

Section VI. Particular Conditions of Contract (PCC)

The following Particular Conditions shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

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Part A - Contract Data

Conditions	Sub-Clause	Data						
Employer's name and address	1.1.2.2 & 1.3	Name: Mumbai Metropolitan Region Development Authority (MMRDA). Address: 2 nd Floor, New Office Building, Plot No. R-05, R-06 & R-12, 'E' Block, Bandra-Kurla Complex, Bandra (E), Mumbai Maharashtra, INDIA 400051 Phone: 91 22 2659 4076/4034 Email: abhijit.bhisikar@mailmmrda.maharashtra.gov.in						
Engineer's name and address	1.1.2.4 & 1.3	(To be Appointed)						
Time for Completion	1.1.3.3	1,440 Days [48 Months (Forty Eight Months)]						
Defects Notification Period	1.1.3.7	Seven hundred and thirty (730) days.						
Sections	1.1.5.6	Not applicable						
Milestones	1.1.5.9	For Milestones refer to the table Summary of Milestones below.						
Profit	1.2	Ten percent (10%) of Cost.						
Electronic transmission systems	1.3	The electronic transmission shall be in the form of Email or facsimile or E-Tender portal.						
Contractor's name and address	1.3(b)	<i>[To be specified]</i>						
Governing Law	1.4	The Laws of the Republic of India and State of Maharashtra						
Language for communications	1.4	English						
Time for access to, and possession of all parts of, the Site	2.1	<table> <tr> <th>Sl No</th><th>Location Description</th><th>Schedule of hand over of the Site within the time after the Commencement Date (days) subject to discussion and finalisation with successful bidder.</th></tr> <tr> <td>1</td><td>Launching Shaft</td><td>01</td></tr> </table>	Sl No	Location Description	Schedule of hand over of the Site within the time after the Commencement Date (days) subject to discussion and finalisation with successful bidder.	1	Launching Shaft	01
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1	Launching Shaft	01						

Conditions	Sub-Clause	Data
		2 Retrieval Shaft 01
		3 ROW for Box Tunnel and Approaches 01
Engineer's Duties and Authority	3.1(B)(ii)	Variations resulting in an increase of the Accepted Contract Amount more than one percent (1%) shall require approval of the Employer.
Performance Security	4.2	The Performance Security shall be in the form of a demand guarantee in the amount(s) of 5% (five percent) of the Accepted Contract Amount and in the same currencies of the Accepted Contract Amount.
General Design Obligations	5.1	Period for notifying errors, faults and defects in the Employer's Requirements: 56 (fifty-six) days
Normal working hours	6.5	As per prevailing rules
Commencement of Works	8.1(c)	Effective access to and possession of the Site shall be as per Sub-Clause 2.1 of the Contract Data.
Delay damages for the Works	8.7	0.05% (zero-point zero five percent) of the Contract Price per day. For Milestones refer to the table Summary of Milestones below.
Maximum amount of delay damages	8.7	5% (Five percent) of the Accepted Contract Price
Responsibility of Measurement	13.9.1	Shall be submitted as supporting document along with every Monthly Bill. [IPC]
Advance payment	14.2	Ten percent (10%) of the Accepted Contract Amount, payable in the currencies and proportions in which the Accepted Contract Amount is stated. Number of installments: Two (2) equal (5%+5%) installments. a) The second installment shall be made upon Contractor's submission of utilization certificate issued by Chartered Accountant stating that ninety percent (90%) of the 1 st installment has been consumed.
Repayment amortization rate of advance payment	14.2(b)	To be recovered between Fifteen (15%) and Eighty (80%) of Contract Amount
Percentage of Retention	14.3(c)	5% (ten percent) per Interim Payment Certificate.

