



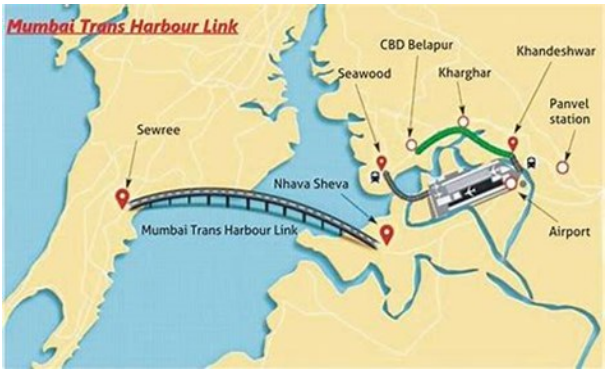
# MUMBAI TRANS HARBOUR LINK PROJECT PACKAGE I

## TEMPORARY ACCESS BRIDGE PROJECT

<b>Project Name</b>	Mumbai Trans Harbour Link Project Package I
<b>Owner</b>	Mumbai Metropolitan Regional Development Authority
<b>Contractor</b>	L&T – IHI Consortium
<b>Location</b>	Mumbai, India
<b>Product</b>	Bridge Girders
<b>Quantity</b>	2,780MT
<b>Delivery Date</b>	April 2019

### INTRODUCTION

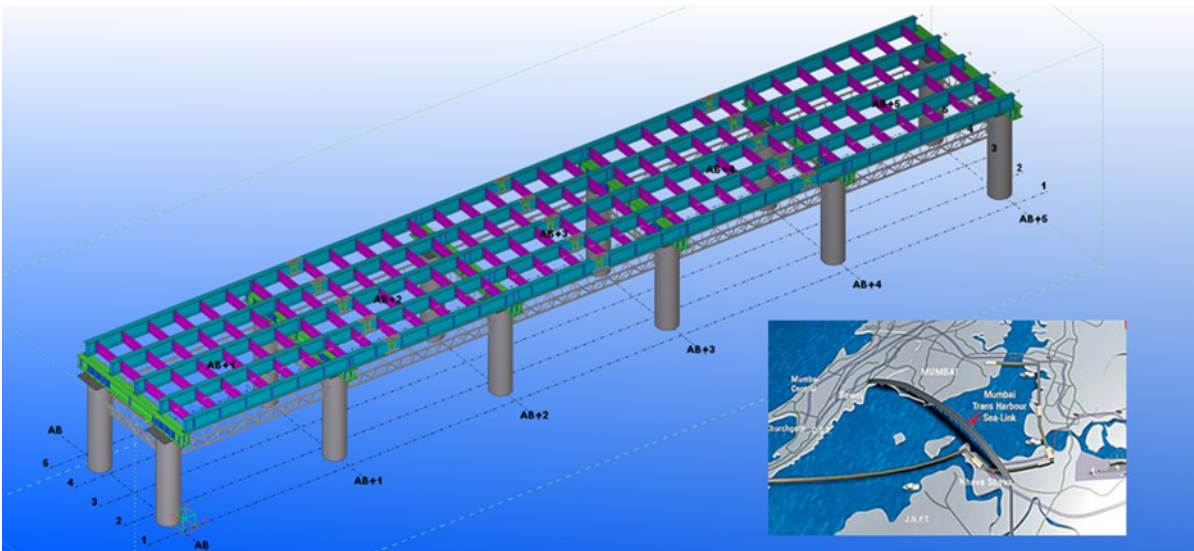
The Mumbai Trans Harbour Link (MTHL), is an under-construction 21.8 km, freeway grade road bridge connecting the Indian city of Mumbai with Navi Mumbai, its satellite city. When completed, it would be the longest sea bridge in India. The sea link will contain a 6 lanes highway, which will be 27 meters in width, in addition to two emergency exit lanes, edge strip and crash barrier.



## ESC SCOPE OF SUPPLY

### BRIDGE COMPONENTS

ESC was awarded the scope of work for full steel fabrication works for bridge girders, cross beams, floor beams, and decking panels for a total length of over 960 meters in Mumbai, India.





