23	100%	100%										
252		STEEL MODULE-01_MP176 - MP171	229	08-Mar-21	27-Aug-21	17-Mar-22	28-Feb-23	100%	100%										
253		STEEL MODULE-02_MP182 - MP177	148	30-Apr-20	04-Feb-21	23-Aug-21	04-Apr-22	100%	100%										
254		STEEL MODULE-03_MP186 - MP183	188	19-Dec-20	22-Apr-21	24-Feb-22	03-Dec-22	100%	100%										
255		MAIN BRIDGE PIER CAP_MARINE 10+330-11+680 FROM MB146 TO MB170	245	15-Mar-19	01-Apr-20	17-Dec-21		100%	99.17%										
256		MODULE-01_MP151 - MP146	121	14-Jan-20	01-Apr-20	17-Dec-21	26-May-22	100%	100%										
257		MODULE-02_MP156 - MP152	165	05-Sep-19	23-Nov-19	17-Feb-22	12-Nov-22	100%	100%										
258		MODULE-03_MP161 - MP157	167	28-May-19	31-Aug-19	22-Mar-22	21-Dec-22	100%	100%										
259		MODULE-04_MP166 - MP162	187	15-Mar-19	24-May-19	21-Apr-22	08-Feb-23	100%	100%										
260		MODULE-05_MP171 - MP167	68	15-Nov-19	18-Jan-20	10-Jan-23		100%	95%										
261		MAIN BRIDGE BEARING PAD AND BEARING INSALLATION	834	22-Feb-19	24-Sep-21	14-Sep-20		100%	99.47%										
262		MAIN BRIDGE BEARING_LAND 17+414-18+188 FROM MB281 TO MB286	383	2-Feb-19	22-Aug-19	11-Feb-21	04-Jun-21	100%	100%										
263		MODULE-19_MP254 - MP250	240	13-Apr-19	21-May-19	23-Jul-21	04-Jun-22	100%	100%										
264		MODULE-20_MP256 - MP255	242	22-Feb-19	02-Apr-19	24-Feb-21	04-Dec-21	100%	100%										
265		MODULE-21_MP261 - MP257	28	29-May-19	08-Jul-19	20-Apr-21	15-Sep-21	100%	100%										
266		MODULE-22_MP266 - MP262	28	22-Jun-19	22-Aug-19	11-Feb-21	03-Apr-21	100%	100%										
267		MAIN BRIDGE BEARING_CRZ 15+890-17+414 FROM MB226 TO MB230	392	08-May-19	20-Feb-20	14-Sep-20	08-Sep-21	100%	100%										
268		MODULE-14_MP231 - MP227	28	16-Jan-20	20-Feb-20	29-Jan-21	24-Feb-21	100%	100%										
269		MODULE-15_MP236 - MP232	28	28-Nov-19	02-Jan-20	29-Jan-21	24-Feb-21	100%	100%										
270		MODULE-16_MP240 - MP237	28	12-Oct-19	16-Nov-19	12-Apr-21	20-May-21	100%	100%										
271		MODULE-17_MP245 - MP241	28	03-Aug-19	13-Sep-19	14-Sep-20	03-Dec-20	100%	100%										
272		MODULE-18_MP249 - MP246	324	08-May-19	12-Jun-19	18-Jan-21	08-Sep-21	100%	100%										
273		MAIN BRIDGE BEARING_INTERTIDAL 14+800-15+890 FROM MB206 TO MB225	28	29-Jun-19	14-Sep-20	01-Oct-21	08-Feb-22	100%	100%										
274		MODULE-10_MP211 - MP207	28	04-Aug-20	14-Sep-20	10-Jan-22	08-Feb-22	100%	100%										
275		MODULE-11_MP216 - MP212	28	29-Jun-19	07-Aug-19	09-Dec-21	04-Jan-22	100%	100%										
276		MODULE-12_MP221 - MP217	28	15-Jan-20	19-Feb-20	09-Nov-21	27-Dec-21	100%	100%										
277		MODULE-13_MP226 - MP222	28	27-May-20	02-Jul-20	01-Oct-21	18-Oct-21	100%	100%										
278		MAIN BRIDGE BEARING_MARINE 13+610-14+800 FROM MB187 TO MB205	319	07-Apr-20	09-Feb-21	22-Feb-22	02-Mar-23	100%	100%										
279		MODULE-06_MP191 - MP187	151	05-Jan-21	09-Feb-21	18-Nov-22	24-Feb-23	100%	100%										
280		MODULE-07_MP196 - MP192	260	05-Oct-20	04-Feb-21	26-May-22	02-Mar-23	100%	100%										
281		MODULE-08_MP201 - MP197	28	24-Jun-20	01-Aug-20	01-Apr-22	30-Apr-22	100%	100%										
282		MODULE-09_MP206 - MP202	28	07-Apr-20	12-May-20	22-Feb-22	18-Mar-22	100%	100%										
283		MAIN BRIDGE BEARING_MARINE (STEEL) 11+880-13+610 FROM MB171 TO MB186	421	19-May-20	24-Sep-21	22-Dec-21		100%	99.41%										
284		STEEL MODULE-01_MP176 - MP171	179	25-Mar-21	24-Sep-21	27-Oct-22		100%	83.33%										
285		STEEL MODULE-02_MP182 - MP177	363	19-May-20	04-Mar-21	22-Dec-21	17-Nov-22	100%	100%										
286		STEEL MODULE-03_MP186 - MP183	151	05-Jan-21	20-May-21	21-Oct-22	28-Feb-23	100%	100%										
287		MAIN BRIDGE BEARING_MARINE 10+380-11+680 FROM MB146 TO MB170	126	25-Apr-19	18-Apr-20	02-Nov-22	22-Mar-23	100%	100%										
288		MODULE-01_MP151 - MP146	59	31-Jan-20	18-Apr-20	02-Nov-22	01-Dec-22	100%	100%										
289		MODULE-02_MP156 - MP152	28	03-Oct-19	07-Nov-19	02-Jan-23	05-Jan-23	100%	100%										

█ Actual Level of Effort    █ Critical Remaining Work  
█ Actual Work                ◆ Milestone  
█ Remaining Work            ▼ summary

**EMPLOYER:**  
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
(MMRDA)

**CONTRACTOR:**  
DAEWOO-TPL JV

Date	Revision	Checked	Approved
25-Mar-23	R0		



MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807KM LONG BRIDGE SECTION  
(CH 10 380 - CH 18 187) ACCROSS THE MUMBAI BAY INCL SHIVAJNAGAR INTERCHANGE  
UNDER IDENTIFICATION NO MMRDA/ENG/000753

ANNEXURE-5 CONSTRUCTION UPDATED  
PROGRAMME\_ABSTRACT (PACKAGE 2)

