

**Ref No: MTHL/GC/MMRDA/LT/ENV-3007/2022****26th July 2022**

To,
Engineer-in-Chief
Engineering Division
Mumbai Metropolitan Regional Development Authority (MMRDA)
2nd 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 Half Yearly Report No. 13 from January to June 2022

Dear Sir,

We are hereby attaching the Half Yearly Report No. 13 from January to June 2022. You may please forward the same to the concerned departments for their record.

Thanking you,
Yours faithfully,

26 July 2022

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

Encl: Half Yearly Report No. 13 from January to June 2022

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

**HALF YEARLY REPORT FOR MUMBAI
TRANS HARBOUR LINK**

**JANUARY TO
JUNE 2022**



Submitted to
Maharashtra Pollution Control Board (MPCB)

Submitted by



**एम एम आर डी ए
MMRDA**

Information of Project officer and Nodal officer

1.	<p>Name of Project officer</p> <p>Email</p> <p>Phone /Fax Number</p>	<p>Executive Engineer, MTHL- Project Implementation Unit</p> <p>2nd & 5th floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051</p> <p>Phone No.: 022-26594034</p>
2.	<p>Name of Nodal officers</p> <p>Email</p> <p>Phone /Fax Number</p>	<p>Engineer In Chief, MTHL Project Implementation Unit</p> <p>2nd floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, BKC, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051</p> <p>Email: engineerinchief@mailmmrda.maharashtra.gov.in Phone No.: 022-26594032</p>

Photographs showing present progress of work

Please refer to the Quarterly Progress Report No. 19 (October to December 2021) and 20 (Jan to March 2022) for the photographs of the progress

Monitoring the Implementation of Environmental Safeguards

Ministry of environmental & Forest Western Region, Regional Office, Bhopal

Monitoring Report

PART - I

DATA SHEET

No.	Particular	Information
1.	Project type: River Valley / Mining / Industry / Thermal / Nuclear / Others (specify)	: Infrastructure
2.	Name of the Project	: Mumbai Trans Harbour Link Project
3.	Clearance letter (s) / OM No. and date	: F. No. 11-65/2012-IA.III on 25 th January, 2016
4.	Location	Start point: Sewri in Mumbai City
	a) District (s)	: End Point: Chirle in Raigad District
	b) State (s)	: Maharashtra
	c) Location latitude / longitude	: Start: Latitude: 18°59'48.57"N Longitude: 72°51'20.67"E End: Latitude: 18°56'18.33"N Longitude: 73° 1'52.92"E
5.	Address for Correspondence	: Engineer In Chief,
	a) Address of the Concerned Project Chief Engineer (with Pin code & Telephone / Telex / Fax Numbers)	MTHL Project Implementation Unit 2 nd floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, BKC, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051
	b) Address of the Concerned Project Chief Engineer (with Pin code & Telephone / Telex / Fax Numbers)	Phone No.: 022-26594034
6.	Salient features	: The proposed Mumbai Trans Harbour Link ('MTHL') is proposed to facilitate decongestion of the island city by improving connectivity between Island city and main land (Navi Mumbai) and development of Navi Mumbai Region.
	a) of the Project	

No.	Particular	Information
		<p>Mumbai Trans Harbour Link Project is 22 km long 6-lane bridge across the Mumbai Bay connecting Sewri on Mumbai side to Chirle on Navi Mumbai side.</p> <p>Benefits:</p> <ul style="list-style-type: none"> • Saving in travel time, Vehicle Operating Cost and Fuel Savings • Accelerated growth of Navi Mumbai • Decongestion of island city of Mumbai • Connectivity to MbPT and JNPT Ports • Faster access to Navi Mumbai International Airport • Connectivity to Pune Expressway and to South India
	b) of the Environmental Management Plans	Various measures stipulated in the Environmental Management Plan mentioned in the CRZ clearance are being complied.
7.	<p>Breakup of the Project Area :</p> <p>a) Submergence area: forest & non forest</p>	<p>Total Area of Right of Way: 120.228 Ha</p> <p>Forest area: 47.417 Ha</p> <p>Non-Forest area: 72.811 Ha</p>
	b) Others	--
8.	<p>Breakup of the project affected population with the enumeration of those losing Houses / Dwelling units only, Agricultural Land & Landless Laborers / Artisans:</p> <p>a) SC, ST / Adivasi</p> <p>b) Others</p> <p>(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out give details & year of survey)</p>	<p>Project affected population:</p> <p>Please refer to the Quarterly Progress Report No. 19 and 20 for the project affected population attached as Annexure-VI</p> <p>MMRDA has approved eligibility of 6645 fisher folks as project affected so far. Accordingly, fisheries department, Gov. of Maharashtra has paid compensation to eligible fisher-folk as per approved Fisherman Compensation Policy</p>
9	<p>Financial Details: Project cost as originally planned and subsequent revised estimates and the year of price reference</p>	<p>The total cost of the project is Rs. 17,843 Crore</p> <p>Year of reference: 2016</p>
	b) Allocation made for	Allocation of Rs. 335 Crore has been made for the

No.	Particular		Information
	environmental management plans with item wise and year wise breakup		implementation of Environment Management Plan for the MTHL project. The item-wise cost breakup of the EMP is attached as Annexure-II.
c)	Benefit cost ratio/Internal rate of Return and the year of assessment	:	-
d)	Whether (c) includes the cost of environmental management as shown in the above	:	-
e)	Actual expenditure incurred on the project so far	:	Rs. 13192.91 Crore
f)	Actual expenditure incurred on the environmental management plans so far	:	Please refer Annexure-VII for actual expenditure incurred on the environmental management plans so far.
10	Forest Land Requirement		
a)	The status of approval for diversion of forest land for non-forestry use	:	Stage - I clearance approval for diversion of forest land for non-forestry use has been received from MoEF & CC on 22 nd January 2016 vide letter F.No.8-89/2013-FC.
b)	The status of clearing felling	:	NOC from Hon. High Court for cutting of mangroves is received on 28 th November 2016. Working Permission from Forest Department received on 22 May 2017.
c)	The status of compensatory afforestation, if any Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far	:	Rs. 91.42 crores have been transferred to Mangrove cell of Mangroves & Marine Biodiversity Foundation, setup under Maharashtra State Forest Department for Compensatory Afforestation (CA). Mangrove cell, Mumbai submitted updated status report of plantation (Attached as Annexure-VIII)
11	The status of clear felling in non-forest areas (such as submergence area or reservoir, approach roads.), if any with quantitative information required.	:	Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018. Permission for cutting/transplantation in non-forest area of Navi Mumbai side has been granted by CIDCO. Copy of permission letter is attached herewith as

No.	Particular	Information
		<p>Annexure-IX.</p> <p>However, felling in non-forest area has not started yet</p>
12	<p>Status of construction (Actual&/or planned)</p>	<p>Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018.</p> <p>Please refer to the Quarterly Progress Report No. 19 and 20 attached with this report as Annexure-VI.</p>
a)	<p>Date of commencement (Actual & / or planned)</p>	<p>: Commencement Letters have been issued to the Contractors of Package-1, Package-2 and Package-3 on 23 March 2018.</p>
b)	<p>Date of completion (Actual &/or planned)</p>	<p>: Date of completion planned of Package 1 & 2 is 21-09-2022 and for Package 3 is 21-09-2021.</p> <p>Extension of Time (EoT) has been granted to the contractors is below:</p> <p>Package 1: 30-09-2023 Package 2: 27-09-2023 Package 3: 03-03-2023</p>
13	<p>Reasons for the delay if the project is yet to start</p>	<p>: Due to Covid 19 pandemic situation and Land Acquisition issues a project was delayed and Extension of Time (EoT) has been granted up to September 2023. Annexure - XI.</p>
14	<p>Dates of Site Visits</p>	<p>--</p>
a)	<p>The dates on which the project was monitored by the Regional Office on previous occasions, if any</p>	<p>: --</p>
b)	<p>Date of site visits for this monitoring report</p>	<p>: --</p>

Jan to June 2022

Name: - Shri. S. A. Wandhekar

Engineer In Chief, MTHL Project Implementation Unit

New Administrative building, MMRDA, 2nd floor, Engineering Department, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, BKC, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051
Phone No.: 022-26594034

Signature:

S. A. Wandhekar

Stamp:



HALF YEARLY COMPLIANCE REPORT

1.	Project Type	:	Infrastructure
2.	Name of the Project	:	Mumbai Trans Harbour Link (MTHL) Project
3.	Clearance letter and date	:	F. No. 11-65/2012-IA.III on 25 th January, 2016
4.	Location	:	
	a. District	:	Start point: Sewri in Mumbai City End Point: Chirle in Raigad District
	b. State	:	Maharashtra
	c. Latitude/Longitude	:	Start: Latitude: 18°59'48.57"N Longitude: 72°51'20.67"E End: Latitude: 18°56'18.33"N Longitude: 73° 1'52.92"E
5.	Address of correspondence		
6.	a. Address of concerned project Head	:	Chief Engineer / Engineer in Chief, MTHL Project Implementation Unit 2 nd floor, New Administrative building, MMRDA, Engineering Division, Mumbai Metropolitan Region Development Authority (MMRDA), E-Block, Bandra Kurla Complex, Bandra East, Mumbai, Maharashtra 400051 Phone No.: 022-26594034

Compliance to the Conditions Recommended in CRZ Clearance-2013

S. No.	Condition of 2013 clearance	Compliance
7. Specific Conditions		
(i)	As per the CRZ Notification 2011, at least five times the number of mangroves destroyed/cut during the construction process shall be replanted. Mangrove plantation in an area of 30 ha shall be carried out as committed against loss of 0.1776 ha mudflats/mangroves. Permission from the High Court of Bombay shall be obtained with respect to mangrove cutting.	Noted, about 25 Crores have been contributed by MMRDA to Mangroves Fund, as an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas. The amount is used for Survey & Demarcation of Notified areas. Purchase of vehicles and equipment for anti-Encroachment drives, etc. Permission copy of High court for mangrove cutting attached as Annexure-I
(ii)	Proponent shall provide lighting in consulting with the Bombay Natural History Society (BNHS) so as to minimize the likely impacts to the migratory birds.	Noted and being complied (embedded lighting, to be finalized in consultation by BNHS)
(iii)	All the construction equipment's shall be provided with exhaust silencers as committed.	Noted, all the construction equipment used by contractors are provided with exhaust silencers to reduce noise. Photographic evidence of same attached as Annexure-III
(iv)	Noise containment barriers shall be provided on both sides of the bridge in mudflat areas (CRZ-IA) so as to minimize the likely impacts to the migratory birds as committed	Noise containment barriers have to be provided by the Package-I and Package-II on both sides of the bridges to minimize the likely impact to the migratory birds. Till date 1.14 crore have been spent by packages on the temporary barriers.
(v)	There shall be no dredging and reclamation for the project	The proposed project is for the construction of 6 lane road bridge across the Mumbai Harbour between Sewari in MbPT area and Chirle in Navi Mumbai to improve connectivity and facilitate traffic decongestion and hence does not involve dredging and reclamation works
(vi)	Pre-stressed super structure shall be used in the mud flat area for construction as committed	Noted and is being proposed in the mudflat area
(vii)	The muck materials shall be analyses	Noted and is being complied. Muck

S. No.	Condition of 2013 clearance	Compliance
	prior to dumping/disposal in the identified locations with the approval of the competent authority to ensure that it do not cause any impact to the environment.	materials are collected and analyzed prior to dumping/disposal at identified locations. Muck analysis report from Package-I & II attached as Annexure-IV
(viii)	Proponent informed that there is no fishing activity in the area since it is a navigation channel for the nearby ports. However, navigational channel is provided with 25 m from ships and 9.1 m from fishing boats.	Noted and being complied
(ix)	All the recommendations of the MCZMA shall be strictly complied with.	Noted and being scrupulously complied
(x)	There shall be no building construction beyond 20,000 sqm.	The proposed project is for the construction of 6 lane road bridge across the Mumbai Harbour between Sewari in MbPT area and Chirle in Navi Mumbai to improve connectivity and does not involve construction of buildings. However, during construction phase of the project temporary site offices and work camps will be constructed which will be well within 20,000 sqm area
(xi)	There shall be no water drawal in CRZ area.	The proposed project does not involve abstraction of the ground water in CRZ area. The water demand for the proposed project is being met through tanker water
(xii)	There shall be no disposal of solid or liquid waste on coastal area. Solid waste management shall be as per Municipal Solid (Management and Handling) Rules, 2000.	The project strictly complies with the new SWM rules 2016 and subsequent amendments and the solid and liquid waste and segregated at source, collected and disposed as per the abovesaid rules. Biodegradable waste is being used for composting at site and non-biodegradable waste will be handed over to authorized agencies for disposal.
(xiii)	Sewage shall be treated and Treatment Facility shall be provided in accordance with the Coastal Regulation Zone	Noted and will be complied

S. No.	Condition of 2013 clearance	Compliance
	Notifications 2011, The disposal of treated water shall conform to the regulation of the State Pollution Control Board.	
(xiv)	The project proponent shall set up a separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of senior executive	<p>Noted and complied,</p> <p>An Environmental Management Cell has been set up and the structure of the committee comprise experts from National Institute of Oceanography; Representative of BNHS; renowned expert in Ornithology; Director, Fisheries Institute, Versova, Andheri; Head of Coastal Engineering, IIT, Mumbai and Representative of Environment Department and Maharashtra Pollution Control Board. The officer of MMRDA is acting as a Member Secretary to coordinate the quarterly meetings of the committee.</p> <p>Six meetings with the members have already commenced till date.</p>
(xv)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	<p>Noted,</p> <p>Total fund allocated for the environmental management is 335 crores and till date 282.51 Cr has been spent as a part of environmental management out of which 252.41 Cr has been contributed by the MMRDA.</p> <p>EMP expenditure details attached as Annexure-V.</p>
8. General Conditions		
(i)	Full support shall be extended to the officers of the Ministry/Regional Office of Bhopal by the project proponent during inspection of the project for monitoring purpose by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities	Noted and being complied

S. No.	Condition of 2013 clearance	Compliance
(ii)	A six-monthly monitoring report shall need to be submitted by the project proponent to the regional office of this ministry at Bhopal regarding the implementation of the stipulated conditions	Noted and is being complied
(iii)	Ministry of Environment and Forest or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and same shall be complied with	Noted and will be adhered
(iv)	The Ministry reserve the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry	Noted and will be adhered
(v)	In the event of a change in project profile or change in the implementation agency, afresh reference shall be made to the Ministry of Environment and Forests	Noted and will be adhered
(vi)	The project proponents shall inform to the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work	Noted and will be adhered
(vii)	A copy of the clearance letter shall be marked to concerned Panchayat/local NGO if any, from whom any suggestions/representations has been made a received while processing the proposal	Noted and complied. Annexure-X
(viii)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office/Tehsildar's office for 30 days.	-----
9.	The above stipulations would be enforced among others under the provisions of Water (Prevention and	Noted and complied

S. No.	Condition of 2013 clearance	Compliance
	Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance Act), 1991 and EIA notification 1994 including the amendments and rules made thereafter	
10.	All other statutory clearances such as approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department and clearances under the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities	<p>Noted and complied.</p> <p>Clearances under Forest Conservation Act, 1980 has been taken by MMRDA from MoEF & CC on 22nd January 2016 vide letter F.No.8-89/2013-FC.</p> <p>The project proponent had allotted the construction work to L&T and JV of Daewoo and Tata through contract and the statutory clearances such as approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department has been taken by them.</p> <p>After completion of the project MMRDA will ensure compliance.</p>
11.	The project proponent shall advertise in at least two local newspapers widely circulate in the region, one of which shall be in a vernacular language informing that the project has been accorded CRZ Clearance and copies of the clearance letter are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forest at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of the receipt of the clearance letter and a copy of the same should be forwarded to the Regional office of this ministry at Bhopal	<p>Noted and complied.</p> <p>The advertisement for accord of the CRZ clearance was published in the (Lok Satta and Indian Express on 30.01. 2016)</p> <p>Annexure-X</p>
12	The clearance is subject to final order of the Hon'ble Supreme Court of India in	Noted

S. No.	Condition of 2013 clearance	Compliance
	the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	
13	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010	Noted
14	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent on its website.	Noted and Complied The status of the compliance of stipulated EC conditions are uploaded on the website of MMRDA
15	A copy of the clearance letter shall be sent by the proponent to be concerned Panchayat, Zilla parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.	Noted and Complied
16	The proponent shall upload the status of the compliance of stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective Zonal Office of CPCB and the SPCB	Noted and complied The status of the compliance of stipulated EC conditions, including results of monitored data are uploaded on the website of MMRDA and also submitted to Regional Office of the MoEF&CC, the respective Zonal Office of CPCB and the SPCB
17	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated EC conditions including results of monitoring data (both in hard copies as well as by e-mail) to the respective Zonal Office of CPCB and the SPCB	Noted and complied

S. No.	Condition of 2013 clearance	Compliance
18	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rule 1986 as amended subsequently, shall also be put on the website of the company along with the status of the compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Noted and Complied

Compliance to the Conditions Recommended in CRZ Clearance-2016

Sr. No.	SPECIFIC CONDITIONS	COMPLIANCE STATUS
i.	All the terms and conditions stipulated by the MCZMA in their letter No. CRZ 2015/CR236/TC 4 dated 26 th November 2015 shall be strictly complied with.	Noted. MMRDA is following the conditions stipulated in the CRZ Clearance.
ii.	All the terms and conditions as mentioned in the earlier CRZ Clearance dated 19 th July 2013, shall also be complied with in letter and spirit,	Noted. MMRDA is following the conditions stipulated in the CRZ Clearance dated 19 th July 2013.
iii.	The Environment Management Plan as presented during the meeting shall be implemented in consultation with all the stakeholders.	MMRDA is implementing the Environment Management plan as stipulated in CRZ clearance. The implementation plan with detailed EMP is attached as an Annexure V
iv.	The project/activity shall be carried out strictly be in accordance with the provisions of CRZ Notification, 2011, and shall not affect the coastal ecology of the area including flora and fauna.	Noted and is being complied
v.	The project proponent shall obtain all permissions from concerned authorities prior to commencement of the project and shall observe all safety requirements onshore and offshore.	Noted and will be complied
vi.	The project proponent shall not undertake any blasting/construction activities during	This condition has been revised by MoEF& CC vide letter dated 28 th August,

Sr. No.	SPECIFIC CONDITIONS	COMPLIANCE STATUS
	night hours.	2017 having file no F. No. 11-65/2012-IA. III. Refer Annexure-VI (QPR)
vii.	The proposal indicates the diversion of 47.417 ha forest land for which the proponent shall obtain the requisite Forest Clearance. The project may be executed in the entire stretch in non-forest land, and while making application to get the Forest Clearance, the execution of work on non-forest land shall not be cited as a reason for grant of FC and in case FC is declined, the forest land shall be maintained at its existing condition. The PP shall submit an undertaking to this effect at the earliest to the concerned Regional Office to this Ministry.	<p>Stage - I clearance approval for diversion of forest land for non-forestry use has been received from MoEF & CC on 22nd January 2016 vide letter F.No.8-89/2013-FC.</p> <p>Stage - II application is submitted to Deputy Conservator of Forest vide MMRDA letter 6-3-2017 and latest compliance submitted on 10-09-2018.</p> <p>Stage II Forest Clearance is under process, the earlier land allocated for CA was short by 11 Ha. Of land in Roha Forest Division in Tala Taluka has been identified and is in the process of handover. After the handover the Stage II Clearance will be finally processed by the Forest Department.</p>
viii.	<p>All the wildlife mitigation measures as proposed by BNHS in their report dated 23.09.2015 for original alignment shall be implemented with the following modification</p> <p>a) Construction of jetty on both the ends passing through mud flats and mangroves must not exceed 30 months and construction of actual spans must not exceed more that further 12 months.</p> <p>b) The distance between the supporting pillars shall remain 50 m as currently proposed by the MMRDA.</p> <p>c) MMRDA will partly bear the cost of setting of effluent treatment plant in the region as suggested by BNHS.</p>	<p>Noted and shall be complied</p> <p>Noted</p> <p>The distance between the piers is maintained more than 50 m.</p> <p>Noted and being complied</p>
ix.	The project proponent shall not undertake any blasting/construction activities during night hours.	This condition has been revised by MoEF&CC vide letter dated 28 th August 2017 having file no F. No. 11-65/2012-IA. III. Refer Annexure-VI (QPR)

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
1	Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.	Noted and is being complied.
2	Full support shall be extended to the officers of this Ministry/Regional Office at Nagpur by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Noted and shall be complied.
3	A Six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Nagpur regarding the implementation of the stipulated conditions.	Noted and is being complied. List of Six-monthly compliance report uploaded are: <ol style="list-style-type: none"> 1. January to June 2016. 2. July to December 2016. 3. January to June 2017. 4. July to December 2017. 5. January to June 2018. 6. July to December 2018. 7. January to June 2019. 8. July to December 2019 9. January to June 2020 10. July to December 2020 11. January to June 2021 12. July to December 2021
4	MoEF&CC or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary, in the interest of environment and the same shall be complied with.	Noted and shall be complied
5	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.	Noted.
6	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the MoEF & CC.	Noted.
7	The project proponents shall inform to the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the	Noted.

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
	date of start of land development work.	
8	A copy of the clearance letter shall be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal	Noted and complied
9	A copy of the CRZ Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/Tehsildar's Office for 30 days.	Noted and complied.
10	The above stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.	Noted and will be complied.
11	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, and clearances under the Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted and are being complied.
12	The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the regional office of this Ministry at Nagpur.	Complied.

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
13	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Noted.
14	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
15	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent on its website.	Stipulated environmental conditions as mentioned in CRZ are complied in six monthly compliance reports. Environmental Safeguards are incorporated in Environmental Management Plan which is being implemented as per the budgetary provisions mentioned in CRZ. Reports & Publications: Half Yearly Report (https://mmrda.maharashtra.gov.in)
16	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Complied.
17	The proponent Shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Noted. Six monthly reports on compliance & monitoring results of conditions stipulated in CRZ clearance is being submitted to MPCB Regional, sub regional office, Nagpur MPCB office, MCZMA & SEIAA.
18	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF & CC, the respective Zonal Office of CPCB	Noted. Six monthly reports on compliance & monitoring results of conditions stipulated in CRZ clearance is being submitted to MPCB Regional, sub regional office, Nagpur MPCB office, MCZMA & SEIAA.

Sr.No.	GENERAL CONDITIONS	COMPLIANCE STATUS
	and the SPCB.	
19	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF & CC by e-mail.	Noted. Individual construction packages have obtained CTE for batching plant and casting yards and the stipulations are being adhered to and are uploaded on the website of MMRDA

Annexures

Annexure No.	Particulars	Page No.
Annexure I	Permission copy of High court for Mangrove Cutting	
Annexure II	Item wise cost breakup of the Environmental Management Plan	
Annexure III	Photographic evidence of construction equipment used by contractors are provided with exhaust silencers to reduce noise	
Annexure IV	Muck analysis report from Package-I & II	
Annexure V	EMP Expenditure details	
Annexure VI	Quarterly Progress Reports 19 (October to December 2021) & 20 (January to March 2022)	
Annexure VII	Actual expenditure incurred on the environmental management plans for (January to June 2022)	
Annexure VIII	Status report on Mangrove plantation	
Annexure IX	A-Permission letter for Tree cutting by CIDCO B-Permission letter for Tree cutting by CIDCO	
Annexure X	Clearance letter marked to concerned Panchayat /local NGO	
Annexure XI	EOT letters issue to Contractors up to Sept. 2023	

BDPPS

**IN THE HIGH COURT OF JUDICATURE AT BOMBAY
ORDINARY ORIGINAL CIVIL JURISDICITON
NOTICE OF MOTION NO.307 OF 2016
IN
PUBLIC INTEREST LITIGATION NO.87 OF 2006**

Mumbai Metropolitan Region
Development Authority

..... Applicant.

In the matter between

Bombay Environment Action Group
and Another

.....Petitioners.

V/s

State of Maharashtra and Others.

.... Respondents.

Mr. Saket Mone a/w Mr. Subit Chakrabarti i/b Vidhi Partners for
applicant in Notice of Motion No. 307 of 2016 in PIL No.87 of 2016.

Mr. Navroz Seeryai, Senior Counsel a/w Ms. Shreya Parikh for the
Petitioner in PIL No.87 of 2006.

Mrs. P.H. Kantharia, AGP for Respondent/State in PIL No.87 of 2006.

Ms. Trupti Puranik for Respondent/BMC.

Ms. Sharmila Deshmukh for CRZ.

**CORAM: V. M. KANADE &
MS. NUTAN D. SARDESSAI, JJ.**

DATE: 28th November, 2016

P.C.:-

1. This Notice of Motion is taken out by the Applicant for carrying out construction of the proposed Mumbai Trans Harbour Link (a proposed 22 km freeway grade road bridge connecting the island city of Mumbai with Navi Mumbai).
2. The learned Counsel appearing on behalf of the Applicant submits that Applicant has obtained clearance from all the concerned authorities. He submitted that Ministry of Environment and Forest, Government of India has granted approval on 22/01/2016 and CRZ clearance has been granted on 25/01/2016. Applicant has given an undertaking in paras 12 and 27 of the affidavit in support of the Notice of Motion. The said undertaking is accepted. Applicant shall comply with all the conditions which are imposed in the said letters of sanction granted by both the authorities.
3. We are satisfied that the said project is public utility project and we grant leave in terms of prayer clause (a) of the Notice of Motion subject to conditions imposed by both the authorities.
4. Notice of Motion is accordingly allowed in terms of prayer clause (a) and disposed of.

(MS. NUTAN D. SARDESSAI, J.)**(V.M. KANADE, J.)**

Annexure-II Environment Management Plan stipulated in CRZ clearance

Sr. No	Environmental attribute	Cost in Crores
1.	Environmental Monitoring- Air Act, Water Act, Noise levels	8
2.	Compensatory Restoration Plan (Mangroves)	25
3.	Implementation of the suggestions given by BNHS	25
4.	Noise barriers	45
5.	Mitigation of marine water pollution caused due to the surrounding industries and Sewage from Urban Bodies, by providing Funding and Capacity Building for Enabling Effluent Treatment	40
6.	<ul style="list-style-type: none"> • Contribution to Mangroves Fund, an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas by depositing Seed Money. • This can be used for Survey & Demarcation of Notified areas • Purchase of vehicles and equipment for anti-Encroachment drives, etc. 	25
7.	Oil Spill Mitigation Plan	10
8.	Habitat quality assessment and monitoring Surveillance management and monitoring team for migratory birds, marine flora, turbidity in sea floor, etc Corpus fund for mudflat restoration program	20
9.	Appointment of Bird Monitor and his assistant till Restoration of Baseline data	4
10.	DMP, Firefighting, Risk Analysis	15
11.	Sustainable development including establishing Nature Interpretation Centre	10
12.	Safety and Security	15
13.	Energy conservation	10
14.	Landscaping-Plantation of trees, flower in plants etc.	8
15.	Compensation and Capacity Building of Fisher folks due to Temporary and Permanent Loss of Fishing round	75
		335 crores

Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise

Attachment III



Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise

Attachment III



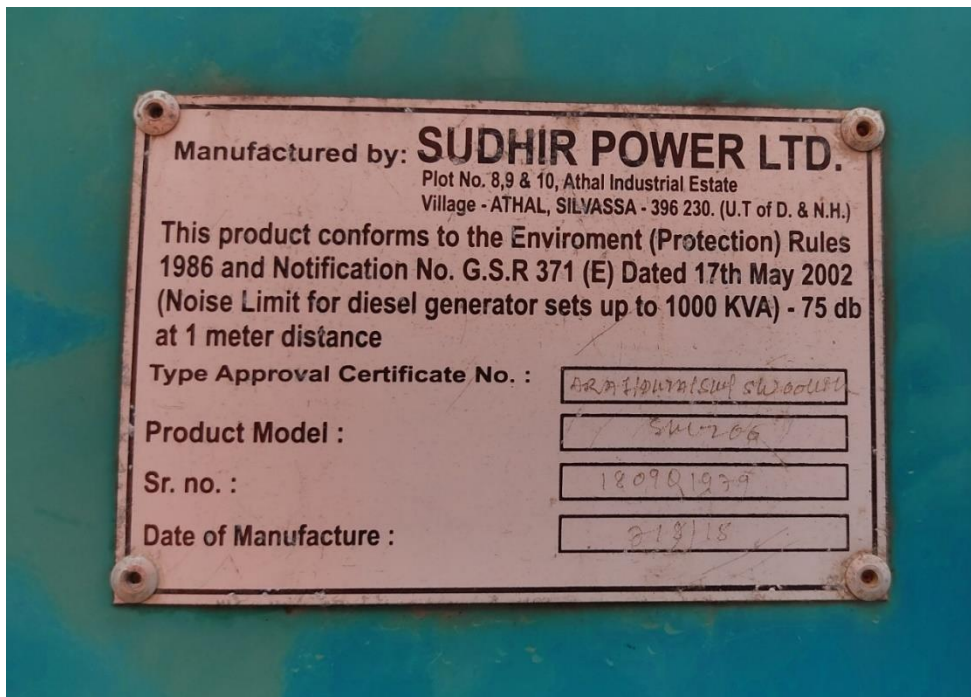
Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise

Attachment III



Photographic evidences of construction equipment used by contractors are provided with exhaust silencers to reduce noise

Attachment III





TEST REPORT

Name of Organization : M/s. L & T Constructions	
Customer Address : Gate No. 1 Sewri Timber Pond, Near GadiAdda, Sewri(East), Mumbai.	
Customer Reference : EH401WOD8000155 Dated 21.04.2022	
MoEFCC Validity : 16th Oct 2024	
Discipline/Group : Chemical- Pollution & Environment	Test Report No. : NIL/SO/06/22/025
Sample Type : Muck	Sample Code : NIL/SO/06/22/025
Sampling Method : NIL/Soil/SOP-11	Ambient Temperature : 28°C
Sampling Date : 16.06.2022	Sample Receive Date : 16.06.2022
Analysis Start Date : 17.06.2022	Analysis End Date : 23.06.2022
Reporting Date : 23.06.2022	Sample Qty & Pkng. : 1 kg ,Plastic Zip Lock bag
Sampling Location : Interchange Gadi Adda Pumping Yard	Sampling Done By : Netel India Limited

Sr. No	Parameter	Result	Limit (Schedule II)	Unit	Method
1	Cadmium (Cd)	0.02	1.0	mg/lit	EPA Method 1311& by AAS
2	Lead (Pb)	0.26	5.0	mg/lit	EPA Method 1311& by AAS
3	Chromium (as Cr6+)	<0.05	5.0	mg/lit	EPA Method 1311& by AAS
4	Arsenic (As)	<0.01	5.0	mg/lit	EPA Method 1311& By FIAS
5	Total Mercury (Hg)	<0.01	0.2	mg/lit	EPA Method 1311& by FIAS
6	Copper (Cu)	0.02	25	mg/lit	EPA Method 1311& by AAS
7	Silver (Ag)	0.01	5.0	mg/lit	EPA Method 1311 &by AAS
8	Zinc (Zn)	0.12	250	mg/lit	EPA Method 1311 &by AAS
9	Selenium (Se)	<0.01	1.0	mg/lit	EPA Method 1311 &by FIAS
10	Antimony	<1	15	mg/lit	EPA Method 1311 &by AAS
11	Barium (as Ba)	30.4	100	mg/lit	EPA Method 1311 &by AAS
12	Beryllium	<0.5	0.75	mg/lit	EPA Method 1311 &by AAS
13	Fluoride (F-)	<1	180	mg/lit	EPA Method 1311 &by UV-VIS. Spectroscopy
14	Ammonium Compound	<0.4	50	mg/lit	EPA Method 1311 &by UV-VIS. Spectroscopy





Sampling Location : Interchange Gadi Adda Pumping		Test Report No. : NIL/SO/06/22/025			
Sample Type : Muck		Sample Code : NIL/SO/06/22/025			
Sampling Date : 16.06.2022		Sample Receive Date : 16.06.2022			
Analysis Start Date : 17.06.2022		Analysis End Date : 23.06.2022			
Reporting Date : 23.06.2022		Sample Qty & Pkng. : 1 kg ,Plastic Zip Lock bag			
Sr. No	Parameter	Result	Limit (Schedule II)	Unit	Method
15	Dibromochloromethane	<1	10	mg/lit	EPA Method 1311 &By GC-FID
16	Chlorobenzene	<1	100	mg/lit	EPA Method 1311 &By GC-FID
17	Methyl Ethyl Ketone	<1	200	mg/lit	EPA Method 1311 &By GC-FID
18	Naphthanlene	<1	5.00	mg/lit	EPA Method 1311 & By HPLC
19	Benzo (a) Pyrene	<0.001	0.001	mg/lit	EPA Method 1311 & By HPLC
20	Aldrin	<0.01	0.14	mg/lit	EPA Method 1311 by GC-ECD
21	Dieldrin	<0.01	0.8	mg/lit	EPA Method 1311 by GC-ECD
22	Chlordane	<0.01	0.03	mg/lit	EPA Method 1311 by GC-ECD
23	Dichlorodiphenyltrichloroethane (DDT)	<0.01	0.1	mg/lit	EPA Method 1311 by GC-ECD
24	MethoxychlorDichlorodiphenyldichloroethylene(DDE)	<0.01	10	mg/lit	EPA Method 1311 by GC-ECD
25	Dichlorodiphenyldichloroethane(DD)	<0.01	0.1	mg/lit	EPA Method 1311 by GC-ECD
26	2,4-Dichlorophenoxyacetic Acid(2,4-D)	<0.01	10	mg/lit	EPA Method 1311 by GC-ECD
27	Endrin	<0.01	0.02	mg/lit	EPA Method 1311 by GC-ECD
28	Heptachlor	<0.001	0.008	mg/lit	EPA Method 1311 by GC-ECD
29	Lindane	<0.01	0.4	mg/lit	EPA Method 1311 by GC-ECD

Note :

1. This Test Report refers only to the sample tested.
2. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
3. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.
4. Lab SOP Based on manual o Soil testing in India , Ministry of Agriculture, GOI:2011

End of Report

Verified by

Surekha Jamdar
Technical Manager



Issued by

Shradha Kere
Quality Manager



TEST REPORT

Name of Organization : M/s. L & T Constructions				
Customer Address : Gate No. 1 Sewri Timber Pond, Near GadiAdda, Sewri(East), Mumbai.				
Customer Reference : EH401WOD8000155 Dated 21.04.2022				
MoEFCC Validity : 16th Oct 2024				
Discipline/Group : Chemical- Pollution & Environment		Test Report No. : NIL/SO/06/22/025		
Sample Type : Muck		Sample Code : NIL/SO/06/22/025		
Sampling Method : NIL/Soil/SOP-11		Ambient Temperature : 28°C		
Sampling Date : 16.06.2022		Sample Receive Date : 16.06.2022		
Analysis Start Date : 17.06.2022		Analysis End Date : 23.06.2022		
Reporting Date : 23.06.2022		Sample Qty & Pkng. : 1 kg ,Plastic Zip Lock bag		
Sampling Location : Interchange Gadi Adda Pumping Yard		Sampling Done By : Netel India Limited		
Sr. No	Parameter	Result	Unit	Method
General Analyzed Parameters				
1	Cadmium(Cd)	1.5	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
2	Lead(Pb)	49.7	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
3	Chromium (as Cr6+)	<0.05	mg/kg	APHA 3500-Cr-B
4	Arsenic (As)	<0.01	mg/kg	EPA 3050B & By FIAS
5	Total Mercury (Hg)	<0.01	mg/kg	EPA 3050B & By FIAS
6	Copper (Cu)	116	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
7	Dichloromethane	<1	mg/kg	By GC-FID
8	Carbon Tetrachloride	<1	mg/kg	By GC-FID
9	Benzene	<1	mg/kg	APHA 6200-C
10	Selenium (Se)	<0.01	mg/kg	EPA 3050B & By FIAS

Note :

1. This Test Report shall not be reproduced except in full, without written approval of the Laboratory
2. This Test Report refers only to the sample tested.
3. Any correction in this certificate invalidates the certificate.
4. The testing results reported reflects the quality of sample at the time of testing.
5. The Complaint register is available with the Laboratory as per Environment Protection Act 1986.

End of Report

Verified by

Surekha Jamdar
Surekha Jamdar
 Technical Manager


Issued by

Shraddha Kere
Shraddha Kere
 Quality Manager



TEST REPORT

Name of Organization	: M/s. L & T Constructions		
Customer Address	: Gate No. 1 Sewri Timber Pond, Near GadiAdda, Sewri(East), Mumbai.		
Customer Reference	: EH401WOD8000155 Dated 21.04.2022		
MoEFCC Validity	: 16th Oct 2024		
Discipline/Group	: Chemical- Pollution & Enviro	Test Report No.	: NIL/SO/06/22/026
Sample Type	: Muck	Sample Code	: NIL/SO/06/22/026
Sampling Method	: NIL/Soil/SOP-11	Ambient Temperature	: 28°C
Sampling Date	: 16.06.2022	Sample Receive Date	: 16.06.2022
Analysis Start Date	: 17.06.2022	Analysis End Date	: 23.06.2022
Reporting Date	: 23.06.2022	Sample Qty & Pkng.	: 1 kg ,Plastic Zip Lock bag
Sampling Location	: Interchange Pile No- C1P10B	Sampling Done By	: Netel India Limited

Sr. No	Parameter	Result	Limit (Schedule II)	Unit	Method
1	Cadmium (Cd)	0.03	1.0	mg/lit	EPA Method 1311& by AAS
2	Lead (Pb)	0.05	5.0	mg/lit	EPA Method 1311& by AAS
3	Chromium (as Cr6+)	<0.05	5.0	mg/lit	EPA Method 1311& by AAS
4	Arsenic (As)	<0.01	5.0	mg/lit	EPA Method 1311& By FIAS
5	Total Mercury (Hg)	<0.01	0.2	mg/lit	EPA Method 1311& by FIAS
6	Copper (Cu)	0.12	25	mg/lit	EPA Method 1311& by AAS
7	Silver (Ag)	<0.01	5.0	mg/lit	EPA Method 1311 &by AAS
8	Zinc (Zn)	1.26	250	mg/lit	EPA Method 1311 &by AAS
9	Selenium (Se)	<0.01	1.0	mg/lit	EPA Method 1311 &by FIAS
10	Antimony	<1	15	mg/lit	EPA Method 1311 &by AAS
11	Barium (as Ba)	<1	100	mg/lit	EPA Method 1311 &by AAS
12	Beryllium	<0.5	0.75	mg/lit	EPA Method 1311 &by AAS
13	Fluoride (F-)	<1	180	mg/lit	EPA Method 1311 &by UV-VIS. Spectroscopy
14	Ammonium Compound	<0.4	50	mg/lit	EPA Method 1311 &by UV-VIS. Spectroscopy





Netel (India) Limited

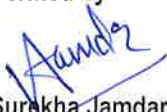
Discipline/Group : Chemical- Pollution & Enviro		Test Report No. : NIL/SO/06/22/026			
Sample Type : Muck		Sample Code : NIL/SO/06/22/026			
Sampling Date : 16.06.2022		Sample Receive Date : 16.06.2022			
Analysis Start Date : 17.06.2022		Analysis End Date : 23.06.2022			
Reporting Date : 23.06.2022		Sample Qty & Pkng. : 1 kg ,Plastic Zip Lock bag			
Sr. No	Parameter	Result	Limit (Schedule II)	Unit	Method
15	Dibromochloromethane	<1	10	mg/lit	EPA Method 1311 &By GC-FID
16	Chlorobenzene	<1	100	mg/lit	EPA Method 1311 &By GC-FID
17	Methyl Ethyl Ketone	<1	200	mg/lit	EPA Method 1311 &By GC-FID
18	Naphthalene	<1	5.00	mg/lit	EPA Method 1311 & By HPLC
19	Benzo (a) Pyrene	<0.001	0.001	mg/lit	EPA Method 1311 & By HPLC
20	Aldrin	<0.01	0.14	mg/lit	EPA Method 1311 by GC-ECD
21	Dieldrin	<0.01	0.8	mg/lit	EPA Method 1311 by GC-ECD
22	Chlordane	<0.01	0.03	mg/lit	EPA Method 1311 by GC-ECD
23	Dichlorodiphenyltrichloroethane (DDT)	<0.01	0.1	mg/lit	EPA Method 1311 by GC-ECD
24	MethoxychlorDichlorodiphenyldichloroethylene(DDE)	<0.01	10	mg/lit	EPA Method 1311 by GC-ECD
25	Dichlorodiphenyldichloroethane(DD)	<0.01	0.1	mg/lit	EPA Method 1311 by GC-ECD
26	2,4-Dichlorophenoxyacetic Acid(2,4-D)	<0.01	10	mg/lit	EPA Method 1311 by GC-ECD
27	Endrin	<0.01	0.02	mg/lit	EPA Method 1311 by GC-ECD
28	Heptachlor	<0.001	0.008	mg/lit	EPA Method 1311 by GC-ECD
29	Lindane	<0.01	0.4	mg/lit	EPA Method 1311 by GC-ECD

Note :

1. This Test Report refers only to the sample tested.
2. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
3. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.
4. Lab SOP Based on manual o Soil testing in India , Ministry of Agriculture, GOI:2011

End of Report

Verified by


Suresh Kumar
Technical Manager



Issued by


Shraddha Kere
Quality Manager





TEST REPORT

Name of Organization : M/s. L & T Constructions	
Customer Address : Gate No. 1 Sewri Timber Pond, Near GadiAdda, Sewri(East), Mumbai.	
Customer Reference : EH401WOD8000155 Dated 21.04.2022	
MoEFCC Validity : 16th Oct 2024	
Discipline/Group : Chemical- Pollution & Environment	Test Report No. : NIL/SO/06/22/026
Sample Type : Muck	Sample Code : NIL/SO/06/22/026
Sampling Method : NIL/Soil/SOP-11	Ambient Temperature : 28°C
Sampling Date : 16.06.2022	Sample Receive Date : 16.06.2022
Analysis Start Date : 17.06.2022	Analysis End Date : 23.06.2022
Reporting Date : 23.06.2022	Sample Qty & Pkng. : 1 kg ,Plastic Zip Lock bag
Sampling Location : Interchange Pile No-C1P10B	Sampling Done By : Netel India Limited

Sr. No	Parameter	Result	Unit	Method
General Analyzed Parameters				
1	Cadmium(Cd)	2.3	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
2	Lead(Pb)	92.8	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
3	Chromium (as Cr6+)	<0.05	mg/kg	APHA 3500-Cr-B
4	Arsenic (As)	<0.01	mg/kg	EPA 3050B & By FIAS
5	Total Mercury (Hg)	<0.01	mg/kg	EPA 3050B & By FIAS
6	Copper (Cu)	143	mg/kg	Lab SOP No:NIL/SOP/15 dt 01/07/14
7	Dichloromethane	<1	mg/kg	By GC-FID
8	Carbon Tetrachloride	<1	mg/kg	By GC-FID
9	Benzene	<1	mg/kg	APHA 6200-C
10	Selenium (Se)	<0.01	mg/kg	EPA 3050B & By FIAS

Note :

1. This Test Report shall not be reproduced except in full, without written approval of the Laboratory
2. This Test Report refers only to the sample tested.
3. Any correction in this certificate invalidates the certificate.
4. The testing results reported reflects the quality of sample at the time of testing.
5. The Complaint register is available with the Laboratory as per Environment Protection Act 1986.