# INCOMING MATERIAL INSPECTION

Material Grade: ASTM A36/A36M or GB/T700 Q235B with yield strength min. 250 MPa

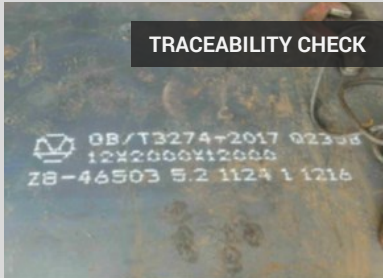
All raw materials are visually inspected, dimension checked, traceability checked, and review mill test certificate during the incoming process. Major components will be retested in 3rd party lab to ensure the mechanical properties and chemical compositions are acceptable.



RECTANGULAR BARS



DIMENSION INSPECTION



TRACEABILITY CHECK



C CHANNEL



PLATE CUT & MARKED FOR RETEST



MATERIAL RETEST

# PRODUCTION PROCESSES

DECK PANEL



FLOOR BEAM



Welding Procedure : ASME Section IX  
NDT: AWS D1.1 (100% VT, 10% MT/PT – PJP Welds, 20% UT – CJP Welds)



ULTRASONIC TEST



DRY PENETRANT TEST



MAIN BEAM



# TRIAL ASSEMBLY



Trial Assembled Main Girders, Cross Beams and Splice Plate.



Trial Assembled Deck Panel.



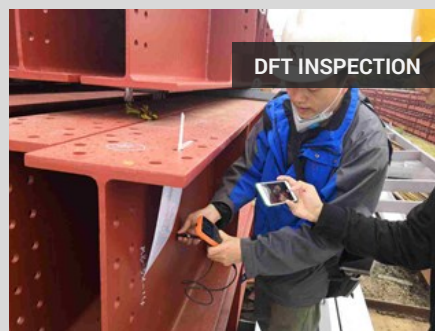
# PAINTING

Painting System: Fast-drying Epoxy Iron Red Primer

Color: Red

Total DFT: 70 microns

Application Method: Airless Spray





# PACKING, STACKING AND EX-MILL





# ARRIVAL IN PORT STORAGE YARD



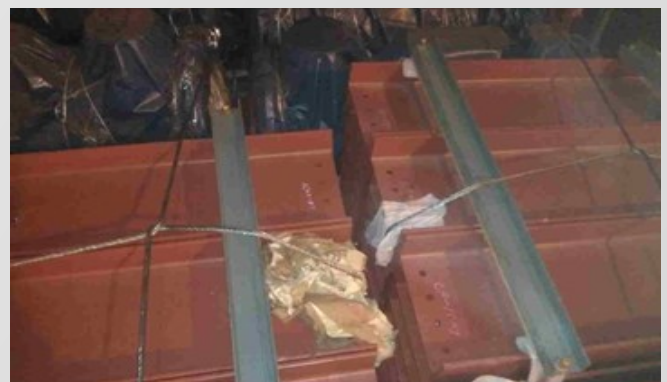
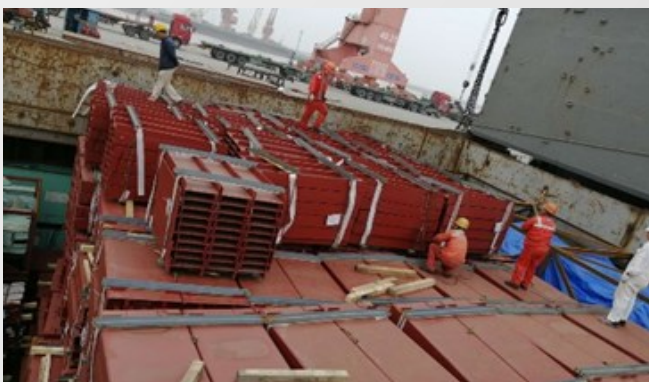


# SHIP LOADING

ESC has assigned inspectors to monitor the entire ship loading process to ensure safe, secure, and sufficient protection to prevent damages during the shipping process. Soft sling is used to prevent damages



## STACKING, LASHING AND PROTECT IN SHIP





# INSTALLATION ON SITE