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
280		MODULE-03_MP161 - MP157	28	03-Jul-19	10-Aug-19	13-Feb-23	16-Feb-23	100%	100%											16-Feb-23A: MODULE-03_MP161 - MP157
291		MODULE-04_MP166 - MP162	28	25-Apr-19	31-May-19	14-Mar-23	22-Mar-23	100%	100%											14-Mar-23A: MODULE-04_MP166 - MP162
292		MODULE-05_MP171 - MP167	0					0%	0%											
293		MAIN BRIDGE SUPER STRUCTURE BOX GIRDER INSTALLATION	1059	12-Sep-19	01-Mar-22	20-Jul-20		100%	91.59%											01-Mar-22A: MAIN BRIDGE SUPER STRUCTURE BOX GIRDER INSTALLATION
294		MAIN BRIDGE CONCRETE GIRDER INSTALLATION	1026	12-Sep-19	02-Feb-22	20-Jul-20		100%	93%											02-Feb-22A: MAIN BRIDGE CONCRETE GIRDER INSTALLATION
295		MAIN BRIDGE PC GIRDER LAND 15+890-17+414 FROM MP251 TO MP256	766	12-Sep-19	27-Feb-20	20-Jul-20	02-Jul-22	100%	100%											02-Jul-22A: MAIN BRIDGE PC GIRDER LAND 15+890-17+414 FROM MP251 TO MP256
296	CNLGA.1010	Assembly of Structural Parts in Launching Gantry_2	35	12-Sep-19	17-Oct-19	20-Jul-20	25-Dec-20	100%	100%											Assembly of Structural Parts in Launching Gantry_2
297	CNLGA.1000	Assembly of Structural Parts in Launching Gantry_1	35	12-Sep-19	17-Oct-19	12-Nov-20	17-Feb-21	100%	100%											Assembly of Structural Parts in Launching Gantry_1
298	CNLGA.1015	Assembly of Mechanical Parts in Launching Gantry_2	15	17-Oct-19	01-Nov-19	28-Sep-20	30-Dec-20	100%	100%											Assembly of Mechanical Parts in Launching Gantry_2
299	CNLGA.1005	Assembly of Mechanical Parts in Launching Gantry_1	15	17-Oct-19	01-Nov-19	05-Feb-21	06-Mar-21	100%	100%											Assembly of Mechanical Parts in Launching Gantry_1
300	MODULE-22_MP266 - MP262		191	01-Nov-19	25-Dec-19	02-Jul-21	28-Mar-22	100%	100%											02-Jul-21A: MODULE-22_MP266 - MP262
301	MODULE-21_MP261 - MP257		192	02-Dec-19	23-Jan-20	18-Sep-21	25-May-22	100%	100%											18-Sep-21A: MODULE-21_MP261 - MP257
302	MODULE-20_MP256 - MP255		162	31-Dec-19	04-Feb-20	08-Nov-21	15-Jun-22	100%	100%											08-Nov-21A: MODULE-20_MP256 - MP255
303	MODULE-19_MP254 - MP250		161	11-Jan-20	27-Feb-20	28-Nov-21	02-Jul-22	100%	100%											02-Jul-22A: MODULE-19_MP254 - MP250
304	MAIN BRIDGE PRECAST GIRDER CRZ 15+890-17+414 FROM MP226 TO MP229		214	04-Feb-20	25-Sep-20	30-Dec-20	25-Aug-22	100%	100%											25-Aug-22A: MAIN BRIDGE PRECAST GIRDER CRZ 15+890-17+414 FROM MP226 TO MP229
305	MODULE-18_MP248 - MP246		104	04-Feb-20	28-Mar-20	20-Dec-21	25-Aug-22	100%	100%											20-Dec-21A: MODULE-18_MP248 - MP246
306	MODULE-17_MP245 - MP241		74	05-Mar-20	27-Apr-20	30-Dec-20	16-May-21	100%	100%											30-Dec-20A: MODULE-17_MP245 - MP241
307	MODULE-16_MP240 - MP237		37	03-Apr-20	21-May-20	13-Apr-21	03-Aug-21	100%	100%											13-Apr-21A: MODULE-16_MP240 - MP237
308	MODULE-15_MP236 - MP232		31	27-Apr-20	19-Jun-20	06-Jun-21	22-Sep-21	100%	100%											06-Jun-21A: MODULE-15_MP236 - MP232
309	MODULE-14_MP231 - MP227		42	27-May-20	25-Sep-20	27-Aug-21	10-Nov-21	100%	100%											27-Aug-21A: MODULE-14_MP231 - MP227
310	MAIN BRIDGE PRECAST GIRDER INTERTIDAL 14+800-15+890 FROM MP206 TO MP225		94	12-Sep-20	23-Jan-21	25-Oct-21	11-Apr-22	100%	100%											25-Oct-21A: MAIN BRIDGE PRECAST GIRDER INTERTIDAL 14+800-15+890 FROM MP206 TO MP225
311	MODULE-13_MP226 - MP222		39	12-Sep-20	21-Oct-20	25-Oct-21	10-Dec-21	100%	100%											25-Oct-21A: MODULE-13_MP226 - MP222
312	MODULE-12_MP221 - MP217		65	08-Oct-20	20-Nov-20	20-Nov-21	14-Jan-22	100%	100%											20-Nov-21A: MODULE-12_MP221 - MP217
313	MODULE-11_MP216 - MP212		85	08-Nov-20	19-Dec-20	27-Dec-21	27-Feb-22	100%	100%											27-Dec-21A: MODULE-11_MP216 - MP212
314	MODULE-10_MP211 - MP207		84	08-Dec-20	23-Jan-21	31-Jan-22	11-Apr-22	100%	100%											31-Jan-22A: MODULE-10_MP211 - MP207
315	MAIN BRIDGE PRECAST GIRDER MARINE 13+610-14+800 FROM MP187 TO MP205		174	12-Jan-21	10-Jun-21	19-Mar-22		100%	92.65%											19-Mar-22A: MAIN BRIDGE PRECAST GIRDER MARINE 13+610-14+800 FROM MP187 TO MP205
316	CNLGD.1010	Dismantling of Launching Gantry_2	20	12-May-21	03-Jun-21	04-Oct-22	07-Oct-22	100%	100%											Dismantling of Launching Gantry_2
317	CNLGD.1000	Dismantling of Launching Gantry_1	20	18-May-21	10-Jun-21	14-Sep-22	20-Sep-22	100%	100%											Dismantling of Launching Gantry_1