End of Report

Verified by

Surekha Jamdar
Technical Manager



Issued by

Shradha Kere
Quality Manager





TEST REPORT

Name of Organization : M/s. Daewoo-TPL-JV
Customer Address : MTHL Pkg-2, Daewoo – TPL JV, Shivaji Nagar Post Khar Kopar, Sector 8, Ulwe, Navi Mumbai - 410206

Sample Type : Muck	Sampling Done By : Netel (India) Limited
Sample Packing : Plastic Bag	Sample Quantity : 2 Kgs
Date of Sampling : 16.02.2022	Analysis Date : 18.02.2022 — 24.02.2022
Sample Received : 17.02.2022	Date of Reporting : 24.02.2022
Sampling Location : MP175- LHS	Sample Code : NIL/SO /02/22/007

Sr. No.	Test Parameter	Method	Unit	MDL*	Result
1	Organic Phosphorus	Leachate - Lab SOP* NIL/IHM/01 Analysis - APHA 4500-P-C	mg/kg	0.5	5.7
2	Cynide	APHA 4500-CN	mg/kg	0.005	<0.005
3	Lead	Lab SOP* NIL/SOP/15	mg/kg	0.1	0.14
4	Cadmium	Lab SOP* NIL/SOP/15	mg/kg	0.1	BDL
5	Chromium	EPA 3050B	mg/kg	0.1	BDL
6	Copper	Lab SOP* NIL/SOP/15	mg/kg	0.1	3.3
7	Mercury	EPA 3050B / By FIAS	mg/kg	0.1	BDL
9	Selenium	EPA 3050B / By FIAS	mg/kg	0.1	BDL
10	Arsenic	EPA 3050B / By FIAS	mg/kg	0.1	BDL
11	Polychlorinated Biphenyls	GC ECD	mg/kg	0.01	BDL
12	Dichloromethane	GC FID	mg/kg	0.1	BDL
13	Carbon Tetrachloride	GC FID	mg/kg	0.1	BDL
14	1,2-Dichloroethane	EPA-8260 B	mg/kg	0.1	BDL
15	1,1-Dichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
16	cis-1,2-Dichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
17	1,1,1-Trichloroethane	EPA-8260 B	mg/kg	0.1	BDL
18	1,1,2-Trichloroethane	EPA-8260 B	mg/kg	0.1	BDL
19	Trichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
20	Tetrachloroethylene	EPA-8260 B	mg/kg	0.1	BDL
21	1,3-Dichloropropane	EPA-8260 B	mg/kg	0.1	BDL



22	Thiuram	GC-MS	mg/kg	0.1	BDL
23	Simazine	GC-MS	mg/kg	0.1	BDL
24	Thiobencarb	GC-MS	mg/kg	0.1	BDL
25	Benzene	GC FID	mg/kg	0.1	BDL
26	Oil & Grease	EPA Method 9071 B	mg/kg	1	BDL

Note :

1. MDL – Method Detectible Limit.
2. BDL – Below Detectible Limit.
3. * Based on Manual of Soil testing in India, Ministry of Agriculture, GOI, 2011
4. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
5. This Test Report refers only to the sample tested.
6. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar
Dy. Technical Manager

Issued by:

Shraddha Kere
Technical Manager

End of Report



TEST REPORT

Name of Organization : M/s. Daewoo-TPL-JV
Customer Address : MTHL Pkg-2, Daewoo – TPL JV, Shivaji Nagar Post Khar Kopar, Sector 8, Ulwe, Navi Mumbai - 410206

Sample Type : Muck	Sampling Done By : Netel (India) Limited
Sample Packing : Plastic Bag	Sample Quantity : 2 Kgs
Date of Sampling : 16.02.2022	Analysis Date : 18.02.2022 — 24.02.2022
Sample Received : 17.02.2022	Date of Reporting : 31.03.2021
Sampling Location : Rescue pile 194	Sample Code : NIL/SO /02/22/008

Sr. No.	Test Parameter	Method	Unit	MDL*	Result
1	Organic Phosphorus	Leachate - Lab SOP* NIL/IHM/01 Analysis - APHA 4500-P-C	mg/kg	0.5	3.9
2	Cynide	APHA 4500-CN	mg/kg	0.005	<0.005
3	Lead	Lab SOP* NIL/SOP/15	mg/kg	0.1	0.13
4	Cadmium	Lab SOP* NIL/SOP/15	mg/kg	0.1	BDL
5	Chromium	EPA 3050B / By FIAS	mg/kg	0.1	BDL
6	Copper	Lab SOP* NIL/SOP/15	mg/kg	0.1	14
7	Mercury	EPA 3050B / By FIAS	mg/kg	0.1	BDL
9	Selenium	EPA 3050B / By FIAS	mg/kg	0.1	BDL
10	Arsenic	EPA 3050B / By FIAS	mg/kg	0.1	BDL
11	Polychlorinated Biphenyls	GC ECD	mg/kg	0.01	BDL
12	Dichloromethane	GC FID	mg/kg	0.1	BDL
13	Carbon Tetrachloride	GC FID	mg/kg	0.1	BDL
14	1,2-Dichloroethane	EPA-8260 B	mg/kg	0.1	BDL
15	1,1-Dichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
16	cis-1,2-Dichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
17	1,1,1-Trichloroethane	EPA-8260 B	mg/kg	0.1	BDL
18	1,1,2-Trichloroethane	EPA-8260 B	mg/kg	0.1	BDL
19	Trichloroethylene	EPA-8260 B	mg/kg	0.1	BDL
20	Tetrachloroethylene	EPA-8260 B	mg/kg	0.1	BDL
21	1,3-Dichloropropane	EPA-8260 B	mg/kg	0.1	BDL





22	Thiuram	GC-MS	mg/kg	0.1	BDL
23	Simazine	GC-MS	mg/kg	0.1	BDL
24	Thiobencarb	GC-MS	mg/kg	0.1	BDL
25	Benzene	GC FID	mg/kg	0.1	BDL
26	Oil & Grease	EPA Method 9071 B	mg/kg	1	BDL

Note :

1. MDL – Method Detectible Limit.
2. BDL – Below Detectible Limit.
3. * Based on Manual of Soil testing in India, Ministry of Agriculture, GOI, 2011
4. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
5. This Test Report refers only to the sample tested.
6. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

Verified by:

Surekha Jamdar

Dy. Technical Manager

Issued by:

Shraddha Kere

Technical Manager

End of Report



Annexure-V

Sr. No	EMP break up for January to June 2022			Cumulative Expenditure (Rs. In Crore)
	Environmental attribute	Cost in crores (As stipulated in CRZ clearance) (Rs. in Crore)	Expenditure incurred on the environmental management plans (Rs. in Crore)	
1.	Environmental Monitoring- Air Act, Water Act, Noise levels	8	1.29	2.23
2.	Compensatory Restoration Plan (Mangroves)	25	0.1611	50.9811
3.	Implementation of the suggestions given by BNHS	25	0	41.98
4.	Noise barriers	45	0	1.1426
5.	Mitigation of marine water pollution caused due to the surrounding industries and Sewage from Urban Bodies, by providing Funding and Capacity Building for Enabling Effluent Treatment	40	0	5.8
6.	Contribution to Mangroves Fund, an initiative by Govt. of Maharashtra for Conservation and Protection of Mangroves in Coastal areas by depositing Seed Money. This can be used for Survey & Demarcation of Notified areas. Purchase of vehicles and equipment for anti-Encroachment drives, etc.	25	0	25
7.	Oil Spill Mitigation Plan	10	0.08	1.84
8.	Habitat quality assessment and monitoring Surveillance management and monitoring team for migratory birds, marine flora, turbidity in sea floor, etc Corpus fund for mudflat restoration program	20	0	0

Sr. No	EMP break up for January to June 2022			Cumulative Expenditure (Rs. In Crore)
	Environmental attribute	Cost in crores (As stipulated in CRZ clearance) (Rs. in Crore)	Expenditure incurred on the environmental management plans (Rs. in Crore)	
9.	Appointment of Bird Monitor and his assistant till Restoration of Baseline data	4	0	0
10.	DMP, Firefighting, Risk Analysis	15	0.099	2.76914
11.	Sustainable development including establishing Nature Interpretation Centre	10	0	10
12.	Safety and Security	15	3.40	17.62
13.	Energy conservation	10	0.11	3.573
14.	Landscaping-Plantation of trees, flower in plants etc.	8	0	0.77
15.	Compensation and Capacity Building of Fisher folks due to Temporary and Permanent Loss of Fishing round	75	0	118.81
	TOTAL	335 Crores	5.14	282.51



एम एम आर डी ए
MMRDA

Mumbai Metropolitan Region Development Authority

Mumbai Trans Harbour Link Project

Quarterly Progress Report - No.19

(From 1st October 2021 to 31st December 2021)



**Mumbai Trans Harbour Link Project
Quarterly Progress Report No. 19
1st October 2021 to 31st December 2021
Loan Agreement No. ID-P255 (Tranche-I)**

ORGANIZATION INFORMATION

Borrower	Mumbai Metropolitan Region Development Authority	
	Person in Charge	Metropolitan Commissioner, MMRDA
	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
Executing Agency	Mumbai Trans Harbour Link Project Implementation Unit	
	Headed by:	Chief Engineer 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

Source of Finance	JICA ODA Loan Portion:	238,572 million Japanese YEN (JPY)
	Tranche-I:	144,795 million Japanese YEN (JPY) (Loan Agreement signed on 31 st March 2017)
	Tranche-II:	66,909 million Japanese YEN (JPY) (Loan Agreement signed on 27 th March 2020)
Terms and Conditions of JICA ODA Loan (Tranche-1)	Repayment Period:	30 years, including 10 years of grace period.

DOCUMENT VERIFICATION AND REVISION RECORD

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

Contents

1.0 PROJECT DESCRIPTION.....	5
1.1 Project Objective.....	5
1.2 Necessity of the Project.....	5
1.3 Rationale of the Project Design.....	6
2.0 PROJECT IMPLEMENTATION.....	9
2.1 Project Scope.....	9
2.2 Implementation Schedule.....	11
2.3 Project Cost.....	12
2.3.1.a Comparison of Originally Planned and Actually Incurred Cost BY ITEM.....	12
2.3.1.b Comparison of Originally Planned and Actually Incurred Cost BY YEAR.....	14
2.4 Organization for Implementation.....	15
2.4.1 Executing Agency.....	15
2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:.....	16
2.4.2.1 Procurement & Consultant.....	16
2.4.2.2 Performance.....	17
Consultant's Progress:.....	17
Contractor's Progress:.....	18
Package-1 Physical Progress till 31 st December 2021.....	18
Package-2 Physical Progress till 31 st December 2021.....	19
Package-3 Physical Progress till 31 st December 2021.....	20
Package-4 (ITS) Progress till 31 st December 2021.....	20
Health & Safety and Environment (HSE).....	21
Package-1 Safety Report.....	21
Package-2 Safety Report.....	22
Package-3 Safety Report.....	23
3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS).....	24
3.1 Operational and Physical Condition.....	24
3.2 Precautions (Measures To Be Adopted/ Points Which Require Special Attention).....	24
3.3 Environmental and Social Impacts.....	26
3.4 Qualitative and Quantitative Data of Monitoring Indicators.....	29
3.5 Monitoring Plan for the indicators.....	30
3.6 Achievement of the Project Objective.....	30
4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY).....	31
4.1 O&M and Management.....	31
4.2 O&M Cost and Budget.....	31
5.0 EVALUATION.....	32
5.1 JICA and Borrower / Executing Agency performance.....	32
5.2 Overall Evaluation.....	32
5.3 Lessons Learnt and Recommendations.....	32
<i>ATTACHMENT 1- MMRDA & PIU ORGANIZATION CHART.....</i>	<i>33</i>
<i>ATTACHMENT 2- ENVIRONMENTAL & SOCIAL IMPACTS ATTACHMENTS.....</i>	<i>36</i>
<i>ATTACHMENT 3- JICA'S CONCURRENCE STATUS.....</i>	<i>37</i>
<i>ATTACHMENT 4- PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31ST DECEMBER 2021.....</i>	<i>39</i>
<i>ATTACHMENT 5- S-CURVE FOR CUMULATIVE PLANNED VS ACTUAL AMOUNT IN JPY MILLION.....</i>	<i>41</i>
<i>ATTACHMENT 6- PACKAGE-1'S CONSTRUCTION PROGRAMME UPDATED AS ON 25TH DECEMBER 2021.....</i>	<i>42</i>
<i>ATTACHMENT 7- PACKAGE-2'S CONSTRUCTION PROGRAMME UPDATED AS ON 25TH DECEMBER 2021.....</i>	<i>43</i>
<i>ATTACHMENT 8- PACKAGE-3'S CONSTRUCTION PROGRAMME UPDATED AS ON 25TH DECEMBER 2021.....</i>	<i>44</i>
<i>ATTACHMENT 9- PROJECT PROGRESS PHOTOS FOR DECEMBER 2021.....</i>	<i>45</i>

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:

1st October to 31st December 2021

Demand Analysis

- 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:

Table 1.3.1 Demand Projections Over the Period

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
Total	39,300	103,900	145,500	9,800	29,600	55,000

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

- 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.
- 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

- 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.
- 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.
- 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).
- 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.
- 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-Classifier (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

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

Table 2.1.2 Comparison of Original and Actual Scope

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

Items	Original	Actual
Package-4 ITS (Intelligent Transport System)	<ul style="list-style-type: none"> • Administrative Buildings • Toll Booths (1 for main alignment and each on and off rumps for 3 interchanges) • 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)) • Highway Lighting (Whole sections Low-positioned lighting for some sections) • Electrical Powering System including HV/ LV Ring Network across the Bridge. 	<p style="text-align: center;"><i>(P/R and PCR)</i></p>
Consulting Services	<ul style="list-style-type: none"> • Tender Assistance • Construction Supervision • Facilitation of Implementation of Environmental Management Plan (EMP), Environmental Monitoring plan (EMoP). 	<p style="text-align: center;"><i>(P/R and PCR)</i></p>

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 st December 2021
1) Completion of Land Acquisition and Resettlement	March 2019	March 2022
2) Consulting Services		
a) Selection of Consultant	May – December 2016	May – December 2016
b) Consultancy Works	December 2016 – September 2024	December 2016 – September 2024
3) Selection of Contractor		
Package-1, Package-2 & Package-3 (Civil)		
a) Pre-Qualification Process	May – December 2016	May – December 2016
b) Main Bidding	January – December 2017	January – December 2017
c) JICA's Concurrence of Contract	February-2018	February-2018
Package-4 (ITS)		
a) Pre-Qualification Process	January 2019 – May 2019	January 2020 – May 2020
b) Main Bidding	June 2019 – September 2020	June 2020 – December 2021
4) Civil Construction		
Package-1 and Package-2	March 2018 – September 2022	March 2018–September 2023 (Extended)
Package-3	March 2018 – September 2021	March 2018 – March 2023 (Extended)
Package-4	October 2020 – September 2022	February 2022 – May 2023
5) Defect Liability Period		
Package-1, Package-2 and Package-4	October 2022 – September 2024	October 2022 – September 2025
Package-3	October 2021 – September 2023	April 2023 – March 2025
6) Commencement of Toll Collection	September -2022	September -2023
7) Selection of O&M Organization	October 2020 – September 2021	October 2022 – September 2023

Attachment 6, 7 & 8: Package wise construction schedules (progress) updated at the end of 3rd Quarter (October- November- December 2021).

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.

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	34,398	34,398	0	45,376	45,376	0	105,713	105,713	0
Package-2	26,513	26,513	0	32,617	32,617	0	77,774	77,774	0
Package-3	759	759	0	8,276	8,276	0	13,766	13,766	0
Package-4 (ITS)	0	0	0	1,444	1,444	0	2,269	2,269	0
Package-5 (Geotechnical Investigation)	0	0	0	166	0	166	260	0	260
Dispute Boards (Package-1, 2, 3 & 4)	63	63	0	45	45	0	134	134	0
Price Escalation	2,251	2,251	0	7,133	7,133	0	13,460	13,460	0
Physical Contingency	6,398	6,398	0	9,506	9,489	17	21,338	21,312	26
Consulting Services	1,650	1,650	0	1,587	1,587	0	4,145	4,145	0
Land Acquisition*	0	0	0	11,293	0	11,293	17,748	0	17,748
Administration Cost	0	0	0	4,898	0	4,898	7,698	0	7,698
GST	0	0	0	18,238	0	18,238	28,663	0	28,663
Import Tax	0	0	0	13,435	0	13,435	21,114	0	21,114
Interest during construction	2,942	0	2,942	0	0	0	2,942	0	2,942
Front End Fee	477	0	477	0	0	0	477	0	477
Total	75,451	72,032	3,419	154,013	105,967	48,046	317,501	238,572	78,929

(Note) 1. Exchange Rate: US\$1=Rs. 71.9, US\$1=JPY 113.0, Rs.1 = JPY 1.57

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696.

The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

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	18,880	18,880	-	31,020	31,020		64,975	64,975	
Package-2	19,923	19,923	-	20,151	20,151		50,714	50,714	
Package-3	623	623	-	5,862	5,862		9,256	9,256	
Package-4 (ITS)	-		-	-			-		
Package-5 (Geotechnical Investigation)	-			196		196	308		308
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		-
Price Escalation	-			4	4		6	6	-
Physical Contingency	-			-			-		-
Consulting Services	253	253		362	362		1,108	1,108	
Land Acquisition*	-			6,712		6,712	10,538		10,538
Administration Cost	-			3,980		3,980	6,248		6,248
GST	-			11,183		11,183	17,557		17,557
Import Tax	-			-			-		-
Interest during construction	-			-			-		-
Front End Fee	-			-			-		-
Total	39,679	39,680	-	79,470	57,398	22,071	160,710	126,059	34,651

(Note) 1. Exchange Rate: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696.

The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

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 2017	12,679	10,134	0	0	10,134	2,545
FY 2018	30,771	22,707	0	0	22,707	8,064
FY 2019	72,379	56,816	0	0	56,816	15,563
FY 2020	92,944	55,138	16,040	0	71,178	21,765
FY 2021	66,397	0	50,869	0	50,869	15,527
FY 2022	27,683	0	0	20,113	20,113	7,570
FY 2023	3,723	0	0	565	565	3,158
FY 2024	10,925	0	0	6,189	6,189	4,735
Total	317,501	144,795	66,909	26,868	238,571	78,929

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	31,859	23,922	-	-	23,922	7,937
FY 2021	47,890	40,196	-	-	40,196	7,694
FY 2022						
FY 2023						
FY 2024						
Total	160,710	126,059	-	-	126,059	34,651

(Note) 1. Exchange Rate used: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Fiscal Year starting from 1st April and ending on 31st March.

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 26th January 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 February 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 April 2012. Employment of consultants should be implemented in accordance with "Guidelines of Employment of Consultant under Japanese ODA Loans", dated in April 2012. "Principles of Procurement under the Project" is attached for brief explanation of the above Guidelines.

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

There is no change made in 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)	
Construction Works			
1	Package-1: 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	Package-2: 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	Package-3: 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	Package-4: 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	Package-5: To conduct the geotechnical investigation	Local Competitive Bidding Process	No Change
Consulting Services			
1	Consulting Service for Supervision	Short List Method (QCBS)	No Change

2.4.2.2 Performance

Consultant's Progress:

October 2021:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-44 20% Detailed Verification and IPC-45 80% Ad-hoc.
 - ii) Package-2: IPC-38 20% Detailed Verification and IPC-39 & IPC-40 80% Ad-hoc.
 - iii) Package-3: IPC-37 20% Detailed Verification.
- 2 GC has prepared and submitted a total reimbursement claim of 5278.25 million JPY to MMRDA / JICA in October 2021.

November 2021:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-45 20% Detailed Verification and IPC-46 80% Ad-hoc.
 - ii) Package-2: IPC-40 20% Detailed Verification and IPC-42 80% Ad-hoc.
 - iii) Package-3: IPC-37 20% Detailed Verification and IPC-38 & IPC-39 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 5084.42 million JPY to MMRDA / JICA in November 2021.

December 2021:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-46 20% Detailed Verification and IPC-47 80% Ad-hoc.
 - ii) Package-2: IPC-42 20% Detailed Verification and IPC-43 80% Ad-hoc.
 - iii) Package-3: IPC-38 & 39 20% Detailed Verification and IPC-40 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 3819.32 million JPY to MMRDA / JICA in December 2021.
- 3 100% of the Technical Design Modules across all the 3 Packages have been given "NONO" by the GC.
- 4 Approximately 97% 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 – 90%, Package-3 -100%
- 5 GC helped in evaluating the Package-4's Pre-Qualification and Technical bid proposal and the analysis has been sent to the Employer for further approval.

Contractor's Progress:

Package-1 Physical Progress till 31st December 2021

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Temporary Access Bridge					
1.1	Bridge Deck	2953	Rmt	2953	100%	
2	Test Pile					
2.1	Test Piles	5	No.	5	100%	
3	Permanent Bridge Works - Land/ Interchange Zone					
3.1	Piles	523	No.	456	87.2%	
3.2	Pile Caps	158	No.	82	51.9%	
3.3	Piers	228	No.	148	64.9%	
3.4	Pier Caps	215	No.	141	65.6%	
4	Permanent Bridge Works - Intertidal Zone					
4.1	Piles	312	No.	312	100%	
4.2	Pile Caps	66	No.	75	100%	
4.3	Piers	114	No.	126	86.3%	
4.4	Pier Caps	110	No.	124	84.9%	
5	Permanent Bridge Works - Marine Zone					
5.1	Piles	403	No.	403	100.0%	
5.2	Pile Caps	79	No.	72	90.0%	
5.3	Piers	160	No.	95	58.6%	
5.4	Pier Caps	160	No.	86	53.1%	
6	Permanent Bridge Works - Total					
6.1	Piles	1238	No.	1171	94.6%	
6.2	Pile Caps	313	No.	229	73.2%	
6.3	Piers	536	No.	369	68.8%	
6.4	Pier Caps	523	No.	351	67.1%	
7	Precast Segments					
7.1	Segment Casting	6713	No.	3364	50.1%	
7.2	Span Erection+ Cast-in-Situ Slab	478	No.	154	32.2%	
8	OSD Structural Steel					
8.1	Fabrication	52726	MT	48590	92.16%	
8.2	Erection	52726	MT	0	0%	

Package-2 Physical Progress till 31st December 2021

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Temporary Access Bridge					
1.1	Bridge Deck	2682	Rmt	2682	100%	
2	Test Pile					
2.1	Test Piles	2	No.	2	100%	
3	Permanent Bridge Works - Land/ Interchange Zone					
3.1	Open Foundation	113	No.	113	100%	
3.3	Piers	119	No.	119	100%	
3.3	Pier Caps	105	No.	78	74.28 %	
3.4	Portal Beams- Land	6	No.	6	100%	
3.5	Pier Head Segments -Land	42	No.	34	80.95%	
4	Permanent Bridge Works - Intertidal & CRZ Zone					
4.1	Piles	280	No.	280	100%	
4.2	Pile Caps	72	No.	72	100%	
4.3	Piers	72	No.	72	100%	
4.4	Pier Caps	18	No.	18	100%	
4.5	Pier Head Segments	54	No.	53	98.14%	
5	Permanent Bridge Works - Marine Zone					
5.1	Piles	512	No.	481	93.94%	
5.2	Pile Caps	120	No.	96	80%	
5.3	Piers	120	No.	63	52.50%	
5.4	Pier Caps	48	No.	9	18.75%	
5.5	Pier Head Segments	72	No.	2	3.85%	
6	Permanent Bridge Works - Total					
6.1	Open Foundation	113	No.	113	100%	
6.2	Piles	792	No.	761	96.08%	
6.3	Pile Caps	192	No.	168	87.50%	
6.4	Piers	305	No.	254.3	81.76%	
6.5	Pier Caps/ Portal Beams	177	No.	111	62.71%	
6.6	Pier Head Segments	168	No.	89	52.97%	
7	Precast Segments					
7.1	Segment Casting	3142	No.	1382	43.98%	
7.2	Span Erection	272	No.	72	26.47%	
8	OSD Structural Steel					
8.1	Fabrication	34726	MT	34726	100%	
8.2	Erection	34726	MT	0	0%	

Package-3 Physical Progress till 31st December 2021

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Permanent Bridge Works					
1.1	Open Foundations	219	No.	213	97.26%	
1.2	Pile Foundations	6	No.	4	66.67%	
1.3	Piers	242	No.	200	82.64%	
1.4	Pier Caps	189	No.	152	80.42%	
1.5	Segment Casting	810	No.	768	94.81%	
1.6	Segment/ Span Erection	53	No.	24	45.28%	
1.7	Cast in-situ Slab	114	No.	47	41.22%	

Package-4 (ITS) Progress till 31st December 2021

1. Preparation of Bid Documents for the Package-4 - ITS (Intelligent Transport System) is in progress.
2. As recommended by the GC, JICA accorded concurrence for Single Stage Bidding (without Pre-Qualification) on 9th October 2020 and asked to submit draft Bid Document for review and approval.
3. The GC submitted first draft Bid Document to the Employer on 2nd November 2020 for review.
4. After reviewing the draft, MMRDA issued the observations on 29th December 2020 for further correction & amendments, etc. The GC is in the process of preparing the revised draft Bid Document.
5. The GC submitted the revised draft Bid Document to the Employer on 14th June 2021 for a review and further concurrence with JICA.
6. The Employer received JICA concurrence for the revised Bid Documents on 24th August 2021.
7. The Tender has been floated (published) on 3rd September 2021. A Pre-bid Meeting was arranged on 27th September 2021. The GC is resolving the queries raised by the prospective bidders.
8. The GC has resolved the queries raised by the prospective bidders. The Pre-Bid Responses and Addendum-1 were uploaded on 20th Oct. and 2nd Nov. 2021.
9. The revised date for Bid Submission is 13th Dec. 2021 and the bid opening date is 20th Dec 2021. The Bid evaluation is under 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

Sr. No	Description	From October to December 2021	Cumulative
1	Total Man Hours Since Inception	4,241,988	39,231,458
2	Number of Man-Hours (Accident-Free Man-Hours)	3,789,504	2,229,360
3	Number of Man-Days	530,249	4,903,932
4	Number of Reportable Fatal Accidents	1	6
5	Number of Non-Fatal Accidents	0	3
6	Number of Near Miss Incidents	9	102
7	Number of First Aid Cases	22	243
8	Number of Dangerous Occurrences	0	1
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	49,440	290,712
11	Number of Man-Days Lost	6,180	36,339
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	1	0.23
13	Number of Inspections done for Offices & Sites	457	3,632
14	Number of Training/ Induction done for Offices & Sites	343	1,925
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	12,750	7,065
16	Details of Safety Committee meetings	3	38
17	No. of toolbox talks	14,633	99,090
18	No. of critical excavations.	14	68
19	Pre-employment Medical check-up	3,329	35,251
20	No. of Safety Walk down	20	236
21	No. of Safety Inductions completed	3,329	35,251

Package-2 Safety Report

Sr. No	Description	From October to December 2021	Cumulative
1	Total Man Hours Since Inception	2,895,101	19,880,377
2	Number of Man-Hours (Accident-Free Man-Hours)	1,435,841	165,924
3	Number of Man-Days	271,646	1,817,109
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	2	7
6	Number of Near Miss Incidents	32	226
7	Number of First Aid Cases	14	146
8	Number of Dangerous Occurrences	1	10
9	Number of Reportable Sick Cases	1	2
10	Number of Man-Hours Lost	928	2,268
11	Number of Man-Days Lost	116	265
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	2	0.35
13	Number of Inspections done for Offices & Sites	75	1,077
14	Number of Training/ Induction done for Offices & Sites	86	810
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	10,152	5,635
16	Details of Safety Committee meetings	3	42
17	No. of toolbox talks	1,134	8,806
18	No. of critical excavations.	0	0
19	Pre-employment Medical check-up	1,155	14,132
20	No. of Safety Walk down	11	141
21	No. of Safety Inductions completed	1,166	14,430

Package-3 Safety Report

Sr. No	Description	From October to December 2021	Cumulative
1	Total Man Hours Since Inception	733,821	4,497,018
2	Number of Man-Hours (Accident-Free Man-Hours)	733,821	2,396,669
3	Number of Man-Days	91,727	562,126
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	2
6	Number of Near Miss Incidents	3	22
7	Number of First Aid Cases	13	98
8	Number of Dangerous Occurrences	0	1
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	2320
11	Number of Man-Days Lost	0	290
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	0.44
13	Number of Inspections done for Offices & Sites	51	453
14	Number of Training/ Induction done for Offices & Sites	16	232
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	2,196	1,144
16	Details of Safety Committee meetings	3	38
17	No. of toolbox talks	616	6,203
18	No. of critical excavations.	0	3
19	Pre-employment Medical check-up	1,132	8229
20	No. of Safety Walk down	12	145
21	No. of Safety Inductions completed	1,132	8229

3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)

3.1 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>3.2.1 General Issues</p> <p>1. Toll Arrangement/ Toll Rate 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>2. Operation and Maintenance MMRDA proposes to appoint separate agencies for Operation & Maintenance of the bridge and for Toll Management System. Both the agencies for O & 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 adequate budget for engaging the Contractors.</p>	<p>(P/R and PCR)</p> <p>Appropriate Tolling Policy/ Rates will be finalized by December 2021.</p> <p>Single Operation and Maintenance Contractor will be appointed by December 2021.</p>
<p>3.2.2 Environmental and Social Consideration</p> <p>a. CRZ Clearance</p> <p>i. Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. 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</p>	<p>(P/R and PCR)</p> <ul style="list-style-type: none"> • MMRDA has disclosed Supplemental EIA & SIA on MMRDA website. • The renewed CRZ clearance was granted on 25/1/2016 from MoEF&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 maintains throughout the construction phase. • MMRDA appointed Mangroves & Marine

<p>CRZ Clearance, appropriate measures shall be taken, and necessary budget shall be secured by MMRDA.</p>	<p>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.</p> <ul style="list-style-type: none"> • Rs 91.42 Crore has been transferred to Mangroves & Marine Biodiversity Foundation, Mumbai for the development & conservation of mangrove area and its afforestation. Such funds will be managed by the Mangrove Foundation of Maharashtra State. • 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.
--	--

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 th November 2016	Mangrove cutting operation was completed with full compliance and as of now, no further follow up work is required.
Tree Cutting /Transplantation	Respective Tree Authorities	Contractor for respective Packages	-	<p>Pkg-1: Tree Cutting/ Transplantation permission from the Garden Dept., MCGM obtained on 24th December 2020.</p> <p>Pkg-2: Tree Cutting/ Transplantation permission obtained & completed.</p> <p>Pkg-3: Forest Department has issued a concurrence on 19/05/2019. CIDCO's permission for Tree Cutting/ Transplantation obtained on 25th November 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>1. Establishment of Effective Environmental and Social Cell in PIU</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>2. Rehabilitation and Land Acquisition Issues</p> <p>a. Affected Area and Population</p> <p>Due to the Project, 1282 non-titleholders will be involuntary resettled, and 108.09 ha of land will be handed over by CIDCO.</p>	<p>Sewri: 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"> • 164 PAHs Kanjurmarg for residential • 25 PAHs Kanjurmarg for commercial • 7 PAHs (Satsangi Plot) Kanjurmarg for Commercial • 1 PAHs (commercial to residential) for Bhakti Park • 100 PAHs HDIL Kurla for residential <p>Navi Mumbai: CIDCO has been finalizing the land acquisition closely monitored by Land Cell of MMRDA. Except private land and forest, CIDCO has possessed all required land of 108.09 ha. Out of the 108.09 ha, 106.345 ha has been handed over by CIDCO to MMRDA. CIDCO is going to acquire the balance 1.745 ha with the help of Collector, Raigad.</p>
<p>b. Entitlement Policy</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)</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>("Guidelines") (Attachment 2-5).</p>	
<p>c. Compensation to Project affected Fishermen</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>d. Implementation Schedule</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>e. Grievance Redressal Mechanism</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>Sewri: 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>Fishermen: GRC for resolving grievances of the fisherfolk was set up as per the compensation policy and is in operation.</p>
<p>f. Internal Monitoring</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>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>g. Qualitative Independent Evaluation</p> <p>An Independent Evaluation Agency will be hired by MMRDA for evaluation of RAP implementation. An external 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 Attachment 2-10 is enclosed in the report.</p>
<p>h. RAP Implementation Budget</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>i. Environmental Management Plan (“EMP”)</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. (Attachment 2-1). 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>j. Environmental Monitoring Plan (“EMoP”)</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</p>	<p>Environmental Monitoring Plan with the package wise budgeted cost is reported in Attachment 2-3. Environmental Monitoring Results during the construction phase are reported in Attachment 2-4.</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>Status Report (PSR) by filling in the Reporting Form of Environmental Monitoring Result. (Attachment 2-4). After completion of the construction, EMoP shall be implemented by MMRDA, and the results shall be submitted to the JICA India Office semi-annually until two years after complementation of construction. The required amount of estimated environmental monitoring budget is borne by MMRDA.</p>	
<p>k. Long Term Bird Monitoring</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"> • MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures & bird monitoring program to Mangrove and Marine Biodiversity Foundation. • Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai for periodical disbursement to BNHS.

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.

<p>EIRR</p>	<p>Original: 15.4% Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years</p>	<p>Actual: (PCR) _____% Cost: Benefit: Project Life: Attachment(s): Supporting data for computing EIRR</p>
<p>FIRR</p>	<p>Original: 1.5% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years</p>	<p>Actual: (PCR) _____%</p>

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:

Original: (P/M and PCR)

Monitoring Organization

PIU shall be In-Charge of Monitoring activities for the Project.

Submission of QPR and PCR

The timely submission of the following documents is required by MMRDA.

- a. Quarterly Progress Report (QPR):** 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 & Quarterly Progress Reports (including S-Curve Chart) prepared by the Consultant to JICA India Office on regular basis till project completion.
- b. Project Completion Report (PCR):** 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**.

Actual: (P/R and PCR)

Monitoring Organization

PIU for MTHL has been established for monitoring the Project.

Submission of QPR and PCR

This QPR No. 19 is submitted for the period of 1st October to 31st December 2021.

3.6 Achievement of the Project Objective

(PCR)

4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)

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)

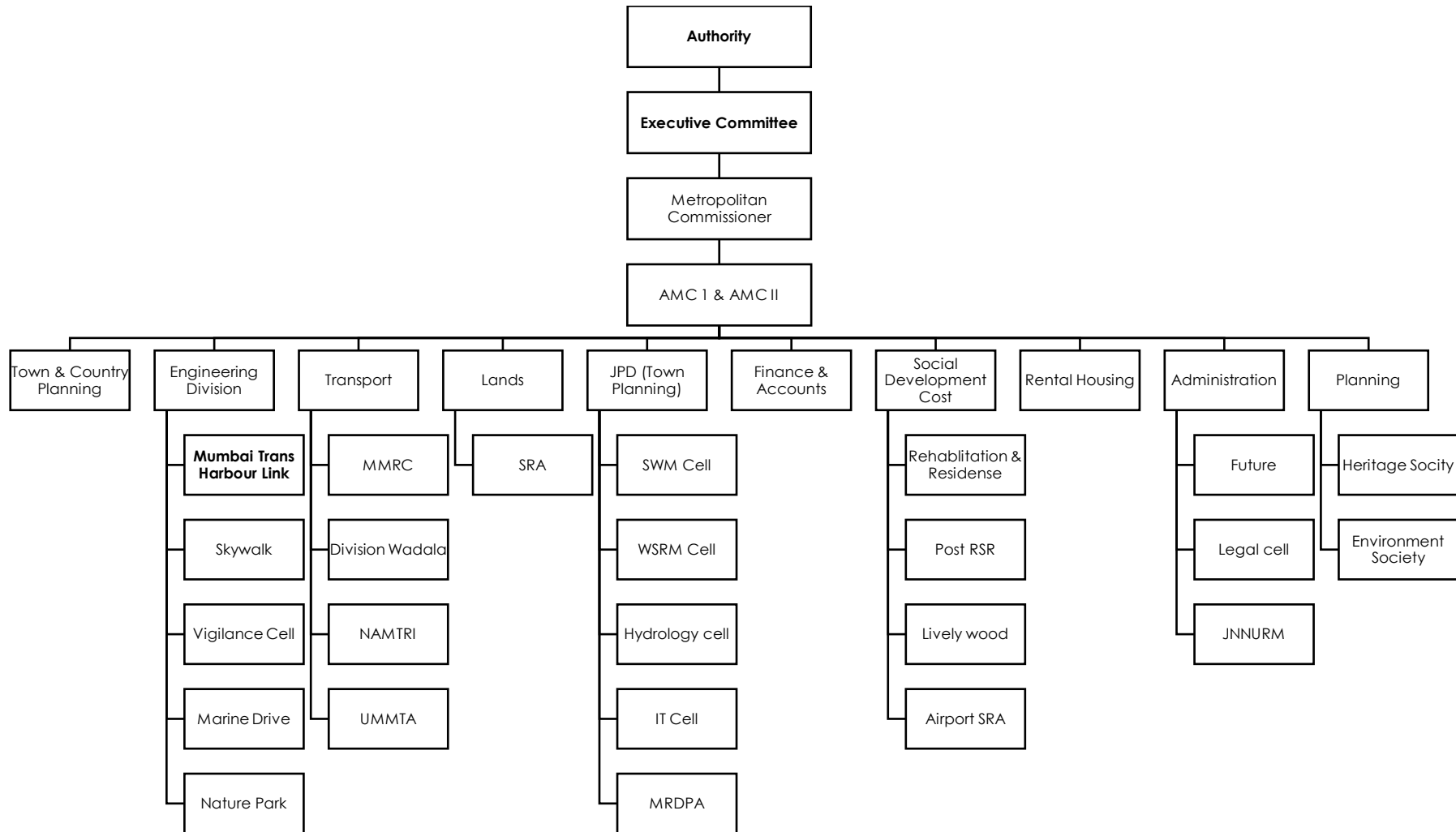
5.3 Lessons Learnt and Recommendations

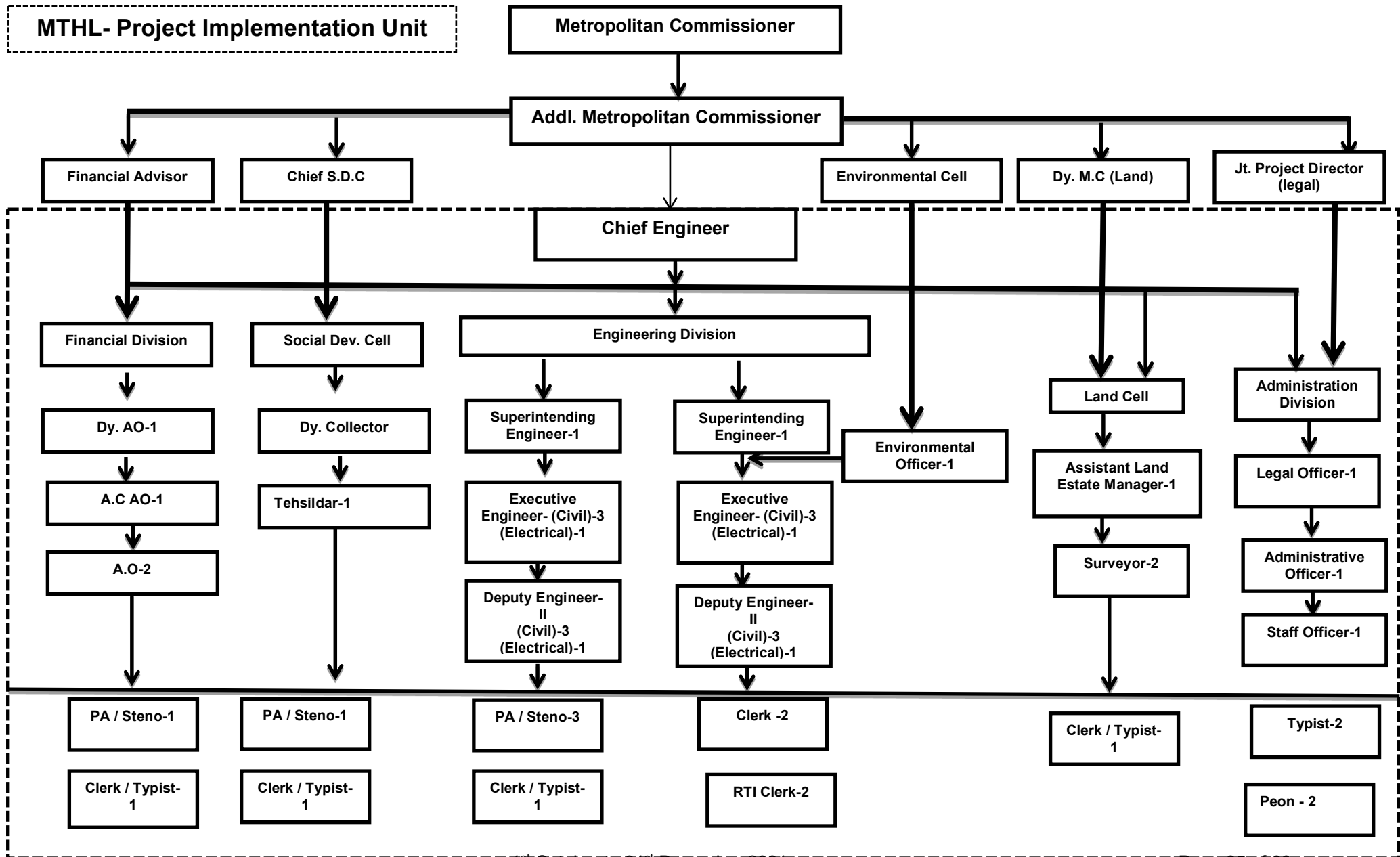
Please raise any lessons learned from the project experience, which might be valuable for the future JICA assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

(PCR)

Attachment 1- MMRDA & PIU Organization Chart

MMRDA Organization chart





Attachment 2- Environmental & Social Impacts Attachments

- 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 ₂ , NO ₂ , PM ₁₀ , PM _{2.5} , O ₃ , 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 ₂ : 80 / 80µg/m ³	P3 contractor team is conducting Ambient air quality monitoring with reference to National Standards and clause 1.2 of Employer's requirement.
												NO ₂ : 80 / 80µg/m ³	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 obatiend 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
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						Municipal Solid Waste Management Rules, 2013 Generated waste shall be reused or disposed at designated site. Sites have been identified and the location for Pkg. 1 is at Bhayandar Pada in Thane. For Pkg. 2 & 3 is in Navi Mumbai at Pushpak Node near "Teen Taki Junction" along the Amar Marg.	P2 contractor has considered only Domestic garbage with respect to CIDCO. Other wastes are not considered. Construction wastes will be
				3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.								
4 and 8	Soil Contamination/ sedimentation	Heavy Metals & Oil & Grease (5-10 items shall be selected from Soil pollution standards)	IS / Methods Manual Soil Testing in India by Department of Agriculture and Cooperation, January 2011	1. Sewri & Sewri bay area for package I 2. Nhava temporary bridge & casting yard in Gavhan for package II 3. Gavhan & Chirle for package III	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year *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 Storage area only	150,000	1,500,000	150,000	100,000	1,750,000	Soil Pollution Standard in India (MOEF) · Cd: 0.01mg/l · Lead: 0.01mg/l · Chromium (VI): 0.05mg/l · Arsenic: 0.01mg/l · T-Mercury: 0.0005mg/l · Copper: 125mg/kg (some items shall be selected from totally 25 standards items)		
5	Noise and vibration	Ambient and road side noise (dB(A) _{L_{eq}})	IS Standard	1. Sewri & Sewri bay area for package I 2. Nhava temporary bridge & casting yard in Gavhan for package II 3. Gavhan & Chirle for package III	Fortnightly 2 Times / Year Fortnightly	150,000	54,000	150,000	369,000	573,000	-Construction Noise; 85dB(A) -Ambient Noise Standards in India (dB (A) _{Leq}) 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) 3.Residential Area: Day Time: 55 (6-22hr) Night Time: 45 (22-6hr) 4.Silence Zone Day Time: 50 (6-22hr) Night Time: 40 (22-6hr)		
			Vibration (dB L10 or mm/sec)		1 Location Gavan area for package III	Half yearly	75,000	0	75,000	400,000	475,000	- Construction vibration 75dB -Vibration Standards roadside 1. Commercial /Industrial Area Day Time: 70 (7-20hr) Night Time: 65 (20-7hr) 2. Residential Area: Day Time: 65 (7-20hr) Night Time: 60 (20-7hr)	Not applicable for Pkg. 1
9 and 10	Protected Area /Ecosystem	1. Monitoring of mudflat conditions including fauna-flora 2. Monitoring of Cutting Tree and replantation/ transplanting area 3. Monitoring of Mangrove Plantation area appointed by MoEF	Ocular inspection and quantitative survey	Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction Period	6,500,000	7,200,000	6,500,000	0	13,700,000	Significant impacts are not caused by the project Note)	Not applicable for Pkg. 3	

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 ₂)	1-2: Mangrove density and community survey								Detailed monitoring plan will be setup during basic design stage Standard for Soil; Supplemental EIA Table 6.1.15 Standard for Ecological Parameter: · Net primary Productivity <1,500 mgC/m ³ /day at surface · Chlorophyll-a <4mg/m ³ · Phosphate: 0.1-90µg/l · Nitrate: 1.0-500µg/l · Nitrite: <125µg/l · Particulate Organic Carbon: 10-100mg/m ³ · SiO ₂ : 10-5,000µg/l	
				1-3: Benthos Survey									
				2-1: Cutting trees confirmation									
				3-1: Mangrove survey in the replanted area									
	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								
Social environment	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"	
Other	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	
							8140500	325,354,000	12,000,000	2,211,500	339,565,500		

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 EMO are covered.

