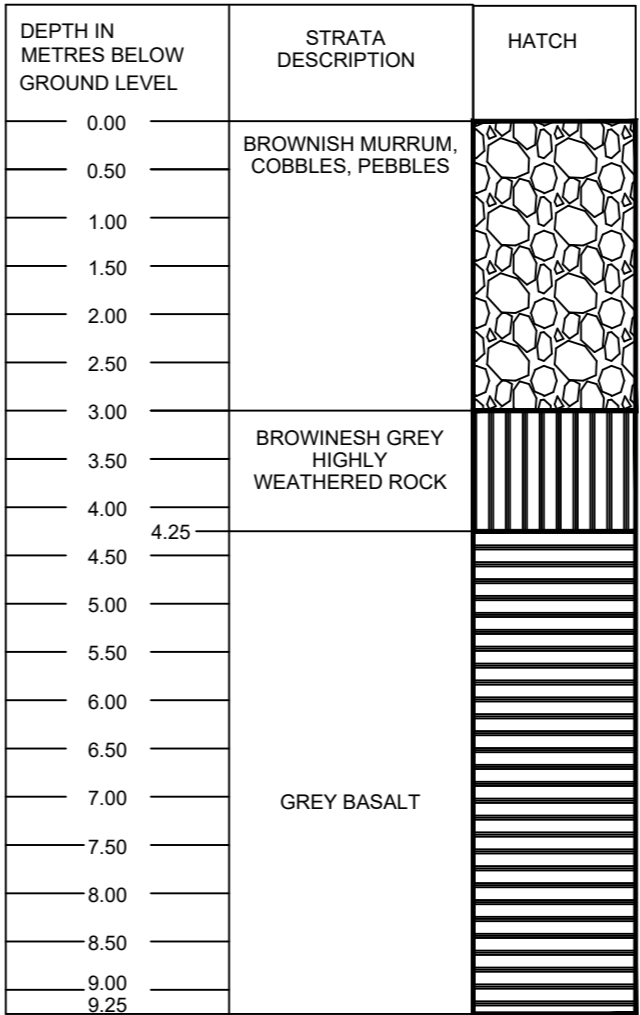


| MINOR BRIDGE |               |
|--------------|---------------|
| Design Ch.   | 0+305 (BR-12) |
| Span         | 2 x 17        |
| Skew         | 0             |

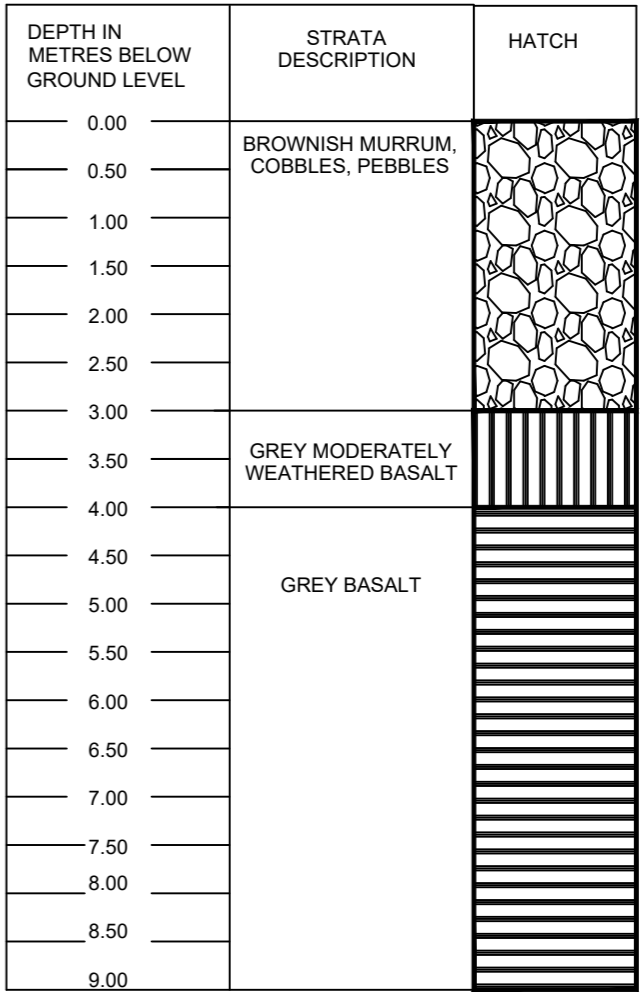
KEY PLAN  
(SCALE 1:1000)