Conditions	Sub-Clause	Data
Limit of Retention Money	14.3(c)	5% (three percent) of the Accepted Contract Amount excluding the Provisional Sum
Minimum Amount of Interim Payment Certificates	14.6	No minimum amount set forth. Maximum two IPCs per month shall be payable.
Delayed Payment	14.8	These financing charges shall be calculated for 1) Foreign currency: at LIBOR as on due date + 2% (two percent) 2) Indian currency: the applicable rate shall be SBI's MCLR (one month), Marginal Cost of Funds based Lending Rate.
Periods for submission of insurance:	18.1	
a. evidence of insurance.		a. 14 (fourteen) days
b. relevant policies		b. 28 (twenty-eight) days
Maximum amount of deductibles for insurance of the Employer's risks	18.2(d)	Not applicable.
Minimum amount of third party insurance	18.3	INR Fifty (50) Crores
Date by which the DB shall be appointed	20.2	90 (Ninety) days after the Commencement Date.
The DB shall be comprised of	20.2	03 (three) Members
Appointment (if not agreed) to be made by	20.3	The Indian Council of Arbitration, New Delhi
Seat of Arbitration	20.6	Mumbai, India
No. of Arbitrators	20.6	03 (three) Members 1 each nominated by the Parties and the Presiding arbitrator nominated after mutual consultation between the Nominated Arbitrators

Table: Summary of Milestones

Milestone No.	Milestone Name/Description (Sub-Clause 1.15.9)	Time for Completion from Commencement Date (Sub- Clause 1.1.3.3) in Days
EWCR-1	Construction Programme	90
EWCR-2	Design Submission& Approval thereof	120
EWCR-3	Tunnel Boring Machine(TBM) – Mobilisation at Site	510
EWCR-4	Start of Boring of Tunnel at LHS from Orange Gate	600
EWCR-5	Start of Boring of Tunnel at RHS from Orange Gate	660
EWCR-6	Electrical & Mechanical Works Complete	1,400
EWCR-7	Completion of All Works including Demobilisation	1,440

Part B - Specific Provisions

Add the following definitions.

1.1.3.10 “Excavation” means those parts of the Works required to excavate. Temporarily support and secure the space for the Underground Works including exploratory investigation, preliminary mitigation measures, ground treatment, ground water management, ground support measures, seepage treatment, temporary and ancillary works (all other works that are required to execute the Excavation) (in each case if any)

1.1.3.11 “**Lining**” means the Works required to permanently line and support the excavated space for the Underground Works, whether constructed at the same time or at a later stage, including waterproofing, contact grouting and backfill (in each case if any)

1.1.3.12 “**Geotechnical Baseline Report**” or “GBR” means the report entitled geotechnical baseline report as included in the Contract that describes the subsurface physical conditions to serve as the basis for execution of the Excavation and Lining Works, including design and construction methods and the reaction of the ground to such methods. The GBR sets out the allocation of the risk between the Parties for such subsurface physical conditions.

1.1.3.13 “**Geotechnical Data Report**” or “GDR” means the report entitled Geotechnical Data Report as included in the Contract containing the geological, geotechnical and hydrogeological data deemed to be in Employer’s possession at the Base Date.

1.1.3.14 “**Underground Works**” means all Works located beneath the natural or man-made surface of the earth, including ancillary surface works.

1.1.3.15 “**Schedule of Baselines**” means the document entitled schedule of baselines as included in the Contract, setting out the Excavation and Lining Works activities or items and their corresponding quantities based on the subsurface physical conditions described in the GBR, and their corresponding production rates as provided by the Contractor.

	<p>1.1.5.9 “Milestones” means the date to achieve for a part of the Plant and/or a part of the Works stated in the Contract Data (if any), and described in detail in the Employer's Requirements as a Milestone, which is to be completed by the time for completion stated in Table Summary of Milestones in the Contract Data.</p>
<p>Sub-Clause 1.5 Priority of Documents</p>	<p>Replace the Sub Clause 1.5 with the following:</p> <p>1.5 Priority of Documents</p> <p>The documents forming the Contract are to be taken as mutually explanatory of one another. If there is any conflict, ambiguity or discrepancy, the priority of the documents shall be in accordance with the following sequence:</p> <ul style="list-style-type: none"> (a) the Contract Agreement. (b) the Letter of Acceptance. (c) the Letter of Tender. (d) the Particular Conditions Part A – Contract Data, the Completion Schedule, and the Schedule of Baselines. (e) the Particular Conditions Part B - Special Provisions. (f) the Geotechnical Baseline Report. (g) these General Conditions. (h) the Employer's Requirements. (i) the Employer's Requirements - Drawings (j) the other Schedules. (k) the Contractor's Proposal. (l) the JV Undertaking (if the Contractor is a JV); and (m) any other documents forming part of the Contract, including the Geotechnical Data Report, the Contract Risk Register and the Contract Risk Management Plan. <p>If a Party finds an ambiguity or discrepancy in the documents, that Party shall promptly give a Notice to the Engineer, describing the ambiguity or discrepancy. After receiving such Notice or if the Engineer finds an ambiguity or discrepancy in the documents, the Engineer shall issue the necessary clarification or instruction.</p>
<p>1.9 Errors in Employer's Requirements and/or in the Geotechnical Baseline Report</p>	<p>Replace Sub Clause 1.9 with the following:</p> <p>1.9 Errors in Employer's Requirements and/or in the Geotechnical Baseline Report</p> <p>If the Contractor finds an error, fault or defect in the Employer's Requirements and/or in the Geotechnical Baseline Report as a result of scrutinising them under Sub-Clause 5.1 [General Design Obligations], the Contractor shall give a Notice to the Engineer within the period stated in the Contract Data calculated from the Commencement Date.</p>