Monitoring Period - October 2021 to December 2021

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- Pkg 2	Location 3- Pkg 3	Location 4				
Pollution	1	Air pollution	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5}	1. Sewri & Sewri bay area for package I	Quarterly monitoring is conducted at all locations.	National Ambient Air Quality Standards (NAAQS) (Standard for 24hrs: Industrial and Residential)	Sewri	Shivaji Nagar	Chirle					
				2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year									
				3. Gavhan & Chirle for package III	From march -2019 onwards monitoring is conducted quarterly as per MOEF and CPCB norms									
					1. SO ₂ : 80µg/m ³							10.675	BDL	10
					2. NO ₂ : 80µg/m ³							38	24	27
		3. PM ₁₀ : 100µg/m ³	191	94	53									
			4. PM _{2.5} : 60µg/m ³	49	35	26								
			5.CO:02mg/m ³	1.4	1.3	0.58								
			6.VOCs	1.27	2.8	0.3								
		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-IV 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	7.1							7.5	Not applicable
3. Gavhan & Chirle for package III	Not applicable				2. DO: 3 mg/l	5.1							6.1	Not applicable
					3. Turbidity: 30 NTU	15							8.9	Not applicable
					4. BOD: 5 mg/l	BDL - 2 mg/l							BDL	Not applicable
		5. O & G: 10 mg/l	BDL - 2 mg/l	BDL	Not applicable									
			6.COD	8-24	16	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	Sewri Camp Site	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 -Piling muck							16,651 Cu.m.	App. 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							1. 309 trees (Till March 2020) 2. Transplanting : 330 Trees 3. Root ball preparation : 330 trees		In Oct-Dec 2021 - Nil
					Generated domestic waste (t/month) total							199.17	3.5 T/quarter. It is disposed through CIDCO daily.	2.1 T for the quarter
					Confirmation of adequate disposal (visual survey)							BMC authorized daily pick up		
	4	Soil Contamination/sedimentation	Heavy Metals & Oil & Grease	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					1. Cadmium: 0.01mg/l							BDL	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 Storage area only	2. total cyanide : not detected								<0.005	
					3. Organic Carbon							0.86	8.5	
					4. lead: 0.01mg/l							10	0.17	
					5. chromium (VI): 0.05mg/l							3	BDL	
					6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)							BDL	BDL	
					7. total mercury: 0.005mg/l							BDL	BDL	
					8. alkyl mercury: not detected							BDL		
					9. PCBs: not detected								BDL	
					10. copper: 125mg/kg (only paddy field soil)							116		
					11. dichloromethane: 0.02mg/l								BDL	
					12. carbon tetrachloride: 0.002mg/l								BDL	
					13. 1,2-dichloroethane: 0.004mg/l								BDL	
					14. 1,1-dichloroethylene: 0.02mg/l								BDL	
					15. cis-1,2-dichloroethylene: 0.04mg/l								BDL	
					16. 1,1,1-trichloroethane: 1mg/l								BDL	
					17. 1,1,2-trichloroethane: 0.006 mg/l								BDL	
					18. trichloroethylene: 0.03mg/l								BDL	
					19. tetrachloroethylene: 0.01mg/l								BDL	
		20. 1,3-dichloropropene: 0.002mg/l		BDL										

Regarding soil contamination/sedimentation, some items shall be selected from the total 25 standards items during the Detailed Design. Only the selected items shall be reported to JICA, and the rest of items shall be deleted from this form.

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 EMOp are covered.

Monitoring Period - October 2021 to December 2021

1. Environmental Monitoring during Construction for 4.5 years

Area	No.	Item	Parameter	Location	Frequency a year	Item and Stanadard	Monitoring Result				Remark - reasons why the data is exceeding standard - counter measures when the data is exceeding
							Location 1- Pkg 1	Location 2- Pkg 2	Location 3- Pkg 3	Location 4	
						21. thiuram: 0.006mg/l 22. simazine: 0.003mg/l 23. thiobencarb: 0.02mg/l 24. benzene: 0.01 mg/l 25. selenium: 0.01mg/l		BDL BDL BDL BDL 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)			
			2. Nhava temporary bridge & casting yard in Gavhan for package II	2 Times / Year	Day time : 6-22 hr (continious) dB(A)	69.4	69.5	66.8		Noise Monitoring not conducted due to monsoon season.	
			3. Gavhan & Chirle for package III	Fortnightly	Night time: 22-6 hr (continious) dB(A) (only sea section) Day time : 6-22 hr (10 min during 9-17 hrs) Night time: 22-6 hr (10 min 22-24 hr)	64.7	61.5	65.3			
		Vibration (dB) shall be converted from mm/s to dB	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 (continious)		Not Applicable		Regarding protected area (CRZ and Important Bird Area) and ecosystem, detailed long-term monitoring plan will be established during baseline survey of birds. This tentative monitoring form shall be updated based on the detailed long-term monitoring plan.		
					Night time: 22-6 hr (continious)						
					<u>Note (standard values in Not construction area)</u>						
					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)						
					Kindly check the letter No.Ref No. Mthl/ P3/L&T/GC/LT/HSE-2226/2020 dated on 12.12.2020						
1. Monitoring of mudflat conditions including fauna-flora 2. Monitoring of Cutting Tree and replantation/transplation area 3. Monitoring of Mangrove			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)	Mangorove Replantation area appointed by State Government		
			Along MTHL alignment and mangrove replant area for package II	4 Times / Year	1-1. Fauna-Flora (number of species and quantity)	Lesser flamingo - 12000-15000		N/A	N/A		
			(1) Number of species of bird		52					Testing for phytoplankton/ zooplankton density and list of fauna attached in original test records available from Ultratech.	
			(2) Number of species of fish		Fishes, Crustaceans, crabs and mudskipper						
			(3) Estimated number of Flamingo		12000-15000						
1-2: Mangrove density and community survey		Existing Avicennia protected		not required							

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 EMO-P are covered.

Monitoring Period - October 2021 to December 2021

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- Pkg 2	Location 3- Pkg 3	Location 4	
Natural Environment	6	Protected Area	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)			(1) Number of species of mangrove	Avicennia marina	not required			
						(2) Density of mangrove (xx trees/10m x 10m)		not required			
						1-3: Benthos Survey	500 Numbers /Cu.m	not required			
						(1) Number of species and quantity by species	500 Numbers /Cu.m	not required			
						2-1: Cutting tree confirmation		not required	Approved By Both CIDCO and Forest forest Dept (both Alibaug and Uran(regional office))		
						(1) Number of cutting tree and species		not required	Submitted to authority		
						3-1: Mangrove survey in the replant area		not required	N/A		
						(1) Number of species of mangrove		not required			
						(2) Density of mangrove (xx trees/10m x 10m)		not required			
						4. Ecological Parameter					
						(1) Net primary Productivity : <1,500 mgC/m3/day at surface	1000				
						(2) Chlorophyll-a: <4mg/m3	4.2				
						(3) Phosphate: 0.1-90µg/l	Sediment - 7.0				
						(4) Nitrate: 1.0-500µg/l	Sediment - 4				
						(5) Nitrite: <125µg/l					
(6) Particulate Organic Carbon: 10-100mg/m ³	0.8 - Sediment										
(7) SiO2: 10-5,000µg/l	33.2										
7	Hydrology	Flooding situation	Not applicable for Package I 2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II Not applicable for Package III	4 Times / Year	Criteria for evaluation Project activities and structures does not cause flooding and impacts on tidal conditions	Sewri	Shivaji Nagar				
					Monitoring of flooding situation	No Flooding	No flooding	N/A			
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	Shivaji Nagar Camp Site	Chirle			
					Monitoring of embankment	In progress		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/ Gavan camp			
					Number of hired workers by community		125-150	150			
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	Criteria for evaluation Infection disease rate shall not be caused by the project	Sewri Camp Site	Shivaji Nagar Camp Site				
					Confirmation of health check record and inspect project site . PPE provisions for work, social distancing for covid protocol at work in TBT training. Posters for awareness at Kitchen and Labor camp. Medical camp : 71 Labor HIV Aids camp : 55 labor Covid Precautions : 1. L&T office and camps : Thermal screening / Sanitation. 2. Fogging : 2 times in a week 3. Pest control : 2 times in a week	Doctor on call checks site specific infections., minor and major incidents . 24x7 ambulance service , ERT team with trained first aiders available	Health Checks carried out but HIV/AIDS parameter is not there.	Regular Health check up is carried out by site Doctor.	Functional first aid center within MTHL -1 campus. Induction, medical check up and authorization required to begin work for Labor.		
11	Labour Environment	Construction worker's camp	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,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"		Shivaji Nagar Camp Site	Gavan Camp site			
					1. Local labor : Oct 2021 : 511 2. Local labor : Nov 2021 : 465 3. Local Labor : Dec 2021 : 495 Registration of Labor 1. Oct 2021 : 215 Nov 2021 : 330 Dec 2021 : 525	4,500 labor for 3 months at 11 functional camps. One mid- day meal introduced as per BOCW act and by Maharashtra state serves more than 1000 free meals.			Biotoilets used for labor camps with biodigestors. A DRDO patented technology used for Sold waste. The bathing and kitchen water was directed to a reed bed for treatment.		
					Site Visual Inspection	IM 26 - for visual inspections- L&T IMS	Conforming with BOCW Act 1996	Conforming with BOCW Act 1996			
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	1	Shivaji Nagar Camp Site	Chirle/Other area		
						Number of recorded accident		NIL	Nil	Liner rolldown and trapped the labor causing death	

MTHL Land Acquisition Status (Attachment 2-6):

Total land required on Navi Mumbai side- 108.09 ha

Land in possession in MMRDA – 106.345 ha

Balance land acquisition- 1.745 ha

Note: The acquisition of 1.745 ha is in progress by CIDCO. The balance acquisition would be likely completed by the end of March 2022.

Land Required in ha		Land Acquired in ha		Balance Land to be acquired in ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private*			
98.75	9.34	98.75	7.595	1.745	31-03-2022	--	The payment status to the land owners are awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total		98.75	7.595	1.745			
108.09							

***Portions of Private Land**

Sr. No.	Name of Village	Area (Hectare)	Acquired	Non-acquired
1	Gavhan	0.15	0.15	0.00
2	Jasai	8.72	7.306	1.414
3	Chirle	0.47	0.139	0.331
Total Area		9.34	7.595	1.745

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

1. General Information

a. RAP Implementation Monitoring Results:	Progress Status Report (PSR) of 4 th quarter of 2021
b. Date of Preparing This form	31-12-2021
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)	297 Hhs	Titleholders: 0 Hhs Non-titleholders: 297 Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons Non-titleholders: 1,282 persons*
PAHs who need relocation (as residents)	231 Hhs	Titleholders: 0 persons Non-titleholders: 231 (1,088 persons) *
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons Non-titleholders: 0 persons
Commercial PAPs who need relocation	66 (194 persons) *	Titleholders: 0 persons Non-titleholders: 66 (194 persons) *
Commercial PAPs who 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.

2.2 Structures

Structures	Residential: 231 Commercial: 65 Residential + Commercial: 1 (counted in Commercial) Community: 9 (Religious Properties 6, Public Toilets 3) Government: 16 (MbPT Structures 9, Occupants of Leased Plots 6 & Police Chowki 1) Total: 322
-------------------	---

2.3 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 230 nos C1 category fishermen are transferred to Commissioner of Fisheries on 17.03.2020 for payment to the beneficiaries. 2. The list of balance 2 Nos. of C1 category fishermen are in process of fund transfer to

QPR No. 19 (October to December 2021) Attachment 2-8

				Commissioner of Fisheries.
C2: Fishing Stakes and Nets within 500 m. of RoW (Southern side)	296	567	863	1. Funds for 496 nos C2 category fishermen are transferred to Commissioner of Fisheries in the 2017-18. 2. The list of balance 367 Nos. of C2 category fishermen are under verification of validity.
C3: Hand Pickers	1498	4051	5549	Funds for 4141 nos of C3 category fishermen are already transferred to Commissioner of Fisheries and balance 1408 Nos. of C3 category fishermen are in process of fund transfer to Commissioner of Fisheries.
C4: Commercial and Artisanal Fisher-folks (Loss of Time and Increased Operating Costs)	Will be observed during construction period	Will be observed during construction period	---	Nil
C5: Fisher-folks with Loss due to Turbidity	Will be observed during construction period	Will be observed during construction period	----	Nil
C6: Fisher-folks with Damages due to Accidents	Will be observed during construction period	Will be observed during construction period	----	Nil

2.4 Land Acquisition / Transfer

Location	Land Required in Ha.		Land Acquired in Ha.		Balance Land to be acquired in Ha	Remarks
	Govt.	Private	Govt.	Private		
Sewri	10.089	0	10.089	0	0	
Navi Mumbai	98.75	9.34	98.75	7.595	1.745	
Total	118.179		108.839	7.595	1.745	

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	197	29	226	97%	
	No. of Residential PAHs given possession of Alternate Tenements	231	197	29	226	97%	
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	23	38	61	92%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	23	38	61	92%	
	No. of Occupants of MbPT Leased Plots provided Compensation	6	5	1	6	100%	
	No. of Religious properties Relocated / Removed	6	1	5	6	100%	
	No. of Other Community properties Relocated / Removed	4	0	4	4	100%	
	No. of Structures in possession of MbPT Dismantled / Cleared	9	0	9	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						
	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						

QPR No. 19 (October to December 2021) 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
Grievance Redress	No. of Grievances Received by FLGRC	4					
	No. of Grievances Disposed by FLGRC	4	0	4	4	100%	
	No. of Grievances Received by SLGRC	1					
	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						
	No. of CHSs' Office Bearers provided training						

SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Influence Zone of 23 villages) Up to 31-12-2021						
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	76	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
Total		15097	232	864	5549	6645
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 fisher-folks' 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	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 - 368 Nos and C3- 3481 Nos are approved.	23-12-2015	Up to 31-12-2021 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.

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: -

Land Required in Ha.		Land Acquired in Ha.		Balance Land to be acquired in Ha	Anticipated date for Land Acquisition	Payment status (Payment made to Landowners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private			
98.75	9.34	98.75	7.595	1.745	31-03-2022	--	1. CIDCO is the land acquisition authority for land acquisition for Navi Mumbai 2. MMRDA has paid an amount of INR 59.16 Cr to CIDCO as per their demand. 3. The payment status to the landowners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total	108.09	106.345		1.745			

Implementation Schedule for SIA (Sewri Section)

Task No.	Task Designation	Start Date	Completion / Forecast Date
1	Preparation of Final SIA		
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
2	LARP Implementation		
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	Jan. 2022
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	Nov. 2021
2.7	Allotment of dwelling units to PAP's	September 2016	Jan. 2022
2.8	Shifting of PAPs to resettlement Colony	December 2018	Nov. 2021
2.9	Transfer of compensation / allowance/ assistance to PAPs	December 2018	Jan. 2022
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	Jan. 2022
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over)	September 2019	Jan. 2022
2.12	Registration of Co-operative housing societies transfer of maintenance funds. (6 months period)	December 2019	Jan. 2022
2.13	Signing of Civil Contract		January 2018
2.14	Notice of Civil works to proceed		March 2018
3	Monitoring & Evaluation		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	July 2020
3.2	Independent Evaluation Mid-term and End term evaluation		
	Mid Term	May 2019	June 2020
	End Term	November 2019	Mar. 2022

Attachment 3- JICA's Concurrence Status

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)	413	413	JICA's Concurrence - 23rd August 2019	-	JICA's Concurrence - 24th Aug 2017	-	-	-

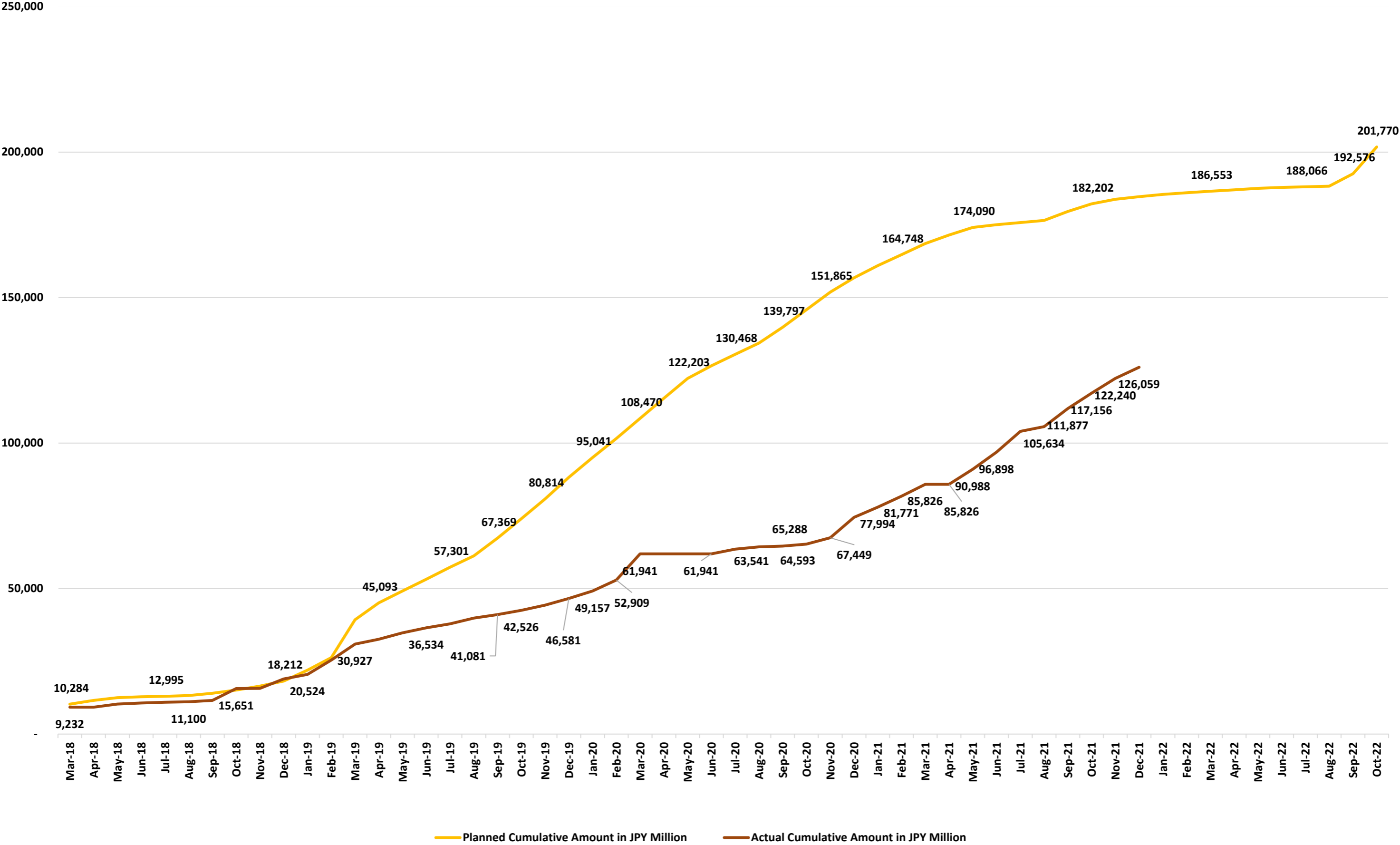
Attachment 4- Project Procurement and Financial Status till 31st December 2021

PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31st DECEMBER 2021

Type	Contract	Awarded or Estimated Value (in Rs. Crore)	Current Status	Contractors	Project Commencement Date	Stipulated Project Completion Date	% of Overall Project completion (Design/ Procurement/ Construction) till 25 th December 2021	% of Overall Financial Progress (Including Mobilization Advance and excluding the Price Adjustment & Work Variation) till 31 st December 2021
CIVIL	Package-1 (CH 0+000 km to CH 10+380 km)	7637.30	Awarded	L&T-IHI Consortium	March 2018	Sep 2022	66.21%	70.93%
	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO-TPL JV	March 2018	Sep 2022	63.19%	75.04%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	March 2018	Sep 2021	66.84%	86.94%
ITS	Package-4 Intelligent Transport System (ITS)	413	Tender Stage	NA	February 2022	May 2023	NA	NA

Attachment 5- S-Curve for Cumulative Planned Vs Actual Amount in JPY Million

Financial S-Curve (Planned Vs Actual JICA Disbursement Amount) till 31st December 2021 in JPY Millions



**Attachment 6- Package-1's Construction Programme
Updated as on 25th December 2021**

**Attachment 7- Package-2's Construction Programme
Updated as on 25th December 2021**

#	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											
										Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1		MTHL-PKG2-DETAILED WORK PROGRAMME_25122021_APPROVED_MPR.45	3250	17-Nov-17	21-Sep-24	17-Nov-17		96.28%	63.19%																																																																								
2		PROJECT PRE-COMMENCEMENT ACTIVITY	126	17-Nov-17	22-Mar-18	17-Nov-17	16-Mar-18	0%	0%																																																																								
3		PRE-COMMENCEMENT ACTIVITY	55	15-Dec-17	07-Feb-18	15-Dec-17	20-Mar-18	0%	0%																																																																								
4		JV FORMATION AND REGISTRATION	55	15-Dec-17	07-Feb-18	15-Dec-17	20-Mar-18	0%	0%																																																																								
5		PROJECT EVENT MILESTONE	2575	23-Mar-18	21-Mar-23	23-Mar-18		0%	0%																																																																								
6		PROJECT KEY MILESTONE	2395	23-Mar-18	22-Sep-22	23-Mar-18		0%	0%																																																																								
7		INTERFACE MILESTONE_ERG19	2547	19-Apr-18	21-Mar-23	03-Apr-18		0%	0%																																																																								
8		PHYSICAL PROGRESS AND INTERFACE DATE_ADD2-ATTACHMENT 25	2082	18-Sep-18	22-Jun-22	31-Aug-18		0%	0%																																																																								
9		KEY DATE_ADDENDUM2_NO25_Obtain the Certificate of No Objection	2082	18-Sep-18	22-Jun-22	31-Aug-18		0%	0%																																																																								
10		INTERFACE DATE_ADDENDUM2_NO25	0	17-Dec-18	20-Sep-21			0%	0%																																																																								
11		CONSTRUCTION KEY MILESTONES	1259	03-Sep-18	06-Jul-21	25-Oct-18		0%	0%																																																																								
12		CASTING YARD-OFFICE & CAMP DEVELOPMENT	516	04-Sep-18	25-Apr-19	25-Oct-18	20-Jan-20	0%	0%																																																																								
13		STEEL BRIDGE ASSEMBLY YARD DEVELOPMENT	11	02-Nov-18	06-Nov-19	09-Mar-20	01-Oct-20	0%	0%																																																																								
14		PERMANENT WORKS	1159	03-Sep-18	06-Jul-21	08-Dec-18		0%	0%																																																																								
15		MANAGEMENT	613	20-Jan-18	18-Aug-18	12-Jan-18	22-Aug-19	0%	0%																																																																								
16		SITE ORGANISATION	35	20-Jan-18	23-Feb-18	07-Mar-18	07-Mar-18	0%	0%																																																																								
17		DEVELOPMENT OF MANAGEMENT SYSTEM	613	20-Jan-18	27-May-18	20-Jan-18	22-Aug-19	0%	0%																																																																								
18		COMMUNICATION / DOCUMENT CONTROL SYSTEM	315	20-Jan-18	10-May-18	20-Jan-18	24-Oct-18	0%	0%																																																																								
19		QUALITY ASSURANCE AND MANAGEMENT SYSTEM	254	23-Mar-18	10-May-18	23-Mar-18	24-Oct-18	0%	0%																																																																								
20		HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM	551	23-Mar-18	10-May-18	23-Mar-18	22-Aug-19	0%	0%																																																																								
21		INTERFACE MANAGEMENT SYSTEM	49	23-Mar-18	10-May-18	23-Mar-18	24-Oct-18	0%	0%																																																																								
22		RISK MANAGEMENT PLAN	66	23-Mar-18	27-May-18	23-Mar-18	24-Oct-18	0%	0%																																																																								
23		DEVELOPMENT OF WORK PROGRAMME	63	23-Mar-18	24-May-18	23-Mar-18	21-Sep-18	0%	0%																																																																								
24		CONTRACTOR'S WORK PROGRAMME	63	23-Mar-18	24-May-18	23-Mar-18	21-Sep-18	0%	0%																																																																								
25		OTHER CONTRACTUAL SUBMITTALS	28	24-Mar-18	20-Apr-18	24-Mar-18	23-Apr-18	0%	0%																																																																								
26		PERMIT & APPROVAL	389	20-Jan-18	18-Aug-18	12-Jan-18	03-Aug-19	0%	0%																																																																								
27		SURVEYING & GEOTECHNICAL INVESTIGATION	35	20-Jan-18	23-Feb-18	12-Jan-18	09-Feb-18	0%	0%																																																																								
28		CUTTING OF MANGROVES	70	20-Jan-18	30-Mar-18	25-Jan-18	23-Apr-18	0%	0%																																																																								
29		SETTING UP BATCHING PLANT	313	06-Apr-18	18-Aug-18	06-Apr-18	28-Nov-18	0%	0%																																																																								
30		PC YARD & CAMP	28	04-May-18	01-Jun-18	21-Mar-18	01-Oct-18	0%	0%																																																																								
31		CONNECTION FOR ELECTRICITY & WATER	63	18-May-18	20-Jul-18	06-Apr-18	03-Aug-19	0%	0%																																																																								
32		CUTTING OF TREES	35	23-Mar-18	26-Apr-18	10-May-18	02-Aug-18	0%	0%																																																																								
33		IMPORT PERMITS/LICENCES FOR EQUIPMENTS & GOODS	70	23-Mar-18	31-May-18	15-May-18	31-May-18	0%	0%																																																																								
34		NOC FOR PLANT & FACILITIES TO BE USED AT SITE	51	23-Mar-18	31-May-18	16-Aug-18	28-Nov-18	0%	0%																																																																								
35		TEMPORARY ACCESS ROAD FOR MAIN BRIDGE & INTERCHANGE	58	23-Mar-18	19-May-18	23-Mar-18	28-Jul-18	0%	0%																																																																								
36		DESIGN	1321	20-Jan-18	04-Sep-19	01-Jan-18	02-Feb-21	100%	100%																																																																								
37		EARLY STAGE DESIGN WORK / INFORMATION COLLECTION	678	20-Jan-18	17-Jul-18	01-Jan-18	12-Nov-19	100%	100%																																																																								
38		INDEPENDENT DESIGN CHECKER APPROVAL	35	20-Jan-18	23-Feb-18	20-Jan-18	13-Apr-18	0%	0%																																																																								
39		TOPOGRAPHIC SURVEY	116	20-Jan-18	16-May-18	01-Jan-18	20-Apr-18	0%	0%																																																																								
40		BATHYMETRIC SURVEY	75	20-Jan-18	04-Apr-18	25-Jan-18	20-Mar-18	0%	0%																																																																								
41		ADDITIONAL TIME FOR ONGC & BPCL PHYSICAL VERIFICATION	309			21-Mar-18	05-Aug-19	0%	0%																																																																								
42		GEOTECHNICAL INVESTIGATION	548	20-Jan-18	17-Jul-18	12-Jan-18	25-Jun-19	100%	100%																																																																								
43		ADDITIONAL WORKS FOR DESIGN INITIATION OF STEEL MODULE 1	63			26-Jun-19	12-Nov-19	0%	0%																																																																								
44		TEMPORARY WORK	1037	22-Jan-18	01-Nov-18	20-Jan-18	20-Aug-20	100%	100%																																																																								
45		PROJECT OFFICE LAYOUT	241	04-May-18	02-Jun-18	04-May-18	17-Jul-18	0%	0%																																																																								
46		CASTING YARD LAYOUT	72	22-Jan-18	04-Apr-18	20-Jan-18	09-Oct-18	0%	0%																																																																								
47		TEMPORARY BRIDGE	94	26-Feb-18	31-May-18	24-Feb-18	30-Aug-18	100%	100%																																																																								
48		CASTING YARD STRUCTURE	199	10-May-18	10-Aug-18	20-Mar-18	20-Nov-18	0%	0%																																																																								
49		STEEL BRIDGE FABRICATION YARD	365	20-Jul-18	01-Nov-18	11-Nov-19	20-Aug-20	0%	0%																																																																								
50		CONCRETE MIX DESIGN	274	23-Mar-18	31-Aug-18	12-May-18	15-Nov-18	0%	0%																																																																								
51		JFE DESIGN PROGRAMME	1220	01-May-18	04-Sep-19	09-Apr-18	02-Feb-21	100%	100%																																																																								
52		PROCUREMENT, MANUFACTURING AND LOGISTICS	1617	20-Jan-18	23-Aug-20	22-Dec-17		100%	100%																																																																								
53		SURVEY & INVESTIGATION	72	20-Jan-18	02-Apr-18	22-Dec-17	04-Apr-18	0%	0%																																																																								
54		TOPOGRAPHIC SURVEY AGENT	21	20-Jan-18	09-Feb-18	01-Jan-18	22-Jan-18	0%	0%																																																																								
55		BATHYMETRIC SURVEY / UTILITY SURVEY AGENT	21	20-Jan-18	09-Feb-18	01-Jan-18	23-Jan-18	0%	0%																																																																								
56		GEOTECHNICAL INVESTIGATION AGENCY	48	22-Jan-18	02-Apr-18	22-Dec-17	04-Apr-18	0%	0%																																																																								
57		TEMPORARY WORK	964	20-Jan-18	20-Oct-18	20-Jan-18	11-May-20	0%	0%																																																																								
58		MAIN WORK_SUBCONTRACT WORK	1237	23-Mar-18	20-Jul-19	23-Mar-18		0%	0%																																																																								

Project Baseline Bar
 Critical Remaining Work
 Actual Work
 Remaining Work
 Milestone
 % Complete
 Summary

EMPLOYER:
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)

CONTRACTOR:
DAEWOO - TPL JV

Date	Revision	Checked	Approved
25-Dec-21	R0		

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	Gantt Chart (2018-2023)											
										2018	2019	2020	2021	2022	2023						
59	EQUIPMENTS		1097	23-Mar-18	12-Sep-19	23-Mar-18	05-Nov-20	100%	100%	05-Nov-20A, EQUIPMENTS											
60	BATCHING PLANT		437	23-Mar-18	31-Jul-18	23-Mar-18	23-Mar-19	0%	0%	23-Mar-19A, BATCHING PLANT											
61	RCD MACHINE		514	23-Mar-18	11-Nov-18	23-Mar-18	24-Aug-19	0%	0%	24-Aug-19A, RCD MACHINE											
62	GANTRY CRANE		1097	23-Mar-18	08-Feb-19	23-Mar-18	05-Nov-20	100%	100%	05-Nov-20A, GANTRY CRANE											
63	SEGMENT LAUNCHER		770	24-Jul-18	12-Sep-19	24-Jul-18	09-Mar-20	0%	0%	09-Mar-20A, SEGMENT LAUNCHER											
64	PRECAST MOULD AND SYSTEM FORM		715	07-Aug-18	24-Mar-19	04-Sep-18	25-Sep-20	100%	100%	25-Sep-20A, PRECAST MOULD AND SYSTEM FORM											
65	PRECAST MOULD_CASTING BED		332	20-Aug-18	24-Mar-19	03-Jun-19	25-Sep-20	100%	100%	25-Sep-20A, PRECAST MOULD_CASTING BED											
66	SYSTEMFORM		447	07-Aug-18	04-Mar-19	04-Sep-18	31-Aug-20	0%	0%	31-Aug-20A, SYSTEMFORM											
67	MATERIAL SUPPLIERS		1484	02-Jun-18	15-Oct-19	20-Apr-18		0%	0%	25-Jun-22, MATERIAL SUP											
68	MATERIAL PROCUREMENT		0			08-Aug-18		0%	0%	25-Dec-21, MATERIAL PROCUREMENT											
69	PROCUREMENT OF STEEL GIRDER		673	07-May-19	23-Aug-20	01-Aug-19	02-Feb-21	0%	0%	02-Feb-21A, PROCUREMENT OF STEEL GIRDER											
70	STEEL PLATE FOR (RHS STEEL MOUDLE-2_MP177 - MP182)		513	04-Jun-19	13-Jul-20	08-Aug-19	02-Jul-20	0%	0%	02-Jul-20A, STEEL PLATE FOR (RHS STEEL MOUDLE-2_MP177 - MP182)											
71	STEEL PLATE FOR (LHS STEEL MOUDLE-2_MP177 - MP182)		438	07-May-19	16-Apr-20	01-Aug-19	12-May-20	0%	0%	12-May-20A, STEEL PLATE FOR (LHS STEEL MOUDLE-2_MP177 - MP182)											
72	STEEL PLATE FOR (RHS STEEL MOUDLE-3_MP183 - MP186)		315	01-Jul-19	10-May-20	01-Nov-19	17-Aug-20	0%	0%	17-Aug-20A, STEEL PLATE FOR (RHS STEEL MOUDLE-3_MP183 - MP186)											
73	STEEL PLATE FOR (LHS STEEL MOUDLE-3_MP183 - MP186)		315	04-Jun-19	14-Apr-20	01-Oct-19	05-Nov-20	0%	0%	05-Nov-20A, STEEL PLATE FOR (LHS STEEL MOUDLE-3_MP183 - MP186)											
74	STEEL PLATE FOR (RHS STEEL MOUDLE-1_MP176 - MP171)		286	30-Jul-19	23-Aug-20	01-Apr-20	02-Feb-21	0%	0%	02-Feb-21A, STEEL PLATE FOR (RHS STEEL MOUDLE-1_MP176 - MP171)											
75	STEEL PLATE FOR (LHS STEEL MOUDLE-1_MP176 - MP171)		327	02-Jul-19	26-Jul-20	29-Mar-20	05-Jan-21	0%	0%	05-Jan-21A, STEEL PLATE FOR (LHS STEEL MOUDLE-1_MP176 - MP171)											
76	IMPACT OF COVID-19		51			22-Mar-20	25-May-20	0%	0%	25-May-20A, IMPACT OF COVID-19											
77	CONSTRUCTION		2264	02-Apr-18	21-Jun-22	02-Apr-18		96.79%	63.61%												
78	TEMPORARY WORK		2207	02-Apr-18	21-Jun-22	02-Apr-18		99%	97.95%												
79	PREPARATION WORK		368	02-Apr-18	16-Jan-19	02-Apr-18	25-Jul-19	0%	0%	25-Jul-19A, PREPARATION WORK											
80	ESTABLISHMENT OF EMPOLYER & CONTRACTOR OFFICE		194	20-Jun-18	27-Nov-18	27-Jun-18	18-Jan-19	100%	100%	18-Jan-19A, ESTABLISHMENT OF EMPOLYER & CONTRACTOR OFFICE											
81	ESTABLISHMENT OF LABOUR CAMP		464	20-Jun-18	05-Apr-19	03-Jul-18	04-Apr-19	0%	0%	04-Apr-19A, ESTABLISHMENT OF LABOUR CAMP											
82	ESTABLISHMENT OF CONCRETE CASTING YARD		1095	04-May-18	25-Apr-19	14-Jun-18	12-May-21	100%	100%	12-May-21A, ESTABLISHMENT OF CONCRETE CASTING YARD											
83	ESTABLISHMENT OF STEEL SPAN ASSEMBLY YARD		584	02-Nov-18	06-Mar-20	01-Nov-19	30-Mar-21	0%	0%	30-Mar-21A, ESTABLISHMENT OF STEEL SPAN ASSEMBLY YARD											
84	TEMPORARY BRIDGE		2155	20-May-18	21-Jun-22	27-Jul-18		98.28%	96.49%												
85	PERMANENT WORK		1997	03-Sep-18	24-May-22	08-Dec-18		96.5%	59.12%												
86	PRE-FABRICATION AND ASSEMBLY		1159	18-Apr-19	19-Feb-22	16-Oct-19		97.56%	70.84%	18-Apr-23, PRE-FABRICATION AND ASSEMBLY											
87	CONCRETE PRE-FABRICATION AT THE CASTING YARD		692	18-Apr-19	15-Sep-21	06-Nov-19		100%	43.14%	18-Apr-23, CONCRETE PRE-FABRICATION AT THE CASTING YARD											
88	STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP INCLUDING LOGISTIC		1007	02-Jun-19	24-Jan-22	16-Oct-19		97.55%	78.91%	17-Nov-22, STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP INCLUDING LOGISTIC											
89	STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP		952	02-Jun-19	29-Nov-21	16-Oct-19		100%	100%	22-Sep-22, STEEL SPAN FABRICATION AT THE SUPPLIER'S WORK SHOP											
90	STEEL MODULE-02_MP182 - MP177 (FABRICATION AT JFE)		626	02-Jun-19	29-Jun-21	24-Oct-19	25-Jun-21	100%	100%	25-Jun-21A, STEEL MODULE-02_MP182 - MP177 (FABRICATION AT JFE)											
91	STEEL MODULE-03_MP186 - MP183 (FABRICATION AT JFE)		734	29-Jun-19	25-Sep-21	16-Oct-19	01-Dec-21	100%	100%	01-Dec-21A, STEEL MODULE-03_MP186 - MP183 (FABRICATION AT JFE)											
92	STEEL MODULE-01_MP176 - MP171 (FABRICATION AT JFE)		728	26-Jul-19	29-Nov-21	16-Apr-20		100%	100%	22-Sep-22, STEEL MODULE-01_MP176 - MP171 (FABRICATION AT JFE)											
93	STEEL SPAN MATERIAL OCEAN FREIGHT TO THE MUMBAI PORT INCLUDING CUSTOM CLEARANCE		780	10-Jul-20	09-Jan-22	09-Jan-22	01-Sep-20	98.71%	70%	02-Nov-22, STEEL SPAN MATERIAL OCEAN FREIGHT TO THE MUMBAI PORT INCLUDING CUSTOM CLEARANCE											
94	STEEL MODULE-01_MP176 - MP171 (OCEAN FREIGHT)		374	23-Nov-20	09-Jan-22	28-Sep-21		96.13%	20%	02-Nov-22, STEEL MODULE-01_MP176 - MP171 (OCEAN FREIGHT)											
95	STEEL MODULE-02_MP182 - MP177 (OCEAN FREIGHT)		417	10-Jul-20	09-Aug-21	01-Sep-20	13-Sep-21	100%	100%	13-Sep-21A, STEEL MODULE-02_MP182 - MP177 (OCEAN FREIGHT)											
96	STEEL MODULE-03_MP186 - MP183 (OCEAN FREIGHT)		331	29-Nov-20	05-Nov-21	06-Mar-21		100%	87.5%	03-Feb-22, STEEL MODULE-03_MP186 - MP183 (OCEAN FREIGHT)											
97	LOADING AND DELIVERY TO THE CONTRACTOR'S ASSEMBLY YARD		717	20-Aug-20	24-Jan-22	21-Oct-20		96.03%	70%	17-Nov-22, LOADING AND DELIVERY TO THE CONTRACTOR'S ASSEMBLY YARD											
98	STEEL MODULE-01_MP176 - MP171 (DELIVERY TO ASSEMBLY YARD)		318	02-Jan-21	24-Jan-22	26-Oct-21		88.08%	20%	17-Nov-22, STEEL MODULE-01_MP176 - MP171 (DELIVERY TO ASSEMBLY YARD)											
99	STEEL MODULE-02_MP182 - MP177 (DELIVERY TO ASSEMBLY YARD)		343	20-Aug-20	19-Aug-21	21-Oct-20	13-Oct-21	100%	100%	13-Oct-21A, STEEL MODULE-02_MP182 - MP177 (DELIVERY TO ASSEMBLY YARD)											
100	STEEL MODULE-03_MP186 - MP183 (DELIVERY TO ASSEMBLY YARD)		304	09-Jan-21	20-Nov-21	14-Apr-21		100%	87.5%	18-Feb-22, STEEL MODULE-03_MP186 - MP183 (DELIVERY TO ASSEMBLY YARD)											
101	STEEL GIRDER ASSEMBLY AT THE CONTRACTOR'S ASSEMBLY YARD		486	05-Sep-20	17-Feb-22	23-Nov-20		86.57%	30%	10-Dec-22, STEEL GIRDER ASSEMBLY AT THE CONTRACTOR'S ASSEMBLY YARD											
102	STEEL MODULE-01_MP176 - MP171 (ASSEMBLY WORKS)		176	13-Oct-21	17-Feb-22			59.72%	0%	10-Dec-22, STEEL MODULE-01_MP176 - MP171 (ASSEMBLY WORKS)											
103	STEEL SPAN ASSEMBLY_MP171 - MP172_G1		26	20-Nov-21	06-Jan-22			38.89%	0%	20-Aug-22, STEEL SPAN ASSEMBLY_MP171 - MP172_G1											
104	STEEL SPAN ASSEMBLY_MP171 - MP172_G2		20	20-Nov-21	08-Jan-22			0%	0%	19-Sep-22, STEEL SPAN ASSEMBLY_MP171 - MP172_G2											
105	STEEL SPAN ASSEMBLY_MP172 - MP173_G1		20	28-Dec-21	19-Jan-22			0%	0%	12-Nov-22, STEEL SPAN ASSEMBLY_MP172 - MP173_G1											
106	STEEL SPAN ASSEMBLY_MP172 - MP173_G2		20	25-Jan-22	17-Feb-22			0%	0%	10-Dec-22, STEEL SPAN ASSEMBLY_MP172 - MP173_G2											
107	STEEL SPAN ASSEMBLY_MP173 - MP174_G1		36	29-Nov-21	21-Dec-21			100%	0%	21-Jun-22, STEEL SPAN ASSEMBLY_MP173 - MP174_G1											
108	STEEL SPAN ASSEMBLY_MP173 - MP174_G2		36	11-Nov-21	30-Dec-21			58.33%	0%	30-Jun-22, STEEL SPAN ASSEMBLY_MP173 - MP174_G2											
109	STEEL SPAN ASSEMBLY_MP174 - MP175_G1		36	23-Oct-21	11-Dec-21			100%	0%	11-Jun-22, STEEL SPAN ASSEMBLY_MP174 - MP175_G1											
110	STEEL SPAN ASSEMBLY_MP174 - MP175_G2		36	02-Nov-21	11-Dec-21			100%	0%	11-Jun-22, STEEL SPAN ASSEMBLY_MP174 - MP175_G2											
111	STEEL SPAN ASSEMBLY_MP175 - MP176_G1		36	13-Oct-21	02-Dec-21			100%	0%	02-Jun-22, STEEL SPAN ASSEMBLY_MP175 - MP176_G1											
112	STEEL SPAN ASSEMBLY_MP175 - MP176_G2		36	23-Oct-21	02-Dec-21			100%	0%	02-Jun-22, STEEL SPAN ASSEMBLY_MP175 - MP176_G2											
113	STEEL MODULE-02_MP182 - MP177 (ASSEMBLY WORKS)		310	05-Sep-20	18-Sep-21	23-Nov-20		100%	75%	21-Apr-22, STEEL MODULE-02_MP182 - MP177 (ASSEMBLY WORKS)											
114	STEEL SPAN ASSEMBLY_MP176 - MP177_G1		141	03-May-21	26-May-21	03-Jul-21		100%	0%	07-Apr-22, STEEL SPAN ASSEMBLY_MP176 - MP177_G1											
115	STEEL SPAN ASSEMBLY_MP176 - MP177_G2		43	25-Jun-21	28-Jul-21	02-Nov-21		100%	0%	14-Apr-22, STEEL SPAN ASSEMBLY_MP176 - MP177_G2											
116	STEEL SPAN ASSEMBLY_MP177 - MP178_G1		68	28-Jun-21	09-Aug-21	05-May-21	28-Oct-21	100%	100%	28-Oct-21A, STEEL SPAN ASSEMBLY_MP177 - MP178_G1											
117	STEEL SPAN ASSEMBLY_MP177 - MP178_G2		49	20-Aug-21	18-Sep-21	18-Oct-21		100%	0%	21-Apr-22, STEEL SPAN ASSEMBLY_MP177 - MP178_G2											
118	STEEL SPAN ASSEMBLY_MP178 - MP179_G1		71	05-Mar-21	27-Mar-21	09-Mar-21	29-Jun-21	100%	100%	29-Jun-21A, STEEL SPAN ASSEMBLY_MP178 - MP179_G1											
119	STEEL SPAN ASSEMBLY_MP178 - MP179_G2		74	26-Apr-21	19-May-21	17-Apr-21	30-Aug-21	100%	100%	30-Aug-21A, STEEL SPAN ASSEMBLY_MP178 - MP179_G2											