318	MODULE-08_MP208 - MP202		47	12-Jan-21	17-Feb-21	19-Mar-22	12-May-22	100%	100%											12-May-22A: MODULE-08_MP208 - MP202
319	MODULE-08_MP201 - MP197		26	05-Feb-21	19-Mar-21	17-Apr-22	27-Jun-22	100%	100%											17-Apr-22A: MODULE-08_MP201 - MP197
320	MODULE-07_MP196 - MP192		133	08-Mar-21	17-Apr-21	03-Jun-22		100%	92.12%											03-Jun-22A: MODULE-07_MP196 - MP192
321	MODULE-06_MP181 - MP187		38	12-Apr-21	18-May-21	30-Nov-22		100%	80%											30-Nov-22A: MODULE-06_MP181 - MP187
322	MAIN BRIDGE PRECAST GIRDER MARINE 10+380-11+890 FROM MP146 TO MP170		86	04-Jun-21	02-Feb-22	21-Sep-22		100%	76.2%											21-Sep-22A: MAIN BRIDGE PRECAST GIRDER MARINE 10+380-11+890 FROM MP146 TO MP170
323	CNLGA.1030	Assembling of Launching Gantry_2	20	04-Jun-21	26-Jun-21	07-Oct-22	16-Oct-22	100%	100%											Assembling of Launching Gantry_2
324	CNLGA.1020	Assembling of Launching Gantry_1	20	10-Jun-21	03-Sep-21	21-Sep-22	10-Oct-22	100%	100%											Assembling of Launching Gantry_1
325	MODULE-05_MP171 - MP167		30	28-Dec-21	02-Feb-22			100%	0%											02-Feb-22A: MODULE-05_MP171 - MP167
326	MODULE-04_MP166 - MP162		61	29-Nov-21	03-Jan-22	21-Feb-23		100%	81%											21-Feb-23A: MODULE-04_MP166 - MP162
327	MODULE-03_MP161 - MP157		36	30-Oct-21	04-Dec-21	12-Jan-23	22-Feb-23	100%	100%											12-Jan-23A: MODULE-03_MP161 - MP157
328	MODULE-02_MP156 - MP152		43	29-Sep-21	05-Nov-21	04-Dec-22	16-Jan-23	100%	100%											04-Dec-22A: MODULE-02_MP156 - MP152
329	MODULE-01_MP151 - MP146		47	28-Jun-21	05-Oct-21	17-Oct-22	05-Dec-22	100%	100%											17-Oct-22A: MODULE-01_MP151 - MP146
330	STITCH JOINT CASTING		516	07-Dec-19	12-Feb-22	12-Jan-21		0%	0%											12-Jan-21A: STITCH JOINT CASTING
331	MAIN BRIDGE STITCH JOINT CASTING LAND 15+890-17+414 FROM MP251 TO MP256		263	07-Dec-19	16-Mar-20	06-Jul-21	28-Jun-22	0%	0%											28-Jun-22A: MAIN BRIDGE STITCH JOINT CASTING LAND 15+890-17+414 FROM MP251 TO MP256
332	MODULE-19_MP254 - MP250		106	10-Feb-20	16-Mar-20	29-Nov-21	28-Jun-22	0%	0%											28-Jun-22A: MODULE-19_MP254 - MP250
333	MODULE-20_MP256 - MP255		156	17-Jan-20	20-Feb-20	10-Nov-21	13-Jun-22	0%	0%											13-Jun-22A: MODULE-20_MP256 - MP255
334	MODULE-21_MP261 - MP257		209	08-Jan-20	08-Feb-20	23-Sep-21	19-May-22	0%	0%											19-May-22A: MODULE-21_MP261 - MP257
335	MODULE-22_MP266 - MP262		175	07-Dec-19	10-Jan-20	08-Jul-21	25-Mar-22	0%	0%											25-Mar-22A: MODULE-22_MP266 - MP262
336	MAIN BRIDGE STITCH JOINT CASTING CRZ 15+890-17+414 FROM MP226 TO MP229		236	11-Mar-20	13-Oct-20	12-Jan-21	23-Aug-22	0%	0%											23-Aug-22A: MAIN BRIDGE STITCH JOINT CASTING CRZ 15+890-17+414 FROM MP226 TO MP229
337	MODULE-14_MP231 - MP227		29	19-Sep-20	13-Oct-20	02-Sep-21	08-Nov-21	0%	0%											02-Sep-21A: MODULE-14_MP231 - MP227
338	MODULE-15_MP236 - MP232		19	02-Jun-20	09-Jul-20	10-Jul-21	20-Sep-21	0%	0%											20-Sep-21A: MODULE-15_MP236 - MP232
339	MODULE-16_MP240 - MP237		19	04-May-20	06-Jun-20	23-Apr-21	31-Jul-21	0%	0%											31-Jul-21A: MODULE-16_MP240 - MP237
340	MODULE-17_MP245 - MP241		41	09-Apr-20	14-May-20	12-Jan-21	12-May-21	0%	0%											12-May-21A: MODULE-17_MP245 - MP241
341	MODULE-18_MP248 - MP246		142	11-Mar-20	14-Apr-20	29-Dec-21	23-Aug-22	0%	0%											23-Aug-22A: MODULE-18_MP248 - MP246
342	MAIN BRIDGE STITCH JOINT CASTING INTERTIDAL 14+800-15+890 FROM MP206 TO MP225		155	14-Oct-20	10-Feb-21	27-Oct-21	07-Apr-22	0%	0%											07-Apr-22A: MAIN BRIDGE STITCH JOINT CASTING INTERTIDAL 14+800-15+890 FROM MP206 TO MP225
343	MODULE-10_MP211 - MP207		43	18-Jan-21	10-Feb-21	03-Feb-22	07-Apr-22	0%	0%											07-Apr-22A: MODULE-10_MP211 - MP207
344	MODULE-11_MP216 - MP212		112	14-Dec-20	05-Jan-21	30-Dec-21	25-Feb-22	0%	0%											25-Feb-22A: MODULE-11_MP216 - MP212
345	MODULE-12_MP221 - MP217		97	14-Nov-20	07-Dec-20	24-Nov-21	12-Jan-22	0%	0%											12-Jan-22A: MODULE-12_MP221 - MP217
346	MODULE-13_MP226 - MP222		28	14-Oct-20	06-Nov-20	27-Oct-21	08-Dec-21	0%	0%											08-Dec-21A: MODULE-13_MP226 - MP222
347	MAIN BRIDGE STITCH JOINT CASTING MARINE 13+610-14+800 FROM MP187 TO MP205		178	11-Feb-21	21-Jun-21	21-Mar-22		0%	0%											21-Mar-22A: MAIN BRIDGE STITCH JOINT CASTING MARINE 13+610-14+800 FROM MP187 TO MP205