	<p>If, after expiry of this period, the Contractor finds an error, fault or defect in the Employer's Requirements and/or in the Geotechnical Baseline Report, the Contractor shall also give a notice to the engineer describing the error, fault or defect.</p> <p>The engineer shall then proceed as specified under Sub-Clause 3.5 [Determinations] to agree or determine:</p> <p>a) Whether or not there is an error, fault or defect in the Employer's Requirements.</p> <p>b) Whether or not (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect:</p> <ul style="list-style-type: none"> • When examining the site and the Employer's Requirements and before submitting the Tender; or • If the Contractor's Notice is given after the expiry of the period stated in the first paragraph of this Sub-Clause, when scrutinising the Employer's Requirements and the Geotechnical Baseline Report under Sub-Clause 5.1 [General Design Obligations] and <p>c) what measures (if any) the Contractor is required to take to rectify the error, fault or defect.</p> <p>For the purpose of Sub-Clause 3.5 the date of the Engineer receives the Contractor's Notice under this Sub-Clause shall be the date of commencement of the time limit for agreement under Sub-Clause 3.5 [Determinations].</p> <p>If there is an error, fault or defect in the Employer's Requirements and/or in the Geotechnical Baseline Report under sub-paragraph (b) above, and if an experienced contractor would not have discovered the error, fault or other defect:</p> <ol style="list-style-type: none"> i. Sub-Clause 13.1 [Right to Vary] shall apply to the measures that the Contractor is required to take (if any); and ii. if the Contractor suffers delay and/or incurs Cost as a result of the error, fault or defect, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to EOT and/or payment of such Cost Plus Profit.
<p>3.1 Engineer's Duties and Authority</p>	<p>Add the following sub clause 3.1.1 after sub clause 3.1:</p> <p>3.1.1. Engineer's Specific Duties and Authority for Excavation and Lining Works</p> <p>The Engineer shall monitor and record progress of the execution of the Excavation and Lining Works, for compliance with the Contractor's obligations under Sub-Clause 4.25 [Excavation and Lining Works].</p> <p>Such records shall state whether the measures taken under Sub-Clause 4.25 [Excavation and Lining Works] were jointly agreed between the</p>

	<p>Engineer and the Contractor and if not, the Engineer's reasons for disagreement.</p> <p>The Engineer shall provide a copy of such records to the Contractor within a time that shall be mutually agreed (in the absence of agreement, within 14 days of the execution of the Works being recorded). The Contractor shall examine the records and be deemed to have accepted them unless within 7 days from receipt of the records the Contractor gives a Notice to the Engineer that the records are asserted as being inaccurate.</p> <p>After receiving this Notice, the Engineer shall review the records and either confirm or amend them within 14 days, failing which the records shall be deemed confirmed as corrected by the Contractor's Notice. In performing this task, the Engineer shall proceed under Sub-Clause 3.5 [Determinations].</p> <p>If the Engineer fails properly to record progress of the execution of the Excavation and Lining Works, or to provide the records to the Contractor within the agreed period, and such failure causes delay and/or additional Cost, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to EOT and/or payment of such Cost Plus Profit.</p>
3.3 Engineer's Instructions	<p>Replace Sub Clause 3.3 with the following:</p> <p>3.3 Engineer's Instructions</p> <p>The Engineer may issue to the Contractor (at any time) instructions which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Sub-Clause 3.2 [Delegation by the Engineer].</p> <p>Subject to the following provisions of this Sub-Clause, the Contractor shall comply with the instructions given by the Engineer or the Engineer's Representative (if appointed) or delegated assistant, on any matter related to the Contract.</p> <p>If an instruction states that it constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.</p> <p>If not stated, and the Contractor considers that the instruction:</p> <ul style="list-style-type: none"> a) constitutes a Variation (or involves work that is already part of an existing Variation); or b) does not comply with applicable Laws or will reduce the safety of the Works or is technically impossible <p>the Contractor shall immediately, and before commencing any work</p>