█ Project Baseline Bar
 █ Critical Remaining Work
 ▬ Summary
█ Actual Work
 ◆ Milestone
█ Remaining Work
 ▬ % Complete

EMPLOYER:
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)

CONTRACTOR:
DAEWOO - TPL JV

Date	Revision	Checked	Approved
25-Dec-21	R0		

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	Gantt Chart (2018-2023)											
										2018	2019	2020	2021	2022	2023						
120	STEEL SPAN ASSEMBLY_MP179 - MP180_G1		77	02-Jan-21	25-Jan-21	19-Jan-21	28-May-21	100%	100%	[Gantt Bar: 19-Jan-21 to 28-May-21]											
121	STEEL SPAN ASSEMBLY_MP179 - MP180_G2		184	25-Feb-21	20-Mar-21	08-Feb-21	27-Oct-21	100%	100%	[Gantt Bar: 08-Feb-21 to 27-Oct-21]											
122	STEEL SPAN ASSEMBLY_MP180 - MP181_G1		73	02-Nov-20	25-Nov-20	15-Jan-21	03-May-21	100%	100%	[Gantt Bar: 15-Jan-21 to 03-May-21]											
123	STEEL SPAN ASSEMBLY_MP180 - MP181_G2		55	19-Dec-20	11-Jan-21	28-Dec-20	04-Jun-21	100%	100%	[Gantt Bar: 28-Dec-20 to 04-Jun-21]											
124	STEEL SPAN ASSEMBLY_MP181 - MP182_G1		72	05-Sep-20	29-Sep-20	23-Nov-20	23-Mar-21	100%	100%	[Gantt Bar: 23-Nov-20 to 23-Mar-21]											
125	STEEL SPAN ASSEMBLY_MP181 - MP182_G2		78	22-Oct-20	14-Nov-20	08-Dec-20	31-Mar-21	100%	100%	[Gantt Bar: 08-Dec-20 to 31-Mar-21]											
126	STEEL MODULE-03_MP186 - MP183 (ASSEMBLY WORKS)		197	06-Jul-21	23-Nov-21	25-May-21		100%	0%	[Gantt Bar: 25-May-21 to 23-Nov-21]											
127	STEEL SPAN ASSEMBLY_MP182 - MP183_G1		38	09-Aug-21	18-Oct-21			100%	0%	[Gantt Bar: 09-Aug-21 to 18-Oct-21]											
128	STEEL SPAN ASSEMBLY_MP182 - MP183_G2		36	24-Aug-21	28-Oct-21			100%	0%	[Gantt Bar: 24-Aug-21 to 28-Oct-21]											
129	STEEL SPAN ASSEMBLY_MP183 - MP184_G1		36	04-Oct-21	28-Oct-21			100%	0%	[Gantt Bar: 04-Oct-21 to 28-Oct-21]											
130	STEEL SPAN ASSEMBLY_MP183 - MP184_G2		36	01-Nov-21	23-Nov-21			100%	0%	[Gantt Bar: 01-Nov-21 to 23-Nov-21]											
131	STEEL SPAN ASSEMBLY_MP184 - MP185_G1		161	24-Jul-21	08-Oct-21	10-Jul-21		100%	0%	[Gantt Bar: 10-Jul-21 to 08-Oct-21]											
132	STEEL SPAN ASSEMBLY_MP184 - MP185_G2		36	05-Aug-21	08-Oct-21			100%	0%	[Gantt Bar: 05-Aug-21 to 08-Oct-21]											
133	STEEL SPAN ASSEMBLY_MP185 - MP186_G1		165	06-Jul-21	16-Aug-21	25-May-21		100%	0%	[Gantt Bar: 25-May-21 to 16-Aug-21]											
134	STEEL SPAN ASSEMBLY_MP185 - MP186_G2		163	10-Jul-21	28-Sep-21	29-May-21		100%	0%	[Gantt Bar: 29-May-21 to 28-Sep-21]											
135	STEEL SPAN LOADING AND TRANSPORTING TO THE ERECTION AREA		169	30-Sep-20	19-Feb-22			83.33%	0%	[Gantt Bar: 30-Sep-20 to 19-Feb-22]											
136	STEEL MODULE-01_MP176 - MP171 (LOAD OUT AND TRANSPORT)		109	03-Dec-21	19-Feb-22			50%	0%	[Gantt Bar: 03-Dec-21 to 19-Feb-22]											
137	STEEL MODULE-02_MP182 - MP177 (LOAD OUT AND TRANSPORT)		26	30-Sep-20	21-Sep-21			100%	0%	[Gantt Bar: 30-Sep-20 to 21-Sep-21]											
138	STEEL MODULE-03_MP186 - MP183 (LOAD OUT AND TRANSPORT)		34	01-Sep-21	25-Nov-21			100%	0%	[Gantt Bar: 01-Sep-21 to 25-Nov-21]											
139	MAIN BRIDGE		1925	03-Sep-18	24-May-22	08-Dec-18		94.67%	50.46%	[Summary Bar: 03-Sep-18 to 24-May-22]											
140	MAIN BRIDGE FOUNDATION		1368	03-Sep-18	23-Mar-21	08-Dec-18		100%	79.79%	[Summary Bar: 03-Sep-18 to 23-Mar-21]											
141	MAIN BRIDGE PILE FOUNDATION		1177	03-Sep-18	23-Jan-21	08-Dec-18		100%	96.84%	[Summary Bar: 03-Sep-18 to 23-Jan-21]											
142	PILE LOAD TEST		259	03-Sep-18	19-Nov-18	08-Dec-18	11-Nov-19	100%	100%	[Gantt Bar: 08-Dec-18 to 11-Nov-19]											
143	MAIN BRIDGE PILE FOUNDATION_LAND 17+414~18+187 FROM MP250 TO MP266		323	30-Nov-18	15-May-19	17-Jan-19	11-Jun-20	100%	100%	[Gantt Bar: 17-Jan-19 to 11-Jun-20]											
144	MODULE-21_MP261 - MP257		126	30-Nov-18	05-Mar-19	23-Aug-19	06-Mar-20	100%	100%	[Gantt Bar: 23-Aug-19 to 06-Mar-20]											
145	MODULE-22_MP266 - MP262		167	06-Mar-19	15-May-19	17-Jan-19	28-Jan-20	100%	100%	[Gantt Bar: 17-Jan-19 to 28-Jan-20]											
146	MODULE-20_MP256 - MP255		32	05-Dec-18	10-Jan-19	25-Sep-19	19-Mar-20	100%	100%	[Gantt Bar: 25-Sep-19 to 19-Mar-20]											
147	MODULE-19_MP254 - MP250		199	11-Jan-19	16-Apr-19	05-Oct-19	11-Jun-20	100%	100%	[Gantt Bar: 05-Oct-19 to 11-Jun-20]											
148	MAIN BRIDGE PILE FOUNDATION_CRZ 15+890~17+414 FROM MP226 TO MP250		268	20-Dec-18	27-Nov-19	12-Jun-19	21-Feb-20	100%	100%	[Gantt Bar: 12-Jun-19 to 21-Feb-20]											
149	MODULE-14_MP231 - MP227		48	17-Aug-19	27-Nov-19	08-Nov-19	21-Feb-20	100%	100%	[Gantt Bar: 08-Nov-19 to 21-Feb-20]											
150	MODULE-15_MP236 - MP232		77	08-Mar-19	26-Aug-19	08-Aug-19	25-Dec-19	100%	100%	[Gantt Bar: 08-Aug-19 to 25-Dec-19]											
151	MODULE-16_MP240 - MP237		113	20-Dec-18	08-Mar-19	12-Jun-19	11-Nov-19	100%	100%	[Gantt Bar: 12-Jun-19 to 11-Nov-19]											
152	MODULE-17_MP245 - MP241		94	20-Mar-19	17-Jun-19	09-Oct-19	04-Jan-20	100%	100%	[Gantt Bar: 09-Oct-19 to 04-Jan-20]											
153	MODULE-18_MP249 - MP246		74	21-Jan-19	26-Mar-19	15-Oct-19	09-Feb-20	100%	100%	[Gantt Bar: 15-Oct-19 to 09-Feb-20]											
154	MAIN BRIDGE PILE FOUNDATION_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225		417	27-Feb-19	06-Jun-20	15-Oct-19	26-Aug-20	100%	100%	[Gantt Bar: 15-Oct-19 to 26-Aug-20]											
155	MODULE-10_MP211 - MP207		243	12-Mar-20	06-Jun-20	01-Nov-19	18-Feb-20	100%	100%	[Gantt Bar: 01-Nov-19 to 18-Feb-20]											
156	MODULE-11_MP216 - MP212		277	27-Feb-19	03-Apr-20	15-Oct-19	24-Feb-20	100%	100%	[Gantt Bar: 15-Oct-19 to 24-Feb-20]											
157	MODULE-12_MP221 - MP217		225	06-Apr-19	30-Oct-19	25-Feb-20	26-Aug-20	100%	100%	[Gantt Bar: 25-Feb-20 to 26-Aug-20]											
158	MODULE-13_MP226 - MP222		313	30-Oct-19	06-Feb-20	24-Jan-20	16-Jun-20	100%	100%	[Gantt Bar: 24-Jan-20 to 16-Jun-20]											
159	MAIN BRIDGE PILE FOUNDATION_MARINE 13+610~14+800 FROM MP187 TO MP205		531	12-Dec-19	28-Nov-20	01-Oct-19		100%	99.37%	[Gantt Bar: 01-Oct-19 to 28-Nov-20]											
160	MODULE-09_MP206 - MP202		340	12-Dec-19	06-Mar-20	01-Oct-19	13-Oct-20	100%	100%	[Gantt Bar: 01-Oct-19 to 13-Oct-20]											
161	MODULE-08_MP201 - MP197		262	22-Feb-20	19-May-20	19-Feb-20	25-Dec-20	100%	100%	[Gantt Bar: 19-Feb-20 to 25-Dec-20]											
162	MODULE-07_MP196 - MP192		146	02-May-20	08-Sep-20	12-Oct-20		100%	97.74%	[Gantt Bar: 12-Oct-20 to 08-Sep-20]											
163	MODULE-06_MP191 - MP187		82	21-Aug-20	28-Nov-20	31-Aug-20	10-Dec-20	100%	100%	[Gantt Bar: 31-Aug-20 to 10-Dec-20]											
164	MAIN BRIDGE PILE FOUNDATION_MARINE (STEEL) 11+880~13+610 FROM MP171 TO MP186		652	27-Nov-19	23-Jan-21	17-Mar-20		100%	82.81%	[Gantt Bar: 17-Mar-20 to 23-Jan-21]											
165	STEEL MODULE-03_MP186 - MP183		80	30-May-20	21-Nov-20	08-Oct-20	15-Feb-21	100%	100%	[Gantt Bar: 08-Oct-20 to 15-Feb-21]											
166	STEEL MODULE-02_MP182 - MP177		336	27-Nov-19	10-Sep-20	17-Mar-20	25-Jan-21	100%	100%	[Gantt Bar: 17-Mar-20 to 25-Jan-21]											
167	STEEL MODULE-01_MP176 - MP171		164	30-Jul-20	23-Jan-21	19-Apr-21		100%	54.15%	[Gantt Bar: 19-Apr-21 to 23-Jan-21]											
168	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%	[Gantt Bar: 19-Feb-19 to 21-Dec-21]											
169	MODULE-05_MP171 - MP167		193	19-Jun-19	16-Oct-19	24-Feb-21	21-Dec-21	100%	100%	[Gantt Bar: 24-Feb-21 to 21-Dec-21]											
170	MODULE-04_MP166 - MP162		507	24-Nov-18	18-Feb-19	19-Feb-19	20-Feb-21	100%	100%	[Gantt Bar: 19-Feb-19 to 20-Feb-21]											
171	MODULE-03_MP161 - MP157		393	22-Jan-19	18-Apr-19	03-Apr-19	25-Mar-21	100%	100%	[Gantt Bar: 03-Apr-19 to 25-Mar-21]											
172	MODULE-02_MP156 - MP152		94	16-Apr-19	27-Jul-19	21-Dec-20	27-Mar-21	100%	100%	[Gantt Bar: 21-Dec-20 to 27-Mar-21]											
173	MODULE-01_MP151 - MP146		107	04-Oct-19	28-Dec-19	23-Dec-20	03-Apr-21	100%	100%	[Gantt Bar: 23-Dec-20 to 03-Apr-21]											
174	MAIN BRIDGE PILE CAP INSTALLATION		1101	22-Dec-18	23-Mar-21	01-May-19		100%	61.99%	[Summary Bar: 01-May-19 to 23-Mar-21]											
175	MAIN BRIDGE PILE CAP BOTTOM SLAB INSTALLATION		1007	22-Dec-18	17-Feb-21	19-Aug-19		0%	0%	[Summary Bar: 19-Aug-19 to 17-Feb-21]											
176	MAIN BRIDGE PILE CAP BOTTOM SLAB_CRZ 15+890~17+414 FROM MP226 TO MP250		356	17-Jan-19	12-Dec-19	19-Aug-19	28-May-20	0%	0%	[Summary Bar: 19-Aug-19 to 28-May-20]											
177	MODULE-14_MP231 - MP227		168	28-Sep-19	12-Dec-19	24-Dec-19	28-May-20	0%	0%	[Gantt Bar: 24-Dec-19 to 28-May-20]											
178	MODULE-15_MP236 - MP232		71	05-Apr-19	11-Sep-19	02-Nov-19	21-Feb-20	0%	0%	[Gantt Bar: 02-Nov-19 to 21-Feb-20]											
179	MODULE-16_MP240 - MP237		142	17-Jan-19	20-Mar-19	19-Aug-19	23-Feb-20	0%	0%	[Gantt Bar: 19-Aug-19 to 23-Feb-20]											
180	MODULE-17_MP245 - MP241		44	17-Apr-19	03-Jul-19	22-Oct-19	04-Jan-20	0%	0%	[Gantt Bar: 22-Oct-19 to 04-Jan-20]											
181	MODULE-18_MP249 - MP246		63	19-Feb-19	12-Apr-19	08-Nov-19	10-Feb-20	0%	0%	[Gantt Bar: 08-Nov-19 to 10-Feb-20]											
182	MAIN BRIDGE PILE CAP BOTTOM SLAB_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225		186	06-Apr-19	18-Jul-20	30-Dec-19	30-Nov-20	0%	0%	[Summary Bar: 30-Dec-19 to 30-Nov-20]											

<ul style="list-style-type: none"> Project Baseline Bar Actual Work Remaining Work 	<ul style="list-style-type: none"> Critical Remaining Work Milestone % Complete 	<ul style="list-style-type: none"> Summary 	EMPLOYER: MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)	CONTRACTOR: DAEWOO - TPL JV	Date: 25-Dec-21	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											
										[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
246		MODULE-18_MP249 - MP246	238	26-Mar-19	06-Jun-19	02-Mar-20	11-Aug-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
247		MAIN BRIDGE PIER_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225	417	11-May-19	16-Oct-20	10-Feb-20	08-Jun-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
248		MODULE-10_MP211 - MP207	338	24-Feb-20	16-Oct-20	10-Feb-20	03-Feb-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
249		MODULE-11_MP216 - MP212	386	11-May-19	17-Jul-20	13-Nov-20	22-Mar-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
250		MODULE-12_MP221 - MP217	97	17-Jun-19	03-Jan-20	30-Nov-20	08-Jun-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
251		MODULE-13_MP226 - MP222	235	06-Jan-20	15-May-20	29-Oct-20	20-Feb-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
252		MAIN BRIDGE PIER_MARINE 13+610~14+800 FROM MB187 TO MB205	316	19-Mar-20	18-Feb-21	04-Jan-21		100%	87.6%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
253		MODULE-06_MP191 - MP187	173	13-Nov-20	18-Feb-21	19-Oct-21		100%	75.5%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
254		MODULE-07_MP196 - MP192	153	17-Jul-20	19-Dec-20	28-Apr-21		100%	81.31%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
255		MODULE-08_MP201 - MP197	162	25-Apr-20	03-Sep-20	04-Jan-21	16-Oct-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
256		MODULE-09_MP206 - MP202	66	19-Mar-20	23-May-20	18-Jan-21	18-Mar-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
257		MAIN BRIDGE PIER_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	460	17-Feb-20	28-Jul-21	08-Feb-21		100%	35.28%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
258		STEEL MODULE-01_MP176 - MP171	194	23-Dec-20	28-Jul-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
259		STEEL MODULE-02_MP182 - MP177	170	17-Feb-20	15-Jan-21	08-Feb-21		100%	77.42%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
260		STEEL MODULE-03_MP186 - MP183	156	06-Oct-20	03-Apr-21	12-Oct-21		100%	25%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
261		MAIN BRIDGE PIER_MARINE 10+380~11+880 FROM MB146 TO MB170	239	07-Feb-19	13-Mar-20	20-Sep-21		100%	34.5%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
262		MODULE-01_MP151 - MP146	129	10-Dec-19	13-Mar-20	20-Sep-21		100%	86.6%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
263		MODULE-02_MP156 - MP152	54	11-Jul-19	04-Nov-19	25-Oct-21		100%	79%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
264		MODULE-03_MP161 - MP157	54	22-Apr-19	01-Aug-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
265		MODULE-04_MP166 - MP162	54	07-Feb-19	06-May-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
266		MODULE-05_MP171 - MP167	65	10-Oct-19	31-Dec-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
267		MAIN BRIDGE PIER CAP INSTALLATION	924	08-Feb-19	27-Aug-21	25-Feb-20		100%	54.79%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
268		MAIN BRIDGE PIER CAP_LAND 17+414~18+188 FROM MB251 TO MB266	313	08-Feb-19	23-Nov-19	13-Nov-20		100%	98.48%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
269		MODULE-21_MP261 - MP257	159	13-Feb-19	05-Aug-19	11-Feb-21	14-Oct-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
270		MODULE-22_MP266 - MP262	114	03-Jun-19	23-Nov-19	13-Nov-20	13-Mar-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
271		MODULE-20_MP256 - MP255	182	08-Feb-19	01-Jun-19	07-Jan-21	22-Nov-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
272		MODULE-19_MP254 - MP250	212	30-Mar-19	09-Oct-19	01-Mar-21	22-Nov-21	100%	94.44%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
273		MAIN BRIDGE PIER CAP_CRZ 15+890~17+414 FROM MB226 TO MB250	405	19-Apr-19	25-Feb-20	25-Feb-20	24-Sep-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
274		MODULE-14_MP231 - MP227	83	30-Dec-19	25-Feb-20	27-Dec-20	28-May-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
275		MODULE-15_MP236 - MP232	64	11-Nov-19	07-Jan-20	12-Oct-20	22-Feb-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
276		MODULE-16_MP240 - MP237	132	21-Sep-19	19-Nov-19	14-May-20	23-Dec-20	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
277		MODULE-17_MP245 - MP241	163	05-Jul-19	16-Oct-19	25-Feb-20	22-Dec-20	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
278		MODULE-18_MP249 - MP246	201	19-Apr-19	02-Jul-19	22-Oct-20	24-Sep-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
279		MAIN BRIDGE PIER CAP_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225	277	06-Jun-19	05-Nov-20	04-Feb-21		100%	95.8%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
280		MODULE-10_MP211 - MP207	174	20-Mar-20	05-Nov-20	02-Aug-21		100%	86.79%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
281		MODULE-11_MP216 - MP212	209	06-Jun-19	18-Aug-20	21-Jun-21	26-Nov-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
282		MODULE-12_MP221 - MP217	100	24-Jul-19	22-Jan-20	01-Mar-21	24-Sep-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
283		MODULE-13_MP226 - MP222	187	30-Jan-20	04-Jun-20	04-Feb-21	07-Jul-21	100%	100%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
284		MAIN BRIDGE PIER CAP_MARINE 13+610~14+800 FROM MB187 TO MB205	187	23-Apr-20	10-Mar-21	03-May-21		100%	16.46%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
285		MODULE-06_MP191 - MP187	151	18-Dec-20	10-Mar-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
286		MODULE-07_MP196 - MP192	161	10-Sep-20	07-Jan-21	18-Nov-21		100%	16.3%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
287		MODULE-08_MP201 - MP197	108	01-Jun-20	29-Sep-20	03-May-21		100%	40%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
288		MODULE-09_MP206 - MP202	51	23-Apr-20	15-Jun-20	09-Dec-21		100%	5%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
289		MAIN BRIDGE PIER CAP_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	368	30-Apr-20	27-Aug-21	23-Aug-21		100%	16.09%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
290		STEEL MODULE-01_MP176 - MP171	163	08-Mar-21	27-Aug-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
291		STEEL MODULE-02_MP182 - MP177	96	30-Apr-20	04-Feb-21	23-Aug-21		100%	42.92%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
292		STEEL MODULE-03_MP186 - MP183	140	19-Dec-20	22-Apr-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
293		MAIN BRIDGE PIER CAP_MARINE 10+380~11+880 FROM MB146 TO MB170	195	15-Mar-19	01-Apr-20	17-Dec-21		100%	1.15%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
294		MODULE-01_MP151 - MP146	102	14-Jan-20	01-Apr-20	17-Dec-21		100%	5.5%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
295		MODULE-02_MP156 - MP152	51	05-Sep-19	23-Nov-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
296		MODULE-03_MP161 - MP157	40	28-May-19	31-Aug-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
297		MODULE-04_MP166 - MP162	40	15-Mar-19	24-May-19			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
298		MODULE-05_MP171 - MP167	51	15-Nov-19	18-Jan-20			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
299		MAIN BRIDGE BEARING PAD AND BEARING INSALLATION	764	22-Feb-19	24-Sep-21	14-Sep-20		100%	2.67%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
300		MAIN BRIDGE BEARING_LAND 17+414~18+188 FROM MB251 TO MB266	211	22-Feb-19	22-Aug-19	11-Feb-21		100%	50%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
301		MAIN BRIDGE BEARING_CRZ 15+890~17+414 FROM MB226 TO MB250	361	08-May-19	20-Feb-20	14-Sep-20		100%	60%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
302		MAIN BRIDGE BEARING_INTERTIDAL 14+800~15+890 FROM MB206 TO MB225	46	29-Jun-19	14-Sep-20			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
303		MAIN BRIDGE BEARING_MARINE 13+610~14+800 FROM MB187 TO MB205	413	07-Apr-20	09-Feb-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
304		MAIN BRIDGE BEARING_MARINE (STEEL) 11+880~13+610 FROM MB171 TO MB186	418	19-May-20	24-Sep-21			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[Gantt Chart]											
305		MAIN BRIDGE BEARING_MARINE 10+380~11+880 FROM MB146 TO MB170	282	25-Apr-19	18-Apr-20			100%	0%	[Gantt Chart]												[Gantt Chart]												[Gantt Chart]												[

#	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																									
										Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct				Nov				Dec				Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct	
309	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%																																																																																						
310	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%																																																																																						
311	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%																																																																																						
312	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%																																																																																						
313	MODULE-22_MP266 - MP262		164	01-Nov-19	25-Dec-19	02-Jul-21		100%	60%																																																																																						
314	MODULE-21_MP261 - MP257		137	02-Dec-19	23-Jan-20	18-Sep-21		100%	50%																																																																																						
315	MODULE-20_MP256 - MP255		97	31-Dec-19	04-Feb-20	06-Nov-21		100%	50%																																																																																						
316	MODULE-19_MP254 - MP250		96	11-Jan-20	27-Feb-20	26-Nov-21		100%	38.75%																																																																																						
317	MAIN BRIDGE PRECAST GIRDER_CRZ 15+890~17+414 FROM MP226 TO MP250		184	04-Feb-20	25-Sep-20	30-Dec-20		100%	80%																																																																																						
318	MODULE-18_MP249 - MP246		69	04-Feb-20	28-Mar-20			100%	0%																																																																																						
319	MODULE-17_MP245 - MP241		74	05-Mar-20	27-Apr-20	30-Dec-20	16-May-21	100%	100%																																																																																						
320	MODULE-16_MP240 - MP237		37	03-Apr-20	21-May-20	13-Apr-21	03-Aug-21	100%	100%																																																																																						
321	MODULE-15_MP236 - MP232		31	27-Apr-20	19-Jun-20	06-Jul-21	22-Sep-21	100%	100%																																																																																						
322	MODULE-14_MP231 - MP227		42	27-May-20	25-Sep-20	27-Aug-21	10-Nov-21	100%	100%																																																																																						
323	MAIN BRIDGE PRECAST GIRDER_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225		100	12-Sep-20	23-Jan-21	25-Oct-21		100%	38.25%																																																																																						
324	MODULE-13_MP226 - MP222		39	12-Sep-20	21-Oct-20	25-Oct-21	10-Dec-21	100%	100%																																																																																						
325	MODULE-12_MP221 - MP217		60	08-Oct-20	20-Nov-20	20-Nov-21		100%	73%																																																																																						
326	MODULE-11_MP216 - MP212		55	09-Nov-20	19-Dec-20			100%	0%																																																																																						
327	MODULE-10_MP211 - MP207		60	08-Dec-20	23-Jan-21			100%	0%																																																																																						
328	MAIN BRIDGE PRECAST GIRDER_MARINE 13+610~14+800 FROM MP187 TO MP205		163	12-Jan-21	10-Jun-21			100%	0%																																																																																						
329	CNLGD.1010	Dismantling of Launching Gantry_2	20	12-May-21	03-Jun-21			100%	0%																																																																																						
330	CNLGD.1000	Dismantling of Launching Gantry_1	20	18-May-21	10-Jun-21			100%	0%																																																																																						
331	MODULE-09_MP206 - MP202		36	12-Jan-21	17-Feb-21			100%	0%																																																																																						
332	MODULE-08_MP201 - MP197		27	05-Feb-21	19-Mar-21			100%	0%																																																																																						
333	MODULE-07_MP196 - MP192		58	08-Mar-21	17-Apr-21			100%	0%																																																																																						
334	MODULE-06_MP191 - MP187		56	12-Apr-21	18-May-21			100%	0%																																																																																						
335	MAIN BRIDGE PRECAST GIRDER_MARINE 10+380~11+880 FROM MP146 TO MP170		172	04-Jun-21	02-Feb-22			76.01%	0%																																																																																						
336	CNLGA.1030	Assembling of Launching Gantry_2	20	04-Jun-21	26-Jun-21			100%	0%																																																																																						
337	CNLGA.1020	Assembling of Launching Gantry_1	20	10-Jun-21	03-Sep-21			100%	0%																																																																																						
338	MODULE-05_MP171 - MP167		52	28-Dec-21	02-Feb-22			0%	0%																																																																																						
339	MODULE-04_MP166 - MP162		52	29-Nov-21	03-Jan-22			80.06%	0%																																																																																						
340	MODULE-03_MP161 - MP157		52	30-Oct-21	04-Dec-21			100%	0%																																																																																						
341	MODULE-02_MP156 - MP152		52	29-Sep-21	05-Nov-21			100%	0%																																																																																						
342	MODULE-01_MP151 - MP146		52	28-Jun-21	06-Oct-21			100%	0%																																																																																						
343	STITCH JOINT CASTING		614	07-Dec-19	12-Feb-22	12-Jan-21		0%	0%																																																																																						
344	MAIN BRIDGE STITCH JOINT CASTING_LAND 15+890~17+414 FROM MP251 TO MP266		196	07-Dec-19	16-Mar-20	08-Jul-21		0%	0%																																																																																						
345	MODULE-19_MP254 - MP250		38	10-Feb-20	16-Mar-20	29-Nov-21		0%	0%																																																																																						
346	MODULE-20_MP256 - MP255		94	17-Jan-20	20-Feb-20	10-Nov-21		0%	0%																																																																																						
347	MODULE-21_MP261 - MP257		111	06-Jan-20	08-Feb-20	23-Sep-21		0%	0%																																																																																						
348	MODULE-22_MP266 - MP262		141	07-Dec-19	10-Jan-20	08-Jul-21		0%	0%																																																																																						
349	MAIN BRIDGE STITCH JOINT CASTING_CRZ 15+890~17+414 FROM MP226 TO MP250		138	11-Mar-20	13-Oct-20	12-Jan-21		0%	0%																																																																																						
350	MODULE-14_MP231 - MP227		29	19-Sep-20	13-Oct-20	02-Sep-21	08-Nov-21	0%	0%																																																																																						
351	MODULE-15_MP236 - MP232		19	02-Jun-20	09-Jul-20	10-Jul-21	20-Sep-21	0%	0%																																																																																						
352	MODULE-16_MP240 - MP237		19	04-May-20	06-Jun-20	23-Apr-21	31-Jul-21	0%	0%																																																																																						
353	MODULE-17_MP245 - MP241		41	09-Apr-20	14-May-20	12-Jan-21	12-May-21	0%	0%																																																																																						
354	MODULE-18_MP249 - MP246		53	11-Mar-20	14-Apr-20			0%	0%																																																																																						
355	MAIN BRIDGE STITCH JOINT CASTING_INTERTIDAL 14+800~15+890 FROM MP206 TO MP225		139	14-Oct-20	10-Feb-21	27-Oct-21		0%	0%																																																																																						
356	MODULE-10_MP211 - MP207		18	18-Jan-21	10-Feb-21			0%	0%																																																																																						
357	MODULE-11_MP216 - MP212		72	14-Dec-20	05-Jan-21			0%	0%																																																																																						
358	MODULE-12_MP221 - MP217		92	14-Nov-20	07-Dec-20	24-Nov-21		0%	0%																																																																																						
359	MODULE-13_MP226 - MP222		28	14-Oct-20	06-Nov-20	27-Oct-21	08-Dec-21	0%	0%																																																																																						
360	MAIN BRIDGE STITCH JOINT CASTING_MARINE 13+610~14+800 FROM MP187 TO MP205		132	11-Feb-21	21-Jun-21			0%	0%																																																																																						
361	MODULE-06_MP191 - MP187		36	04-Jun-21	21-Jun-21			0%	0%																																																																																						
362	MODULE-07_MP196 - MP192		40	17-Apr-21	05-May-21			0%	0%																																																																																						
363	MODULE-08_MP201 - MP197		11	13-Mar-21	05-Apr-21			0%	0%																																																																																						
364	MODULE-09_MP206 - MP202		11	11-Feb-21	06-Mar-21			0%	0%																																																																																						
365	MAIN BRIDGE STITCH JOINT CASTING_MARINE 10+380~11+880 FROM MP146 TO MP170		131	06-Oct-21	12-Feb-22			0%	0%																																																																																						
366	MODULE-01_MP151 - MP146		36	06-Oct-21	23-Oct-21			0%	0%																																																																																						
367	MODULE-02_MP156 - MP152		36	05-Nov-21	22-Nov-21			0%	0%																																																																																						
368	MODULE-03_MP161 - MP157		36	04-Dec-21	21-Dec-21			0%	0%																																																																																						
369	MODULE-04_MP166 - MP162		36	03-Jan-22	19-Jan-22			0%	0%																																																																																						
370	MODULE-05_MP171 - MP167		36	27-Jan-22	12-Feb-22			0%	0%																																																																																						

<ul style="list-style-type: none"> Project Baseline Bar Actual Work Remaining Work Critical Remaining Work Summary Milestone % Complete 	<p>EMPLOYER: MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)</p>	<p>CONTRACTOR: DAEWOO - TPL JV</p>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>25-Dec-21</td> <td>R0</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	25-Dec-21	R0						
Date	Revision	Checked	Approved												
25-Dec-21	R0														