RL 71.50 M



BH-01

RL 71.30 M



BH-02

BORE HOLE

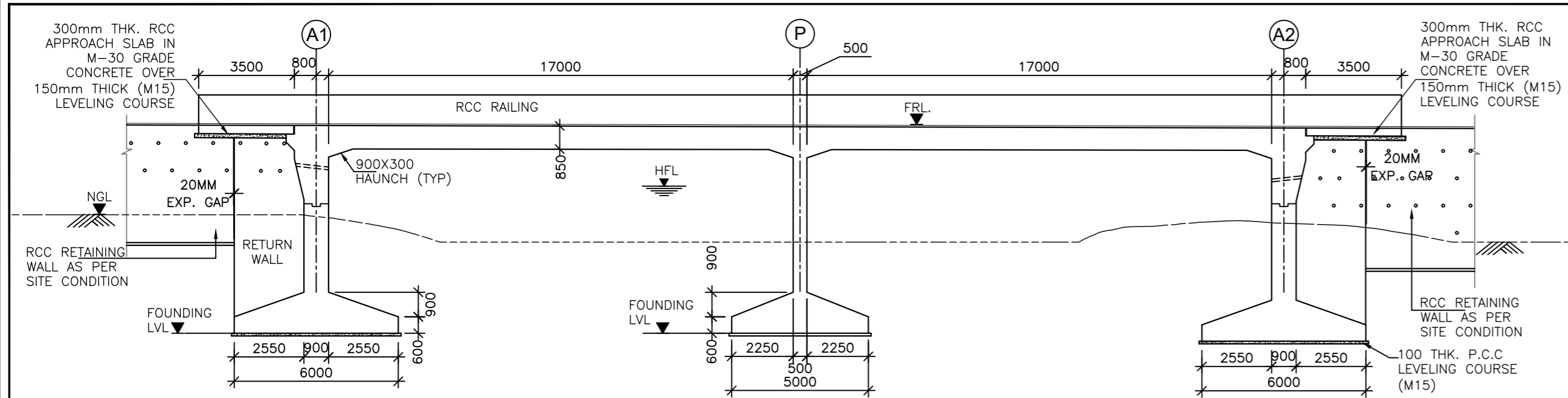
CO-ORDINATES OF BORE HOLE

|                      |                  |
|----------------------|------------------|
| BH-1 X = 318304.0000 | Y = 2031966.0000 |
| BH-2 X = 318288.0000 | Y = 2031963.0000 |

NOTE  
1. ALL DIMENSIONS ARE TO BE READ NOT TO BE MEASURED.  
2. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.