█ Actual Level of Effort    █ Critical Remaining Work  
█ Actual Work                    ◆ Milestone  
█ Remaining Work                ▼ summary

**EMPLOYER:**  
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
(MMRDA)

**CONTRACTOR:**  
DAEWOO-TPL JV

Date	Revision	Checked	Approved
25-Mar-23	R0		

MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807KM LONG BRIDGE SECTION  
(CH 10 380 - CH 18 187) ACCROSS THE MUMBAI BAY INCL SHIVAJNAGAR INTERCHANGE  
UNDER IDENTIFICATION NO MMRDA/ENG/000753

ANNEXURE-5 CONSTRUCTION UPDATED  
PROGRAMME\_ABSTRACT (PACKAGE 2)

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
348		MODULE-06_MP191 - MP187	41	04-Jun-21	21-Jun-21	05-Dec-22		0%	0%										
349		MODULE-07_MP196 - MP192	123	17-Apr-21	05-May-21	07-Jun-22	02-Mar-23	0%	0%										
350		MODULE-08_MP201 - MP197	59	13-Mar-21	05-Apr-21	20-Apr-22	25-Jun-22	0%	0%										
351		MODULE-09_MP206 - MP202	34	11-Feb-21	06-Mar-21	21-Mar-22	08-May-22	0%	0%										
352		MAIN BRIDGE STITCH JOINT CASTING_MARINE 10+380-11+880 FROM MP146 TO MP170	84	05-Oct-21	12-Feb-22	25-Oct-22		0%	0%										
353		MODULE-01_MP151 - MP146	50	08-Oct-21	23-Oct-21	25-Oct-22	03-Dec-22	0%	0%										
354		MODULE-02_MP156 - MP152	52	05-Nov-21	23-Nov-21	08-Dec-22	13-Jan-23	0%	0%										
355		MODULE-03_MP161 - MP157	29	04-Dec-21	21-Dec-21	16-Jan-23	20-Feb-23	0%	0%										
356		MODULE-04_MP166 - MP162	65	03-Jan-22	19-Jan-22	23-Feb-23		0%	0%										
357		MODULE-05_MP171 - MP167	14	27-Jan-22	12-Feb-22			0%	0%										
358		MAIN BRIDGE STEEL GIRDER INSTALLATION	335	03-Oct-20	01-Mar-22	01-Jan-22		100%	83.33%										
359		MAN BRIDGE STEEL GIRDER INSTALLATION_MARINE 11+850-13+610 FROM MP171 TO MP186	335	03-Oct-20	01-Mar-22	01-Jan-22		100%	83.33%										
360		STEEL MODULE-01_MP176 - MP171 (INSTALLATION)	82	07-Dec-21	01-Mar-22	28-Dec-22		100%	50%										
361		STEEL MODULE-02_MP182 - MP177 (INSTALLATION)	157	03-Oct-20	30-Sep-21	01-Jan-22	15-Dec-22	100%	100%										
362		STEEL MODULE-03_MP186 - MP183 (INSTALLATION)	96	30-Sep-21	07-Dec-21	22-Nov-22	14-Mar-23	100%	100%										
363		MISCELLANEOUS & FINISHING WORKS	600	16-May-19	24-May-22	30-Mar-21		100%	35.26%										
364		CRASH BARRIER & GUARD RAILS	292	20-Feb-20	07-Mar-22	20-Jul-22		100%	61.39%										
365		WATER PROOFING	120	26-Mar-20	17-Mar-22	16-Jan-23		100%	17.50%										
366		PAVEMENT	238	19-Mar-20	24-May-22	24-Feb-23		100%	5.45%										
367		EXPANSION JOINT	170	27-May-20	21-Apr-22			100%	0%										
368		SUB STATION	388	18-May-19	15-Apr-21	30-Mar-21		100%	85%										
369		NOISE BARRIER	79	16-Mar-20	14-Sep-21	06-Mar-23		100%	1.37%										
370		FENDER INSTALLATION	80	24-Jul-21	24-Nov-21	17-Jan-23		100%	72.5%										
371		DRAINAGE WORKS	140	16-Mar-20	09-Mar-22	21-Feb-23		100%	0.04%										
372		SIGN BOARDS	80	12-Feb-22	23-Apr-22			100%	0%										
373		INTERCHANGE	1411	24-Dec-18	28-Apr-22	09-Oct-19		100%	95.31%										
374		INTERCHANGE FOUNDATION	590	24-Dec-18	22-Oct-20	09-Oct-19	26-May-21	100%	100%										
375		INTERCHANGE RAMP PILE FOUNDATION	475	24-Dec-18	05-Mar-20	09-Oct-19	13-May-21	100%	100%										
376		INTERCHANGE RAMP PILE FDN_MA	182	05-Aug-19	03-Jan-20	09-Oct-19	13-May-21	100%	100%										
377		MODULE_23_MAA2-MAP4	75	05-Aug-19	02-Nov-19	13-Jan-20	28-Jun-20	100%	100%										
378		MODULE_24_MAP4-MP246	137	02-Nov-19	03-Jan-20	09-Oct-19	13-May-21	100%	100%										
379		INTERCHANGE RAMP PILE FDN_AC	107	01-Oct-19	05-Mar-20	25-Oct-19	16-Aug-20	100%	100%										
380		MODULE_33_ACA2-ACP5	80	01-Oct-19	19-Dec-19	25-Oct-19	16-Aug-20	100%	100%										
381		MODULE_34_ACP5-MP256	62	19-Dec-19	05-Mar-20	02-Nov-19	25-Feb-20	100%	100%										
382		INTERCHANGE RAMP PILE FDN_JM	178	03-Jan-19	05-Aug-19	26-Nov-19	07-May-21	100%	100%										
383		MODULE_25_MP245-JMP4	178	22-Apr-19	05-Aug-19	26-Nov-19	23-Apr-21	100%	100%										
384		MODULE_26_JMP4-JMP8	88	19-Feb-19	20-Apr-19	01-Dec-20	17-Feb-21	100%	100%										
385		MODULE_27_JMP8-JMA2	64	03-Jan-19	18-Feb-19	23-Mar-21	07-May-21	100%	100%										
386		INTERCHANGE RAMP PILE FDN_MJ	79	03-Jan-19	01-Oct-19	04-Dec-19	27-Nov-20	100%	100%										
387		MODULE_35_MJA2-MJP9	45	03-Jan-19	21-Mar-19	16-Sep-20	27-Nov-20	100%	100%										
388		MODULE_36_MJP9-MJP4	83	22-Mar-19	10-Jun-19	15-Jan-20	26-Aug-20	100%	100%										
389		MODULE_37_MJP4-MP252	52	11-Jun-19	01-Oct-19	04-Dec-19	20-Mar-20	100%	100%										
390		INTERCHANGE RAMP PILE FDN_CA	100	26-May-19	23-Jan-20	01-Nov-19	27-Apr-21	100%	100%										
391		MODULE_28_MP249-CAP4	64	08-Nov-19	23-Jan-20	01-Nov-19	27-Apr-21	100%	100%										
392		MODULE_29_CAP4-CAP8	62	14-Aug-19	08-Nov-19	21-Nov-20	19-Mar-21	100%	100%										
393		MODULE_30_CAP8-CAA2	40	29-May-19	14-Aug-19	05-Jan-21	24-Feb-21	100%	100%										
394		INTERCHANGE RAMP PILE FDN_AM	290	24-Dec-18	27-May-19	05-Feb-20	04-Jan-21	100%	100%										
395		MODULE_31_MAA2-AMP4	187	24-Dec-18	26-Mar-19	07-Feb-20	10-Sep-20	100%	100%										
396		MODULE_32_AMP4-MP259	237	27-Mar-19	27-May-19	06-Feb-20	04-Jan-21	100%	100%										
397		INTERCHANGE RAMP PILE CAP INSTALLATION	525	06-Jan-19	22-Oct-20	22-Oct-19	26-May-21	100%	100%										
398		INTERCHANGE RAMP PILE CAP_MA	182	06-Dec-19	15-May-20	22-Oct-19	26-May-21	100%	100%										
399		MODULE_23_MAA2-MAP4	95	06-Dec-19	24-Feb-20	22-Jan-20	24-Jul-20	100%	100%										
400		MODULE_24_MAP4-MP246	85	24-Feb-20	15-May-20	22-Oct-19	26-May-21	100%	100%										
401		INTERCHANGE RAMP PILE CAP_AC	183	15-Jan-20	22-Oct-20	02-Nov-19	07-Sep-20	100%	100%										
402		MODULE_33_ACA2-ACP5	132	15-Jan-20	24-Apr-20	18-Nov-19	07-Sep-20	100%	100%										
403		MODULE_34_ACP5-MP256	114	24-Apr-20	22-Oct-20	02-Nov-19	09-Mar-20	100%	100%										
404		INTERCHANGE RAMP PILE CAP_JM	136	18-Jan-19	06-Dec-19	11-Dec-19	25-May-21	100%	100%										
405		MODULE_25_MP245-JMP4	135	18-Jun-19	06-Dec-19	11-Dec-19	15-May-21	100%	100%										

<p>Actual Level of Effort</p> <p>Actual Work</p> <p>Remaining Work</p>	<p>Critical Remaining Work</p> <p>Milestone</p> <p>summary</p>	<p><b>EMPLOYER:</b> MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)</p>	<p><b>CONTRACTOR:</b> DAEWOO-TPL JV</p>	<p>Date</p> <p>Revision</p> <p>Checked</p> <p>Approved</p>
				<p>25-Mar-23</p> <p>R0</p>



MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807KM LONG BRIDGE SECTION  
(CH 10 380 - CH 18 187) ACROSS THE MUMBAI BAY INCL SHIVAJNAGAR INTERCHANGE  
UNDER IDENTIFICATION NO MMRDA/ENG/000753

ANNEXURE-5 CONSTRUCTION UPDATED  
PROGRAMME\_ABSTRACT (PACKAGE 2)