#	Activity ID	Activity Name	Original Duration	BL Project Start	BL Project Finish	Actual Start	Actual Finish	Schedule % Complete	Performance % Complete	Gantt Chart (2018-2023)											
										2018	2019	2020	2021	2022	2023						
371		MAIN BRIDGE STEEL GIRDER INSTALLATION	462	03-Oct-20	01-Mar-22			74.17%	0%	[Gantt Bar]											
372		MAN BRIDGE STEEL GIRDER INSTALLATION MARINE 11+880~13+610 FROM MP171 TOMP 186	462	03-Oct-20	01-Mar-22			74.17%	0%	[Gantt Bar]											
373		STEEL MODULE-01_MP176 - MP171 (INSTALLATION)	133	07-Dec-21	01-Mar-22			22.5%	0%	[Gantt Bar]											
374		STEEL MODULE-02_MP182 - MP177 (INSTALLATION)	96	03-Oct-20	30-Sep-21			100%	0%	[Gantt Bar]											
375		STEEL MODULE-03_MP186 - MP183 (INSTALLATION)	83	30-Sep-21	07-Dec-21			100%	0%	[Gantt Bar]											
376		MISCELLANEOUS & FINISHING WORKS	682	16-May-19	24-May-22	30-Mar-21		73.86%	0%	[Gantt Bar]											
377		CRASH BARRIER & GURARD RAILS	487	20-Feb-20	07-Mar-22			70.83%	0%	[Gantt Bar]											
378		WATER PROOFING	451	26-Mar-20	17-Mar-22			66.67%	0%	[Gantt Bar]											
379		PAVEMENT	550	16-Mar-20	24-May-22			65.79%	0%	[Gantt Bar]											
380		EXPANSION JOINT	459	27-May-20	21-Apr-22			46.67%	0%	[Gantt Bar]											
381		SUB STATION	136	16-May-19	15-Apr-21	30-Mar-21		100%	0%	[Gantt Bar]											
382		NOISE BARRIER	332	16-Mar-20	14-Sep-21			100%	0%	[Gantt Bar]											
383		FENDER INSTALLATION	80	24-Jul-21	24-Nov-21			100%	0%	[Gantt Bar]											
384		DRAINAGE WORKS	469	16-Mar-20	09-Mar-22			70.37%	0%	[Gantt Bar]											
385		SIGN BOARDS	60	12-Feb-22	23-Apr-22			0%	0%	[Gantt Bar]											
386		INTERCHANGE	1510	24-Dec-18	28-Apr-22	09-Oct-19		97.73%	39.36%	[Gantt Bar]											
387		INTERCHANGE FOUNDATION	590	24-Dec-18	22-Oct-20	09-Oct-19	26-May-21	100%	100%	[Gantt Bar]											
388		INTERCHANGE RAMP PILE FOUNDATION	475	24-Dec-18	05-Mar-20	09-Oct-19	13-May-21	100%	100%	[Gantt Bar]											
389		INTERCHANGE RAMP PILE FDN_MA	182	05-Aug-19	03-Jan-20	09-Oct-19	13-May-21	100%	100%	[Gantt Bar]											
390		MODULE_23_MAA2-MAP4	75	05-Aug-19	02-Nov-19	13-Jan-20	28-Jun-20	100%	100%	[Gantt Bar]											
391		MODULE_24_MAP4-MP246	137	02-Nov-19	03-Jan-20	09-Oct-19	13-May-21	100%	100%	[Gantt Bar]											
392		INTERCHANGE RAMP PILE FDN_AC	107	01-Oct-19	05-Mar-20	25-Oct-19	16-Aug-20	100%	100%	[Gantt Bar]											
393		MODULE_33_ACA2-ACP5	60	01-Oct-19	19-Dec-19	25-Oct-19	16-Aug-20	100%	100%	[Gantt Bar]											
394		MODULE_34_ACP5-MP256	62	19-Dec-19	05-Mar-20	02-Nov-19	25-Feb-20	100%	100%	[Gantt Bar]											
395		INTERCHANGE RAMP PILE FDN_JM	178	03-Jan-19	05-Aug-19	26-Nov-19	07-May-21	100%	100%	[Gantt Bar]											
396		MODULE_25_MP245-JMP4	178	22-Apr-19	05-Aug-19	26-Nov-19	23-Apr-21	100%	100%	[Gantt Bar]											
397		MODULE_26_JMP4-JMP8	88	19-Feb-19	20-Apr-19	01-Dec-20	17-Feb-21	100%	100%	[Gantt Bar]											
398		MODULE_27_JMP8-JMA2	64	03-Jan-19	18-Feb-19	23-Mar-21	07-May-21	100%	100%	[Gantt Bar]											
399		INTERCHANGE RAMP PILE FDN_MJ	79	03-Jan-19	01-Oct-19	04-Dec-19	27-Nov-20	100%	100%	[Gantt Bar]											
400		MODULE_35_MJA2-MJP9	45	03-Jan-19	21-Mar-19	16-Sep-20	27-Nov-20	100%	100%	[Gantt Bar]											
401		MODULE_36_MJP9-MJP4	63	22-Mar-19	10-Jun-19	15-Jan-20	26-Aug-20	100%	100%	[Gantt Bar]											
402		MODULE_37_MJP4-MP252	52	11-Jun-19	01-Oct-19	04-Dec-19	20-Mar-20	100%	100%	[Gantt Bar]											
403		INTERCHANGE RAMP PILE FDN_CA	100	28-May-19	23-Jan-20	01-Nov-19	27-Apr-21	100%	100%	[Gantt Bar]											
404		MODULE_28_MP249-CAP4	64	08-Nov-19	23-Jan-20	01-Nov-19	27-Apr-21	100%	100%	[Gantt Bar]											
405		MODULE_29_CAP4-CAP8	62	14-Aug-19	08-Nov-19	21-Nov-20	19-Mar-21	100%	100%	[Gantt Bar]											
406		MODULE_30_CAP8-CAA2	49	28-May-19	14-Aug-19	05-Jan-21	24-Feb-21	100%	100%	[Gantt Bar]											
407		INTERCHANGE RAMP PILE FDN_AM	290	24-Dec-18	27-May-19	06-Feb-20	04-Jan-21	100%	100%	[Gantt Bar]											
408		MODULE_31_MAA2-AMP4	187	24-Dec-18	26-Mar-19	07-Feb-20	10-Sep-20	100%	100%	[Gantt Bar]											
409		MODULE_32_AMP4-MP259	237	27-Mar-19	27-May-19	06-Feb-20	04-Jan-21	100%	100%	[Gantt Bar]											
410		INTERCHANGE RAMP PILE CAP INSTALLATION	525	08-Jan-19	22-Oct-20	22-Oct-19	26-May-21	100%	100%	[Gantt Bar]											
411		INTERCHANGE RAMP PILE CAP_MA	182	06-Dec-19	15-May-20	22-Oct-19	26-May-21	100%	100%	[Gantt Bar]											
412		MODULE_23_MAA2-MAP4	95	06-Dec-19	24-Feb-20	22-Jan-20	24-Jul-20	100%	100%	[Gantt Bar]											
413		MODULE_24_MAP4-MP246	86	24-Feb-20	15-May-20	22-Oct-19	26-May-21	100%	100%	[Gantt Bar]											
414		INTERCHANGE RAMP PILE CAP_AC	183	15-Jan-20	22-Oct-20	02-Nov-19	07-Sep-20	100%	100%	[Gantt Bar]											
415		MODULE_33_ACA2-ACP5	132	15-Jan-20	24-Apr-20	18-Nov-19	07-Sep-20	100%	100%	[Gantt Bar]											
416		MODULE_34_ACP5-MP256	114	24-Apr-20	22-Oct-20	02-Nov-19	09-Mar-20	100%	100%	[Gantt Bar]											
417		INTERCHANGE RAMP PILE CAP_JM	136	18-Jan-19	06-Dec-19	11-Dec-19	25-May-21	100%	100%	[Gantt Bar]											
418		MODULE_25_MP245-JMP4	135	18-Jun-19	06-Dec-19	11-Dec-19	15-May-21	100%	100%	[Gantt Bar]											
419		MODULE_26_JMP4-JMP8	92	21-Mar-19	17-Jun-19	23-Dec-20	23-Feb-21	100%	100%	[Gantt Bar]											
420		MODULE_27_JMP8-JMA2	40	18-Jan-19	20-Mar-19	02-Apr-21	25-May-21	100%	100%	[Gantt Bar]											
421		INTERCHANGE RAMP PILE CAP_MJ	145	18-Jan-19	15-Jan-20	16-Dec-19	19-Dec-20	100%	100%	[Gantt Bar]											
422		MODULE_35_MJA2-MJP9	123	18-Jan-19	29-Apr-19	08-Oct-20	19-Dec-20	100%	100%	[Gantt Bar]											
423		MODULE_36_MJP9-MJP4	62	30-Apr-19	26-Oct-19	03-Mar-20	03-Sep-20	100%	100%	[Gantt Bar]											
424		MODULE_37_MJP4-MP252	58	26-Oct-19	15-Jan-20	16-Dec-19	01-Jun-20	100%	100%	[Gantt Bar]											
425		INTERCHANGE RAMP PILE CAP_CA	158	15-Oct-19	27-Jun-20	02-Dec-19	05-May-21	100%	100%	[Gantt Bar]											
426		MODULE_28_MP249-CAP4	87	05-Mar-20	27-Jun-20	02-Dec-19	05-May-21	100%	100%	[Gantt Bar]											
427		MODULE_29_CAP4-CAP8	70	16-Dec-19	05-Mar-20	30-Nov-20	30-Mar-21	100%	100%	[Gantt Bar]											
428		MODULE_30_CAP8-CAA2	53	15-Oct-19	16-Dec-19	19-Jan-21	02-Mar-21	100%	100%	[Gantt Bar]											
429		INTERCHANGE RAMP PILE CAP_AM	245	08-Jan-19	15-Oct-19	15-Feb-20	13-Jan-21	100%	100%	[Gantt Bar]											
430		MODULE_31_MAA2-AMP4	176	08-Jan-19	09-May-19	15-Feb-20	21-Sep-20	100%	100%	[Gantt Bar]											
431		MODULE_32_AMP4-MP259	89	10-May-19	15-Oct-19	07-Mar-20	13-Jan-21	100%	100%	[Gantt Bar]											
432		INTERCHANGE SUBSTRUCTURE & BEARING	596	29-Jan-19	31-May-21	24-Dec-19		100%	78.9%	[Gantt Bar]											
433		INTERCHANGE RAMP PIER INSTALLATION	596	29-Jan-19	27-Apr-21	24-Dec-19		100%	78.9%	[Gantt Bar]											

█ Project Baseline Bar
 █ Critical Remaining Work
 ▬ Summary
█ Actual Work
 ◆ Milestone
█ Remaining Work
 ▬ % Complete

EMPLOYER:
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)

CONTRACTOR:
DAEWOO - TPL JV

Date	Revision	Checked	Approved
25-Dec-21	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																									
										Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct				Nov				Dec				Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct	
434	INTERCHANGE RAMP PIER_MA		169	18-Mar-20	29-Dec-20	24-Dec-19	18-Sep-21	100%	100%																																																																																						
435	MODULE_23_MAA2-MAP4		118	18-Mar-20	10-Aug-20	19-Feb-20	26-Feb-21	100%	100%																																																																																						
436	MODULE_24_MAP4-MP246		150	10-Aug-20	29-Dec-20	24-Dec-19	18-Sep-21	100%	100%																																																																																						
437	INTERCHANGE RAMP PIER_AC		249	16-May-20	27-Apr-21	19-May-20	18-Dec-21	100%	100%																																																																																						
438	MODULE_33_ACA2-ACP5		96	16-May-20	30-Nov-20	19-May-20	27-Sep-21	100%	100%																																																																																						
439	MODULE_34_ACP5-MP256		249	30-Nov-20	27-Apr-21	17-Jun-20	18-Dec-21	100%	100%																																																																																						
440	INTERCHANGE RAMP PIER_JM		138	08-Feb-19	18-Mar-20	15-Jan-20		100%	60.34%																																																																																						
441	MODULE_25_MP245-JMP4		122	22-Oct-19	18-Mar-20	15-Jan-20		100%	60%																																																																																						
442	MODULE_26_JMP4-JMP8		100	09-May-19	22-Oct-19	01-Feb-21		100%	50%																																																																																						
443	MODULE_27_JMP8-JMA2		63	08-Feb-19	08-May-19	12-Apr-21		100%	78.7%																																																																																						
444	INTERCHANGE RAMP PIER_MJ		234	08-Feb-19	16-May-20	07-Sep-20	20-Nov-21	100%	100%																																																																																						
445	MODULE_35_MJA2-MJP9		134	08-Feb-19	26-Jul-19	02-Nov-20	29-Jul-21	100%	100%																																																																																						
446	MODULE_36_MJP9-MJP4		145	27-Jul-19	18-Jan-20	07-Sep-20	22-Oct-21	100%	100%																																																																																						
447	MODULE_37_MJP4-MP252		100	18-Jan-20	16-May-20	02-Feb-21	20-Nov-21	100%	100%																																																																																						
448	INTERCHANGE RAMP PIER_CA		230	08-Jan-20	16-Feb-21	27-Apr-20		100%	60.34%																																																																																						
449	MODULE_28_MP249-CAP4		159	10-Sep-20	16-Feb-21	27-Apr-20		100%	60%																																																																																						
450	MODULE_29_CAP4-CAP8		91	06-Apr-20	10-Sep-20	19-Dec-20		100%	50%																																																																																						
451	MODULE_30_CAP8-CAA2		54	08-Jan-20	06-Apr-20	19-Jan-21		100%	78.7%																																																																																						
452	INTERCHANGE RAMP PIER_AM		268	29-Jan-19	08-Jan-20	26-Sep-20		100%	56.14%																																																																																						
453	MODULE_31_MAA2-AMP4		177	29-Jan-19	27-Aug-19	14-Mar-21		100%	53.24%																																																																																						
454	MODULE_32_AMP4-MP259		187	27-Aug-19	08-Jan-20	26-Sep-20		100%	60%																																																																																						
455	INTERCHANGE BEARING INSTALLATION		135	27-Feb-19	31-May-21	08-Sep-21		0%	0%																																																																																						
456	INTERCHANGE RAMP BEARING_MA		102	16-Apr-20	01-Feb-21	08-Sep-21		0%	0%																																																																																						
457	INTERCHANGE RAMP BEARING_AC		28	24-Jun-20	31-May-21			0%	0%																																																																																						
458	INTERCHANGE RAMP BEARING_JM		28	11-Mar-19	20-Apr-20			0%	0%																																																																																						
459	INTERCHANGE RAMP BEARING_MJ		28	11-Mar-19	30-Jun-20			0%	0%																																																																																						
460	INTERCHANGE RAMP BEARING_CA		59	06-Feb-20	22-Mar-21			0%	0%																																																																																						
461	INTERCHANGE RAMP BEARING_AM		30	27-Feb-19	10-Feb-20			0%	0%																																																																																						
462	INTERCHANGE SUPERSTRUCTURE INSTALLATION		632	20-Sep-19	15-Feb-22	18-Sep-21		97.82%	1.05%																																																																																						
463	INTERCHANGE BOX GIRDER INSTALLATION_MA		230	09-Jan-21	03-Jan-22	18-Sep-21		96.23%	9%																																																																																						
464	MODULE_23_MAA2-MAP6-MAP5-MAP4		125	09-Jan-21	21-Jun-21	18-Sep-21		100%	21%																																																																																						
465	STAGGING & BOTTOM SLAB		35	09-Jan-21	04-Mar-21	18-Sep-21		100%	70%																																																																																						
466	SIDE WALLS & TOP SLAB		31	05-Mar-21	26-Apr-21	22-Dec-21		100%	0%																																																																																						
467	STRESSING & DESTAGGING		40	27-Apr-21	21-Jun-21			100%	0%																																																																																						
468	MODULE_24_MAP4-MAP3-MAP2-MAP1-MP246		105	21-Jun-21	03-Jan-22	01-Oct-21		93.41%	0%																																																																																						
469	STAGGING & BOTTOM SLAB		39	21-Jun-21	20-Sep-21	01-Oct-21		100%	0%																																																																																						
470	SIDE WALLS & TOP SLAB		45	20-Sep-21	18-Nov-21			100%	0%																																																																																						
471	STRESSING & DESTAGGING		39	18-Nov-21	03-Jan-22			34.09%	0%																																																																																						
472	INTERCHANGE BOX GIRDER INSTALLATION_AC		245	27-Feb-21	27-Dec-21	01-Nov-21		99.52%	0%																																																																																						
473	MODULE_33_ACA2-ACP8-ACP7-ACP6-ACP5		132	27-Feb-21	08-Sep-21	01-Nov-21		100%	0%																																																																																						
474	STAGGING & BOTTOM SLAB		48	27-Feb-21	16-Apr-21	01-Nov-21		100%	0%																																																																																						
475	SIDE WALLS & TOP SLAB		45	17-Apr-21	15-Jun-21			100%	0%																																																																																						
476	STRESSING & DESTAGGING		39	15-Jun-21	08-Sep-21			100%	0%																																																																																						
477	MODULE_34_ACP5-ACP4-ACP3-ACP2-ACP1-MP256		130	31-May-21	27-Dec-21			99.14%	0%																																																																																						
478	STAGGING & BOTTOM SLAB		45	31-May-21	03-Sep-21			100%	0%																																																																																						
479	SIDE WALLS & TOP SLAB		45	03-Sep-21	10-Nov-21			100%	0%																																																																																						
480	STRESSING & DESTAGGING		40	10-Nov-21	27-Dec-21			91.42%	0%																																																																																						
481	INTERCHANGE BOX GIRDER INSTALLATION_JM		270	11-Mar-20	26-Feb-21			100%	0%																																																																																						
482	MODULE_25_MP245-JMP1-JMP2-JMP3-JMP4		130	19-Aug-20	09-Feb-21			100%	0%																																																																																						
483	STAGGING & BOTTOM SLAB		45	19-Aug-20	30-Oct-20			100%	0%																																																																																						
484	SIDE WALLS & TOP SLAB		45	31-Oct-20	23-Dec-20			100%	0%																																																																																						
485	STRESSING & DESTAGGING		40	24-Dec-20	09-Feb-21			100%	0%																																																																																						
486	MODULE_26_JMP4-JMP5-JMP6-JMP7-JMP8		125	29-Sep-20	26-Feb-21			100%	0%																																																																																						
487	STAGGING & BOTTOM SLAB		41	29-Sep-20	19-Nov-20			100%	0%																																																																																						
488	SIDE WALLS & TOP SLAB		45	20-Nov-20	11-Jan-21			100%	0%																																																																																						
489	STRESSING & DESTAGGING		39	12-Jan-21	26-Feb-21			100%	0%																																																																																						
490	MODULE_27_JMP8-JMP9-JMP10-JMA2		125	11-Mar-20	29-Sep-20			100%	0%																																																																																						
491	STAGGING & BOTTOM SLAB		41	11-Mar-20	28-Apr-20			100%	0%																																																																																						
492	SIDE WALLS & TOP SLAB		45	28-Apr-20	04-Jul-20			100%	0%																																																																																						
493	STRESSING & DESTAGGING		39	04-Jul-20	29-Sep-20			100%	0%																																																																																						
494	INTERCHANGE BOX GIRDER INSTALLATION_MJ		290	20-Sep-19	08-Jan-21			100%	0%																																																																																						
495	MODULE_35_MJA2-MJP12-MJP11-MJP10-MJP9		145	20-Sep-19	16-Mar-20			100%	0%																																																																																						
496	STAGGING & BOTTOM SLAB		50	20-Sep-19	25-Nov-19			100%	0%																																																																																						

█ Project Baseline Bar
 █ Critical Remaining Work
 Summary
█ Actual Work
 ◆ Milestone
█ Remaining Work
 █ % Complete

EMPLOYER:
MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY (MMRDA)

CONTRACTOR:
DAEWOO - TPL JV

Date	Revision	Checked	Approved
25-Dec-21	R0		

**Attachment 8- Package-3's Construction Programme
Updated as on 25th December 2021**

Activity ID	Activity Name	Original Duration	BL1 Start	BL1 Finish	Start	Finish	Activity % Complete	Schedule % Complete	Performance % Complete	Earned Value Cost	Planned Value Cost	Schedule Performance Index	2022	2023	2024	2025	2026
MTHL Pkg 3_ Construction Schedule Dec'21																	
Procurement of Mumbai Trans Harbour Link Project																	
t	Commencement Date (CD)	0			23-Mar-18A		100%	0%	100%	Rs0	Rs0	0.00	Commencement Date (CD), 23-Mar-18A				
Physical Milestones																	
KD1001	KD1 [Construction programme, completion of Soil Investigatic	0	18-Sep-18	18-Sep-18	31-Jul-19A	31-Jul-19A	100%	100%	100%	Rs0	Rs0	0.00	KD1 [Construction program				
KD1002	KD2 [NOC for technical design doc & drawing for foundation,	0	17-Dec-18	17-Dec-18	31-Jan-20A	31-Jan-20A	100%	100%	100%	Rs0	Rs0	0.00	KD2 [NOC for technical de				
KD1003	KD3 [NOC for Good for construction drawing for foundation, &	0	15-Jun-19	15-Jun-19	22-Mar-20A	22-Mar-20A	100%	100%	100%	Rs0	Rs0	0.00	KD3 [NOC for Good for co				
KD1004	KD4 [Substantial completion of foundation, piles (if applicabl	0	21-Mar-20	21-Mar-20	31-May-20A	31-May-20A	100%	100%	100%	Rs0	Rs0	0.00	KD4 [Substantial completi				
KD1005	KD5 [Substantial completion of pile caps (if applicable), piers	0	19-Sep-20	19-Sep-20	01-Feb-23	01-Feb-23	0%	100%	0%	Rs0	Rs0	0.00	KD5 [Substantial completi				
KD1006	KD6 [Substantial completion superstructure (PC/CIS/SS) & as	0	20-Mar-21	20-Mar-21	17-Feb-24	17-Feb-24	0%	100%	0%	Rs0	Rs0	0.00	KD6 [Substantial completi				
KD1007	KD7 [Substantial completion of kerb/traffic signs, Marking & n	0	24-Jul-21	24-Jul-21	01-Jun-24	01-Jun-24	0%	100%	0%	Rs0	Rs0	0.00	KD7 [Substantial completi				
KD1008	KD8 [Final completion & handing over]	0	21-Sep-21	21-Sep-21	10-Jul-24	10-Jul-24	0%	100%	0%	Rs0	Rs0	0.00	KD8 [Final completion & h				
Financial Milestone																	
Interface Milestone																	
Document Submittals																	
Employer's Obligation / Land Handover																	
Employer Office (Sch 01- General Item)																	
Survey & Geotechnical Investigation Works																	
Design Works																	
Procurement Works																	
Co-ordinated Fabrication & Manufacturing Works																	
Construction Works																	
Preconstruction Activity																	
Sub Structures (Open Foundation, Pier, Pier Cap)																	
Super Structures																	
Bearings & Expansion Joints																	
Bridge Ancillaries & Miscellaneous Item																	
RE Wall																	
Road Work																	
Completion of Interface Activity																	
Provisional Sum																	
Testing & Commissioning Works																	
ToC1000	Testing & Commissioning Works	25	26-Jul-21	11-Sep-21	01-Jun-24	01-Jul-24	0%	100%	0%	Rs0	Rs25	0.00	Testing & Commissioning V				
ToC1001	Safety Test & Auditing	6	13-Sep-21	18-Sep-21	01-Jul-24	08-Jul-24	0%	100%	0%	Rs0	Rs6	0.00	Safety Test & Auditing				
ToC1002	TOC	2	19-Sep-21	20-Sep-21	08-Jul-24	10-Jul-24	0%	100%	0%	Rs0	Rs2	0.00	TOC				

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

Attachment 9- Project Progress Photos for December 2021

Package 1- Site Progress Photos



Photo No. 1: Erection of segment at Span MP47-48 south



Photo No. 2: Erection of segment at MP04-05 south



Photo No. 3: A view of the erected spans at the intertidal area (MP 11 to MP 50) looking towards Navi Mumbai



Photo No. 4: A view of the Erected Spans at the Intertidal area (MP 40 to MP-05) looking towards Navi Mumbai



Photo No. 5: Erection of LG-05 at MP53-54 South in progress



Photo No. 6: FP-03 Pier cap reinforcement activity in progress

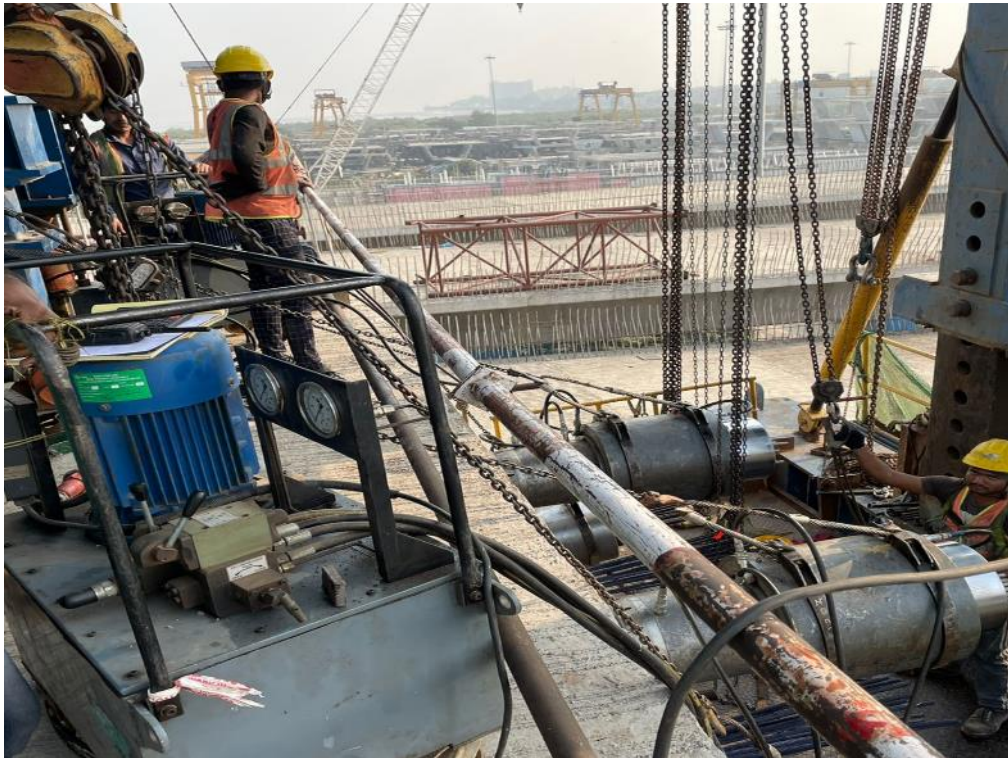


Photo No.7: Stressing activity for Interchange LPS Ramp in progress



Photo No. 8: OSD04-N Assembly ready for loadout – Assembly Yard



Photo No. 9: Concreting for Pier MP126 South in progress

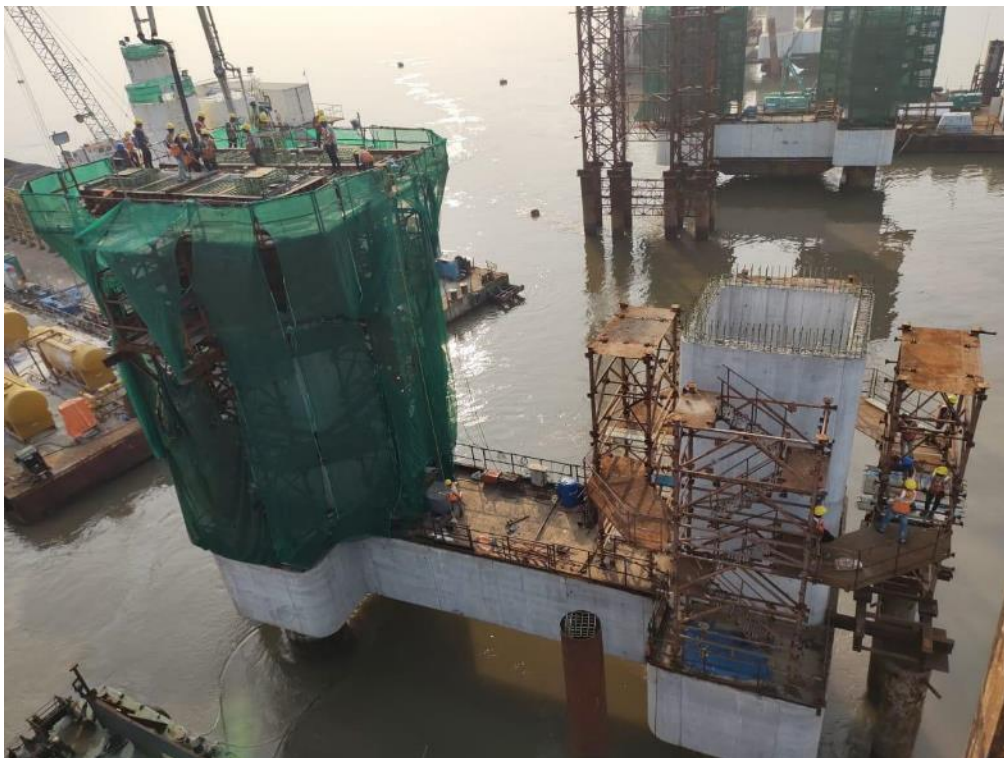


Photo No. 10: Concreting of Pier Cap – MP 148 South in progress



Photo No. 11: View of LG-03 (erection of span MP87-88)



Photo No. 12: OSD barge at MP130 (Trussell erection) in progress

Package 2 – Site Progress Photos



Photo No. 1: LG-1 Segment gluing at Span MP 215-216 RHS in progress

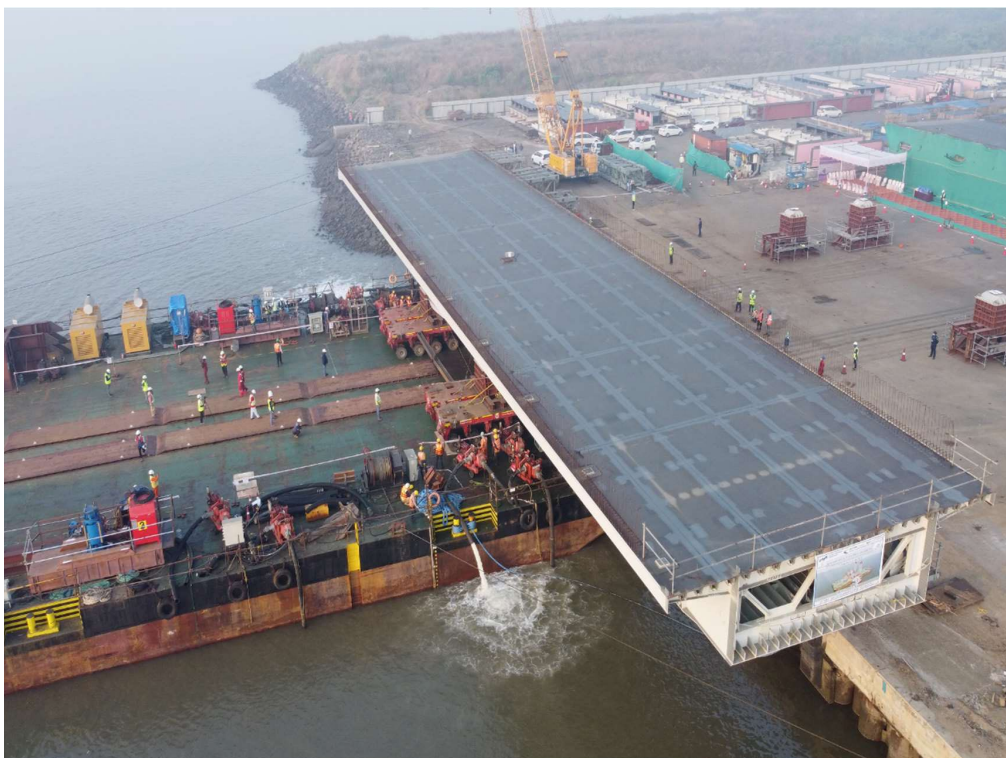


Photo No. 2: Load-out of the 1st OSD Span on the barge



Photo No. 3: OSD lifted by Strand Jack for Load Test at Karanja Port in progress



Photo No. 4: Sonic Tube Testing in progress at MP 170 RHS in progress



Photo No. 5: Pile boring at MP 173 RHS in progress



Photo No. 6: OSD Pier Cap reinforcement tying at MP 180 LHS and RHS in progress



Photo No. 7: Pile cap formwork alignment at MP 176 RHS in progress



Photo No. 8: Cast in situ bottom slab concreting at Ramp MA in progress



Photo No. 9: Pier Head Segment concreting at MP 258 RHS



Photo No. 10: Pile cap concreting at MP 169 LHS in progress



Photo No. 11: PC Shell wall reinforcement tying at MP 185 RHS in progress



Photo No. 12: Pier final lift concreting at MP 187 LHS in progress

Package 3 – Site Progress Photos



Photo No. 1: Voided slab MPP 9-8 concrete pouring in progress



Photo No. 2: MJP Loop Chirle RE wall work in progress



Photo No. 3: LMP 276 Portal Piercap reinforcement in progress



Photo No. 4: RMP 271 Pier 3rd lift Reinforcement work in progress



Photo No. 5: LP-24 foundation concrete pouring work in progress



Photo No. 6: LMP 273 Foundation completed



Photo No. 7: LMP 271 Foundation completed



Photo No. 8: RP 24C pier 1st lift 6.5m concrete pouring work in progress



Photo No. 9: RP 22 Portal concrete pouring work in progress



Photo No. 10: ROB Girder Structure Steel Painting at Global Steel Company in progress



Photo No. 11: Span LP 22-23 Staging work for Cast-in-situ 3 Cell box girder in progress

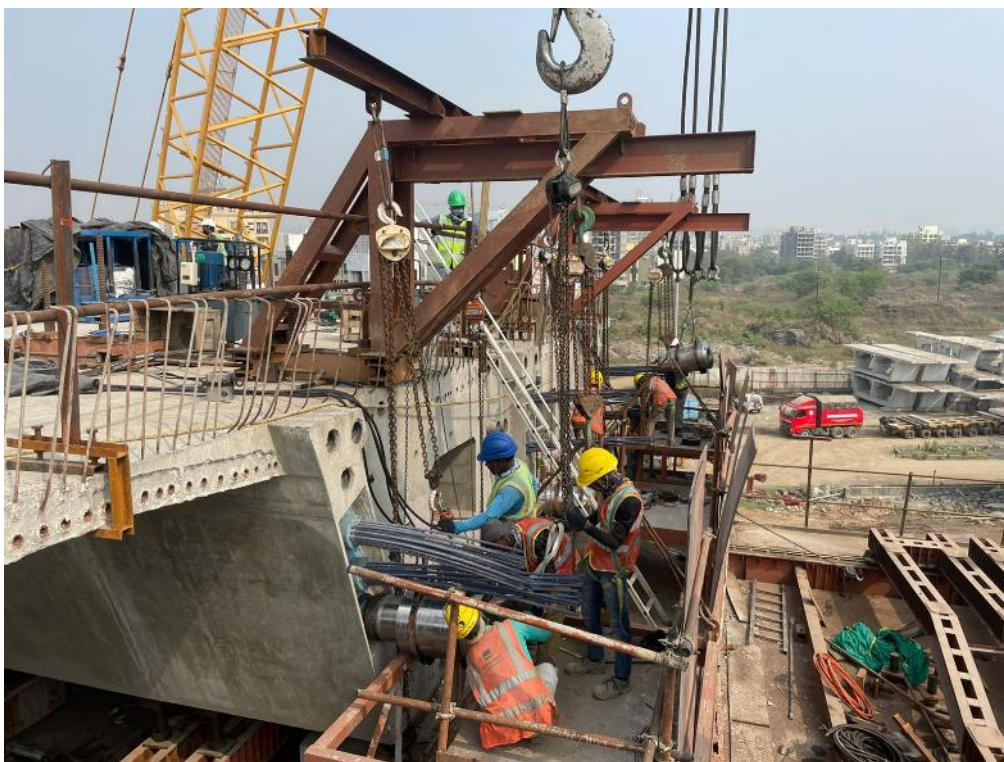


Photo No. 12: Span LMP 282-283, 1st stage stressing work in progress

No. MMRDA/MTHL-PIU/JICA/QPR-20/ 1156/2022

Date: 28th April 2022

To,
Chief Representative,
Mumbai Trans Harbour Link Project (I)
16th Floor, Hindustan Times House,
18-20, Kasturba Gandhi Marge, New Delhi-110-001

Kind Attn: Mr. Katsuo Matsumoto,

Sub : Mumbai Trans Harbour Link Project (I) (ID-P255)
- Quarterly Progress Report (QPR) No. 20 for January 2022 to
March 2022.

Sir,

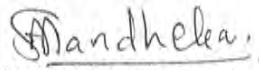
The loan agreement for the Official Development Assistance (ODA) loan for the Mumbai Trans Harbour Link Project (I) is signed between Mumbai Trans Harbour Link Project (I) and Mumbai Metropolitan Region Development Authority (MMRDA) on 31st March 2017 & 29th March 2020 with MMRDA as a direct borrower of the loan.

The Quarterly Progress Report (QPR) No. 20 for the Mumbai Trans Harbour Link Project (I) for the period of January 2022 to March 2022 is enclosed herewith for information please.

Thanking you.

Yours faithfully,

Encl.: QPR-20 (January 2022 to March 2022)


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

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051.

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>



एम एम आर डी ए
MMRDA

Mumbai Metropolitan Region Development Authority

Mumbai Trans Harbour Link Project

Quarterly Progress Report - No. 20

(From 1st January 2022 to 31st March 2022)



**Mumbai Trans Harbour Link Project
Quarterly Progress Report No. 20
1st January 2022 to 31st March 2022
Loan Agreement No. ID-P255 (Tranche-I)**

ORGANIZATION INFORMATION

Borrower	Mumbai Metropolitan Region Development Authority	
	Person in Charge	Metropolitan Commissioner, MMRDA
	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
Executing Agency	Mumbai Trans Harbour Link Project Implementation Unit	
	Headed by:	Chief Engineer 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

Source of Finance	JICA ODA Loan Portion:	238,572 million Japanese YEN (JPY)
	Tranche-I:	144,795 million Japanese YEN (JPY) (Loan Agreement signed on 31 st March 2017)
	Tranche-II:	66,909 million Japanese YEN (JPY) (Loan Agreement signed on 27 th March 2020)
Terms and Conditions of JICA ODA Loan (Tranche-1)	Repayment Period:	30 years, including 10 years of grace period.

Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 20 (Jan-Mar 2022)

DOCUMENT VERIFICATION AND REVISION RECORD

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



Contents

1.0 PROJECT DESCRIPTION	5
1.1 Project Objective.....	5
1.2 Necessity of the Project.....	5
1.3 Rationale of the Project Design.....	6
2.0 PROJECT IMPLEMENTATION	9
2.1 Project Scope.....	9
2.2 Implementation Schedule.....	11
2.3 Project Cost.....	12
2.3.1.a Comparison of Originally Planned and Actually Incurred Cost BY ITEM.....	12
2.3.1.b Comparison of Originally Planned and Actually Incurred Cost BY YEAR.....	14
2.4 Organization for Implementation.....	15
2.4.1 Executing Agency.....	15
2.4.2 Contractor(s)/ Supplier(s), and Consultant(s) and their Performance:.....	16
2.4.2.1 Procurement & Consultant.....	16
2.4.2.2 Performance.....	17
Consultant's Progress:.....	17
Contractor's Progress:.....	18
Package-1 Physical Progress till 31 st March 2022.....	18
Package-2 Physical Progress till 31 st March 2022.....	19
Package-3 Physical Progress till 31 st March 2022.....	20
Package-4 (ITS) Progress till 31 st March 2022.....	20
Health & Safety and Environment (HSE).....	21
Package-1 Safety Report.....	21
Package-2 Safety Report.....	22
Package-3 Safety Report.....	23
3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)	24
3.1 Operational and Physical Condition.....	24
3.2 Precautions (Measures To Be Adopted/ Points Which Require Special Attention).....	24
3.3 Environmental and Social Impacts.....	26
3.4 Qualitative and Quantitative Data of Monitoring Indicators.....	29
3.5 Monitoring Plan for the indicators.....	30
3.6 Achievement of the Project Objective.....	30
4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)	31
4.1 O&M and Management.....	31
4.2 O&M Cost and Budget.....	31
5.0 EVALUATION	32
5.1 JICA and Borrower / Executing Agency performance.....	32
5.2 Overall Evaluation.....	32
5.3 Lessons Learnt and Recommendations.....	32
Attachment 1- MMRDA & PIU Organization Chart.....	33
Attachment 2- Environmental & Social Impacts Attachments.....	36
Attachment 3- JICA's Concurrence Status.....	37
Attachment 4- Project Procurement and Financial Status till 31st March 2022.....	39
Attachment 5- S-Curve for Cumulative Planned Vs Actual Amount in Rs Crores.....	41
Attachment 6- Package-1's Construction Programme Updated as of 25th March 2022.....	42
Attachment 7- Package-2's Construction Programme Updated as of 25th March 2022.....	43
Attachment 8- Package-3's Construction Programme Updated as of 25th March 2022.....	44
Attachment 9- Project Progress Photos for March 2022.....	45

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:

1st January to 31st March 2022



Demand Analysis

- 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:

Table 1.3.1 Demand Projections Over the Period

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
Total	39,300	103,900	145,500	9,800	29,600	55,000

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

- 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.
- 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

- 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.
- 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.
- 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).
- 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.
- 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-Classifier (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

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

Table 2.1.2 Comparison of Original and Actual Scope

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



Mumbai Trans Harbour Link Project - Quarterly Progress Report No. 20 (Jan-Mar 2022)

Items	Original	Actual
Package-4 ITS (Intelligent Transport System)	<ul style="list-style-type: none"> • Administrative Buildings • Toll Booths (1 for main alignment and each on and off rumps for 3 interchanges) • 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)) • Highway Lighting (Whole sections Low-positioned lighting for some sections) • Electrical Powering System including HV/ LV Ring Network across the Bridge. 	(P/R and PCR)
Consulting Services	<ul style="list-style-type: none"> • Tender Assistance • Construction Supervision • Facilitation of Implementation of Environmental Management Plan (EMP), Environmental Monitoring plan (EMoP). 	(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 st March 2022
1) Completion of Land Acquisition and Resettlement	March 2019	March 2022
2) Consulting Services		
a) Selection of Consultant	May – December 2016	May – December 2016
b) Consultancy Works	December 2016 – September 2024	December 2016 – September 2024
3) Selection of Contractor		
Package-1, Package-2 & Package-3 (Civil)		
a) Pre-Qualification Process	May – December 2016	May – December 2016
b) Main Bidding	January – December 2017	January – December 2017
c) JICA's Concurrence of Contract	February-2018	February-2018
Package-4 (ITS)		
a) Pre-Qualification Process	January 2019 – May 2019	January 2020 – May 2020
b) Main Bidding	June 2019 – September 2020	Jan 2021 – Dec 2021
4) Civil Construction		
Package-1 and Package-2	March 2018 – September 2022	March 2018–September 2023 (Extended)
Package-3	March 2018 – September 2021	March 2018 – March 2023 (Extended)
Package-4	October 2020 – September 2022	May 2022 – July 2023
5) Defect Liability Period		
Package-1, Package-2 and Package-4	October 2022 – September 2024	October 2023 – September 2025
Package-3	October 2021 – September 2023	April 2023 – March 2025
6) Commencement of Toll Collection	September -2022	September -2023
7) Selection of O&M Organization	October 2020 – September 2021	October 2022 – September 2023

Attachment 6, 7 & 8: Package wise construction schedules (progress) updated at the end of 4th Quarter (January- February- March 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.



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	34,398	34,398	0	45,376	45,376	0	105,713	105,713	0
Package-2	26,513	26,513	0	32,617	32,617	0	77,774	77,774	0
Package-3	759	759	0	8,276	8,276	0	13,766	13,766	0
Package-4 (ITS)	0	0	0	1,444	1,444	0	2,269	2,269	0
Package-5 (Geotechnical Investigation)	0	0	0	166	0	166	260	0	260
Dispute Boards (Package-1, 2, 3 & 4)	63	63	0	45	45	0	134	134	0
Price Escalation	2,251	2,251	0	7,133	7,133	0	13,460	13,460	0
Physical Contingency	6,398	6,398	0	9,506	9,489	17	21,338	21,312	26
Consulting Services	1,650	1,650	0	1,587	1,587	0	4,145	4,145	0
Land Acquisition*	0	0	0	11,293	0	11,293	17,748	0	17,748
Administration Cost	0	0	0	4,898	0	4,898	7,698	0	7,698
GST	0	0	0	18,238	0	18,238	28,663	0	28,663
Import Tax	0	0	0	13,435	0	13,435	21,114	0	21,114
Interest during construction	2,942	0	2,942	0	0	0	2,942	0	2,942
Front End Fee	477	0	477	0	0	0	477	0	477
Total	75,451	72,032	3,419	154,013	105,967	48,046	317,501	238,572	78,929

(Note) 1. Exchange Rate: US\$1=Rs. 71.9, US\$1=JPY 113.0, Rs.1 = JPY 1.57

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696.

The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.

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	19,053	19,053	-	33,499	33,499		66,285	66,285	
Package-2	21,225	21,225	-	22,186	22,186		52,375	52,375	
Package-3	623	623	-	6,534	6,534		9,256	9,256	
Package-4 (ITS)	-		-	-			-		
Package-5 (Geotechnical Investigation)	-			196		196	308		308
Dispute Boards (Package-1, 2, 3 & 4)	-			-			-		-
Price Escalation	-			4	4		6	6	-
Physical Contingency	-			-			-		-
Consulting Services	253	253		362	362		1,108	1,108	
Land Acquisition*	-			6,712		6,712	10,538		10,538
Administration Cost	-			4,635		4,635	7,277		7,277
GST	-			12,489		12,489	19,608		19,608
Import Tax	-			-			-		-
Interest during construction	-			-			-		-
Front End Fee	-			-			-		-
Total	41,154	41,154	-	86,617	62,585	24,032	166,761	129,031	37,730

(Note) 1. Exchange Rate: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Price Escalation (a) Foreign Currency Portion: 1.83% p.a.

(b) Local Currency Portion: 4.13% p.a.

3. Physical Contingency: 10%

4. Base Year for Cost Estimation: December 2018

* Base Cost for Land Acquisition considered in the year 2016 was INR 9,062,669,696.

The base cost has been revised to INR 11,293 million considering Price Escalation and 10% Physical Contingency.