	<p>related to the instruction, give a Notice to the Engineer with reasons. If the Engineer does not respond within 7 days after receiving this Notice, by giving a Notice confirming, reversing, or varying instruction, the Engineer shall be deemed to have revoked the instruction. Otherwise, the Contractor shall comply with and be bound by the terms of the Engineer's response.</p>
3.5 Determinations	<p>Replace second para of Sub Clause 3.5 with the following:</p> <p>Time limits</p> <p>The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars, within 28 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].</p> <p>If the Engineer does not give the Notice of agreement or determination within the relevant time limit specified under this sub clause, the same shall be deemed to be a Dispute which may be referred by either Party to the DAB for its decision under Clause 20.4 [Obtaining Dispute Board's decision].</p>
4.10 – Use of Site Data, of the Geotechnical Baseline Report and of the Geotechnical Data Report	<p>Replace the Sub Clause 4.10 with the following:</p> <p>4.10 – Use of Site Data, of the Geotechnical Baseline Report and of the Geotechnical Data Report</p> <p>4.10.1 The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on the topography of the Site, on hydrological climatic and environmental conditions at the Site and adjacent property, and on the geological, geotechnical and hydrogeological data of the subsurface of the Site.</p> <p>In particular, the Employer shall have made available to the Contractor, prior to the Base Date:</p> <ul style="list-style-type: none"> (a) The Geotechnical Baseline Report (GBR); and (b) The Geotechnical Data Report (GDR) <p>The original survey control points, lines and levels of reference (the "items of reference " in these conditions) shall be specified in the Employer's Requirements or issued to the Contractor by a Notice from the Engineer.</p> <p>4.10.2 Use of Site Data</p> <p>Subject to the provisions of Sub Clause 4.10.2 [Use of Geotechnical Baseline report], the Contractor shall be responsible for interpreting all</p>

	<p>data referred to under Sub-Clause 4.10.1 above.</p> <p>Subject to the provision of Sub-Clause 4.10.2 [Use of Geotechnical Baseline Report) and to the extent which was practicable (taking account of time and cost and access to the Site and its surroundings) the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all matters relevant to the execution of the Works, including:</p> <ul style="list-style-type: none"> (a) The form and nature of the Site and adjacent structures or developments; (b) The hydrological and climatic conditions, and the effects of climatic conditions at the Site; (c) The extent and nature of the work and Goods necessary for the execution of the Works; (d) The Laws, procedures, and labour practices of the Country; and (e) The Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and any other utilities or services. <p>4.10.3. Use of Geotechnical Baseline Report</p> <p>The Contractor shall be deemed to have based the Tender and the Contractor's Proposal for the Excavation and Lining Works on the subsurface physical conditions and ground reactions described in the GBR, irrespective of any discrepancy or ambiguity that may be found between such conditions and/or reactions and the conditions described in any data made available under Sub-Clause 4.10.1.</p> <p>4.10.4. Use of Geotechnical Data Report</p> <p>If an alternative construction method for Excavation and/or Lining Works is agreed between the Parties, and if the GBR is silent on one more parameters that are relevant to such alternative method, reference shall be made to the GDR to integrate or amend the GBR accordingly.</p>
4.11 Sufficiency of the Accepted Contract Amount	<p>Replace the Sub Clause 4.11 with the following:</p> <p>4.11 Sufficiency of the Accepted Contract Amount</p> <p>The Contractor shall be deemed to:</p> <ul style="list-style-type: none"> (a) Have satisfied himself/herself as to the correctness and sufficiency of the Accepted Contract Amount; and (b) Subject to Sub Clause 4.10.3 [Use of Geotechnical Baseline Report], have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters

	<p>described in Sub-Clause 4.10 [Use of Site Data and Geotechnical Baseline and Geotechnical Data Report] and any further data relevant to the Contractor's design.</p> <p>Unless otherwise stated in the Contract, the Accepted Contract Amount shall be deemed to cover all the Contractor's obligations under the Contract and all things necessary for the proper execution of the Works in accordance with the Contract.</p>
4.12. Unforeseeable Physical Conditions	<p>Replace the Sub Clause 4.12 with the following:</p> <p>4.12. Unforeseeable Physical Conditions</p> <p>In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.</p> <p>In this subclause "physical conditions means natural physical conditions, physical obstructions (natural or man- made), pollutants and reactions of the ground to Excavation, which the Contractor encounters at the site during execution of the Works, including subsurface and hydrological conditions but excluding climatic conditions at the Site and the effects of those climatic conditions.</p> <p>If the Contractor encounters physical conditions which the Contractor considers to have been Unforeseeable and that will have an adverse effect on the progress and/or increase the Cost of the execution of the Works, the following procedure shall apply.</p> <p>However the impact on progress and/or cost of any conditions that are described in the Geotechnical Baseline report shall not be assessed under this Sub-Clause but under Sub-Clause 13.9 [Measurement of Excavation and Lining Works and Adjustment of Time for Completion and Contract price]</p> <p>4.12.1. Contractor's Notice After discovery of such physical conditions, the Contractor shall give a Notice to the Engineer, which shall:</p> <ul style="list-style-type: none"> (a) be given as soon as practicable and In good time to give the Engineer opportunity to inspect and investigate the physical conditions promptly and before they are disturbed; (b) describe the physical conditions, so that they can be inspected and/or investigated promptly by the Engineer. (C) set out the reasons why the Contractor considers the physical conditions to be Unforeseeable; and (d) describe the manner in which the physical conditions will have an adverse effect on the progress and/or increase the Cost

of the execution of the Works.

This Notice may include the Contractor's proposals for measures to be taken to further investigate and/or mitigate such physical conditions.

4.12.2 Engineer's inspection and investigations

The Engineer shall inspect and investigate the physical conditions (subject to the safety of access) immediately or within a period of days as agreed with the Contractor, after receiving the Contractor's Notice. The Contractor shall continue execution of the Works, using such proper and reasonable measures as are appropriate for the physical conditions and to enable the engineer to inspect and investigate them.

4.12.3. Engineer's instructions

The Contractor shall comply with any instructions which the Engineer may give for dealing with the physical conditions and, if such an instruction constitutes a Variation, Sub Clause 13.1 [Right to Vary] shall apply.

4.12.4. Delay and/or Cost

If and to the extent that the Contractor suffers delay and/or incurs cost due to these physical conditions, having complied with Sub Clause 4.12.1 to 4.12.3 above, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractors Claims] to EOT and/or payment of such cost.

4.12.5 Agreement or Determination of Delay and/or Cost

The Agreement or determination, under Sub Clause 20.1.5, of any claim under Sub Clause 4.12.4 [Delay and/or Cost] shall include consideration of whether and (if so) to what extent the physical conditions were Unforeseeable.

The Engineer may also review whether other physical conditions similar parts of the Works (if any) were at the Base Date reasonably foreseeable by an experienced contractor (or, as regards subsurface physical conditions described in the GBR, were more favourable than those described in the GBR), it being understood that such conditions that have given rise to an adjustment under Cl. 13.9.3 [Adjustment of time for Completion] would not be considered for this purpose. If and to the extent that these more favourable conditions were encountered, the Engineer may take account of the reductions in Cost which were due to these conditions in calculating the additional Cost to be agreed or determined under this subclause 4.12.5. However, the net effect of all additions and reductions under this Sub-Clause 4.12.5 shall not result in a net reduction in the Contract Price.