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026
406		MODULE_26_MPA-MPB	92	21-Mar-19	17-Jun-19	23-Dec-20	23-Feb-21	100%	100%									
407		MODULE_27_MP8-MA2	40	18-Jan-19	20-Mar-19	02-Apr-21	25-May-21	100%	100%									
408		INTERCHANGE RAMP PILE CAP_MJ	145	18-Jan-19	15-Jan-20	16-Dec-19	19-Dec-20	100%	100%									
409		MODULE_35_MJA2-MJP9	123	18-Jan-19	29-Apr-19	08-Oct-20	19-Dec-20	100%	100%									
410		MODULE_36_MJP9-MJP4	62	30-Apr-19	26-Oct-19	03-Mar-20	03-Sep-20	100%	100%									
411		MODULE_37_MJP4-MP252	58	26-Oct-19	15-Jan-20	16-Dec-19	01-Jun-20	100%	100%									
412		INTERCHANGE RAMP PILE CAP_CA	168	15-Oct-19	27-Jun-20	02-Dec-19	05-May-21	100%	100%									
413		MODULE_28_MP249-CAP4	87	05-Mar-20	27-Jun-20	02-Dec-19	05-May-21	100%	100%									
414		MODULE_29_CAP4-CAP8	70	16-Dec-19	05-Mar-20	30-Nov-20	30-Mar-21	100%	100%									
415		MODULE_30_CAP8-CAA2	53	15-Oct-19	16-Dec-19	19-Jan-21	02-Mar-21	100%	100%									
416		INTERCHANGE RAMP PILE CAP_AM	245	08-Jan-19	15-Oct-19	15-Feb-20	13-Jan-21	100%	100%									
417		MODULE_31_MAA2-AMP4	176	08-Jan-19	09-May-19	15-Feb-20	21-Sep-20	100%	100%									
418		MODULE_32_AMP4-MP259	89	10-May-19	15-Oct-19	07-Mar-20	13-Jan-21	100%	100%									
419		INTERCHANGE SUBSTRUCTURE & BEARING	790	29-Jan-19	31-May-21	24-Dec-19		100%	100%									
420		INTERCHANGE RAMP PIER INSTALLATION	598	29-Jan-19	27-Apr-21	24-Dec-19	12-Sep-22	100%	100%									
421		INTERCHANGE RAMP PIER_MA	169	18-Mar-20	29-Dec-20	24-Dec-19	18-Sep-21	100%	100%									
422		INTERCHANGE RAMP PIER_AC	249	16-May-20	27-Apr-21	19-May-20	18-Dec-21	100%	100%									
423		INTERCHANGE RAMP PIER_MJ	138	08-Feb-19	18-Mar-20	15-Jan-20	29-Jul-22	100%	100%									
424		INTERCHANGE RAMP PIER_MJ	234	08-Feb-19	16-May-20	07-Sep-20	20-Nov-21	100%	100%									
425		INTERCHANGE RAMP PIER_CA	230	08-Jan-20	18-Feb-21	27-Apr-20	02-May-22	100%	100%									
426		INTERCHANGE RAMP PIER_AM	268	29-Jan-19	08-Jan-20	26-Sep-20	12-Sep-22	100%	100%									
427		INTERCHANGE BEARING INSTALLATION	447	27-Feb-19	31-May-21	08-Sep-21		0%	0%									
428		INTERCHANGE RAMP BEARING_MA	229	16-Apr-20	01-Feb-21	08-Sep-21	18-Jan-22	0%	0%									
429		INTERCHANGE RAMP BEARING_AC	28	24-Jun-20	31-May-21	04-Mar-22	07-Apr-22	0%	0%									
430		INTERCHANGE RAMP BEARING_MJ	160	11-Mar-19	20-Apr-20	14-Jul-22	19-Dec-22	0%	0%									
431		INTERCHANGE RAMP BEARING_MJ	63	11-Mar-19	30-Jun-20	22-Mar-22	03-Sep-22	0%	0%									
432		INTERCHANGE RAMP BEARING_CA	106	06-Feb-20	22-Mar-21	26-Sep-22	30-Dec-22	0%	0%									
433		INTERCHANGE RAMP BEARING_AM	105	27-Feb-19	10-Feb-20	05-Jan-23		0%	0%									
434		INTERCHANGE SUPERSTRUCTURE INSTALLATION	514	20-Sep-19	15-Feb-22	18-Sep-21		100%	90.33%									
435		INTERCHANGE BOX GIRDER INSTALLATION_MA	180	06-Jan-21	03-Jan-22	18-Sep-21	22-Apr-22	100%	100%									
436		MODULE_23_MAA2-MAP6-MAP5-MAP4	134	06-Jan-21	21-Jun-21	18-Sep-21	06-Mar-22	100%	100%									
437		MODULE_24_MAP4-MAP3-MAP2-MAP1-MP246	61	21-Jun-21	03-Jan-22	01-Oct-21	22-Apr-22	100%	100%									
438		INTERCHANGE BOX GIRDER INSTALLATION_AC	140	27-Feb-21	27-Dec-21	01-Nov-21	20-Sep-22	100%	100%									
439		MODULE_33_ACA2-ACP6-ACP7-ACP5-ACP5	140	27-Feb-21	08-Sep-21	01-Nov-21	10-Apr-22	100%	100%									
440		MODULE_34_ACP5-ACP4-ACP3-ACP2-ACP1-MP256	122	31-May-21	27-Dec-21	07-Apr-22	20-Sep-22	100%	100%									
441		INTERCHANGE BOX GIRDER INSTALLATION_MJ	234	11-Mar-20	26-Feb-21	30-Aug-22	14-Feb-23	100%	100%									
442		MODULE_25_MP245-MJP1-MJP2-MJP3-MJP4	144	19-Aug-20	08-Feb-21	13-Oct-22	14-Feb-23	100%	100%									
443		MODULE_26_MP4-MJP5-MJP6-MJP7-MJP8	109	29-Sep-20	26-Feb-21	30-Aug-22	14-Dec-22	100%	100%									
444		MODULE_27_MP6-MJP9-MJP10-MJA2	165	11-Mar-20	29-Sep-20	08-Sep-22	09-Jan-23	100%	100%									
445		INTERCHANGE BOX GIRDER INSTALLATION_MJ	188	20-Sep-19	08-Jan-21	17-Mar-22	13-Oct-22	100%	100%									
446		MODULE_35_MJA2-MJP12-MJP11-MJP10-MJP9	100	20-Sep-19	16-Mar-20	17-Mar-22	11-Jun-22	100%	100%									
447		MODULE_36_MJP9-MJP8-MJP7-MJP6-MJP5-MJP4	171	16-Mar-20	29-Oct-20	28-Mar-22	23-Aug-22	100%	100%									
448		MODULE_37_MJP4-MJP3-MJP2-MJP1-MP252	128	30-Jun-20	08-Jan-21	16-Jun-22	13-Oct-22	100%	100%									
449		INTERCHANGE BOX GIRDER INSTALLATION_CA	390	30-Oct-20	15-Feb-22	12-Oct-22		100%	85.45%									
450		MODULE_28_MP249-CAP1-CAP2-CAP3-CAP4	154	08-Sep-21	15-Feb-22	10-Dec-22		100%	80%									
451		MODULE_29_CAP4-CAP5-CAP6-CAP7-CAP8	161	09-Apr-21	23-Nov-21	29-Oct-22	10-Feb-23	100%	100%									
452		MODULE_30_CAP8-CAP9-CAP10-CAA2	156	30-Oct-20	08-Apr-21	12-Oct-22	25-Dec-22	100%	100%									
453		INTERCHANGE BOX GIRDER INSTALLATION_AM	207	14-Oct-19	19-Aug-20	12-Jan-23		100%	53.33%									
454		MODULE_31_MAA2-AMP6-AMP7-AMP8-AMP5-AMP4	178	14-Oct-19	11-Mar-20	12-Jan-23		100%	72%									
455		MODULE_32_AMP4-AMP3-AMP2-AMP1-MP259	181	10-Feb-20	19-Aug-20	21-Jan-23		100%	30%									
456		INTERCHANGE RETAINING STRUCTURE	352	11-Mar-19	06-Nov-20	15-May-21	22-Feb-23	100%	100%									
457		INTERCHANGE RETAINING STRUCTURE_MA	0					0%	0%									
458		INTERCHANGE RETAINING STRUCTURE_AC	66	24-Jun-20	06-Nov-20	15-May-21	25-Mar-22	100%	100%									
459		INTERCHANGE RETAINING STRUCTURE_MJ	86	11-Mar-19	08-May-19	24-Feb-22	30-Dec-22	100%	100%									
460		INTERCHANGE RETAINING STRUCTURE_MJ	101	09-May-19	11-Jul-19	18-Oct-21	06-Aug-22	100%	100%									
461		INTERCHANGE RETAINING STRUCTURE_CA	38	06-Feb-20	24-Mar-20	28-Dec-21	08-Sep-22	100%	100%									
462		INTERCHANGE RETAINING STRUCTURE_AM	67	12-Jul-19	24-Oct-19	15-Oct-22	22-Feb-23	100%	100%									
463		MISCELLANEOUS & FINISHING WORKS	375	19-Aug-20	28-Apr-22	15-Nov-22		100%	13.15%									