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 2017	12,679	10,134	0	0	10,134	2,545
FY 2018	30,771	22,707	0	0	22,707	8,064
FY 2019	72,379	56,816	0	0	56,816	15,563
FY 2020	92,944	55,138	16,040	0	71,178	21,765
FY 2021	66,397	0	50,869	0	50,869	15,527
FY 2022	27,683	0	0	20,113	20,113	7,570
FY 2023	3,723	0	0	565	565	3,158
FY 2024	10,925	0	0	6,189	6,189	4,735
Total	317,501	144,795	66,909	26,868	238,571	78,929

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	31,859	23,922	-	-	23,922	7,937
FY 2021	53,940	43,167	-	-	43,167	10,773
FY 2022						
FY 2023						
FY 2024						
Total	166,760	129,030	-	-	129,030	37,730

(Note) 1. Exchange Rate used: Rs.1 = JPY 1.57 for MMRDA Portion only

2. Fiscal Year starting from 1st April and ending on 31st March.

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 26th January 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 February 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 April 2012. Employment of consultants should be implemented in accordance with "Guidelines of Employment of Consultant under Japanese ODA Loans", dated in April 2012. "Principles of Procurement under the Project" is attached for brief explanation of the above Guidelines.

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

There is no change made in 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)	
Construction Works			
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
Consulting Services			
1	Consulting Service for Supervision	Short List Method (QCBS)	No Change



2.4.2.2 Performance

Consultant's Progress:

January 2022:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-48 80% Ad-hoc.
 - ii) Package-2: IPC-43 20% Detailed Verification and IPC-44 80% Ad-hoc.
 - iii) Package-3: IPC-41 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 3824.58 million JPY to MMRDA / JICA in January 2022.

February 2022:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-47 20% Detailed Verification and IPC-49 80% Ad-hoc.
 - ii) Package-2: IPC-44 20% Detailed Verification and IPC-45 & IPC-46 80% Ad-hoc.
 - iii) Package-3: IPC-40 20% Detailed Verification and IPC-42 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 8645.74 million JPY to MMRDA / JICA in February 2022.

March 2022:

- 1 GC scrutinized & certified the following invoices claimed by the Contractors:
 - i) Package-1: IPC-48 & IPC-49 20% Detailed Verification and IPC-50 80% Ad-hoc.
 - ii) Package-2: IPC-45 & IPC-46 20% Detailed Verification and IPC-47 80% Ad-hoc.
 - iii) Package-3: IPC-41 & IPC-42 20% Detailed Verification and IPC-43 80% Ad-hoc.
- 2 GC has prepared and submitted a total reimbursement claim of 2042.10 million JPY to MMRDA / JICA in March 2022.
- 3 100% of the Technical Design Modules across all the 3 Packages have been given "NONO" by the GC.
- 4 Approximately 99% 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 – 99%, Package-3 -100%
- 5 GC evaluated the Financial Bid, and the report was sent to the Employer on 28th March 2022 which they further sent to JICA. JICA's concurrence for the Financial Evaluation Report is awaited.



Contractor's Progress:

Package-1 Physical Progress till 31st March 2022

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Permanent Bridge Works - Land/ Interchange Zone					
1.1	Piles	523	No.	520	99.4%	
1.2	Pile Caps	158	No.	99	62.7%	
1.3	Piers	228	No.	165	72.4%	
1.4	Pier Caps	215	No.	154	71.6%	
2	Permanent Bridge Works - Intertidal Zone					
2.1	Piles	312	No.	312	100%	
2.2	Pile Caps	75	No.	75	100%	
2.3	Piers	146	No.	146	100%	
2.4	Pier Caps	146	No.	142	97.3%	
3	Permanent Bridge Works - Marine Zone					
3.1	Piles	403	No.	403	100%	
3.2	Pile Caps	80	No.	76	95%	
3.3	Piers	162	No.	114	70.4%	
3.4	Pier Caps	162	No.	110	67.9%	
4	Permanent Bridge Works - Total					
4.1	Piles	1238	No.	1235	99.8%	
4.2	Pile Caps	313	No.	250	79.9%	
4.3	Piers	536	No.	425	79.3%	
4.4	Pier Caps	523	No.	406	77.6%	
5	Precast Segments					
5.1	Segment Casting	6713	No.	4189	62.4%	
5.2	Segment (Span) Erection+ Cast-in-Situ Slab	478	No.	216	45.2%	
6	OSD Structural Steel					
6.1	Fabrication	52726	MT	51712	98.07%	
6.2	Assembly (Large Blocks)	52726	MT	11602	22.0%	
6.3	OSD Span Erection	38	No.	3	7.89%	



Package-2 Physical Progress till 31st March 2022

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Permanent Bridge Works - Land/ Interchange Zone					
1.1	Open Foundation	113	No.	113	100%	
1.2	Piers	119	No.	119	100%	
1.3	Pier Caps	105	No.	92	87.62%	
1.4	Portal Beams- Land	6	No.	6	100%	
1.5	Pier Head Segments -Land	42	No.	42	100%	
2	Permanent Bridge Works - Intertidal & CRZ Zone					
2.1	Piles	280	No.	280	100%	
2.2	Pile Caps	72	No.	72	100%	
2.3	Piers	72	No.	72	100%	
2.4	Pier Caps	18	No.	18	100%	
2.5	Pier Head Segments	54	No.	54	100%	
3	Permanent Bridge Works - Marine Zone					
3.1	Piles	504	No.	504	100%	
3.2	Pile Caps	120	No.	106	88%	
3.3	Piers	120	No.	96.2	80%	
3.4	Pier Caps	48	No.	22	46%	
3.5	Pier Head Segments	72	No.	21	28%	
4	Permanent Bridge Works - Total					
4.1	Open Foundation	113	No.	113	100%	
4.2	Piles	784	No.	784	100%	
4.3	Pile Caps	192	No.	178	92.71%	
4.4	Piers	305	No.	287.2	92.35%	
4.5	Pier Caps/ Portal Beams	177	No.	138	77.97%	
4.6	Pier Head Segments	168	No.	117	68.83%	
5	Precast Segments					
5.1	Segment Casting	3142	No.	1,832	58.31%	
5.2	Segment (Span) Erection + Cast-in-Situ Slabs	272	No.	113	41.54%	
6	OSD Structural Steel					
6.1	Fabrication	34726	MT	34726	100%	
6.2	Assembly (for Large Block)	34726	MT	8749	25.19%	
6.3	OSD Span Erection	32	No.	2	6.25%	



Package-3 Physical Progress till 31st March 2022

S. No	Activity	Total Scope	Unit	Cumulative Achieved Works	% of Work done Against the Total Scope	Remarks
1	Permanent Bridge Works					
1.1	Open Foundations	219	No.	216	98.63%	
1.2	Piles	No.	36	24	66.67%	
1.3	Pile Caps	No.	6	4	66.67%	
1.4	Piers	No.	242	225	92.98%	
1.5	Pier Caps	No.	189	171	90.48%	
1.6	Segment Casting	No.	834	834	100%	
1.7	Segment (Span) Erection	59	No.	36	61.01%	
1.8	Cast in-situ Slab	108	No.	68	62.96%	

Package-4 (ITS) Progress till 31st March 2022

1. As recommended by the GC, JICA accorded concurrence for Single Stage Bidding (without Pre-Qualification) on 9th October 2020 and asked to submit draft Bid Document for review and approval.
2. The GC submitted first draft Bid Document to the Employer on 2nd November 2020 for review.
3. After reviewing the draft, MMRDA issued the observations on 29th December 2020 for further correction & amendments, etc. The GC is in the process of preparing the revised draft Bid Document.
4. The GC submitted the revised draft Bid Document to the Employer on 14th June 2021 for a review and further concurrence with JICA.
5. The Employer received JICA concurrence for the revised Bid Documents on 24th August 2021.
6. The Tender has been floated (published) on 3rd September 2021. A Pre-bid Meeting was arranged on 27th September 2021.
7. JICA concurrence for the Technical Evaluation Report received on 15th Feb 2022. The Financial Bid opened on 16th Feb 2022.
8. GC evaluated the Financial Bid, and the report was sent to the Employer on 28th March 2022 which they further sent to JICA. JICA concurrence for the Financial Evaluation Report is awaited.



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

Sr. No	Description	From January to March 2022	Cumulative
1	Total Man Hours Since Inception	4,904,652	44,053,754
2	Number of Man-Hours (Accident-Free Man-Hours)	4,904,652	7,051,656
3	Number of Man-Days	613,081	5,506,719
4	Number of Reportable Fatal Accidents	0	6
5	Number of Non-Fatal Accidents	1	4
6	Number of Near Miss Incidents	11	113
7	Number of First Aid Cases	29	272
8	Number of Dangerous Occurrences	2	3
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	1,552	292264
11	Number of Man-Days Lost	194	36533
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	1	0.23
13	Number of Inspections done for Offices & Sites	220	3852
14	Number of Training/ Induction done for Offices & Sites	349	2274
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	13,848	3142
16	Details of Safety Committee meetings	3	41
17	No. of toolbox talks	16,532	115622
18	No. of critical excavations.	8	76
19	Pre-employment Medical check-up	2,847	380
20	No. of Safety Walk down	15	251
21	No. of Safety Inductions completed	2,847	38098



Package-2 Safety Report

Sr. No	Description	From January to March 2022	Cumulative
1	Total Man Hours Since Inception	2,931,412	22,811,789
2	Number of Man-Hours (Accident-Free Man-Hours)	1,932,634	965,459
3	Number of Man-Days	266,492	2,075,146
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	1	8
6	Number of Near Miss Incidents	25	252
7	Number of First Aid Cases	13	160
8	Number of Dangerous Occurrences	2	12
9	Number of Reportable Sick Cases	0	2
10	Number of Man-Hours Lost	1,744	4,012
11	Number of Man-Days Lost	218	483
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	1	0.35
13	Number of Inspections done for Offices & Sites	74	1,151
14	Number of Training/ Induction done for Offices & Sites	107	917
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	10,806	2,295
16	Details of Safety Committee meetings	3	45
17	No. of toolbox talks	1,134	9,940
18	No. of critical excavations.	0	0
19	Pre-employment Medical check-up	1,048	15,180
20	No. of Safety Walk down	12	153
21	No. of Safety Inductions completed	1,053	1,883



Package-3 Safety Report

Sr. No	Description	From January to March 2022	Cumulative
1	Total Man Hours Since Inception	731,082	5,228,100
2	Number of Man-Hours (Accident-Free Man-Hours)	731,082	3,127,751
3	Number of Man-Days	91,385	653,513
4	Number of Reportable Fatal Accidents	0	0
5	Number of Non-Fatal Accidents	0	2
6	Number of Near Miss Incidents	2	24
7	Number of First Aid Cases	12	110
8	Number of Dangerous Occurrences	0	1
9	Number of Reportable Sick Cases	0	0
10	Number of Man-Hours Lost	0	2312
11	Number of Man-Days Lost	0	289
12	Number of Reportable Accidents per 100,000 Man-Hours Worked	0	0.38
13	Number of Inspections done for Offices & Sites	51	804
14	Number of Training/ Induction done for Offices & Sites	15	247
15	Daily Average Manpower (Including all Workmen & Staff) for the Month	2,206	468
16	Details of Safety Committee meetings	2	40
17	No. of toolbox talks	729	6,932
18	No. of critical excavations.	3	6
19	Pre-employment Medical check-up	949	9178
20	No. of Safety Walk down	12	157
21	No. of Safety Inductions completed	949	9178



3.0 BENEFITS DERIVED FROM THE PROJECT (EFFECTIVENESS)

3.1 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>3.2.1 General Issues</p> <p>1. Toll Arrangement/ Toll Rate 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>2. Operation and Maintenance MMRDA proposes to appoint separate agencies for Operation & Maintenance of the bridge and for Toll Management System. Both the agencies for O & 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 adequate budget for engaging the Contractors.</p>	<p>(P/R and PCR)</p> <p>Appropriate Tolling Policy/ Rates will be finalized by December 2021.</p> <p>Single Operation and Maintenance Contractor will be appointed by December 2021.</p>
<p>3.2.2 Environmental and Social Consideration</p> <p>a. CRZ Clearance</p> <p>i. Supplemental EIA has been approved by MMRDA and disclosed on the website of JICA. 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</p>	<p>(P/R and PCR)</p> <ul style="list-style-type: none"> • MMRDA has disclosed Supplemental EIA & SIA on MMRDA website. • The renewed CRZ clearance was granted on 25/1/2016 from MoEF&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 maintains throughout the construction phase. • MMRDA appointed Mangroves & Marine



<p>CRZ Clearance, appropriate measures shall be taken, and necessary budget shall be secured by MMRDA.</p>	<p>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.</p> <ul style="list-style-type: none"> • Rs 91.42 Crore has been transferred to Mangroves & Marine Biodiversity Foundation, Mumbai for the development & conservation of mangrove area and its afforestation. Such funds will be managed by the Mangrove Foundation of Maharashtra State. • 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.
--	--

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 th November 2016	Mangrove cutting operation was completed with full compliance and as of now, no further follow up work is required.
Tree Cutting /Transplantation	Respective Tree Authorities	Contractor for respective Packages	-	<p>Pkg-1: Tree Cutting/ Transplantation permission from the Garden Dept., MCGM obtained on 24th December 2020.</p> <p>Pkg-2: Tree Cutting/ Transplantation permission obtained & completed.</p> <p>Pkg-3: Forest Department issued a concurrence on 19/05/2019. CIDCO's permission for Tree Cutting/ Transplantation obtained on 25th November 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>1. Establishment of Effective Environmental and Social Cell in PIU</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>2. Rehabilitation and Land Acquisition Issues</p> <p>a. Affected Area and Population</p> <p>Due to the Project, 1282 non-titleholders will be involuntary resettled, and 108.09 ha of land will be handed over by CIDCO.</p>	<p>Sewri: 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"> • 164 PAHs Kanjurmarg for residential • 25 PAHs Kanjurmarg for commercial • 7 PAHs (Satsangi Plot) Kanjurmarg for Commercial • 1 PAHs (commercial to residential) for Bhakti Park • 100 PAHs HDIL Kurla for residential <p>Navi Mumbai: CIDCO has been finalizing the land acquisition closely monitored by Land Cell of MMRDA. Except private land and forest, CIDCO has possessed all required land of 108.09 ha. Out of the 108.09 ha, 106.345 ha has been handed over by CIDCO to MMRDA. CIDCO is going to acquire the balance 1.745 ha with the help of Collector, Raigad.</p>
<p>b. Entitlement Policy</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)</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)
("Guidelines") (Attachment 2-5).	
<p>c. Compensation to Project affected Fishermen</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 grasp the exact impact during construction and operation phase.</p>	<p>Updated Attachments 2-8 and 2-10 are enclosed in the report.</p>
<p>d. Implementation Schedule</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>e. Grievance Redressal Mechanism</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>Sewri: FLGRC (Field Level Grievance Redressal Committee) and SLGRC (Senior Level Grievance Redressal Committee) were set as per the RAP and in operation.</p> <p>Compensation Committee has been constituted to address the issues of Compensation to Lease Holders at Sewri.</p> <p>Fishermen: GRC for resolving grievances of the fisherfolk was set up as per the compensation policy and is in operation.</p>
<p>f. Internal Monitoring</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>



Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>g. Qualitative Independent Evaluation</p> <p>An Independent Evaluation Agency will be hired by MMRDA for evaluation of RAP implementation. An external 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 Attachment 2-10 is enclosed in the report.</p>
<p>h. RAP Implementation Budget</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>i. Environmental Management Plan (“EMP”)</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. (Attachment 2-1). 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>j. Environmental Monitoring Plan (“EMoP”)</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</p>	<p>Environmental Monitoring Plan with the package wise budgeted cost is reported in Attachment 2-3. Environmental Monitoring Results during the construction phase are reported in Attachment 2-4.</p>

Issue(s)	Action or countermeasure(s) taken and remaining problem(s)
<p>Status Report (PSR) by filling in the Reporting Form of Environmental Monitoring Result. (Attachment 2-4). After completion of the construction, EMoP shall be implemented by MMRDA, and the results shall be submitted to the JICA India Office semi-annually until two years after complementation of construction. The required amount of estimated environmental monitoring budget is borne by MMRDA.</p>	
<p>k. Long Term Bird Monitoring</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"> • MMRDA has entrusted the work of bird monitoring and implementation of Flamingos and birds related mitigation measures & bird monitoring program to Mangrove and Marine Biodiversity Foundation. • Rs. 31.92 Crore deposited to Mangrove foundation, Mumbai for periodical disbursement to BNHS.

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.



EIRR	Original: 15.4% Cost: Project cost (excluding Price Escalation, Tax and Duties and Administration cost) O&M cost, Land Acquisition Benefit: Travel Time cost and Vehicle Operation cost Project Life: 32 Years	Actual: (PCR) _____% Cost: Benefit: Project Life: Attachment(s): Supporting data for computing EIRR
FIRR	Original: 1.5% Cost: Project Cost, O&M cost, Land Acquisition cost Benefit: Toll Revenue Project Life: 32 Years	Actual: (PCR) _____%

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>Original: (P/M and PCR)</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>a. Quarterly Progress Report (QPR): 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 & Quarterly Progress Reports (including S-Curve Chart) prepared by the Consultant to JICA India Office on regular basis till project completion.</p> <p>b. Project Completion Report (PCR): 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>Actual: (P/R and PCR)</p> <p>Monitoring Organization</p> <p>PIU for MTHL has been established for monitoring the Project.</p> <p>Submission of QPR and PCR</p> <p>This QPR No. 20 is submitted for the period of 1st January to 31st March 2022.</p>

3.6 Achievement of the Project Objective

(PCR)



4.0 OPERATION AND MAINTENANCE (O&M) (SUSTAINABILITY)

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.

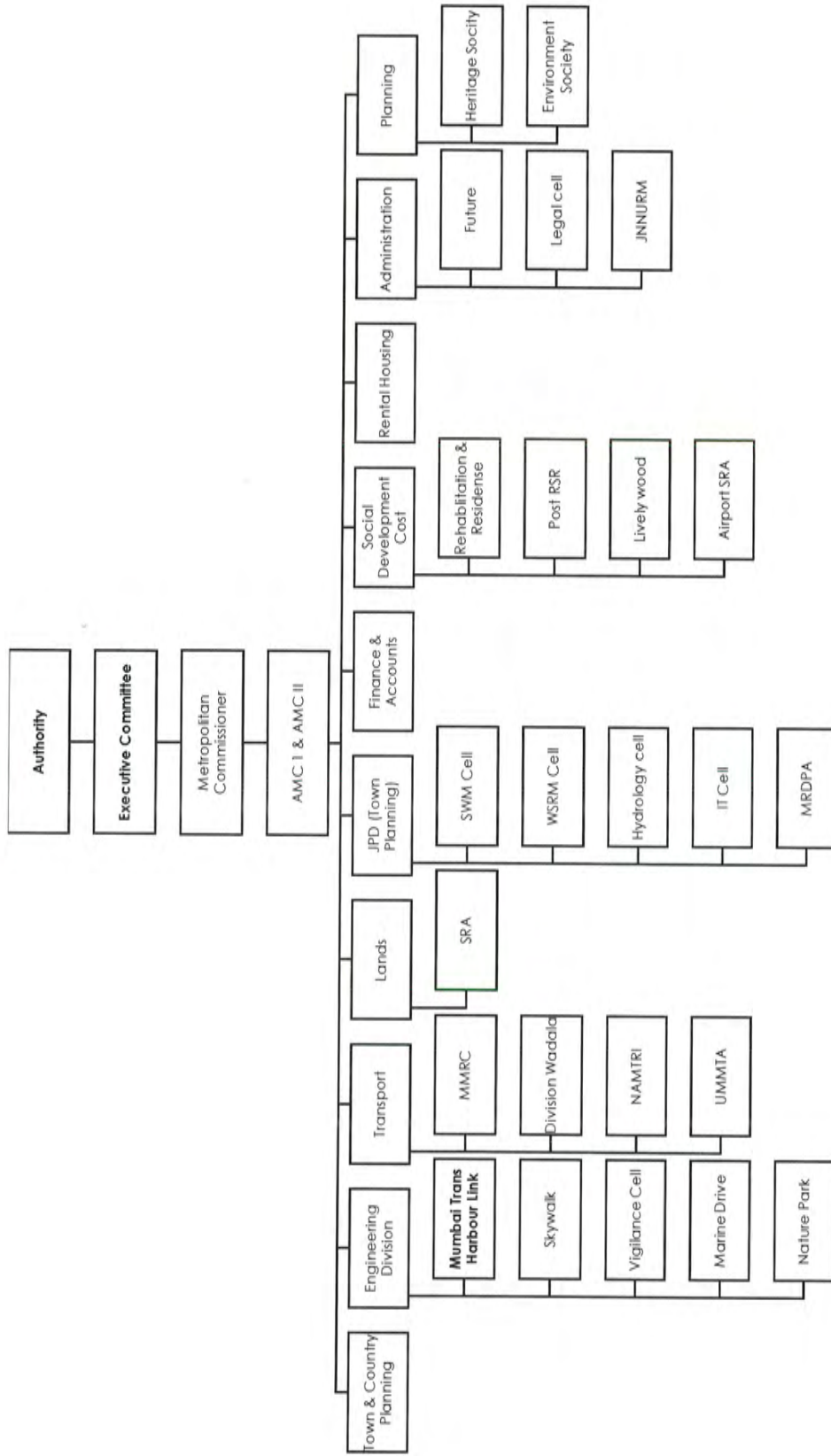
(PCR)

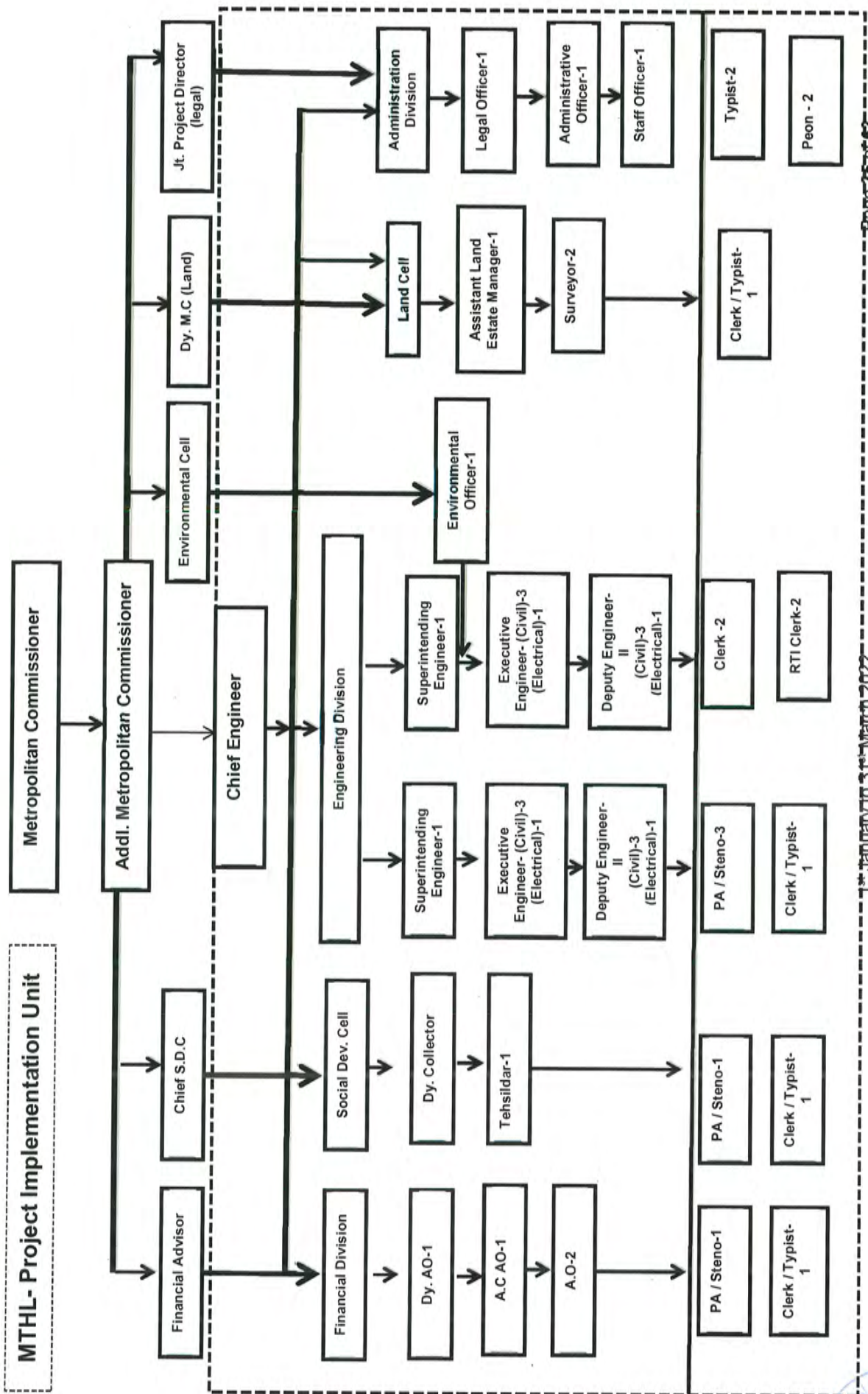


Attachment 1- MMRDA & PIU Organization Chart



MMRDA Organization chart





Attachment 2- Environmental & Social Impacts Attachments

- 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**



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
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year						Municipal Solid Waste Management Rules, 2013 Generated waste shall be reused or disposed at designated site. Sites have been identified and the location for Pkg. 1 is at Bhayandar Pada in Thane. For Pkg. 2 & 3 is in Navi Mumbai at Pushpak Node near "Teen Taki Junction" along the Amar Marg.	P2 contractor has considered only Domestic garbage with respect to CIDCO. Other wastes are not considered. Construction wastes will be
				3. Gavhan & Chirle for package III	Once site clearing work/execution part of work start.								
4 and 8		Soil Contamination/ sedimentation	Heavy Metals & Oil & Grease (5-10 items shall be selected from Soil pollution standards)	IS / Methods Manual Soil Testing in India by Department of Agriculture and Cooperation, January 2011	1. Sewri & Sewri bay area for package I 2. Nhava temporary bridge & casting yard in Gavhan for package II 3. Gavhan & Chirle for package III	1. Muck: 1 Time / Year 2. Sediments: 4 Times / Year *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 Storage area only	150,000	1,500,000	150,000	100,000	1,750,000		
5		Noise and vibration	Ambient and road side noise (dB(A) _{L_{eq}})	IS Standard	1. Sewri & Sewri bay area for package I 2. Nhava temporary bridge & casting yard in Gavhan for package II 3. Gavhan & Chirle for package III	Fortnightly 2 Times / Year Fortnightly	150,000	54,000	150,000	369,000	573,000	-Construction Noise; 85dB(A) -Ambient Noise Standards in India (dB (A) _{L_{eq}}) 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) 3. Residential Area: Day Time: 55 (6-22hr) Night Time: 45 (22-6hr) 4. Silence Zone Day Time: 50 (6-22hr) Night Time: 40 (22-6hr)	
			Vibration (dB L10 or mm/sec)		1 Location Gavhan area for package III	Half yearly	75,000	0	75,000	400,000	475,000	- Construction vibration 75dB -Vibration Standards roadside 1. Commercial /Industrial Area Day Time: 70 (7-20hr) Night Time: 65 (20-7hr) 2. Residential Area: Day Time: 65 (7-20hr) Night Time: 60 (20-7hr)	Not applicable for Pkg. 1
9 and 10		Protected Area /Ecosystem	1. Monitoring of mudflat conditions including fauna-flora 2. Monitoring of Cutting Tree and replantation/transplanting area 3. Monitoring of Mangrove Plantation area appointed by MoEF	Ocular inspection and quantitative survey 1-1. Fauna-Flora Line-Point census and record number and appeared species	Along MTHL alignment and mangrove replant area for Package I Along MTHL alignment and mangrove replant area for package II Not applicable for Package III	Quarterly during the construction Period 4 Times / Year	6,500,000	7,200,000	6,500,000	0	13,700,000	Significant impacts are not caused by the project Note)	Not applicable for Pkg. 3



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 ₂)	1-2: Mangrove density and community survey								Detailed monitoring plan will be setup during basic design stage Standard for Soil: Supplemental EIA Table 6.1.15 Standard for Ecological Parameter: - Net primary Productivity <1,500 mgC/m ³ /day at surface - Chlorophyll-a <4mg/m ³ - Phosphate: 0.1-90µg/l - Nitrate: 1.0-500µg/l - Nitrite: <125µg/l - Particulate Organic Carbon: 10-100mg/m ³ - SiO ₂ : 10-5,000µg/l		
				1-3: Benthos Survey										
				2-1: Cutting trees confirmation										
				3-1: Mangrove survey in the replanted area										
Social environment	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										
Social environment	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"		
Other	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		
							8140500	325,354,000	12,000,000	2,211,500	339,565,500			



The Project for Construction of Mumbai Trans Harbour Link
Reporting Form of Environmental Monitoring during Construction

Attachment 2-4

Attachment 2-4

Monitoring Period - January 2022 to March 2022

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

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- Pkg 2	Location 3- Pkg 3	Location 4					
Pollution	1	Air pollution	SO ₂ , NO ₂ , PM ₁₀ , PM _{2.5}	1. Sewri & Sewri bay area for package I	Quarterly monitoring is conducted at all locations.	National Ambient Air Quality Standards (NAAQS) (Standard for 24hrs: Industrial and Residential)	Sewri	Shivaji Nagar	Chirle						
				2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year										
				3. Gavhan & Chirle for package III	From march -2019 onwards monitoring is conducted quarterly as per MOEF and CPCB norms							1. SO ₂ : 80µg/m ³	9.67	BDL	12
												2. NO ₂ : 80µg/m ³	30.25	21	28
												3. PM ₁₀ : 100µg/m ³	249.17	76	66
												4. PM _{2.5} : 60µg/m ³	63.33	27	31
			5. CO: 0.2mg/m ³	1.38	1.3	0.6									
			6. VOCs	1.18	4.2	1.6									
	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-IV 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	8.1	8.3	Not applicable
				3. Gavhan & Chirle for package III	Not applicable							2. DO: 3 mg/l	5	6	Not applicable
												3. Turbidity: 30 NTU	4.3	7.6	Not applicable
												4. BOD: 5 mg/l	BDL(DL+2)	BDL	Not applicable
												5. O & G: 10 mg/l	BDL(DL+2)	BDL	Not applicable
			6. COD		16	Not applicable									
3	Waste	Volume of waste soil, cutting tree and domestic garbage	1. Sewri & Sewri bay area for package I	Quarterly	Municipal Solid Waste Management Rules, 2016	Sewri Camp Site	Shivaji Nagar Camp Site	Chirle Camp Site	Comprehensive waste management plan is implemented with prior approvals of MCGM, PCB and Debris Disposed as authorized for MTHL-1						
					Generated Concrete and Debris from Construction	12019.8 Cu.m.	App. 2000 CuM Collected in jumbo bags and Disposed off in FBB Location	NA							
					Generated cutting tree (ha) total	1. Tree Cutting: 384 trees (Till March 2022) 2. Transplanting : 445 Trees (Till March 2022)		Tree cutting work completed and Half yearly report submitted to Client (Aug, 2021)							
					Generated domestic waste (t/month) total	119.74	3.5 T/quarter. It is disposed through CIDCO daily.	2.75 T for the quarter							
					Confirmation of adequate disposal (visual survey)	Schedule Audited by EMS									
					2. Nhava temporary bridge & casting yard in Gavhan for package II	4 Times / Year				Muck Testing Done on September 2021 and Reports submitted to GC	Not applicable				
4	Soil Contamination/sediment	Heavy Metals & Oil & Grease	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	0.17	Not applicable for package-3	Hazardous Storage is situated in low laying area at Gavhan 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.						
			2. Nhava temporary bridge & casting yard in Gavhan for package II							1. Cadmium: 0.01mg/l	BDL	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 Storage area only						2. total cyanide : not detected		BDL			
										3. Organic Carbon	1.1	BDL			
										4. lead: 0.01mg/l	18	Not applicable for package-3			
										5. chromium (VI): 0.05mg/l		BDL			
										6. arsenic: 0.01mg/l or 15mg/kg (agri-land soil)		BDL			
										7. total mercury: 0.005mg/l		BDL			
										8. alkyl mercury: not detected		BDL			
		9. PCBs: not detected		BDL											

Regarding soil contamination/sedimentation, some items shall be selected from the total 25 standards items during the Detailed Design. Only the selected items shall be reported to



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 EMOp are covered.

Monitoring Period - January 2022 to March 2022

1. Environmental Monitoring during Construction for 4.5 years

Sl. No.	Parameter	Frequency	Standard	Location	Remarks									
5	Noise and vibration	Ambient and road side noise (dB(A) LAeq)	10. copper: 125mg/kg (only paddy field soil)	142	BDL	JICA, and the rest of items shall be deleted from this form.								
			11. dichloromethane: 0.02mg/l		BDL									
			12. carbon tetrachloride: 0.002mg/l		BDL									
			13. 1,2-dichloroethane: 0.004mg/l		BDL									
			14. 1,1-dichloroethylene: 0.02mg/l		BDL									
			15. cis-1,2-dichloroethylene: 0.04mg/l		BDL									
			16. 1,1,1-trichloroethane: 1mg/l		BDL									
			17. 1,1,2-trichloroethane: 0.006 mg/l		BDL									
			18. trichloroethylene: 0.03mg/l		BDL									
			19. tetrachloroethylene: 0.01mg/l		BDL									
			20. 1,3-dichloropropene: 0.002mg/l		BDL									
			21. thiuram: 0.006mg/l		BDL									
			22. simazine: 0.003mg/l		Sea Section (ST5000-5500) Migratory Bird Area (no standard on sea section)		Shivaji Nagar (Commercial area)							
			23. thiobencarb: 0.02mg/l		68.2									
			24. benzene: 0.01mg/l		65.6									
			25. selenium: 0.01mg/l											
			5	Noise and vibration	Vibration (dB) shall be converted from mm/s to dB		1. Sewri & Sewri bay area for package I	Fortnightly - Noise levels	Construction area Standard 85 dB(A) daytime (Japan standard) Not construction area : Ambient Noise Standard in India (dB(A) LAeq) 75 Max.	Sewri (ST 200-500) (Industrial area)				
									Day time : 6-22 hr (continuous) dB(A) - 75 DB	70.7				
									Noise levels - Night time	Night time: 22-6 hr (continuous) dB(A) - 55 DB	66.21			
							2. Nhava temporary bridge & casting yard in Gavhan for package II	2 Times / Year						
							3. Gavhan & Chirle for package III	Fortnightly	(only sea section) Day time : 6-22 hr (10 min during 9-17 hrs) Night time: 22-6 hr (10 min 22-24 hr)					
									Note (standard values in Not construction area)					
									1. Industrial Area	Day Time: 75 (6-22hr) Night Time: 70 (22-6hr)	Shivaji Nagar (Commercial area) Not Applicable	Chirle Not applicable		
									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)		
							Day time : 6-22 hr (continuous)				There is no reference standard in India for Vibration monitoring in marine area. GC has confirmed that vibration monitoring is not required for the project.			
				Night time: 22-6 hr (continuous)	Sea Section (ST5500-16000)	Shivaji Nagar side (app. ST16000-19000)	N/A							
				Note (standard values in Not construction area)				Regarding protected area (CRZ and Important Bird Area) and ecosystem, detailed long-term monitoring plan will be established during baseline survey of birds. This tentative monitoring form shall be updated based on the detailed long-term monitoring plan.						
				1. Commercial /Industrial Area										
				Day Time: 70 (7-20hr) Night Time: 65 (20-7hr)	not required									
				Standard is not existing, but quantity and quality should not be worsen	Sewri side (ST500-5500)	not required		Mangrove Replantation area appointed by State Government						
				Along MTHL alignment and mangrove replant area for Package I	Quarterly during the construction Period									
				Along MTHL alignment and mangrove replant area for package II	4 Times / Year	1-1. Fauna-Flora (number of species and quantity)	Flora/Fauna list maintained for Referral	not required	N/A	Biodiversity list in CEMP/ EMP 2022 updates				
				1. Monitoring of mudflat conditions including fauna-flora		(1) Number of species of bird	35	not required		Testing for phytoplankton/ zooplankton density and list of fauna attached in original test records available from Ultratech.				
				2. Monitoring of Cutting Tree and replantation/transplantation area		(2) Number of species of fish	27	not required						
				3. Monitoring of Mangrove		(3) Estimated number of Flamingo	20000+ Lesser Flamingo is dominant	not required	Approved By Both CIDCO and Forest Dept (both Alibaug and Uran regional office)					
						1-2: Mangrove density and community survey	Avicennia marina	not required						



The Project for Construction of Mumbai Trans Harbour Link
Reporting Form of Environmental Monitoring during Construction

Attachment 2-4

1. Environmental Monitoring during Construction for 4.5 years

Monitoring Period - January 2022 to March 2022
--

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.

Category	Item No.	Parameter	Location	Frequency	Criteria for evaluation	Observed Value	Compliance	Remarks		
Natural Environment	6	Protected Area 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)	Ecosystem		(1) Number of species of mangrove	Dominant - Avicennia sp.	not required	Nil		
					(2) Density of mangrove (xx trees/10m x 10m)		not required			
					1-3: Benthos Survey	MEIO, Flora, fauna, phytoplankton, zooplankton	not required			
					(1) Number of species and quantity by species	130 Species and 145 No/m2				
					2-1: Cutting tree confirmation	1. Tree Cutting: 384 trees (Till March 2022) 2. Transplanting: 445 Trees (Till March 2022)				
					(1) Number of cutting tree and species	CRZ- Cost assigned to FD				
					3-1: Mangrove survey in the replant area	GC to integrate FD and environmentalist				
					(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		Shivaji Nagar		
					(3) Phosphate 0.1-90µg/l	3		No flooding		
					(4) Nitrate: 1.0-500µg/l	3				
					(5) Nitrite: <125µg/l	BDL (DL-2)		Shivaji Nagar Camp Site	Chirle	
(6) Particulate Organic Carbon: 10-100mg/m ³	1.1			Rock filling activity is carried out as per agreement.						
(7) SiO2: 10-5,000µg/l	33.13		Shivaji Nagar Camp Site	Chirle						
7	Hydrology	Flooding situation	Not applicable for Package I	4 Times / Year	Criteria for evaluation Project activities and structures does not cause flooding and impacts on tidal conditions	Sewri	125-150	85		
					2 Locations (CRZ at Sewri and Shivaji Nagar) for Package II	Monitoring of flooding situation	No Flooding	Shivaji Nagar Camp Site		
					Not applicable for Package III			Health Checks carried out but HIV/AIDS parameter is not there.	Regular Health check up is carried out by site Doctor.	
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	Shivaji Nagar Camp Site	Gavan Camp site		
					Monitoring of embankment	In progress	Conforming with BOCW Act 1996	Conforming with BOCW Act 1996		
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/Other area		
					Number of hired workers by community	1. Local labor : Jan 2022 : 885 2. Local labor : Feb 2022 : 900 3. Local Labor : Mar 2022 : 927	Nil	Nil		
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	Criteria for evaluation Infection disease rate shall not be caused by the project	Sewri Camp Site			Functional first aid center within MTHL -1 campus. Induction, medical check up and authorization required to begin work for Labor.	
					Confirmation of health check record and inspect project site PPE provisions for work, social distancing for covid protocol at work in TBT training. Posters for awareness at Kitchen and Labor camp. Medical camp : 220 Labor Covid Precautions : 1. L&T office and camps : Thermal screening / Sanitation. 2. Fogging : 2 times in a week 3. Pest control : 2 times in a week	Doctor on call checks site specific infections., minor and major incidents . 24x7 ambulance service , ERT team with trained first aiders available				
11	Labour Environment	Construction worker's cond	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,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" BOCW Registration of Labor- 943 Labour BOCW kit distribution: 496 Labour	* 4164 labor for 3 months at 11 functional camps. * One mid- day meal introduced as per BOCW act and by Maharashtra state serves 119250 free meals from Jan 22 to Mar 22 *Entertainment (Movie) arranged for 600 labour on Sunday			Biotoilets used for labor camps with biodigestors. A DRDO patented technology used for Solid waste. The bathing and kitchen water was directed to a reed bed for treatment.	
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	1 RLTI reported			While cutting the bracing secondary beam tilted towards IP and resulted cut injury of little, ring and middle finger



MTHL Land Acquisition Status (Attachment 2-6):

The total land required on Navi Mumbai side- 108.09 ha

Land in possession in MMRDA – 106.345 ha

Balance land acquisition- 1.745 ha

Note: The acquisition of 1.745 ha is in progress by CIDCO. The balance acquisition would be likely completed by the end of June 2022.

Land Required in ha		Land Acquired in ha		Balance Land to be acquired in ha	Anticipated date for Land Acquisition	Payment status (Payment made to Land Owners by CIDCO)	Remarks
Govt.	Private	Govt.	Private	Private*			
98.75	9.34	98.75	7.595	1.745	31-07-2022	--	The payment status to the land owners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total		98.75	7.595	1.745			
108.09							

***Portions of Private Land**

Sr. No.	Name of Village	Area (Hectare)	Acquired	Non-acquired
1	Gavhan	0.15	0.15	0.00
2	Jasai	8.72	7.306	1.414
3	Chirle	0.47	0.139	0.331
Total Area		9.34	7.595	1.745



**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 1 st quarter of 2022
b. Date of Preparing This form	31-03-2022
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)	297 Hhs	Titleholders: 0 Hhs Non-titleholders: 297 Hhs
Total PAPs	1,282 persons*	Titleholders: 0 persons Non-titleholders: 1,282 persons*
PAHs who need relocation (as residents)	231 Hhs	Titleholders: 0 persons Non-titleholders: 231 (1,088 persons) *
PAPs who do not need relocation (as residents)	0 persons	Titleholders: 0 persons Non-titleholders: 0 persons
Commercial PAPs who need relocation	66 (194 persons) *	Titleholders: 0 persons Non-titleholders: 66 (194 persons) *
Commercial PAPs who 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.