	<p>In respect of delay caused to the Excavation and Lining Works by Unforeseeable physical conditions the Cost shall be determined by reference to the relevant time related cost items in the Bill of Quantities, to the extent that unit rate exist and are comparable.</p> <p>Subject to Sub-Clause 4.10.2 [Use of Geotechnical Baseline Report], the Engineer may take account of any evidence of the physical conditions foreseeable by the Contractor by the Base Date, which the Contractor may include in the supporting particulars for the Claim under Sub Clause 20.2.4 [Fully Detailed Claim] but shall not be bound by any such evidence.</p>
4.25. Excavation and Lining Works	<p>Add this additional Sub Clause 4.25 after Sub Clause 4.24:</p> <p>4.25. Excavation and Lining Works</p> <p>The Contractor shall take whatever measures are necessary for the execution of, and/or are necessary for the safety, stability and timely progress of, the Excavation and Lining Works in accordance with the Contract. The Contractor shall submit to the Engineer on daily basis his/her interpretations of the subsurface monitoring results, if any.</p> <p>The Contractor and the Engineer shall use all reasonable endeavours to agree such necessary measures.</p> <p>Any adjustment to the Contract Price arising from such necessary measures shall be in accordance with Sub-Clause 13.9.4 [Adjustment of Contract Price] or Sub Clause 4.12.5 [Agreement of Delay and/or Cost] as the case may be.</p>
8.1 Commencement of Works	<p>Replace the whole of Sub Clause 8.1 with the following:</p> <p>The Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Engineer's notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:</p> <p>(a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of the Country;</p> <p>(b) delivery to the Contractor of reasonable evidence of the Employer's Financial arrangements (under Sub-Clause 2.4 [Employer's Financial Arrangements]);</p> <p>(c) except if otherwise specified in the Contract Data, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.</p> <p>(d) Availability of all requisite statutory and regulatory clearances</p>

	<p>(taken by the Employer)</p> <p>If the said Engineer's instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 16.2 [Termination by Contractor].</p> <p>The Contractor shall commence the design and execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.</p>
8.4 Extension of Time for Completion	<p>Add this additional Sub Clause 8.4 (f) after Sub Clause 8.4 (e) the following:</p> <p>f) Any adjustment to the time for Completion arising out of the measurement of Excavation and Lining Works.</p>
13.6 Day Works	Deleted.
13.8 Adjustment for Changes in Cost	<p>Substitute this Sub-Clause with the following:</p> <p>Govt of Maharashtra's circular i.e., Govt. Circular No. Sankirn-2017/C.R.121/Part II/Bldg.2 dated 23/10/2017 shall be followed while operating this Clause.</p> <p>"In this Sub-Clause, "table of adjustment data" means the completed table of Changes in adjustment data included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.</p> <p>If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.</p> <p>The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:</p>

$$P_n = a + b(L_n/L_o) + c(S_n/S_o) + d(C_n/C_o) + e(B_n/B_o) + f(F_n/F_o) + g(O_n/O_o) + h(M_n/M_o)$$

where:

“P_n” is the adjustment factor for each item of work or services to be applied to the estimated value of the work or services carried out in the month “n” which shall be applied to each currency.

b = Cost coefficient of labour to the total cost

c = Cost coefficient of steel to the total cost

d = Cost coefficient of cement to the total cost

e = Cost coefficient of bitumen to the total cost

f = Cost coefficient of fuel and lubricant to the total cost

g = Cost coefficient of other materials to the total cost

h = Cost coefficient of construction machinery to the total cost

These cost coefficient (or “weighting” shown in the agreed Price Adjustment Data of Section IV Bidding Forms) for the respective items of the work or services shall be as shown in the agreed Price Adjustment Data.

“L_n”, “S_n”, “C_n”, “B_n”, “F_n”, “O_n” and “M_n” are the current cost indices or reference prices for month of “n”, determined pursuant to the agreed Price Adjustment Data; and

“L_o”, “S_o”, “C_o”, “B_o”, “F_o”, “O_o” and “M_o” are the base cost indices or reference prices corresponding to the above cost elements on the Base Date.

The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates (quoted in relevant columns of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

In cases where the “currency of index” is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the central bank of the Country, of this relevant currency on the above date for which the index is required to be applicable.