<ul style="list-style-type: none"> <li>Actual Level of Effort</li> <li>Actual Work</li> <li>Remaining Work</li> </ul>	<ul style="list-style-type: none"> <li>Critical Remaining Work</li> <li>Milestone</li> <li>summary</li> </ul>	<b>EMPLOYER:</b> MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)	<b>CONTRACTOR:</b> DAEWOO-TPL JV	Date 25-Mar-23	Revision R0	Checked	Approved
---	---	---	-------------------------------------	-------------------	----------------	---------	----------

MUMBAI TRANS HARBOUR LINK PROJECT (PACKAGE 2) CONSTRUCTION OF 7.807KM LONG BRIDGE SECTION  
(CH 10 380 - CH 18 187) ACCROSS THE MUMBAI BAY INCL SHIVAJNAGAR INTERCHANGE  
UNDER IDENTIFICATION NO MMRDA/ENG/000753

ANNEXURE-5 CONSTRUCTION UPDATED  
PROGRAMME\_ABSTRACT (PACKAGE 2)

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	2018	2019	2020	2021	2022	2023	2024	2025	2026	27	
464		EXPANSION JOINT	273	01-Oct-20	22-Apr-22			0%	0%											29-Feb-24 EXPANSION JOINT
465		CRASH BARRIER & GUARD RAILS	333	19-Aug-20	21-Feb-22	15-Nov-22		100%	59.83%											01-Jan-24 CRASH BARRIER & GUARD RAILS
466		WATER PROOFING	247	10-Sep-20	08-Mar-22			100%	0%											15-Jan-24 WATER PROOFING
467		PAVEMENT	253	07-Sep-20	28-Apr-22			100%	0%											06-Mar-24 PAVEMENT
468		DRAINAGE WORKS	247	28-Aug-20	26-Feb-22			100%	0%											05-Jan-24 DRAINAGE WORKS
469		PROJECT HANDINGOVER	65	24-May-22	22-Sep-22			100%	0%											22-May-24 PROJECT HANDINGOVER
470		CHECKLIST	65	24-May-22	22-Sep-22			100%	0%											22-May-24 CHECKLIST
471		DEFECT LIABILITY PERIOD (DLP)	773	22-Sep-22	21-Sep-24			0%	0%											07-Jul-24
472		PRICE SCHEDULE	2475	23-Mar-18	21-Mar-23	23-Mar-18		100%	47.24%											14-Mar-24 PRICE SCHEDULE
473		SCHEDULE-1	2475	23-Mar-18	21-Mar-23	23-Mar-18		100%	83.26%											14-Mar-24 SCHEDULE-1
474		SCHEDULE-2	1644	23-Mar-18	22-Sep-22	23-Mar-18		100%	98.27%											08-Jul-24 SCHEDULE-2
475		SCHEDULE-3	1644	23-Mar-18	22-Sep-22	23-Mar-18		100%	100%											08-Jul-24 SCHEDULE-3
476		SCHEDULE-12	1644	23-Mar-18	22-Sep-22	23-Mar-18		100%	94.4%											08-Jul-24 SCHEDULE-12
477		SCHEDULE-13	1644	23-Mar-18	22-Sep-22	23-Mar-18		100%	0.26%											08-Jul-24 SCHEDULE-13
478		MTHL-PKG2-RAMBOLL DESIGN PROGRAMME_25032023_APPROVED_MPR.60	1545	15-Jan-18	17-Jun-22	18-Dec-17		100%	90.85%											22-Feb-24 MTHL-PKG2-RAMBOLL DESIGN

█ Actual Level of Effort    █ Critical Remaining Work  
█ Actual Work                ◆ Milestone  
█ Remaining Work             ▬ summary

**EMPLOYER:**  
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
(MMRDA)

**CONTRACTOR:**  
DAEWOO-TPL JV

Date	Revision	Checked	Approved
25-Mar-23	R0		



**Attachment 8- Package-3's Construction Programme  
Updated as of 25<sup>th</sup> Mar 2023**

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



Activity ID	Activity Name	Original Duration	BL1 Start	BL1 Finish	Start	Finish	Activity % Complete	Schedule % Complete	Performance % Complete	Earned Value Cost	Planned Value Cost	Qtr 1, 2023		Qtr 2, 2023		
												Apr	May	Apr	May	
<b>MTHL Pkg 3_MPR Schedule Mar'23</b>																
<b>Procurement of Mumbai Trans Harbour Link Pr</b>																
1	Commencement Date (CD)	0			23-Mar-18 A		100%	0%	100%	Rs0	Rs0					
<b>Milestones (As level of effort)</b>																
KD1001	KD1 [Construction programme	0	30-Sep-19	30-Sep-19	30-Sep-19 A	30-Sep-19 A	100%	100%	100%	Rs0	Rs0					
KD1002	KD 2 [NOC for technical desig	0	29-Jun-20	29-Jun-20	29-Jun-20 A	29-Jun-20 A	100%	100%	100%	Rs0	Rs0					
KD1003	KD 3 [NOC for Good for const	0	17-Aug-20	17-Aug-20	17-Aug-20 A	17-Aug-20 A	100%	100%	100%	Rs0	Rs0					
KD1004	KD 4 [Substantial completion	0	27-Nov-20	27-Nov-20	27-Nov-20 A	27-Nov-20 A	100%	100%	100%	Rs0	Rs0					
KD1005	KD 5 [Substantial completion	0	25-Dec-21	25-Dec-21	25-Dec-21 A	25-Dec-21 A	100%	100%	100%	Rs0	Rs0					
KD1006	KD 6 [Substantial completion	0	06-Dec-22	06-Dec-22	19-May-23	19-May-23	0%	100%	0%	Rs0	Rs0					
KD1007	KD 7 [Substantial completion	0	17-Feb-23	17-Feb-23	27-Sep-23	27-Sep-23	0%	100%	0%	Rs0	Rs0					
KD1008	KD 8 [Final completion & han	0	03-Mar-23	03-Mar-23	12-Oct-23	12-Oct-23	0%	100%	0%	Rs0	Rs0					
<b>Financial Milestone</b>																
<b>Interface Milestone</b>																
<b>Delay Events</b>																
<b>Document Submittals</b>																
<b>Employer's Obligation / Land Handover</b>																
<b>Employer Office (Sch 01- General Item)</b>																
<b>Survey &amp; Geotechnical Investigation Works</b>																
<b>Design Works</b>																
<b>Procurement Works</b>																
<b>Co-ordinated Fabrication &amp; Manufacturing Works</b>																
<b>Construction Works</b>																
<b>Preconstruction Activity</b>																
<b>Sub Structures (Open Foundation, Pier, Pier Cap)</b>																
<b>Super Structures</b>																
<b>Bearings Installation</b>																
<b>Bridge Ancillaries &amp; Miscellaneous Item</b>																
<b>RE Wall</b>																
<b>At Grade work</b>																
<b>Water Proofing</b>																
<b>Asphalt Pavement, Kerb, traffic sign</b>																
<b>Compound wall with safety fence</b>																
<b>Completion of Interface Activity</b>																
<b>Testing &amp; Commissioning Works</b>																

■ Actual Level of Effort    ■ Remaining Work    ■ Critical Remaining Work  
■ Actual Work    ■ Critical Remaining Work    ◆ Milestone    ◆ Milestone  
▬ summary    ▬ summary





## Attachment 9- Project Progress Photos for Mar 2023

1<sup>st</sup> Jan 2023 to 31<sup>st</sup> Mar 2023



Page 46 of 60

**Package 1- Site Progress Photos**



Photo no.1- OSD 2 & OSD 3



Photo no.2 Water proffing membrane at Ch.2530



Photo no.3 Ch. 1290 SMA paving in progress



Photo no.4 Composite girder BP 24- BP 26



Photo no.5 BP 29-30 Cast in situ shuttering in progress



Photo no.6 Interchange view towards South Mumbai



Photo no.8 Intertidal Section- LG-08



Photo no.9 Casting of Last Segment at Precast yard

**Package 2 – Site Progress Photos**



Photo no.1- Deck Waterproofing works in progress at LHS Carriageway.