2.2 Structures

Structures	Residential: 231 Commercial: 65 Residential + Commercial: 1 (counted in Commercial) Community: 9 (Religious Properties 6, Public Toilets 3) Government: 16 (MbPT Structures 9, Occupants of Leased Plots 6 & Police Chowki 1) Total: 322
-------------------	---

2.3 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 230 nos C1 category fishermen are transferred to Commissioner of Fisheries on 17.03.2020 for payment to the beneficiaries. 2. The list of balance 2 Nos. of C1 category fishermen are in process of fund transfer to the



QPR No. 20 (January to March 2022) Attachment 2-8

				Commissioner of Fisheries.
C2: Fishing Stakes and Nets within 500 m. of RoW (Southern side)	296	567	863	1. Funds for 496 nos C2 category fishermen are transferred to the Commissioner of Fisheries in 2017-18. 2. The list of balance 367 Nos. of C2 category fishermen are under verification of validity.
C3: Hand Pickers	1498	4051	5549	Funds for 4141 nos of C3 category fishermen are already transferred to the Commissioner of Fisheries and the balance of 1408 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 Operating Costs)	Will be observed during the construction period	Will be observed during the construction period	---	Nil
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

2.4 Land Acquisition / Transfer

Location	Land Required in Ha.		Land Acquired in Ha.		Balance Land to be acquired in Ha	Remarks
	Govt.	Private	Govt.	Private		
Sewri	10.089	0	10.089	0	0	
Navi Mumbai	98.75	9.34	98.75	7.595	1.745	
Total	118.179		108.839	7.595	1.745	

QPR No. 20 (January to March 2022)



QPR No. 20 (January to March 2022) Attachment 2-8

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	197	29	226	97%	
	No. of Residential PAHs given possession of Alternate Tenements	231	197	29	226	97%	
	No. of Commercial/R+C PAPs provided with Allotment Letters of Alternate Shops/Tenements	66	23	38	61	92%	
	No. of Commercial R+C PAPs given possession of Alternate Shops/Tenements	66	23	38	61	92%	
	No. of Occupants of MbPT Leased Plots provided Compensation	6	5	1	6	100%	
	No. of Religious properties Relocated / Removed	6	1	5	6	100%	
	No. of Other Community properties Relocated / Removed	4	0	4	4	100%	
	No. of Structures in possession of MbPT Dismantled / Cleared	9	0	9	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						
	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						

QPR No. 20 (January to March 2022)



QPR No. 20 (January to March 2022) 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
Grievance Redress	No. of Grievances Received by FLGRC	4					
	No. of Grievances Disposed by FLGRC	2	1	1	2	100%	
	No. of Grievances Received by SLGRC	2					
	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						
	No. of CHSs' Office Bearers provided training						



SUMMARY OF FISHER FOLKS OF MTHL PROJECT (Influence Zone of 23 villages) Up to 31-03-2022														
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	76	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								
Total		15097	232	864	5549	6645								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Total applications</td><td>15097</td></tr> <tr><td>Duplicate/Repeated Application</td><td>2428</td></tr> <tr><td>Net Applications</td><td>12669</td></tr> <tr><td>Approved applications</td><td>6645</td></tr> </table>							Total applications	15097	Duplicate/Repeated Application	2428	Net Applications	12669	Approved applications	6645
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 - 368 Nos and C3- 3481 Nos are approved.	23-12-2015	Up to 31-03-2022 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.

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: -

Land Required in Ha.	Land Acquired in Ha.		Balance Land to be acquired in Ha	The anticipated date for Land Acquisition	Payment status (Payment made to Landowners by CIDCO)	Remarks
	Govt.	Private				
98.75	9.34	98.75	1.745	31-07-2022	--	1. CIDCO is the land acquisition authority for land acquisition for Navi Mumbai 2. MMRDA has paid an amount of INR 59.16 Cr to CIDCO as per their demand. 3. The payment status to the landowners is awaited from CIDCO. The same would be communicated to JICA on receipt of the same.
Total	108.09	106.345	1.745			



Implementation Schedule for SIA (Sewri Section)

Task No.	Task Designation	Start Date	Completion / Forecast Date
1	Preparation of Final SIA		
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
2	LARP Implementation		
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	July 2022
2.6	Notice of PAPs for shifting (Sewri Section)	December 2018	Nov. 2021
2.7	Allotment of dwelling units to PAPs	September 2016	July 2022
2.8	Shifting of PAPs to resettlement Colony	December 2018	Nov. 2021
2.9	Transfer of compensation/allowance/ assistance to PAPs	December 2018	July 2022
2.10	Creation of Community Revolving fund (within 3 months post handing over)	April 2019	July 2022
2.11	Assessment of economic rehabilitation needs by individual household (within 6 months after handing over)	September 2019	July 2022
2.12	Registration of Co-operative housing societies transfer of maintenance funds. (6 months period)	December 2019	July 2022
2.13	Signing of Civil Contract		January 2018
2.14	Notice of Civil works to proceed		March 2018
3	Monitoring & Evaluation		
3.1	Internal Monitoring- Monthly/ Quarterly	June 2016	July 2020
3.2	Independent Evaluation Mid-term and End term evaluation		
	Mid Term	May 2019	June 2020
	End Term	November 2019	July 2022



Attachment 3- JICA's Concurrence Status

1st January to 31st March 2022

Page 37 of 63



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)	413.88	413.88	JICA's Concurrence - 23rd Aug 2019	-	JICA's Concurrence - 24th Aug 2021	JICA's Concurrence - 15th Feb 2022	-	-

**Attachment 4- Project Procurement and Financial
Status till 31st March 2022**

1st January to 31st March 2022

Page 39 of 63



PROJECT PROCUREMENT AND FINANCIAL STATUS TILL 31st MARCH 2022

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 25th March 2022	% Of Financial Progress till 31st March 2022 (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	March 2018	21-Sep-2022	30-Sept-2023	74.68%	68.37%
	Package-2 (CH 10+380 km to CH18+187 km)	5612.61	Awarded	DAEWOO-TPL JV	March 2018	21-Sep-2022	27-Sept-2023	72.82%	70.56%
	Package-3 (CH18+187 to CH21+800)	1013.79	Awarded	L&T	March 2018	21-Sep-2021	03-Mar-2023	84.05%	81.73%
ITS	Package-4 Intelligent Transport System (ITS)	413.88	Tender Evaluation Stage	NA	May 2022 (Tentative)	July 2023 (Tentative)	NA	NA	NA

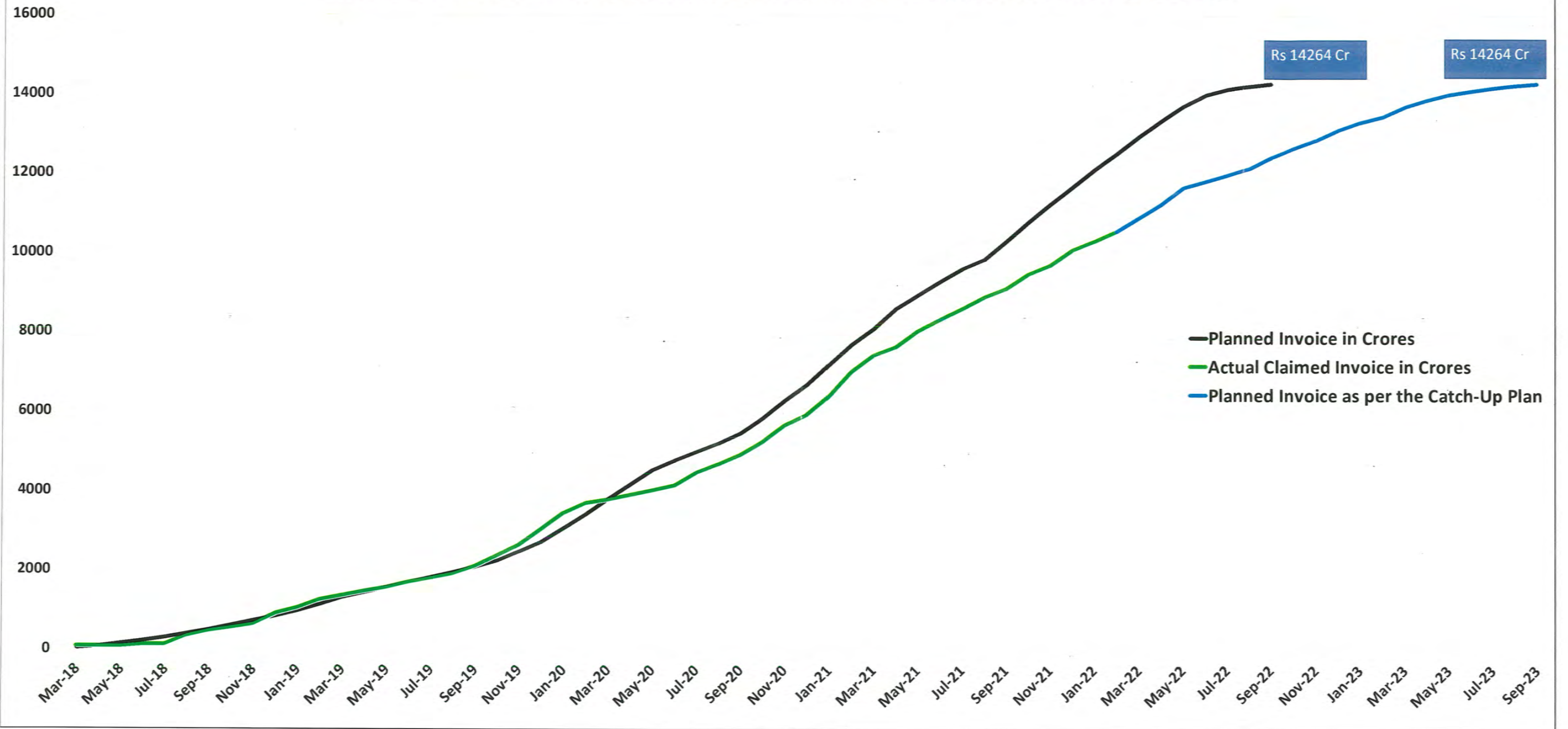


**Attachment 5- S-Curve for Cumulative Planned Vs
Actual Amount in Rs Crores**

1st January to 31st March 2022



Financial S- Curve - Planned Vs Achieved Invoices in Rs Crores as of 31st March 2022



**Attachment 6- Package-1's Construction Programme
Updated as of 25th March 2022**

1st January to 31st March 2022

Page 42 of 63





MUMBAI TRANS HARBOUR LINK PACKAGE 1,
UPDATED BASELINE PROGRAMME FOR MARCH 2022



General Consultant for Mumbai Trans Harbour Link Project

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

Legend for activity status: Actual Level of Effort, Remaining Work, Actual Work, Critical Remaining Work, Milestone, summary.

Please note that this Monthly Rolling Plan has been updated based on the actual progress and will not match with Revised Work Program submitted post EOT-04.



**Attachment 7- Package-2's Construction Programme
Updated as of 25th March 2022**



**Attachment 8- Package-3's Construction Programme
Updated as of 25th March 2022**

1st January to 31st March 2022



Activity ID	Activity Name	Original Duration	BL1 Start	BL1 Finish	Start	Finish	Activity % Complete	Schedule % Complete	Performance % Complete	Earned Value Cost	Planned Value Cost	Schedule Performance	2022												2023			
													J	F	M	April	May	June	July	A	S	O	N	D	J	F	M	April
MTHL Pkg 3_ Revised Constr																												
Procurement of Mumbai Trans																												
t Commencement Date (CD)													Commencement Date (CD), 23-Mar-18A															
Milestones (As level of effort)																												
KD1001	KD1 [Construction program	0	15-Apr-21	15-Apr-21	30-Sep-19A	30-Sep-19A	100%	100%	100%	Rs0	Rs0	0.00																
KD1002	KD2 [NOC for technical des	0	15-Apr-21	15-Apr-21	29-Jun-20A	29-Jun-20A	100%	100%	100%	Rs0	Rs0	0.00																
KD1003	KD3 [NOC for Good for cor	0	30-Apr-21	30-Apr-21	17-Aug-20A	17-Aug-20A	100%	100%	100%	Rs0	Rs0	0.00																
KD1004	KD4 [Substantial completio	0	16-Mar-22	16-Mar-22	27-Nov-20A	27-Nov-20A	100%	100%	100%	Rs0	Rs0	0.00																
KD1005	KD5 [Substantial completio	0	17-Apr-22	17-Apr-22	23-Mar-18A	25-Dec-21A	100%	0%	100%	Rs0	Rs0	0.00																
KD1006	KD6 [Substantial completio	0	22-Feb-23	22-Feb-23	29-Sep-23	29-Sep-23	0%	0%	0%	Rs0	Rs0	0.00																
KD1007	KD7 [Substantial completio	0	22-Feb-23	22-Feb-23	29-Sep-23	29-Sep-23	0%	0%	0%	Rs0	Rs0	0.00																
KD1008	KD8 [Final completion & ha	0	03-Mar-23	03-Mar-23	01-Oct-23	01-Oct-23	0%	0%	0%	Rs0	Rs0	0.00																
Financial Milestone																												
FM1000	Completion of the works arr	0	25-Aug-19	25-Aug-19	23-Mar-18A	31-Jul-19A	100%	100%	100%	Rs0	Rs0	0.00																
FM1010	Completion of the works arr	0	25-Jan-20	25-Jan-20	23-Mar-18A	31-Jan-20A	100%	100%	100%	Rs0	Rs0	0.00																
FM1020	Completion of the works arr	0	25-Jun-20	25-Jun-20	23-Mar-18A	22-Mar-20A	100%	100%	100%	Rs0	Rs0	0.00																
FM1030	Completion of the works arr	231	25-Jun-20	10-Feb-21	23-Mar-18A	31-May-20A	100%	100%	100%	Rs0	Rs0	0.00																
FM1040	Completion of the works arr	0	31-Mar-21	31-Dec-21	23-Mar-18A	31-Oct-21A	100%	100%	100%	Rs0	Rs0	0.00																
FM1050	Substantial completion of a	167	08-Sep-22	22-Feb-23	15-Apr-23	29-Sep-23	0%	0%	0%	Rs0	Rs0	0.00																
FM1060	Final Completion and Hand	0	03-Mar-23	03-Mar-23	01-Oct-23	01-Oct-23	0%	0%	0%	Rs0	Rs0	0.00																
Interface Milestone																												
Delay Events													25-Mar-22, Delay Events															
Document Submittals													25-Mar-22, Employer's Obligation / Land Handover															
Employer's Obligation / Land Handc													20-Jul-22, Employer Office (Sch 01- General Item)															
Employer Office (Sch 01- General lter													30-Jun-22, Design Works															
Survey & Geotechnical Investigator													04-May-22, Co-ordinated Fabrication & Manufacturing Works															
Design Works													14-Sep-22, Preconstruction Activity															
Procurement Works													16-Jun-22, Sub Structures (Open Foundation, Pier, Pier Cap)															
Co-ordinated Fabrication & Manufra													20-Jan-23, Bearing															
Construction Works													25-Mar-22, RE Wall															
Preconstruction Activity													16-Mar-23, Completion of Interface Activity															
Sub Structures (Open Foundation, Pie													Testing & Commissioning Works															
Super Structures																												
Bearings Installation																												
Bridge Ancillaries & Miscellaneous lte																												
RE Wall																												
At Grade work																												
Water Proofing																												
Asphalt Pavement, Kerb, traffic sign																												
Compound wall with safety fence																												

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



Attachment 9- Project Progress Photos for March 2022

1st January to 31st March 2022



Package 1- Site Progress Photos



Photo No. 1: OSD 4 N span 3 Girder Transporting to MP 126 N through Barge



Photo No. 2: LG 6 EP 22-23 Segment lifting in progress



Photo No. 3: LG 08 MP 54-55 S Segment lifting in progress



Photo No. 4: LG 05 FP 04-05 Segment lifting in progress





Photo No. 5: A view of MTHL Bridge taken from the LG-8 looking towards Navi Mumbai



Photo No. 6: EP 14 Cast In-Situ Shuttering work in progress



Photo No. 7: Segments Shifting to L-3 & 4 in progress



Photo No.8: OSD-1 assembly works in progress



Photo No. 9: BP 13 Pier Reinforcement in progress



Photo No. 10: AP 41 Portal Beam Shuttering Works in progress



Photo No. 11: MP 68 S Pier Shuttering Works in progress



Photo No. 12: AP 08 Pier Reinforcement in progress



Package 2 – Site Progress Photos



Photo No. 1: LG-3 Wet joint formwork fixing at Span MP 264-265 RHS in progress



Photo No. 2: Cantilever slab and strut concrete in progress at Span MP 256-257 LHS



Photo No. 3: Pier head segment concrete at MP 246 RHS in progress



Photo No. 4: Pier final lift concrete at MP 167 LHS in progress



Photo No. 5: Integral Pier head segment concrete at MP 195 LHS in progress

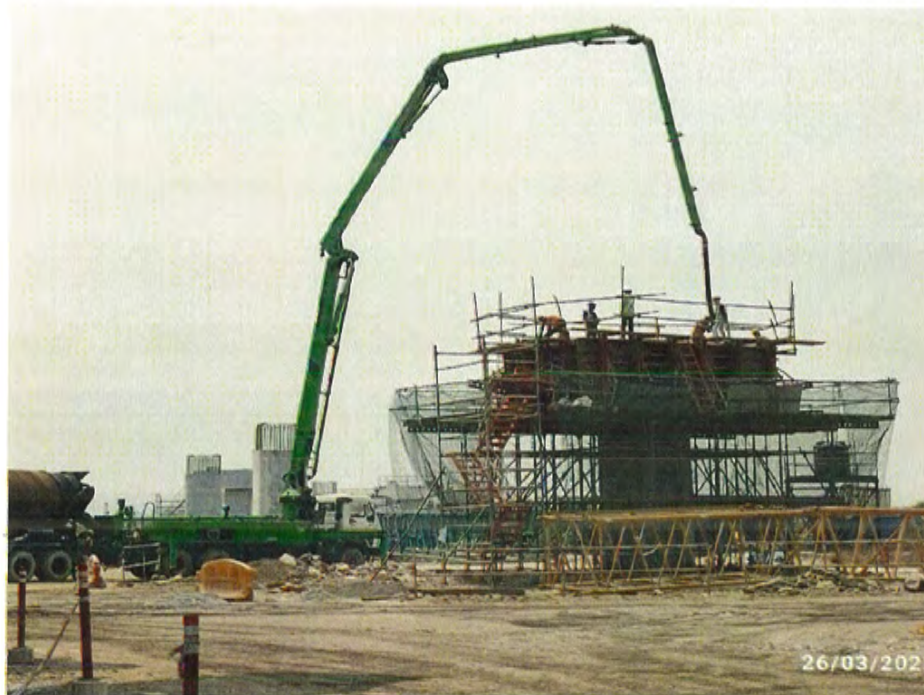


Photo No. 6: Pier cap concrete at JMP-1 in progress



Photo No. 7: Pile cap concrete at MP 175 LHS in progress



Photo No. 8: Retaining wall raft concrete at Ramp CA in progress





Photo No. 9: PC shell wall formwork alignment at MP 183 RHS in progress



Photo No. 10: Pier cap reinforcement tying at MP 177 RHS in progress



Photo No. 11: Cast in situ bottom slab concrete at Ramp AC Span ACP-7 to ACP-8 in progress



Photo No. 12: Pier cap reinforcement tying at CAP-4 in progress

Package 3 – Site Progress Photos



Photo No. 1: Gavan Span RMP 266-267, interface location, segment erection work in progress



Photo No. 2: RMP 274-275 ROB structural steel erection work in progress



Photo No. 3: A view of MTHL Bridge at Gavan area



Photo No. 4: A view of MTHL Bridge at Jasai area



Photo No. 5: A view of MTHL Bridge at Chirle Interchange



Photo No. 6: A view of MTHL Bridge – MPP & JMP Ramps at Chirle Interchange



Photo No. 7: A view of MTHL Bridge – MJP & PMP Ramps at Chirle Interchange



Photo No. 8: DRB Officials Site Visit



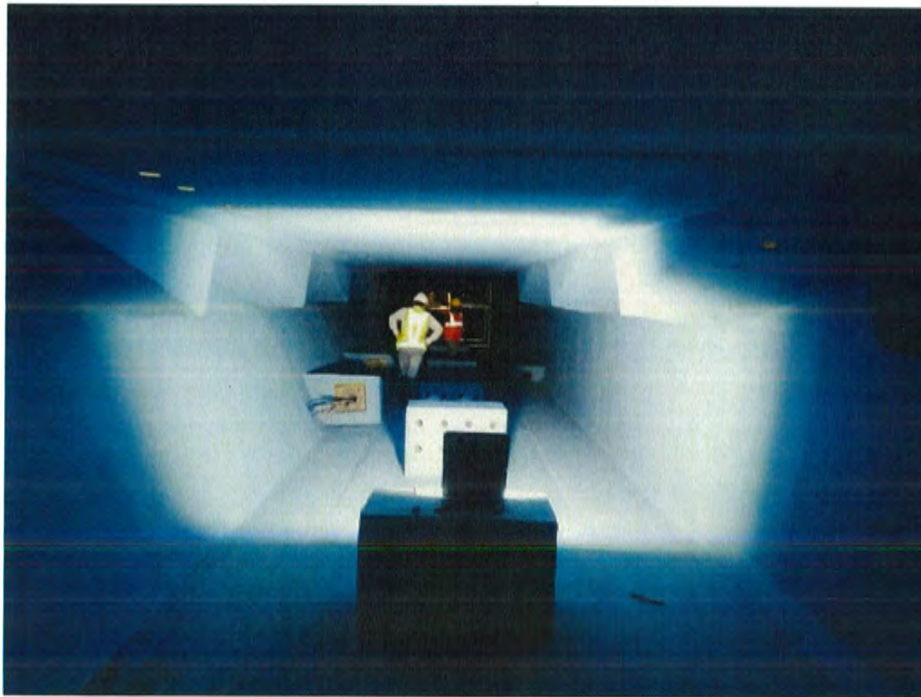


Photo No. 9: Span LMP 281-282 (Segment inner face) Anti-carbonation paint coating work



Photo No. 10: Gavan span RMP 269-270 1st stage prestressing work in progress



Photo No. 11: Jasai JM Ramp RE wall Panel erection in progress



Photo No. 12: Rock fill embankment work at CH 19+440 to CH 19+500 RHS in progress

MMRDA RESIDUAL DEV. FUND - (2021-23)

C - 14 / 15, MMRDA Office Bulding
 Bandra Kurla Complex, Bandra (E).
 Mumbai - 400051
 PAN : AAATM7106R

EXPENSES ON MTHL

Group Summary

1-Jan-2022 to 30-Jun-2022

Page 1
Figures in Crores

Particulars	Opening Balance	Transactions		Closing Balance
		Debit	Credit	
Administrative Charges (MTHL)	1.15 Dr			1.15 Dr
Advertisement & Publicity (MTHL)	0.35 Dr			0.35 Dr
Civil Work (MTHL) - Package-I	4,846.07 Dr	1,617.74	294.97	6,168.84 Dr
Civil Work (MTHL) - Package-II	4,156.67 Dr	983.71	123.21	5,017.17 Dr
Civil Work (MTHL) - Package-III	810.62 Dr	195.46	25.42	980.66 Dr
Compensation to Fisheries (MTHL)	116.31 Dr	5.10	2.50	118.91 Dr
Compensation to Leaseholders-MTHL	13.25 Dr			13.25 Dr
Counter Guarantee Fees (MTHL) (MOF)	71.49 Dr	88.20		159.69 Dr
Deposit with CIDCO for MTHL	11.21 Dr			11.21 Dr
Forex Loss/ Gain Against JICA Loan No IDP-255	45.62 Dr		527.47	481.85 Cr
Forex Loss/ Gain on Mobilisation Advance (MTHL)	6.33 Cr		23.12	29.44 Cr
Front End Fees for JICA Loan (MTHL)	27.23 Dr			27.23 Dr
General Consultants Fees (MTHL)	121.69 Dr	18.34		140.03 Dr
General Consultants Fees (MTHL) - Taxable	4.69 Dr	2.71		7.39 Dr
Geotechnical Investigation (MTHL)	19.60 Dr			19.60 Dr
Interest & Bank charges on JICA Loan (MTHL)	11.78 Dr	7.47	3.74	15.52 Dr
Land Acquisition Cost (MTHL)	852.60 Dr	9.65	4.83	857.43 Dr
Land Acquisition Cost (MTHL) Taxable	60.21 Cr	84.01	0.61	23.19 Dr
Legal Charges (MTHL)	0.09 Dr			0.09 Dr
Other Miscellaneous (MTHL)	79.55 Dr	1.08	0.08	80.55 Dr
Professional Charges (MTHL)	0.12 Dr			0.12 Dr
Repairs & Maintainance (MTHL)	0.08 Dr			0.08 Dr
Security Deposits - Land (MTHL)	11.10 Dr			11.10 Dr
Service Tax on Mobilisation Adv. on MTHL	3.07 Dr			3.07 Dr
Stamp Duty Reimbursement (MTHL)	0.10 Dr			0.10 Dr
Surveys & Studies (MTHL)	47.47 Dr			47.47 Dr
Grand Total	11,185.37 Dr	3,013.47	1,005.94	13,192.91 Dr



Office of the Additional Principal Chief Conservator of Forests,
Mangrove Cell, Mumbai

And Executive Director, Mangrove and Marine Biodiversity
Conservation Foundation of Maharashtra

302, Wakefield House, 3rd Floor, Ballard Estate, Above Britannia & Co. Restaurant, Fort,
Mumbai-400 001

Ph: 022-2694984 / 85 Email: cfmmumbai@gmail.com / cfmangrove@mahaforest.gov.in



MFN/DDR&CB/ 462 /2021-22

Date: - 03.02.2022

To,
The Engineer in Chief
MTHL-PIU
MMRDA

Sub: Report regarding the mangrove plantation carried out as a part of the MMRDA-MTHL Project

Ref: Minutes of the third PIC meeting with respect to the Bird Monitoring Programme of the MTHL Project

With reference to the above subject, during the third PIC meeting of the Bird Monitoring Programme of the MTHL Project, it was decided that a report regarding the 200 hectare mangrove plantation carried out by the Maharashtra Forest Dept. through the funds provided by MMRDA (as compensatory afforestation) should be submitted to the MMRDA.

In this regard, kindly find attached the said report with this letter.

Virendra Tiwari

(Virendra Tiwari)

Addl. Principal Chief Conservator of Forests,
Mangrove Cell, Mumbai &
Executive Director, Mangrove Foundation

MMRDA – MTHL Mangrove Restoration Report



Mangrove Cell

Forest Department of Maharashtra

About Project

Mangrove plantation in lieu of the mangrove area likely to be affected during the construction of Mumbai Trans Harbour Link (MTHL) project.

AS per the CRZ clearance for MTHL Project MMRDA was instructed to restore 5 times the mangroves cut/ disturbed by the project. As per the mandate, 200 hectares of plantation was carried out as compensatory Afforestation. All the plantations done under the project are maintained for the period of five years as per approved estimate and amount received.

For this MMRDA had requested mangrove Cell to prepare a mangrove plantation program 200 hectares. Mangrove Cell had identified 200 hectares area for mangrove plantation and total amount of Rs 49,59,822 was paid vide T O dated 9.05.2016 for 30 hectares. Further amount of Rs. 4,56,29,600 was paid vide cheque no 216609 dated 13.10.2016 for 170 hectares. The mangrove planation involves plantations of 4444 sapling per hectare and therefore total of 888800 saplings and additional 20 percent causality was replaced for the period of three years as per the estimate.

Details of Restoration work

Sr No	Division	Year	Range	Place	S. No	Ha	Survival percentage	GPS Locations
1	Dahanu	2016-17	Boisar	Mouje Pamtembi	161	15	71.02	19.571982; 72.821682
2			Saphale	Mouje Karwela	47	15	72.00	19.553711; 72.845790
3		2017-18	Boisar	Chandigaon	729	10	64.05	19.936829; 72.730574
4			Boisar	Pamtembi	161	10	75.20	19.805105; 72.705118
5			Boisar	Salwad	107	10	68.0	19.810528; 72.715928
6			Saphale	Makunsar	283/A	20	63.50	19.604865; 72.763378
7	MMCU		TCFS	Kanjur	275 C.S.N 657A	10	20	19.065557; 72.565564
8			TCFS	Mulund/ Bhandup	157 C.S.N 1318	15	57	19.084174; 72.580663
9	Dahanu	2018-19	Palghar	Shirgaon	1287	10	54.09	19.688655; 72.711506
10			Palghar	Dhansar I	64	20	46	19.708259; 72.732071
11			Palghar	Dhansar 2	64	25	51.1	19.709843; 72.727397
12			Boisar	Navapur	161	10	71.87	19.800481; 72.692326
13			Boisar	Salwad	107	10	69.79 ^{***}	19.810528; 72.715928
14			Saphale	Karwela	47	20	82	19.552433; 72.841222

Mouje Pamtemhi (2016-17)

Survey No. 161



Mouje Karwela (2017-18)

Survey No.47



Chandigaon (2017-18)

Survey No.729



Pamtembhi (2017-18)

Survey No.161



Salvad (2017-18)

Survey No.107



Makunsar (2017-18)

Survey No.283/A





Kanjurmarg(2018-19)

Survey No.275



Mulund/ Bhandup(2018-19)

Survey No.275



Shirgaon (2018-19)

Survey no-1287



Dhansar 1 (2018-19)

Survey No-64



Dhansar 2 (2018-19)

Survey No-64



Navapur (2018-19)

Survey No-161



Salvad (2018-19)

Survey No-107



Karwale (2018-19)

Survey No-47



CITY AND INDUSTRIAL DEVELOPMENT CORPORATION OF MAHARASHTRA LIMITED

(CIN - U99999 MH 1970 5GC - 014574)

REGD. OFFICE:
 "NIRMAL", 2nd Floor, Narlman Point,
 Mumbai - 400 021.

PHONE : 00-91-22-6650 0900

FAX : 00-91-22-2202 2509

HEAD OFFICE:
 CIDCO Bhavan, CBD Belapur,
 Navi Mumbai - 400 614.

PHONE: 00-91-22-6791 8100

FAX : 00-91-22-6791 8166

Ref. No. NO.CIDCO/Hort/2019/19]

Date : 25.11.2019

 To,
 Shri. G.G.Ddeshpande,
 Executive Engineer (MMRDA),
 Mumbai Trans Harbour Link (MTHL),
 Bandra Kurla Complex, Bandra East,
 Mumbai - 400051.

Sub: - Permission for removal of existing trees falling in the alignment of construction of Mumbai Trans Harbour Link (MTHL) Project (CH.18+187-CH.19+607KM and CH.20+087-CH.21+800KM) on Navi Mumbai side.

Ref:- MTHL/CIDCO/Tree Removal Permission/19/012/MTHL dt.14.05.2019

Sir,

With reference to above it is to inform that your request for removal of 348 no of trees falling in the alignment of construction of Mumbai Trans Harbour Link (MTHL) Project (CH.18+187-CH.19+607KM and CH.20+087-CH.21+800KM) on Navi Mumbai side has been considered by the Tree Authority under section 8(3) of the Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 & rules called the Maharashtra (Urban Areas) Protection and Preservation of Tree rules - 2009 & amendment up to 2016 subject to the following conditions.:

- 1) The Tree Authority Committee of CIDCO has granted the permission to cut 266 no of existing trees and to transplant 82 no of existing trees. You should retain 504 no of existing trees. The details are as below;

Sr. No	Description	Tree no.
1	Trees to be cut	1, 3, 4, 5, 6, 7, 8, 9, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 59, 66, 67, 80, 90, 101, 102, 103, 104, 105, 118, 119, 120, 121, 123, 143, 144, 147, 148, 149, 150, 151, 153, 156, 157, 158, 159, 162, 165, 166, 173, 174, 175, 176, 177, 178, 179, 186, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 225, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 277, 278, 279, 289, 325, 327, 330, 336, 346, 350, 355, 356, 363, 367, 382, 384, 385, 386, 387, 389, 390, 391, 401, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436,

In case of any corruption related complaints, please visit :

cidco.maharashtra.gov.in / CIDCO VIGILANCE MODULE NEW / Userlogin.aspx

		437, 438, 439, 440, 441, 444, 445, 447, 449, 450, 451, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 496, 497, 498, 499, 500, 501, 503, 504, 517, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 597, 599, 600, 601, 602, 603, 604, 624, 627, 628, 637, 639, 640, 641, 642, 643, 644, 658, 659, 661, 662, 663, 667, 678, 679, 680, 682, 683, 684, 688, 696, 698, 699, 700, 701, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 715, 730, 731, 744, 745, 754, 756, 758, 760, 761, 762, 773, 775, 776, 778, 779, 780, 783, 784, 785, 786, 787, 789, 790, 792, 793, 794, 795, 797, 824, 825, 826, 827, 831, 832.
2	Trees to be Transplant	2, 14, 19, 20, 21, 58, 65, 68, 79, 91, 122, 152, 154, 155, 160, 161, 163, 164, 274, 275, 276, 324, 326, 328, 329, 331, 332, 333, 334, 335, 347, 348, 349, 354, 357, 364, 365, 366, 383, 388, 413, 448, 452, 598, 638, 647, 660, 664, 665, 666, 668, 669, 670, 671, 672, 675, 676, 677, 681, 685, 686, 687, 689, 690, 691, 692, 693, 694, 695, 697, 702, 714, 732, 743, 755, 757, 759, 777, 781, 788, 791, 796.
3	Trees to be Retain	10, 11, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 64, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 86, 87, 88, 89, 92, 93, 94, 95, 96, 97, 98, 99, 100, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 124, 125, 126, 128, 129, 130, 131, 132, 133, 135, 136, 137, 138, 139, 140, 141, 142, 145, 146, 167, 168, 169, 170, 171, 172, 180, 181, 182, 183, 184, 185, 187, 188, 189, 190, 191, 192, 193, 194, 218, 219, 220, 221, 222, 223, 224, 226, 227, 228, 229, 230, 231, 232, 233, 234, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 280, 281, 282, 283, 284, 285, 286, 287, 288, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 337, 338, 339, 340, 341, 342, 343, 344, 345, 351, 352, 353, 358, 359, 360, 361, 362, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 392, 393, 394, 395, 396, 397, 398, 399, 400, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 442, 443, 446, 453, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 502, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 605, 606, 607, 608, 609, 610, 611, 612, 615, 616, 617, 618, 619, 620, 621, 622, 623, 625, 626, 629, 630, 631, 632, 633, 634, 635, 636, 645, 646, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 673, 674, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 746, 747, 748, 749, 750, 751, 752, 753, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 774, 782, 798, 799, 800, 801, 802, 803, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 828, 829, 830, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858.

2) As per the provision under Section 8(3) (a) of the said Act, you are hereby directed that no tree shall be cut/transplanted until fifteen days (15) after the permission is given by the Tree Authority.

3) It is mandatory on your part to plant 2 no of trees against each tree to be cut. As per the provision of Maharashtra (Urban Areas) Protection and Preservation of Trees (amendment) Act, 2016 the new trees shall be plant within fifteen days from the date of tree (s) is felled.

4) You have to plant 532 no of new trees (against cutting of 266 no of trees) & to transplant 82 no of existing trees at Survey No. 347, Village- Gavhan, Tal-Uran, Dist-Raigad. While planting trees, suitable distance should be kept from the boundary of the plots, so that the newly planted trees will not obstruct the construction of compound wall or any other civil structure in future.

You shall maintain & protect the new tree plantation (532 no of trees) and transplanted trees (82 no of existing trees) for the period of three years & care should be taken so that tree grows properly & give a report to the tree officer about the condition of these trees once in six months for a period of three years as per the form - G under section 9(2).

5) Your attention is kindly drawn to the provisions under section of 21 of the Maharashtra (Urban Areas) Protection & Preservation of Trees Act. 1975, as modified on 9th June, 2004.

21 (1) Whoever fells any tree or causes any tree to be felled in contraventions of the provision of the Act or without reasonable excuse fails to comply with any order issued or condition imposed by the Tree Officer or the Tree Authority or voluntarily obstructs and member of the Tree Authority or the Tree Officer or any officers and Servants subordinate to him in the discharge of their functions under this Act. Shall, on convection, be punished with the fine of not less than one thousand rupees which may extend up to five thousand rupees for every offence and also with imprisonment for a term of not less than one week, which may extent up to one year.

(3) The felling or causing of felling of each tree without the Permission of The Tree Authority shall constitute a separate offence.

6) At the time of transplanting or cutting of trees, if any social problem occurs, you will have to resolve the same at your end.

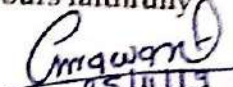
7) You shall submit the report for Cutting and transplantaion of the trees carried out to Tree officer, CIDCO.

8) Tree authority Committee, CIDCO has granted the permission for removal of 348 no of trees (To Cut 266 nos and to transplant 82 nos). At the time of actual execution of work, applicant Executive Engineer, MTHL Project, MMRDA should take care to remove only those trees which are falling in alignment of construction activities.

9) The said permission is valid only up to 90 days from the receipt thereof.

Thanking You.

Yours faithfully


Tree Officer

(Tree Authority Committee, CIDCO)

No. MTHL-PIU/GC/Tree permission/1507/12-2020

Date : 30th December 2020

To,

The Engineer, General Consultant

AECOM Asia Company Ltd. - PADECO Co. Ltd. - DAR Al-Handasah
Consultants (Share & Partners)- T.Y.Lin International (Consortium),
A-Wing, 6th Floor, Old MMRDA Building,
Bandra Kurla Complex, Bandra (East), Mumbai – 400051

Sub :- Mumbai Trans Harbour Link Project (MTHL)

- Permission for Removal of Tree Coming In The Proposed construction of Mumbai Harbour Link Project (Package 1) 10.380 Km long bridge section (CH-0+000 – Ch- 10+380) across The Mumbai bay including Sewri F/South`Ward.

Ref : Letter from Tree Authority, MCGM DySG/C/27/Prop dated 24th December 2020.

Sir,

MMRDA is in receipt of Permission letter for Removal of Tree for Package 1 of Mumbai Harbour Link Project.

The copy of letter alongwith duely signed drawing by MCGM officials is enclosed herewith for further necessary action please.

This letter is issued with the approval of the Chief Engineer.

Thanking you

Encl: MCGM permission letter & drawing

Yours faithfully,



(A.R. Bhisikar)

Executive Engineer, MTHL-PIU

Copy to: Project Manager, L&T –IHI Consortium MTHL Pkg-1, Project office, Gate no.1, Sewri Timber Pond (STP) Yard, Near Gadi Adda , Sewti (E), Mumbai 400015 for necessary action please.

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051

T +91 22 2659 1234 **EPABX** +91 22 2659 0001 / 4000 **F** +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>

Office of the Supdt. of Gardens
Veenmata Iijabai Bhosale Udyan.
Penguin Building, 2nd Floor
Dr. Ambedkar Road, Byculla (East).
Mumbai-400 027.

Prop
DySG/C/27 ~~IF-1/11/P/OD/MC~~
24/12/2020

Additional Metropolitan Commissioner (MMRDA)
Bandra - Kuria Complex,
Bandra (E), Mumbai - 400051

Sub : Permission for Removal Of Trees Coming In The Porposed Construction
Of Mumbai Line Project (Package - 1) - 10.380 km Long Bridge Section
(CH-0+000-CH-10+380) Across The Mumbai Bay Including Sewri In
'F/South' Ward.

Sr. Madam,

Please refer to your letter No MMRDA/MTHL-PIU/L&T-IHL/Tree Proposal-Pkg-1/107/07-2018
of 18.06.2018 for Permission for Removal Of Trees Coming In The Porposed Construction Of
Mumbai Line Project (Package - 1) - 10.380 km Long Bridge Section (CH-0+000-CH-10-380)
Across The Mumbai Bay Including Sewri In 'F/South' Ward. Mumbai. has been considered by the Tree
Authority under Section 8(3) of The Maharashtra (Urban Areas) Protection & Preservation of Trees Act
1975, as modified up to January 2018.

Hence . You are hereby directed to plant 840 nos trees in lieu of Cutting 420 (Four Hundred
Twenty) trees (Tree no.- 19, 22 to 25, 34, 35, 39, 40, 44, 45, 51, 52, 57, 58, 61, 63, 67, 71, 72, 74, 75,
75, 80 to 82, 87, 91, 92, 101, 104, 106, 108, 110 to 112, 113, 118, 121 to 124, 128, 130, 137, 140, 141,
143 to 152, 154 to 159, 161 to 165, 167 to 177, 179 to 186, 188 to 196, 199, 201 to 205, 207 to 230,
232 to 234, 236, 238, 239, 241, 242, 244, 245, 249, 250, 253, 256 to 261, 267, 269, 272, 274 to 290,
292, 293, 295 to 300, 302, 307 to 311, 314, 319, 321, 324, 325, 327, 328, 330 to 333, 336 to 342, 345,
347, 350 to 360, 363 to 367, 370 to 381, 384, 385, 389, 391, 391A, 392, 396, 399, 431, 432, 435, 443,
448, 450, 451, 458, 459, 461, 462, 463, 465, 466, 467, 469 to 472, 477, 478, 484 to 487, 493, 499, 502,
504 to 509, 517, 521, 524 to 538, 541 to 543, 545, 547, 549 to 551, 553, 557, 561, 563 to 565, 568,
570, 575, 579, 580, 584, 591, 595, 609, 618 to 620, 623 to 626, 629, 630, 633, 634, 636, 660, 668, 67,
674 to 676, 678, 679, 683, 699, 704, 705, 709, 710, 713, 716, 719, 760, 768, 779, 781, 783, 785,
787, 790, 793, 833, 842, 913, 916, 918, 920, 921, 928, 929, 934, 936, 941, 942, 947 to 949, 952, 955,
960, 962 to 965, 976, 979, 981, 986, 988, 989, 996, 997, 1001, 1007 to 1009, 1011, 1014, 1023, 1046,
1061 to 1064, 1066, 1072, 1073, 1079, 1082 to 1084, 1090, 1094, 1095, 1097, 1132, 1137 to 1146,
1147 to 1152, 1154, 1158,) within 15 days from the execution of tree cutting, Transplant 526 (Five
Hundred Twenty Six) trees (Tree no.- 04, 33, 36 to 38, 41 to 43, 46 to 50, 53 to 56, 59, 60, 62, 64 to 66,
68 to 70, 73, 76, 77, 79, 83 to 86, 88 to 90, 93 to 100, 102, 103, 105, 107, 109, 112A, 114 to 117, 119,
120, 125 to 127, 129, 131 to 136, 138, 139, 142, 153, 160, 166, 178, 187, 197, 198, 200, 206, 231, 235,
237, 240, 243, 246 to 248, 251, 252, 254, 255, 262 to 266, 268, 270, 271, 273, 291, 294, 301, 303 to
306, 312, 313, 315 to 318, 320, 322, 323, 326, 329, 334, 335, 343, 344, 346, 348, 349, 361, 362, 368,
369, 382, 383, 386 to 388, 390, 393 to 395, 397, 398, 40 to 402, 481, 482, 491, 492, 494 to 498, 500,
501, 503, 510 to 516, 518 to 520, 522, 523, 539, 540, 544, 546, 548, 552, 554 to 556, 558 to 560m,
562, 566, 567, 569, 571 to 574, 576 to 578, 581 to 583, 585 to 590, 592 to 594, 608, 610 to 612, 614,
615, 621, 622, 627, 628, 631, 632, 635, 663 to 665, 667, 669, 670, 673, 677, 680, 681, 682, 684 to 693,
693A, 694 to 698, 700 to 703, 706 to 708, 711, 712, 714, 715, 716A, 716B, 717, 718, 720 to 765,
765A, 767, 769 to 778, 780, 782, 783, 786, 788, 789, 791, 792, 794 to 800, 800A, 801 to 825, 825A,
826, 826A, 827 to 832, 834 to 841, 843 to 848, 911, 911A, 912, 914, 915, 917, 919, 922 to 927, 930 to
933, 935, 937 to 940, 943 to 946, 950, 951, 953, 954, 956, 957, 958, 959, 961, 966, 967, 968, 969, 970,
971, 972, 973, 974, 975, 977, 978, 980, 982, 983, 984, 985, 987, 990, 991, 992, 993, 994, 995, 998,
999, 1000, 1002, 1003, 1004, 1005, 1005A, 1006, 1010, 1012, 1013, 1015, 1016, 1017, 1018, 1019,
1020, 1021, 1022, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036,
1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1047, 1048, 1049, 1050, 1051, 1052, 1053,
1054, 1055, 1056, 1057, 1058, 1059, 1060, 1065, 1067, 1068, 1069, 1070, 1071, 1074, 1075, 1076,
1077, 1078, 1080, 1081, 1085, 1086, 1087, 1088, 1089, 1091, 1092, 1093, 1096, 1098, 1133, 1134,
1135, 1136, 1141, 1153, 1155, 1156, 1157,) is sanctioned by the Tree Authority's vide its Resolution
no. 05 dt. 02.12.2020.