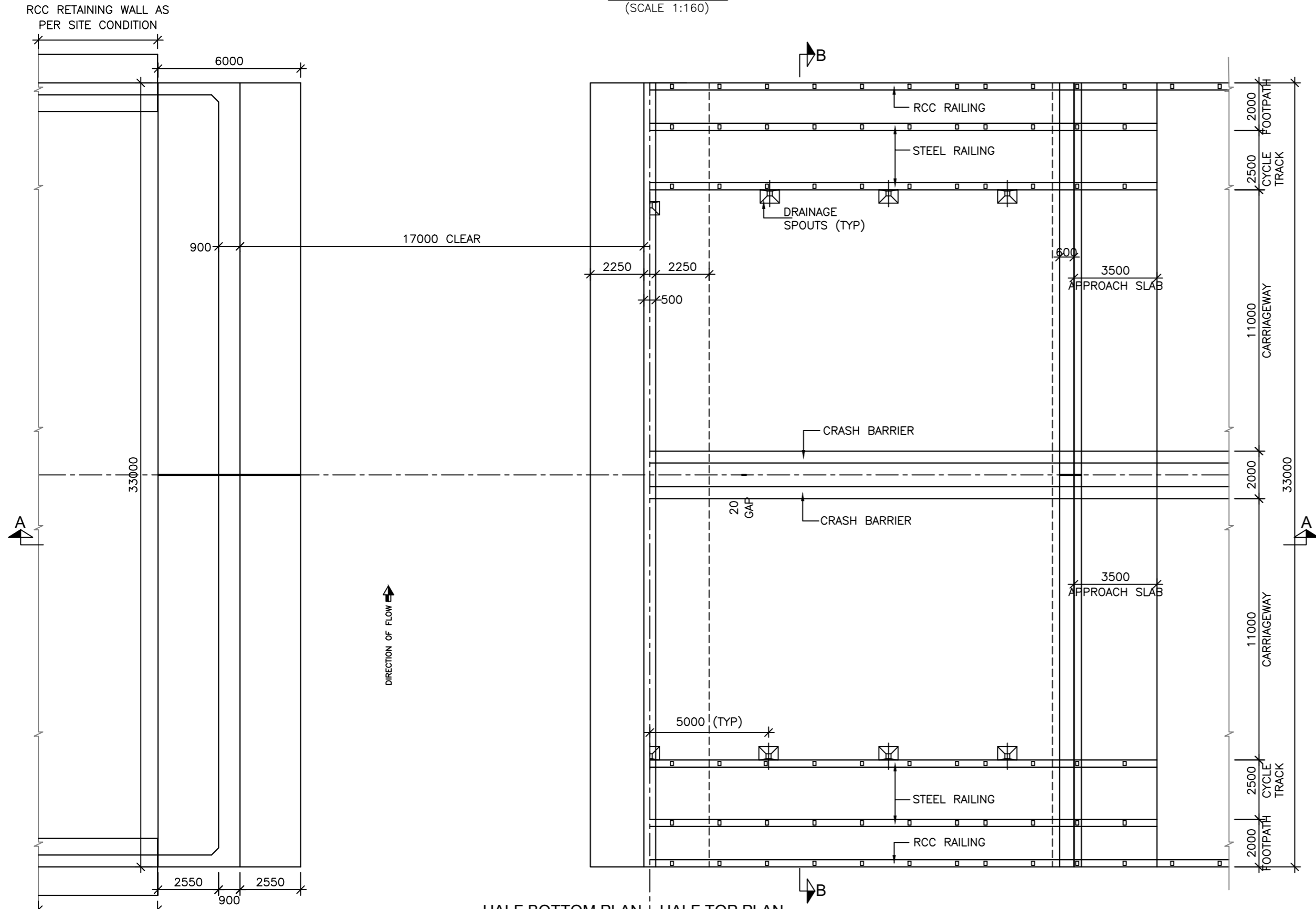
FOR TENDER

|  |  |  |              |
|--|--|--|--------------|
| CLIENT   |  |  |              |
| <div><div>MAHARASHTRA INDUSTRIAL<br/>TOWNSHIP LTD (MITL)</div></div>  |  |  |              |
| PROJECT  |  |  |              |
| DESIGN, CONSTRUCTION, TESTING, COMMISSIONING<br>AND OPERATION & MAINTENANCE OF INFRASTRUCTURE<br>WORKS AT DIGHI PORT INDUSTRIAL AREA (DPIA)- PHAS<br>1 UNDER DELHI MUMBAI INDUSTRIAL CORRIDOR (DMIC)<br>ON EPC BASIS |  |  |              |
| TITLE  |  |  |              |
| GENERAL ARRANGEMENT DRAWING<br>OF MINOR BRIDGE AT<br>CHAINAGE 0+305 (BR-12) ROAD NO.-AR-4  |  |  |              |
| PROJECT CODE: DI1628   |  | STATUS: ISSUED FOR TENDER DATE: 18.12.2024 |              |
| SHEET NO: (BH-1 OF 3)  |  | SCALE: NTS                                 | DWG SIZE: A2 |
| REV NO: R0   |  |  |              |
| DRAWING NO:  |  |  |              |
| MITL-DPIA-PKG1-RD-93   |  |  |              |



|                           |           |        |           |
|---------------------------|-----------|--------|-----------|
| FORMATION LEVEL (MCW) (M) | 76.209    | 76.300 | 76.391    |
| GROUND LEVEL (GR. LVL.)   | 72.898    | 72.000 | 72.507    |
| FOUNDING LEVEL            | 68.000    | 68.000 | 68.000    |
| SUPERELEVATION (%)        | -2.5%     | -2.5%  | -2.5%     |
| CHAINAGE (KM)             | 0+287.800 | 0+305  | 0+322.200 |

ELEVATION  
(SCALE 1:160)



HALF BOTTOM PLAN HALF TOP PLAN  
(SCALE 1:160)

HYDROLOGICAL DETAILS:-

|                 |                |
|-----------------|----------------|
| DISCHARGE       | 159.063 CUMECs |
| HFL             | 74.159 m       |
| DESIGN VELOCITY | 3.28 M/s       |
| MSL             | ROCK LEVEL     |

NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
- NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
- LOCATION OF THE STRUCTURE IS THE CHAINAGE AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
- THE REINFORCEMENT SHALL BE HYSD. BARS OF (GRADE DESIGNATION Fe 500D) CONFORMING TO IS 1786-2008.
- THE PROPOSED STRUCTURE IS DESIGN FOR FOLLOWING VEHICULAR LOADS FOR MAIN CARRIAGEWAY:
  - CLASS-A, ONE, TWO, THREE AND FOUR LANE WITH FOOTPATH + CYCLE TRACK.
  - ONE LANE OF CLASS 70R + FOOTPATH +CYCLE TRACK.
  - TWO LANE OF 70R + FOOTPATH + CYCLE TRACK.
  - ONE LANE OF 70R + ONE LANE OF CLASS A + FOOTPATH + CYCLE TRACK.
  - ONE LANE OF 70R + TWO LANE CLASS A + FOOTPATH + CYCLE TRACK.
- 20mm FILLER TYPE EXPANSION JOINT SHALL BE PROVIDED AS PER MORT&H SPECIFICATION.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH  
FOR DIFFERENT ELEMENTS AS FOLLOWS:
  - SUPERSTRUCTURE - M35
  - SUBSTRUCTURE & FOUNDING - M35
  - CRASH BARRIER - M40
  - PCC LEVELING COURSE - M15
  - APPROACH SLAB - M30
  - RETURN WALL - M35
- CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
  - SUPERSTRUCTURE - 45MM
  - FOUNDING - 75MM