Photo no.2- Preparatory works for 26<sup>th</sup> OSD erection in progress at Span MP 173-173A LHS.

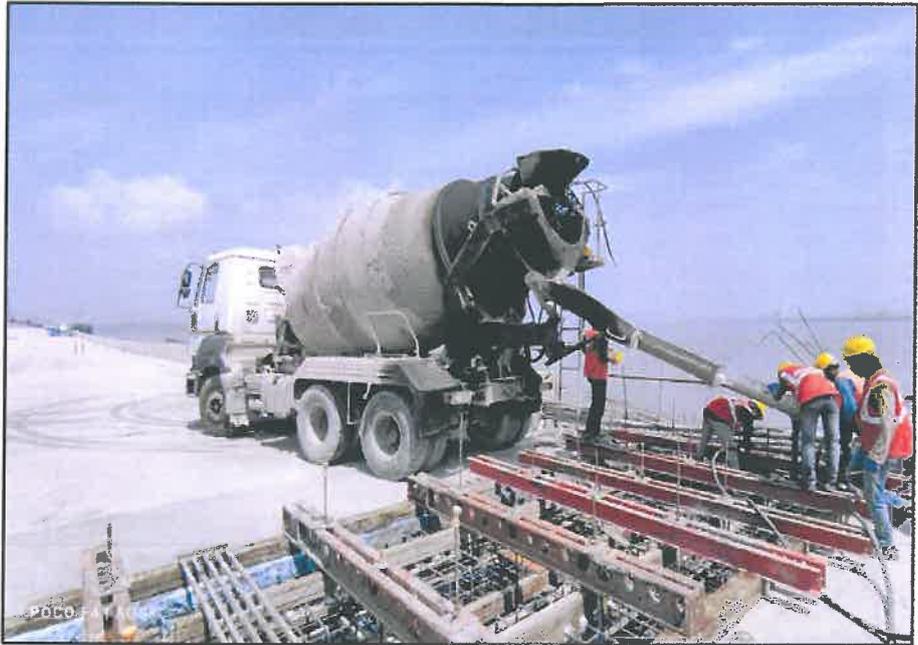


Photo no.3- Expansion Joint Cantilever slab concrete in progress.



Photo no.4- Crash barrier concreting in progress at ramp AC.



Photo no.5- Segment lifting in progress at Span MP 164-165 LHS.



Photo no.6- Application of Tack coat in progress at LHS Carriageway.





Photo no.7- SMA laying in progress at LHS Carriageway.



Photo no 8-Application of Tack coat in progress at LHS Carriageway.

**Package 3 – Site Progress Photos**



Photo no.1- Deck slab concrete casting completed at RMP 273-274



Photo no.2- MPP RAMP Embankment works.



Photo no.3- GSB laying work at RHS CH 18+930 to 19+070.



Photo no.4- A Outer crash barrier shuttering work at Chirle span RP36-37.t-grade location.

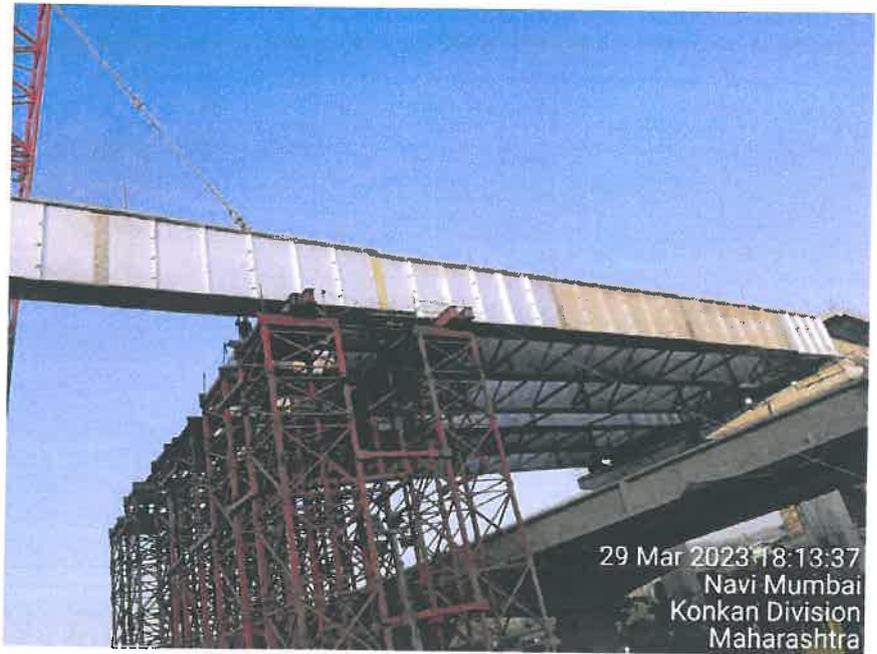


Photo no.5- Steel girder erection work at Jasai SH-54 span RP 19-20.



Photo no.6- Anti carbonation paint work at Chirle Ramp JMP.



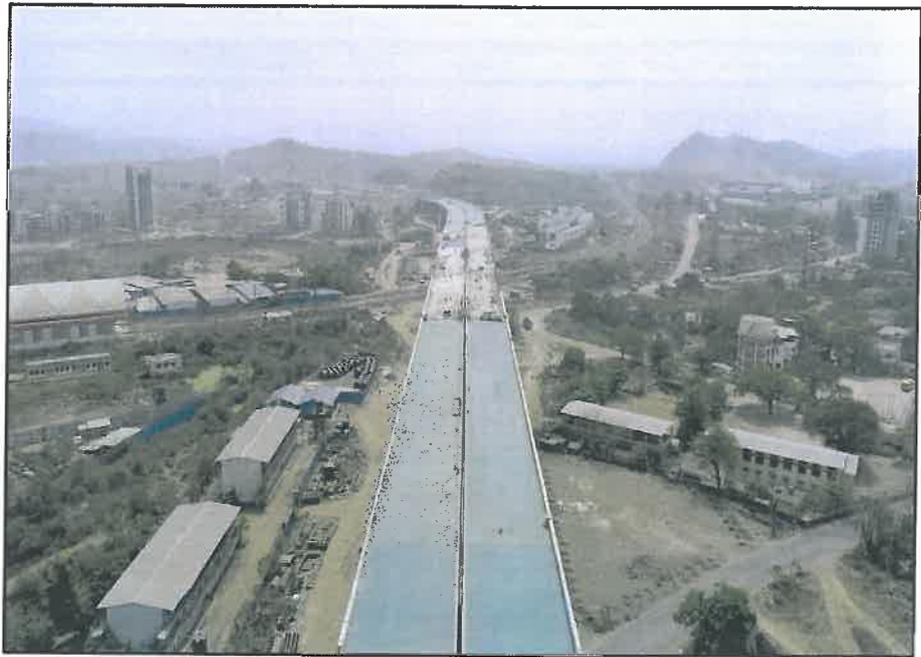


Photo no.7- Main viaduct at Gavan location.