As per the provision under Section 8 (3) (a) of the said Act, you are hereby directed that no tree
shall be cut/ transplant until fifteen days (15) after the permission is given by the Tree Authority. And
also you are requested to inform the Jr. Tree officer / Hort. Assit. of concern ward about the date and
time of cutting of trees as per permission, so that the representative of this office will remain present to
ensure the work carried out properly Jr. Tree office 'F/South' ward whose contact no is 9930354292. &
Hort Assit. F/South Ward 9-05583650.

You are further requested to execute the work of cutting / Transplanting of trees phase wise and when required.

The remaining **226** (Two Hundred Twenty Six) trees (01, 02, 03, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 26, 27, 28, 29, 30, 31, 32, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 433, 434, 436, 437, 438, 439, 440, 441, 442, 444, 445, 446, 447, 449, 452, 453, 454, 455, 456, 457, 460, 464, 468, 473, 474, 475, 476, 479, 480, 483, 488, 489, 490, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 613, 616, 617, 637, 638, 638A, 638B, 639 to 662, 849 to 910, 1099; 1101, 1101A, 1100, 1102, 1103, 1104 to 1128, 1129, 1130, 1131) shall be **Retained** as it is , as per plan attached.

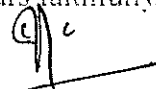
Whoever fells any tree or causes any tree to be felled in contraventions of the provisions of the Act or without reasonable excuse fails to comply with any order issued or condition imposed by the Tree Officer or the Tree Authority or voluntarily obstructs any member of the Tree Authority or the Tree Officer or any Officers and Servants subordinate to him in the discharge of their functions under this Act, shall, on conviction, be punished with the fine of not less than one thousand rupees which may extend up to five thousand rupees for every offense and also with imprisonment for a term of not less than one week. Which may extent up to one year. The felling or causing of felling of each tree without the permission of the Tree Authority shall constitute a separate offense.

As per provision under section 19 (b) you are directed to plant trees in open spaces as well as R.G. Area as per the norms of Tree Authority before getting occupation /completion certificate of the constructed propose work.

As per direction of the Tree Authority, you are hereby directed to submit the photographs taken while transplanting of trees and the C.D. of the transplantation of the trees, you are also requested to plant indigenous variety of trees having circumference of 6" above and height of 10'-12' above. The list of indigenous variety of trees is enclosed herewith for your ready reference and compliance.

Thanking you.

Yours faithfully,


Supdt. of Gardens
& Tree Officer



MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY
मुंबई महानगर प्रदेश विकास प्राधिकरण

No. ED/MTHL/CRZ Clearance/publish/16

Engineering Division
Dt. 29th Jan 2016

To,
Additional Chief Secretary (Environment)
Environment Department,
Govt. of Maharashtra,
Mantralaya, Mumbai - 400 032

Sub: Mumbai Trans Harbour Link (MTHL) project
- CRZ Clearance reg.

Ref : Ministry of Environment, Forest and Climate Change, Govt of India letter No.
F.No.11-65/2012-IA.III Dt. 25th January 2016

Sir,

Ministry of Environment, Forest and Climate Change, vide letter referred above, has accorded CRZ clearance to the Mumbai Trans Harbour Link (MTHL) project. The copy of the clearance is submitted herewith for your information for ready reference.

Thanking you,

Yours faithfully,

P.D. Mamdapure
(P.D. Mamdapure)
Engineer-in-Chief

Encl: Copy of CRZ clearance letter

Copy submitted to

The Member Secretary, Maharashtra Pollution Control Board, Sion (E), Mumbai with a request to publish the CRZ Clearance on your website.

Copy submitted for information to,

1. The Secretary (Forest), Revenue & Forest Dept, Govt. of Maharashtra, Mantralaya, Mumbai

Encl: Copy of CRZ clearance letter

2. The Chairman, Maharashtra Coastal Zone Management Authority, Mumbai

Encl: Copy of CRZ clearance letter

3. The Director, Bombay Natural History Society, Hornbill house, Dr. Salim Ali Chowk, Shaheed Bhagat Singh Road, Mumbai - 400 001

Encl: Copy of CRZ clearance letter

4. The Chief Executive Officer, Raigad Zilla Parishad, Alibaug

Encl: Copy of CRZ clearance letter

5. The Assistant Commissioner (F-South ward), MCGM, 'F/S' ward Office, Jagganath Bhatankar Marg & Dr. B. A. Road Junction, Parel Naka, Mumbai-400 012

Encl: Copy of CRZ clearance letter

6. The Block Development Officer, Uran - Taluka

Encl: Copy of CRZ clearance letter

7. Sarpanch, Jasai Village, Tal: Uran, District Raigad

8. Sarpanch, Gavan Village, Tal: Panvel, District Raigad

9. Sarpanch, Chirle Village, Tal: Uran, District Raigad

10. The Block Development Officer, Panvel-Taluka : Encl: Copy of CRZ clearance letter.
Bandra - Kurla Complex, Bandra (East), Mumbai - 400 051.



MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY
मुंबई महानगर प्रदेश विकास प्राधिकरण

No. ED/MTHL/CRZ Clearance/publish/16

Engineering Division
Dt. 29th Jan 2016

To,
Additional Chief Secretary (Environment)
Environment Department,
Govt. of Maharashtra,
Mantralaya, Mumbai - 400 032

Sub: Mumbai Trans Harbour Link (MTHL) project
- CRZ Clearance reg.

Ref : Ministry of Environment, Forest and Climate Change, Govt of India letter No.
F.No.11-65/2012-IA.III Dt. 25th January 2016

Sir,
Ministry of Environment, Forest and Climate Change, vide letter referred above, has
accorded CRZ clearance to the Mumbai Trans Harbour Link (MTHL) project. The copy of the
clearance is submitted herewith for your information for ready reference.

Thanking you,

Yours faithfully,

P.D. MAMDAPURE
(P.D. MAMDAPURE)
Engineer-in-Chief

Encl: Copy of CRZ clearance letter

Copy submitted to

The Member Secretary, Maharashtra Pollution Control Board, Sion (E), Mumbai with a request
to publish the CRZ Clearance on your website.

Copy submitted for information to,

The Secretary (Forest), Revenue & Forest Dept, Govt. of Maharashtra, Mantralaya, Mumbai

Encl: Copy of CRZ clearance letter

The Chairman, Maharashtra Coastal Zone Management Authority, Mumbai

Encl: Copy of CRZ clearance letter

3. The Director, Bombay Natural History Society, Hornbill house, Dr. Salim Ali Chowk, Shaheed
Bhagat Singh Road, Mumbai - 400 001

Encl: Copy of CRZ clearance letter

4. The Chief Executive Officer, Raigad Zilla Parishad, Alibaug

Encl: Copy of CRZ clearance letter

5. The Assistant Commissioner (F-South ward), MCGM, 'F/S' ward Office, Jagganath Bhatankar
Marg & Dr. B. A. Road Junction, Parel Naka, Mumbai-400 012

Encl: Copy of CRZ clearance letter

6. The Block Development Officer, Uran - Taluka

Encl: Copy of CRZ clearance letter

7. Sarpanch, Jasai Village, Tal: Uran, District Raigad

8. Sarpanch, Gavan Village, Tal: Parnel, District Raigad

9. Sarpanch, Chirle Village, Tal: Uran, District Raigad

10. The Block Development Officer, Parnel-Taluka : Encl: copy of CRZ clearance letter,
Bandra - Kurla Complex, Bandra (East), Mumbai - 400 051.

25/1/2016
स्वीय सहायक
ग्रामसेवक
ग्रा. पं. चिर्ले
21/2/19E
पंचायत समिती, उरण
2/2/2016
लिखनिक
21/01/2016

SP GOVT COLONY P.O <400051>
 EMB648677671N
 Counter No:1,OP-Code:SGK
 To:THE DIRECTOR,RAJYUVA NATURAL HISTO
 MUMBAI, PIN:400001
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:19
 Taxes:Rs.2.00<<Track on www.indiapost.gov.in



SP GOVT COLONY P.O <400051>
 EMB648677981N
 Counter No:1,OP-Code:SGK
 To:DEPUTY SECRETARY,MAHA POLLUTION CONT
 MUMBAI, PIN:400022
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:20
 Taxes:Rs.2.00<<Track on www.indiapost.gov.



SP GOVT COLONY P.O <400051>
 EMB648677751N
 Counter No:1,OP-Code:SGK
 To:ASSTY COMMISSIONER,DIGPUB
 MUMBAI, PIN:400012
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:19
 Taxes:Rs.2.00<<Track on www.indiapost.gov.in



SP GOVT COLONY P.O <400051>
 EMB648678071N
 Counter No:1,OP-Code:SGK
 To:ADD CHIEF SECRETARY,ENVIRONMENT DEPT
 MUMBAI, PIN:400032
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:21
 Taxes:Rs.2.00<<Track on www.indiapost.gov.



SP GOVT COLONY P.O <400051>
 EMB648677841N
 Counter No:1,OP-Code:SGK
 To:SECRETARY,REVENUE & FOREST
 MUMBAI, PIN:400032
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:20
 Taxes:Rs.2.00<<Track on www.indiapost.gov.in>>



SP GOVT COLONY P.O <400051>
 EMB648678151N
 Counter No:1,OP-Code:SGK
 To:CHAIRMAN,MAHA COASTAL ZONE
 MUMBAI, PIN:400032
 From:MUMBAI METROPOLITAN REGION , DEVELOPM
 Wt:25grams,
 Amt:17.00 ,01/02/2016 ,11:21
 Taxes:Rs.2.00<<Track on www.indiapost.gov





MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY
मुंबई महानगर प्रदेश विकास प्राधिकरण

No.ED/MTHL/CRZ/2016

Engineering Division
 Date: 16/02/2016

To,
Chief Conservator of Forests,
 Near Micro Wave Tower,
 Bara Banglow Area,
 Thane (East) – 400 603.

Sub.: Mumbai Trans Harbour Link Road.

- CRZ Clearance for Mumbai Trans Harbour Sea Link (MTHL) by
 M/s. Mumbai Metropolitan Region Development Authority Reg.

Ref.: Letter obtained from Ministry of Environment & Forests (IA.III Division)
 No. F.No.11-65/2012-IA-III dated 25/01/2016.

Sir,

Ministry of Environment & Forests (IA.III Division) has accorded Costal Regulation Zone Clearance (CRZ) for Mumbai Trans Harbour Link Project vide above referred letter.

As required under point no. 8 of General Conditions, the project proponent – Mumbai Metropolitan Region Development Authority has published CRZ clearance in two local Newspapers i.e. India Express – English language and Loksatta – Marathi language on 29/01/2016. The copies of same are enclosed herewith for your information and record please. A copy of CRZ clearance is also enclosed herewith for your ready reference.

Thanking you.

Yours faithfully,

(P.D. Mamdapure)
 (P.D. Mamdapure)
 Engineer-In-Chief

- Encl.: 1. Copy of Notice published in Newspapers.
 2. Copy of CRZ clearance from MoEF.



SF AUDIT BHAVAN PO (400051)
 EM9172056091IN
 Counter No:1, OP-Code: SVM
 To: ADDL PRINCIPAL CON, CIVIL LINES
 NAGPUR, PIN: 440001
 From: MMRDA, BANDRA E
 Wt: 30grams,
 Amt: 40.00, 17/02/2016, 12:02
 Taxes: Rs. 5.00 << Track on www.indiapost.gov.in

19/2/16

TENDERS & NOTICES

AWARDS

WEEKLY UPDATE ON THE BEACONS IN INDIA'S PROGRESS

RAJIV DANDHI JEEVANDAYEE AROGYA YOUNGA SOCIETY
Government of Maharashtra
Jeevandayee Bhavan, E.S.I.S Hospital Compound,
Banpat Jadhav Marg, Mumbai - 400018
Phone and Fax: 022-24912291
Email: hc.off1@jeevandayee.gov.in Website: www.jeevandayee.gov.in

CORRIGENDUM II

Ref-Tender Notice- RFP for Printing, Packaging, and Distribution of Health Card Stationery across Maharashtra State dated 3rd August 2013. There have been some modifications in the RFP document. The last date of the submission of the Tender is now extended to 31st August 2013 up to 2 PM. The details of the same, in bidding for this tender can be seen on our website www.jeevandayee.gov.in.

Sd/-
CEO

NORTHERN RAILWAY
CORRIGENDUM
OFFICE OF THE MEDICAL DIRECTOR,
NORTHERN RAILWAY CENTRAL HOSPITAL
BASANT LANE, DELHI-110065
File No. E/Med/SR/74/13
Adv. No. NRCH/SR/2013/002 Dt.: 08.2013
ENGAGEMENT OF SENIOR RESIDENTS

In continuation to previous advertisement published vide Adv. No. NRCH/SR/2013/001 dated 20.07.13 for appointment of Senior Residents, the age limit may be read as: (1) General- 33 Years (2) OBC- 36 Years (3) SC & ST - 38 Years
Instead of (1) General/UP- 33 Years (2) OBC/SC/ST- 38 Years. 1889/13
Scoring Customers With A Smile

MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY
(A Government of Maharashtra Undertaking)
Plot Nos. C-14 & 15, Bandra-Kurla Complex, Bandra (E),
Mumbai - 400 051. Tel. 26590001-04, Fax: 26591264.
Website: www.mmrda.maharashtra.gov.in

Name of work: Mumbai Trans Harbour Link Project.
Bids to be invited from Ministry of Environment and Forests dated 19.7.2013. Ministry of Environment and Forests, GOI has accorded Coastal Regulation Zone clearance to the Mumbai Trans Harbour Link Project vide their letter no F.No.11-65/2012-IA-III dated 19.7.2013. Copies of clearance letter are available with the State Pollution Control Board & Forests, at <http://www.enyfor.mil.in>

Sd/-
Chief Engineer,
Engineering Division
No.ED/MTHL/MoEF/Clearance/13

pscl PUNJAB STATE TRANSMISSION CORPORATION LIMITED
Regd. Off.: PSEB H.O., The Mall, Patiala-147001

Office of Chief Engineer/Transmission System, Shakti Sadan, Patiala-147001

CORRIGENDUM NO.2

Last date and time for sale of Bid documents, receipt and opening of Tender against Enquiry No. STQ-2012 for Tower Package for the construction of following 400KV lines on turnkey basis:



Central Bank celebrates Independence Day

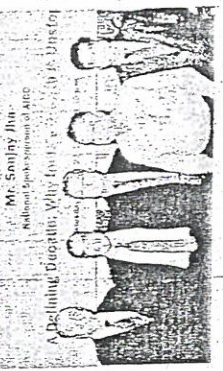


Malay Mukherjee and Raj Kumar Goyal, Executive Directors, and Capt. S Kannan, CSO., seen during flag hoisting ceremony

Central Bank Of India celebrated 67th Independence Day on August 15, 2013 at its corporate office in Mumbai. Flag hoisting was carried out by Malay Mukherjee and Raj Kumar Goyal, Executive Directors, and staff members of the bank were also present on the occasion.

IMC organises interaction

The new business units include: Soimol in Tal area of Pulwama district, Wandevalgam and Ahlan Gadole in Anantnag, Trenz and Fruit Mandi Prichoo in Shopian. "We have a strong commitment to J&K, our core area of operations. In an effort to make the state financially inclusive, the bank has always ensured to make its presence felt in every block of the state, including unbanked and far flung areas," the Chairman said.



Mr. Sanjay Jha, National Spokesperson of AICC, (left) with Mr. P. S. Unnikrishnan, President, Why India?

An interactive meeting was organised by the Indian Merchants' Chamber, Mumbai on August 22, 2013. The topic was, 'A Defining Decade - Why India's Growth is Unstoppable'. Shailesh Vaidya, President, IMC, said, "The Indian economy is currently facing tough times. The critical growth vs inflation conflict is assuming political overtones, with the biggest sufferer being the economy." Sanjay Jha, National Spokesperson, Congress, (l), said, "The problem of the rupee falling drastically is partly global and partly domestic. The recovery of the US economy is the main reason for the rupee's woes. Though the US-Eurozone recovery is bad in the short term, it holds lot of promise over the long term. Unemployment rates are declining and the \$4 trillion that went into the American market is now find-

NHB profits rise

National Housing Bank (NHB) announced its annual results for the financial year ended 30th June, 2013. The Bank posted a net profit of 450 crore during the current year as against 38 crore in the previous year, an increase of over 16%. The loans and advances of the Bank increased by 6,113 crore from 28,490 crore to 34,603 crore, an increase of 22%. The Bank's total loan disbursements during the year were 17,63 crore (previous year 14,454 crores), a growth of 22% out of which the share in rural housing was about 44%, aggregating to 7,718 crores. Of the total disbursements made during the year, loans up to 15 lakh constituted about 60%. The Bank crossed the cumulative refinancing disbursement of 1,00,000 crore during the year 2012-13.

IDBI Bank hikes rates

IDBI Bank has increased interest rate on foreign currency non-resident (FCNR) and non-resident external (NRE) deposits across select maturity buckets, aimed at attracting foreign currency inflows from NRI diaspora. Interest rates on FCNR (B) deposits for the term of 3 years, and above has been increased by 100 basis points (bp) across all nine currencies. In respect of NRE Deposits, the rates have been linked for the tenor of more than years up to 7 years by up to 25 bps (50 bps). The bank is now offering a pre-interest rate of 9.5% on NRE deposits as a result of the above revision. No pre-mature penalty shall be levied on the NRI deposits. The revised rates, which took effect from August 20, 2013, shall be valid up to November 30, 2013 subject to review.

To keep the expansion momentum going, the bank is planning to take its branch network to 800 by the end of current fiscal and "God willing, we will be having 1000 branches by the end of FY15," he said.



Central Bank Of India celebrated 67th Independence Day on August 15, 2013 at its corporate office in Mumbai. Flag hoisting was carried out by Malay Mukherjee and Raj Kumar Goyal, Executive Directors, and staff members of the bank were also present on the occasion.



MMRDA

MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY

(A Govt. of Maharashtra Undertaking)
C-14 & 15, Bandra-Kurla Complex, Bandra (E),
Mumbai - 400 051. Tel. 26594001-04 Fax 26591264
Email: ce.mmrda@gmail.com
Website : <http://www.mmrda.maharashtra.gov.in>

Sub. : Mumbai Trans Harbour Link Project
Ref. : Letter from Ministry of Environment & Forests dated 25/01/2016.

Ministry of Environment & Forests, Govt has granted coastal regulation zone clearance to the Mumbai Trans Harbour Link Project vide their letter no. F.No.11-65/2012-IA-III dated 25/01/2016. Copies of clearance letter can be downloaded from website of Ministry of Environment & Forests at <http://environmentclearance.nic.in>

No.ED/MTHL/MoEF/Clearance/16

Sd/-

Date: 29/01/2016

Place: Mumbai

Engineer-in-Chief
Engineering Division

CENTRAL PUBLIC WORKS DEPARTMENT NOTICE INVITING E-TENDERS

The Indian **EXPRESS** Sat, 30 January 2016
epaper editions epaper.indianexpress.com

☐ ४ कार्ड्स ☐ बॉटल लॅप दु. २-साच. ५
 • कोर्स ३ ते ७ फेब्रु. २०१६ • १५ जागा
 अधिक माहितीसाठी संपर्क: 9920592150

CENTRAL PUBLIC WORKS DEPARTMENT
NOTICE INVITING E-TENDERS

The Executive Engineer, Mumbai Central Division No. II, CPWD, Nirman Sadan, 2nd Floor, Kane Nagar, Antop Hill, Mumbai-37 invites on behalf of President of India online item rate tenders for following works :-

- NIT No.58/EE/MCD II/2015-16 [Recall]**
 Name of Work :- Addition/Alteration to CGH at S.M.Plot, Sector-VII, Antop Hill, Mumbai-37 during 2015-16. SH:Upgradation of Bldg.No.51 (Flat 10 Nos.2063, 2064, 2066, 2073, 2074, 2075, 2084, 2085, 2087, 2089), Estimated Cost :- Rs.9,68,484/-, Earnest Money :- Rs.19,370/-, Period of completion:- 05 (Five) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.97/EE/MCD II/2015-16**
 Name of Work :- A/R & M/O to CGH at SPL, Kane Nagar, Sector-II & III, Mumbai-37, during 2015-16. SH:Repairs to internal rooms by plastering and painting, Estimated Cost - Rs. 2,260/-, Earnest Money :- Rs.15,645/-, Period of completion:- 03 (Three) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.98/EE/MCD II/2015-16**
 Name of Work :- Urgent internal repairs and painting of 35 Nos. new allotted vacant and dilapidated quarters of building No.53, 54, 55 and 58 Revenue pool (Income Tax Department), Estimated Cost :- Rs.14,66,365/-, Earnest Money :- Rs.29,327/-, Period of completion:- 06 (Six) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.99/EE/MCD II/2015-16**
 Name of Work :- Structural repairs to distressed building of CGH, SPL, Kane Nagar in Sector-III, Antop Hill, Mumbai-37 during 2015-16. SH:Minor repairs with external painting to building No.31, Estimated Cost :- Rs.7,41,875/-, Earnest Money :- Rs.14,838/-, Period of completion:- 03 (Three) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.100/EE/MCD II/2015-16**
 Name of Work :- Special Repair to S.M.Plot, Phase-II, Sector-II, Antop Hill, Mumbai-37 during 2015-16 SH:Repairs to anholes, gully traps and sewerlines building No.1 to 51, Estimated Cost :- Rs.17,69,072/-, Earnest Money :- Rs.35,361/-, Period of completion:- 12 (Twelve) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.102/EE/MCD II/2015-16**
 Name of Work :-Aesthetic improvement of CGS Colony at M.Plot, Phase-II, Sector-VII, Antop Hill, Mumbai-37 during 2015-16. SH:Development of pump house area by surface dressing, cement concrete, repairs to sluice chamber, pump use near building No.25 (Section A), Estimated Cost :- Rs.7,37,019/-, Earnest Money :- Rs.14,740/-, Period of completion:- 02 (Two) Months, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
 - NIT No.103/EE/MCD II/2015-16**
 Name of Work :-Providing concertina coil over existing grill compound wall, north side of the building No.186,188 & 2, around the garden at Sector-VI, Kane Nagar, Mumbai-37, Estimated Cost :- Rs.6,92,458/-, Earnest Money :- Rs.13,849/-, Period of completion:- 01 (One) Month, Last Date and Time of Submission of Tender :- 15.00 hrs. of 06/02/2016 and opening on 06/02/2016 at 3.30 PM
- tender forms and other details can be obtained from website www.tenderwizard.com/CPWD or www.cpwd.gov.in, www.tenderhome.com and www.eprocure.gov.in.

EX-SERVICEMEN CONTRIBUTORY HEALTH SCHEME (ECHS)

1. Application invited for appointment of one 'HELPER' each at ECHS Polyclinic Solapur, Osmanabad Latur and Beed for six months (may extended) on contractual basis.
 2. Conversant with Hindi and Marathi. min. qualification SSC.
 3. Fixed salary - Rs 8000 - pm.
 4. Send application with CV by E-mail/ Registered Post or through ECHS Polyclinic by 10 Feb 2016 to undermentioned address.
 Contact 0241-2321233 (working hours) (Excluding Sundays and Gazzated Holidays)
 ECHS Cell, Station Headquarters
 PO : Camp, Jamkhed Road, Ahmednagar-414002
 Contact No: 0241-2323565, 2321233
 E-mail: echscellstnhqnagar@yahoo.com



मुंबई महानगर प्रदेश विकास प्राधिकरण
 (महाराष्ट्र शासन अंगिकृत)

सी-१४ व १५, वाई-कुर्ना संयुक्त, वाई (पूर्व), मुंबई-४०० ०५१
 दूरध्वनी : २६५९४००१-०४ फॅक्स : २६५९५२३४
 ई-मेल : ce.mmirda@gmail.com
 वेबसाईट : <https://www.mmirda.maharashtra.gov.in>

विषय : मुंबई पारबंदर प्रकल्प
 संदर्भ : केंद्रीय पर्यावरण विभागाचे दिनांक २५/०१/२०१६ रोजीचे पत्र
 मुंबई पारबंदर प्रकल्पास केंद्रीय पर्यावरण व वने विभागाने पत्र क्र. F.No.11-65/2012-IA-III दिनांक २५/०१/२०१६ अन्वये सागरी नियंत्रण क्षेत्र विषयक (CRZ) मान्यता दिलेली आहे. सदर पत्राची प्रत केंद्रीय पर्यावरण व वन विभागाच्या <http://environmentclearance.nic.in> या सांकेतिक स्थळावर उपलब्ध आहे.
 क्र.अभि/मुं.प्रा.प्र/के.प.वि/मान्यता/१६
 दिनांक : २९/०१/२०१६
 स्थळ : मुंबई

सहो/-
 प्रमुख
 अभियांत्रिकी विभाग



शुद्धिपत्रक-२

शहर आणि औद्योगिक विकास महामंडळ (महाराष्ट्र) मर्यादित
 सिडको नवी मुंबई प्रकल्पग्रस्तांसाठी UPSC (Civil Services) - २०१७ स्पर्धा परीक्षेच्या तयारी कारता दिल्ली येथील नामवंत कोचिंग इन्स्टिट्यूटमध्ये नि:शुल्क कोचिंग मूळ जाहिरात दिनांक - २३.१२.२०१५, शुद्धिपत्रक-१ - ०९.०१.२०१६ सदरील बदल बाटी. पुणे यांनी कळविला आहे.

सिडको नवी मुंबई प्रकल्पग्रस्तांसाठी कौशल्यवृद्धी कार्यक्रम सिडकोतारा अंतर्गत पात्र प्रकल्पग्रस्त पदवीधरांसाठी दिल्ली येथील नामवंत कोचिंग इन्स्टिट्यूटमध्ये (बाजीराम एंड रवी, अल्टरनेटिव्ह लर्निंग सिस्टीम प्रा.ली., श्रीराम आय.ए.एस.) UPSC Civil Services-2017 - Preliminary and Mains या दोन्ही स्पर्धा परीक्षा पूर्व तयारीसाठी उमेदवारांना सुरुसकृत (Sponsor) करण्यात येणार आहे. सदर नामवंत कोचिंग इन्स्टिट्यूटमध्ये प्रवेशपरीक्षा COMMON ENTRANCE TEST (CIDCO-DELHI-CET-2017) बाटी, पुणे च्या माध्यमाने देण्यात येईल, तरी त्यासाठी ऑनलाईन अर्ज मागविण्यात येत आहे.

ऑनलाईनद्वारे अर्ज स्विकारण्याची अंतिम तारीख	दि. ११ मार्च, २०१६
ई-प्रवेश पत्र (Admit Card) मिळण्याची तारीख	दि. १९ मार्च, २०१६
CIDCO-DELHI-CET-2016 परीक्षेची तारीख	दि. २७ मार्च, २०१६

ऑनलाईन अर्ज करण्यासाठी
<http://barti.maharashtra.gov.in> > NOTICEBOARD > CIDCO-DELHI-CET-2017 वर क्लिक करा.
 अधिक माहितीसाठी संपर्क - <http://cidcopap.org> कॉलसेंटर ६१०५ ४४५५, ६१०४५८०३, ६१०४५८००

CIN - U99999 MH 1979 SGC-014574
www.cidco.maharashtra.gov.in

www.Larsentoubro.com

Registered Office: L&T

EXTRACT OF STATE FOR THE QUARTER

Particulars	
1	Total Income from Operations (in Lakhs)
2	Net Profit after tax, minority interest of associates (before extraordinary items)
3	Net Profit after tax, minority interest of associates (after extraordinary items)
4	Equity share capital
5	Reserves (excluding revaluation Reserve) Balance Sheet of previous year
6	Earnings per share of ₹ 2/- each (not annualised): (a) Basic EPS (₹) (b) Diluted EPS (₹)
7	Earnings per share of ₹ 2/- each (not annualised): (a) Basic EPS (₹) (b) Diluted EPS (₹)

Notes:
 (i) The Company reports consolidated financial results as per Regulation 33 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2009. The results are available on the Company's website (www.nseindia.com) and NSE (www.nseindia.com) for the nine months ended December 31, 2015.

Particulars	
Total Income from Operations (net)	
Profit before tax	
Profit after tax	

(ii) The above is an extract of the consolidated financial results as per Regulation 33 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2009.

(iii) The above extract is based on the consolidated financial results as per Regulation 33 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2009.

Mumbai
 January 29, 2016

Ref No: MMRDA/MTHL/P1/GC/EOT-1//2021 /751

Date: 22.11.2021

To,
The Team Leader,
 M/s AECOM Asia Company Ltd.
 (In Consortium with PADECO Co. Ltd –
 Dar-Al-Handasah - T.Y. Lin International)
 6th floor, A Wing, MMRDA Bldg (Old),
 E-Block, BKC, Bandra (East) Mumbai-51

MTHL	
General Consultant	
INWARD NO:	MMRDA 1275
DATE	23.11.2021

Project: Procurement of Mumbai Harbour Link Project (package 1) Construction of 10.380 Km Long bridge section (CH-0+000 – Ch- 10+380) across the Mumbai bay including Sewri Interchange under Identification NO MMRDA/ENG1/000752

--- Extension of Time limit to M/s L&T for completion of contract for Pkg-1

- Ref:-**
1. Contract Agreement: MMRDA/ENG/000752 dated 26.12.2017
 2. MMRDA's Letter of Acceptance (LOA) to M/s L&T-IHI Consortium dated 17.11.2017
 3. GC's letter of Commencement to M/s L&T-IHI Consortium dated 23.03.2018
 4. M/s L&T-IHI Consortium letter to GC 09.04.2021 requesting EOT to contract of Pkg-1
 5. M/s L&T-IHI Consortium letter to GC 24.06.2021 on additional clarification on EOT proposal Pkg-1
 6. GC's recommendation to MMRDA vide letter no. MTHL/P1/GC/MMRDA/LT/CNT-2292/2021 dated 07.09.2021.
 7. MMRDA letter to JICA vide No. **MMRDA/MTHL-PIU/P1/EOT-1/0698/2021** dt 29/10/2021.
 8. Letter from JICA vide No. **JICA (ID) 2021-662** dt. 22/11/2021.

Dear Sir,

This has reference to the various letters received by Employer referred above for EOT for MTHL Package 1 Contract. The Contract was awarded to M/s L&T-IHI Consortium with the commencement date 23.08.2018 and as per the Contract; the original completion period is 22.09.2022.

The GC vide their letter dated 07.09.2021, verified the reasons for delay and critical path for completion of the balance work and recommended to MMRDA for approving EOT up to 30.09.2023 (374 days).

It is observed that unavoidable delays beyond the control of Contractor i.e permission from various authorities, realignment at OSD-02 and OSD-03 foundations due to mismatch in ONGC Pipeline and laying of new MbPT pipeline, Covid-19 pandemic restrictions etc is the governing delay affecting the completion of the overall project.

Therefore, the Engineer has recommended an interim Extension of Time for a period of 374 days to be granted to the Contractor under 8.4(b) of the General Conditions of the Contract. The contractor is entitled to claim under the clause 20.1 of GCC and shall be paid the actual costs incurred by him for

Mumbai Metropolitan Region Development Authority

Page 1 of 4

such extension of validity of insurances & PBG etc upon submission of proof of payment to the satisfaction of the Engineer

Employer has received concurrence from JICA for EOT to Package 1 for the period of 374 days i.e. till 30th September 2023. Copy of letter of JICA is enclosed herewith for your reference.

In the JICA letter, they have requested MMRDA to setup a mechanism for rigorous review of the safety protocols, processes and mechanism adopted by the contractor to avoid recurrence of safety incidents under the captioned packages. GC is also requested to take note of JICA's point set up a mechanism for rigorous review of the safety at worksite.

This is for your kind information.

Thanking you.

Yours faithfully,
Sunil Wandhekar
(Sunil Wandhekar)
Engineer-In-Chief

Encl: As Above.

TL Fwd to

- ① Chandrakant Bansod
- ② Kishore Raju
- ③ Sim Ahulkar on 23.11.2021

MTHL			
General Consultant [Pkg -]			
Department	A	I	Rmk
Resident Engineer			
Contract Administration			
Quantity Survey / Billing			
Planning & Monitoring			
Quality Control			
Safety / Environment			
Utilities / Social			
Design Related			
Foundation			
Substructure			
Superstructure PC/Steel			
Geotechnical			
Administration			



JICA (ID) 2021- 652
November 22, 2021

Mr. Sunil Wandhekar,
Engineer-in-Chief,
MMRDA
Mumbai

**Sub: Mumbai Trans Harbour Link Project (MTHL): ID-P 255 & ID-P 283
Extension of Time for Package 1**

Ref: MMRDA/MTHL-PIU/P1/EOT-1/0698/2021 dated October 29, 2021

Dear Mr. Wandhekar,

This has reference to your captioned letter wherein MMRDA has submitted a proposal for Extension of Time (EoT) for package 1 under the captioned project.

Upon review, it is understood by JICA that the GC of the project has recommended that Extension of Time (EoT) for a period of 374 days (With Revised Completion date as September 30, 2023) shall be granted to the Contractor of Package 1 under 8.4 (b) of the GCC and the same has been accepted and agreed by MMRDA. In view of the above, MMRDA is requested to go-ahead with your proposal and issue the EoT to the contractor of the captioned package in accordance with your proposal.

We wish to take this opportunity to reiterate that amendment to the contract documents concurred by JICA (including amendment in contract price, variations and additional items among others) shall require prior written concurrence from JICA in accordance with the Loan Agreement of the captioned project.

In view of frequent accidents during civil works under Package 1 of the captioned project, we wish to request MMRDA to set up a mechanism for rigorous review of the safety protocols, processes and mechanisms adopted by the contractor to avoid recurrence of safety incidents under the captioned package.

Your kind cooperation in this matter shall be highly appreciated.

Yours sincerely,

NAGAI Shinsuke
Senior Representative

CC:

Mr. Avanish Mishra, Deputy Director General, DEA, Ministry of Finance, New Delhi
Mr. SUNOUCHI Tatsuhiko, Director, SAD1, JICA HQ, Tokyo

14.10.2021.



No.MMRDA/MTHL-PIU/GC /2021/674

Date : 13th October 2021

To

The Engineer, General Consultant

AECOM Asia Company Ltd. - PADECO Co. Ltd. - DAR Al-Handasah
Consultants (Share & Partners)- T.Y.Lin International (Consortium)
A-Wing, 6th Floor, Old MMRDA Building,
Bandra Kurla Complex, Bandra (East), Mumbai - 400051

MTHL	
General Consultant	
INWARD NO:	MMRDA 1238
DATE	14.10.21.

Sub: Mumbai Trans Harbour Link (MTHL) Project (Package-2)
- **Extension of Time (EOT)**

Ref: General consultant letter no. MTHL/GC/MMRDA/LT/EOT-2314/2021 dated 15th
October 2021.

Sir,

The work of MTHL Package -2 has been awarded to M/s Daewoo-TPL JV at a contract value of Rs. 5612.61 crs. The original time given to the contractor for package -2 is 54 months from commencement of work (ie up to 22/09/2022). The contractor M/s Daewoo-TPL JV has submitted proposal requesting EOT accounting for delays up to 25/09/2020.

General Consultant has submitted that the governing delays which are affecting the completion of overall project and recommended for interim Extension of Time for a period of 372 days to be granted to the contractor. General Consultant has arrived at projected completion date as 27/09/2023 i.e. extended time of 372 days for all the delays.

In view of above, General Consultant is requested to confirm that the extension of time limit does not increase the original estimated project cost.

Thanking you,

Yours faithfully

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

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051.

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>

22.09.2021



Ref No: MTHL/P3/GC/MMRDA/LT/EOT- 0605/2021

To,

The Team Leader,

M/s AECOM Asia Company Ltd.
(In Consortium with PADECO Co. Ltd –
Dar-Al-Handasah - T.Y. Lin International)
6th floor, A Wing, MMRDA Bldg (Old),
E-Block, BKC, Bandra (East) Mumbai-51

MTHL General Consultant	
INWARD NO:	MMRDA 1208
DATE	22.09.2021

Project: Procurement of Mumbai Trans Harbour Link Project (Package 3), Construction of 3.613km long viaduct section (CH 18+187 – CH 21+ 800) including interchanges at State Highway-54 and at National Highway-4B near Chirle in Navi Mumbai Contract No.:MMRDA/ENG/000754 dated 26thDecember 2017.

--- Extension of Time limit to M/s L&T for completion of contract for Pkg-3

Ref:-

1. Contract Agreement: MMRDA/ENG1/000754 dated 26.12.2017
2. MMRDA's Letter of Acceptance (LOA) to M/s L&T dated 17.11.2017
3. GC's letter of Commencement to L&T dated 23.03.2018
4. L&T's letter to GC 12.04.2021 requesting EOT to contract of Pkg-3
5. L&T's letter to GC 20.05.2021 on additional clarification on EOT proposal Pkg-3
6. GC's recommendation to MMRDA vide letter no. Letter MTHL/P3/GC/MMRDA/LT/CNT-2230/2021 dated 04.08.2021 and 28.08.2021.
7. JICA letter no MTHL/P3/GC/MMRDA/LT/EOT-573/JICA/21 dt 15/09/2021.

Dear Sir,

This has reference to the EOT for MTHL Package 3 Contract. The Contract awarded to Larsen & Toubro Limited. The commencement date was issued on 23.08.2018 and as per the Contract, the original completion period is 21.09.2021.

The GC vide their letter dated 04.08.2021 & 28.08.2021 has verified the reasons for delay and critical path for completion of the balance work and recommended to MMRDA for approving EOT upto 03.03.2023 (529 days).

It is observed that due to unavoidable delays in handing over of casting yard land, removal of encumbrances, approval from Railway departments, Covid-19 pandemic restrictions etc. is the governing delay affecting the completion of the overall project.

Therefore, the Engineer has recommended an interim Extension of Time for a period of 529 days to be granted to the Contractor under 8.4(b) of the General Conditions of the Contract. The contractor is entitled to claim under the clause 20.1 of GCC and shall be paid the actual costs incurred by him for such extension of validity of insurances & PBG etc upon submission of proof of payment to the satisfaction of the Engineer

We have reviewed the GCs recommendations and received concurrence from JICA, hence agreed to consider the EOT. Copy of letter of JICA is enclosed herewith for your reference.

This is for your kind information.

Thanking you.

Yours faithfully,

(Sunil Wandhekar)
Engineer-In-Chief

Encl: As Above.

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051.

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>



JICA(ID) 2021- 419
September 16, 2021

Mr. Sunil Wandhekar
Engineer In Chief
MMRDA
Mumbai

**Sub: Mumbai Trans Harbour Link Project (MTHL) (ID-P 255)
Extension of Time for Package 3**

Ref:

Letter No. MTHL/P3/GC/MMRDA/LT/EOT-573/Jica.2021 dated September 15, 2021

Dear Mr. Wandhekar,

This has reference to the captioned letter wherein MMRDA has submitted a proposal for Extension of Tender (EOT) of Package 3 under the captioned project.

Upon review, it is understood by JICA that the GC of the project has recommended that an interim EOT for a period of 529 days (with completion date as March 3, 2023) to be granted to the contractor of Package 3 in accordance with Clause 8.4 (b) of the GCC and the same has been accepted and agreed by MMRDA. In view of the above, MMRDA is requested to go-ahead with your proposal and issue the EoT to the contractor of the captioned package in accordance with your proposal.

We wish to take this opportunity to reiterate that amendment to the contract document concurred by JICA (including amendment in contract price, variations in scope, additional items etc.) shall require prior written concurrence from JICA in accordance with the Loan Agreement of the captioned project.

Your kind cooperation in the matter will be highly appreciated.

Yours sincerely,

NAGAI Shinsuke
Senior Representative

CC:

Mr. A.K Mishra, Deputy Director General, DEA, Ministry of Finance, Govt. of India, New Delhi.

Mr. Takuro Takeuchi, Senior Director SAD I, JICA HQ, Tokyo.