SUBSTRUCTURE ABUTMENT:-

  - EARTH FACE - 75MM
  - NON EARTH FACE - 50MM

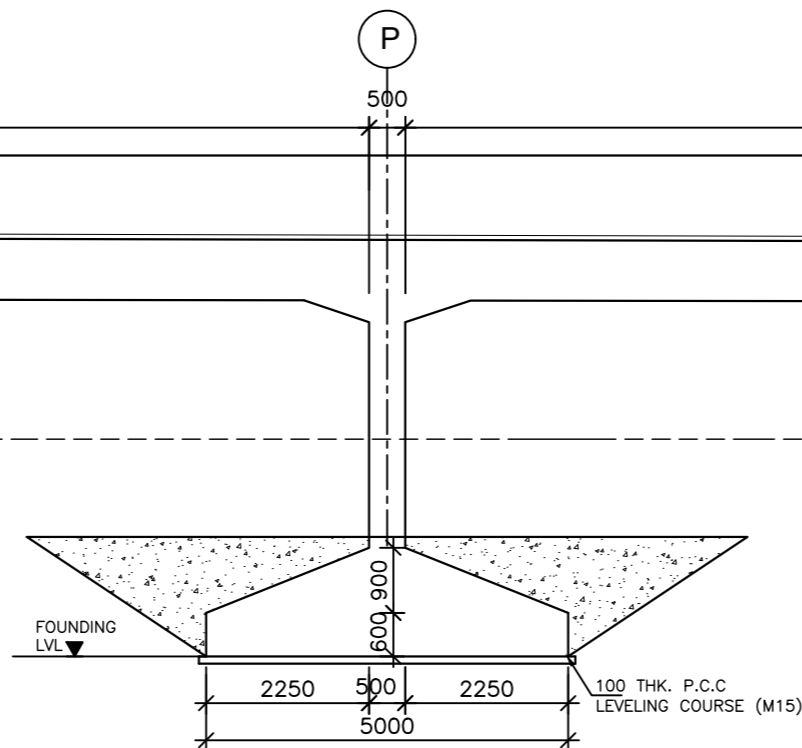
RETURN WALL:-

  - EARTH FACE - 75MM
  - NON EARTH FACE - 45MM
  - CRASH BARRIER - 45MM
- EXPOSURE CONDITION IS SEVER.
- CONSTRUCTION METHODOLOGY FOR SUPERSTRUCTURE SHALL BE AS UNDER:-
  - COMPLETION OF CASTING OF CAST-IN-SITU FOUNDING & SIDE WALL OF STRUCTURE.
  - CONSTRUCTION OF CAST-IN-SITU RCC SLAB.
  - CASTING OF CRASH BEAMS AND LAYING WEARING COAT AFTER 30DAYS OF CASTING OF DECK.
- BITUMINOUS CONCRETE 40mm THICK OVERLAID WITH 25mm THICK MASTIC ASPHALT SHALL BE PROVIDED AS PER SECTION 2700 OF MORT&H SPECIFICATIONS.
- LAYING, COMPACTION AND EXTENT OF BACK FILL BEHIND SIDE WALL SHALL CONFIRM TO SPECIFICATION IN APPENDIX : 6 OF IRC : 78-2014.
- THIS STRUCTURE LIES IN SEISMIC ZONE IV.
- THE DESIGN AND DETAILED IS CARRIED OUT WITH FOLLOWING ASSUMPTION AS PER CLAUSE 4.2 OF IRC 112-2020.
  - EXECUTION WILL BE CARRIED OUT BY PERSONAL HAVING APPROPRIATE QUALIFICATION, SKILL AND EXPERIENCE.
  - ADEQUATE SUPERVISION AND QUALITY CONTROL WILL BE PROVIDED DURING ALL STAGES OF CONSTRUCTION.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY DRAWING. ALL THE LEVEL, CHAINAGE, CROSS SLOPE SKEW ANGLE, SHALL BE VERIFIED FORM RELEVANT HIGHWAY DRAWING BEFORE EXECUTION.
- BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2017 HAVING PROPERTIES  $C=0$ ,  $\phi \geq 30^\circ$ ,  $\delta = 20^\circ$ ,  $\gamma_d = 2.0t/m^3$
- 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALLS AND RETURN/RETAINING WALL.
- ALL SOLID WALLS OF PCC/RCC/MASONRY TYPE, RETAINING THE EARTH SHALL HAVE WEEP HOLES STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
- REQUIRED BEARING CAPACITY OF STRUCTURE AT FOUNDING LEVEL IS 30.0 t/m<sup>2</sup>. HOWEVER SBC AS PER GEOTECHNICAL REPORT IS 50t/m<sup>2</sup> AT FOUNDING LEVEL. THE REQUIRED SBC SHALL BE VERIFIED AT SITE BEFORE EXECUTION USING PLATE LOAD TEST OR CONE PENETRATION (CPT) TEST.
- FOR DETAIL OF APPROACH SLAB, DRAINAGE SYSTEM, CRASH BARRIER, RETAINING WALL ETC. REFER SEPARATE DRAWING.
- STRUCTURE DIMENSIONS SHOWN IN GAD ARE BASED ON PRELININARY DESIGN AND MAY CHANGE DURING DETAIL DESIGN.
- ANNULAR FILLING ABOVE FOUNDING SHALL BE FILLED WITH M-15 GRADE CONCRETE UPTO ROCK LEVEL. IF THE DEPTH OF FILL REQUIRED IS MORE THAN 1.5 M IN SOFT ROCK OR 0.6 M IN HARD ROCK ABOVE THE FOUNDING LEVEL, THEN CONCRETE MAY BE FILLED UPTO THIS LEVEL BY M 15 CONCRETE AND PORTION ABOVE MAY BE FILLED BY CONCRETE OR BY BOULDERS GROUTED WITH CEMENT.

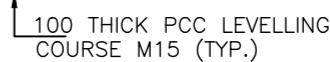
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FOR TENDER


|                       |   |
|-----------------------|---|
| CLIENT                | MAHARASHTRA INDUSTRIAL TOWNSHIP LTD (MITL)  |
| PROJECT               | DESIGN, CONSTRUCTION, TESTING, COMMISSIONING AND OPERATION & MAINTENANCE OF INFRASTRUCTURE WORKS AT DIGHI PORT INDUSTRIAL AREA (DPIA)- PHASE 1 UNDER DELHI MUMBAI INDUSTRIAL CORRIDOR (DMIC) ON EPC BASIS |
| TITLE                 | GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT CHAINAGE 0+305 (BR-12) ROAD NO.-AR-4   |
| PROJECT CODE: DI1628  | STATUS: ISSUED FOR TENDER DATE: 18.12.2024  |
| SHEET NO: (Bk 2 of 3) | SCALE: NTS DWG SIZE: A2 REV NO: R0  |
| DRAWING NO:           | MITL-DPIA-PKG1-RD-93  |



**DETAIL-1**  
(SCALE 1:40)



**SECTION B-B**  
(SCALE 1:75)

|  |  |
|--|--|
|   | <h2 style="margin: 0;">MAHARASHTRA INDUSTRIAL TOWNSHIP LTD (MITL)</h2> |
| <h3 style="margin: 0;">PROJECT</h3>  |  |
| <p>DESIGN, CONSTRUCTION, TESTING, COMMISSIONING AND OPERATION &amp; MAINTENANCE OF INFRASTRUCTURE WORKS AT DIGHI PORT INDUSTRIAL AREA (DPIA)- PHASE 1 UNDER DELHI MUMBAI INDUSTRIAL CORRIDOR (DMIC) ON EPC BASIS</p> |  |
| <h3 style="margin: 0;">TITLE</h3> <p><b>GENERAL ARRANGEMENT DRAWING<br/>OF MINOR BRIDGE AT<br/>CHAINAGE 0+305 (BR-12) ROAD NO.-AR-4</b></p>  |  |
| PROJECT CODE: D18628   | STATUS: ISSUED FOR TENDER DATE: 18.12.2024                             |
| SHEET NO. (SH. 3 OF 3)   | SCALE: NTS   |
| DWG SIZE: A2   | REV NO: R0   |
| DRAWING NO:  |  |
| <h2 style="margin: 0;">MITL-DPIA-PKG1-RD-93</h2>   |  |