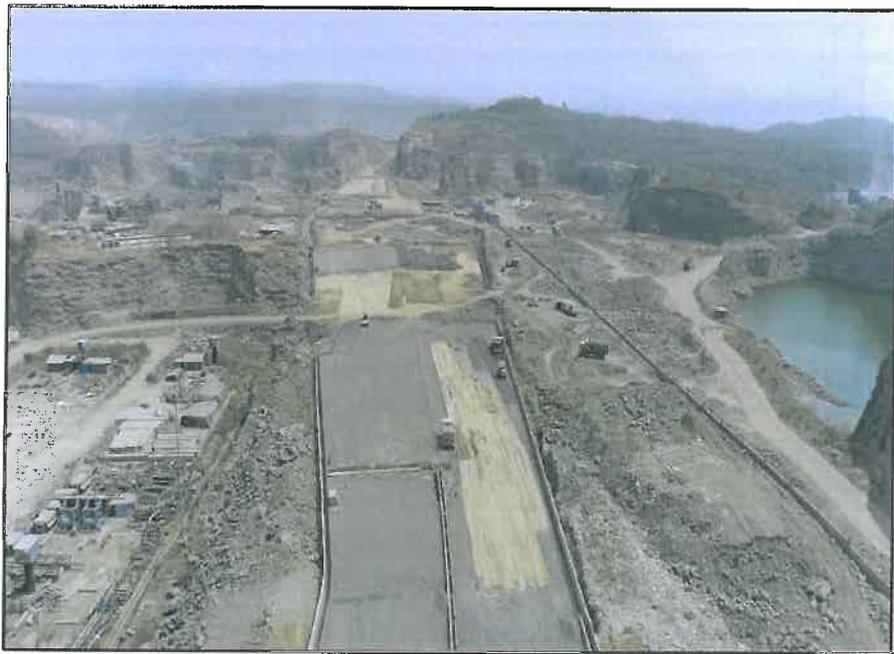


Photo no.8- At grade location.

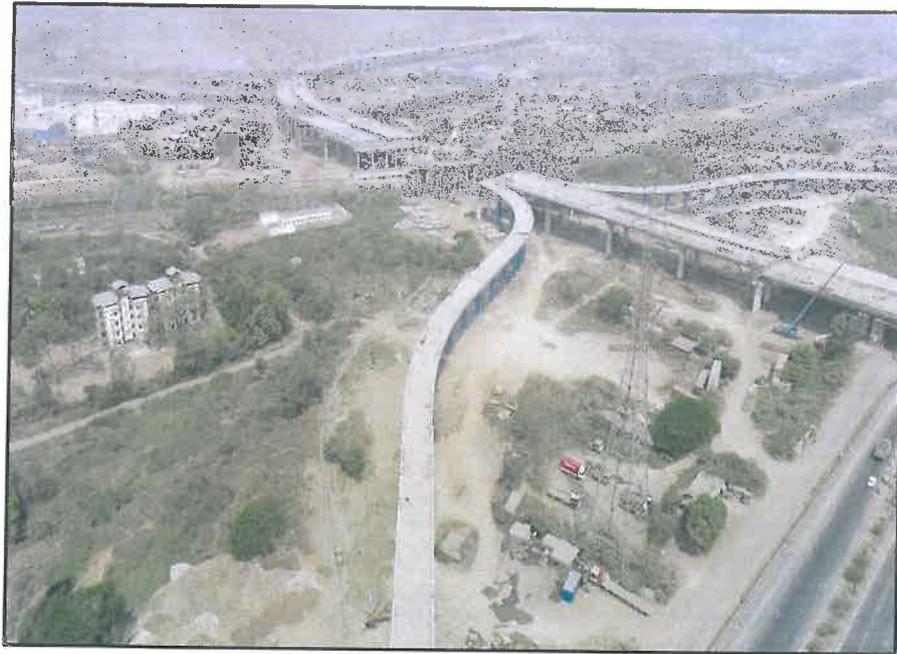


Photo no.9- JMP and MPP ramp at Chirle Interchange.



Photo no.10- Jasai Viaduct.

**Package 4 – Site Progress Photos**



Mar 11, 2023 at 11:38:38  
Mumbai Trans Harbour Link Road  
Navi Mumbai 410206  
MH  
India

Photo no.1- Plinth beam reinforcement and Shuttering work is in progress



Photo no.2- GSB spreading under progress at SN Service Road CH 300 to 90

**Annexure-1 JICA Reimbursement backup Jan'2023**





### Reimbursement details for the month of January 2023

Date of disbursement	Amount of Disbursement in JPY
17-Jan-2023	JPY 685,333,985
17-Jan-2023	JPY 15,383,592
<b>Total Amount</b>	<b>700.71 Million JPY</b>



**Annexure-2 JICA Reimbursement backup Feb'2023**



### Reimbursement details for the month of February 2023

Date of disbursement	Amount of Disbursement in JPY
03-Feb-2023	JPY 18,876,309
10-Feb-2023	JPY 31,139,524
10-Feb-2023	JPY 7,464,863
10-Feb-2023	JPY 7,784,883
10-Feb-2023	JPY 31,034,997
10-Feb-2023	JPY 7,693,778
10-Feb-2023	JPY 39,520,885
14-Feb-2023	JPY 943,507,053
14-Feb-2023	JPY 395,069,574
14-Feb-2023	JPY 1,393,371,460
14-Feb-2023	JPY 447,752,790
14-Feb-2023	JPY 253,351,501
14-Feb-2023	JPY 7,310,158
14-Feb-2023	JPY 182,329,116
14-Feb-2023	JPY 57,018,586
14-Feb-2023	JPY 16,539,645
14-Feb-2023	JPY 209,533,048



14-Feb-2023	JPY 81,502,917
14-Feb-2023	JPY 58,415,242
14-Feb-2023	JPY 5,570,446
14-Feb-2023	JPY 273,394,634
14-Feb-2023	JPY 72,697,741
17-Feb-2023	JPY 194,897,822
17-Feb-2023	JPY 47,019,188
17-Feb-2023	JPY 16,410,146
17-Feb-2023	JPY 8,471,850
17-Feb-2023	JPY 72,398,621
17-Feb-2023	JPY 26,365,058
28-Feb-2023	JPY 5,190,309
<b>Total Amount</b>	<b>4911.63 Million JPY</b>

A handwritten signature in blue ink is centered on the page. The signature is stylized and appears to be 'Sun'. It is overlaid on a faint, circular blue stamp that contains some illegible text around its perimeter.

**Annexure-3 JICA Reimbursement backup Mar'2023**



## Reimbursement details for the month of March 2023

Date of Disbursement	Amount of Disbursement in JPY
13-Mar-2023	JPY 428,160,758
13-Mar-2023	JPY 6,150,421
13-Mar-2023	JPY 9,107,236
13-Mar-2023	JPY 175,263,452
13-Mar-2023	JPY 4,060,416
13-Mar-2023	JPY 930,794,090
13-Mar-2023	JPY 150,654,394
13-Mar-2023	JPY 13,832,079
13-Mar-2023	JPY 1,457,436,410
13-Mar-2023	JPY 570,612,766
13-Mar-2023	JPY 996,834,517
13-Mar-2023	JPY 50,021,201
13-Mar-2023	JPY 14,406,730
14-Mar-2023	JPY 305,997,131
15-Mar-2023	JPY 50,779,374
15-Mar-2023	JPY 26,919,453
15-Mar-2023	JPY 16,814,100
15-Mar-2023	JPY 56,379,112
15-Mar-2023	JPY 29,972,261
24-Mar-2023	JPY 12,025,325



24-Mar-2023	JPY 45,198,856
24-Mar-2023	JPY 28,590,337
29-Mar-2023	JPY 29,031,589
29-Mar-2023	JPY 12,102,189
<b>Total Amount</b>	<b>5421.14 Million JPY</b>