Until such time as each current cost index is available, the Engineer shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment

	<p>shall be recalculated accordingly.</p> <p>If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price: whichever is more favorable to the Employer. The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.</p> <p>Where the final price indices/reference prices are not available while making payment towards Interim Payments, payments towards price adjustment shall be made based on the provisional cost indices/reference prices or cost indices/reference prices of the previous month, to be adjusted in subsequent payments as and when the final cost indices/reference prices become available.</p>
<p>13.9 Measurement of Excavation and Lining Works and Adjustment of Time for Completion and Contract Price</p>	<p>Add this additional Sub Clause 13.9 after Sub Clause 13.8:</p> <p>13.9 Measurement of Excavation and Lining Works and Adjustment of Time for Completion and Contract Price.</p> <p>Unless otherwise stated in the Contract, only the Excavation and Lining Works shall be subject to measurement, and the Accepted Contract Amount shall be deemed to cover all other Underground Works and all things necessary for the proper execution and completion thereof in accordance with the Contract.</p> <p>The Contract Price and Time for Completion shall be adjusted following such measurement and the Parties shall be entitled to such adjustments without the need to submit a Statement or any formal Notice (including any requirement to comply with Sub-Clause 20.1 [Contractors Claims] For Payment and/or Extension of Time.</p> <p>If and to the extent that the Contractor suffers delay and/or incurs Cost as a result of subsurface physical conditions actually encountered that are outside the limits described in the GBR, Sub-Clause 4.12 [Unforeseeable Physical Conditions] shall apply.</p> <p>13.9.1 Responsibility for Measurement</p> <p>Except as otherwise agreed, the Contractor shall be responsible for the measurement and shall submit relevant measurements with full supporting records to the Engineer at the intervals stated in the Contract Data (if not stated then at monthly intervals).</p> <p>The method of measurement for the Schedule of Baselines and for the</p>

Bill of Quantities shall be mutually agreed between the Contractor and the Employer prior to the commencement of TBM Boring at site.

After receiving the measurement records, the Engineer shall proceed under Sub-Clause 3.5 [Determinations] to agree or determine the measurement and certify the same in the Monthly Bills as per the provisions of Cl. 14.7 [Payment]

13.9.2 Bill of Quantities for excavation and Lining Works

The Bill of Quantity sets out the quantities, units of measurement and applicable unit rates and price for all Excavation and Lining works.

Unless provided otherwise in their Employers requirements,

a) Initial quantities shall be determined by the Employer, consistent with the Employer's reference design, the Geotechnical baseline Report and the Schedule of Baseline, at a level of detail sufficient to enable the contractor to establish unit rates or prices for each activity of if agreed group of activities, and

b) Bill of quantities shall be completed by the contractor with his tendered unit rates and prices.

For purposes of this Sub-clause:

- a "fixed-rate item" or "fixed charge" or similar term used bill of Quantities shall be taken to refer to a rate or price which is not subject to adjustment for any change in the quantity.

- a "time-related item" shall be taken to refer to a rate or price for an item of work which is proportional to the length of time taken to execute the work not the quantity of that (or other items of) work;

- a "quantity-related item" shall be a rate or price for a unit quantity of the item of work; and

- a "value-related item" or "value-related charge" shall refer to a rate or price considered proportional to the value of the item of work.

The Bill of Quantities for the Excavation and Lining works shall include fixed rate items, time-related rate items and quantity-related rate items for the Excavation lining works as follows

(a) Fixed rate items for as appropriate, the provision of the Contractor's Equipment facilities and supervision, facilities and services required by the Employer's Personnel, fees for relevant Contractor's overhead charges, and the maintenance of such provisions for the relevant section of the Excavation and Lining Works for the period necessary according to the Completion schedule.

(b) Time related rate items for as appropriate, the extended or reduced availability and maintenance of the fixed rate items in sub-paragraph (a) above, all expressed, unless otherwise

specified in units for an extension or reduction for a calendar day.

- (c) Quality related rate items for the Excavation and Lining Works and Plant supply and installation for the relevant portion of the Works
- (d) Unless provided otherwise in the Particular Conditions, value related charges for compliance with contractual provisions such as without limitation, insurance, securities, permits and levies for the relevant portion of the Excavation and Lining Works shall be included as percentage additions in rates described in (a), (b), and/or (c) above.

The unit rates and prices referred to in this Sub Clause 13.9.2 [Bill of Quantities for Excavation and Lining Works] shall not vary with changes in measured quantities and shall be deemed to cover the entire remuneration of the Contractor for such Excavation and Lining Works.

13.8.3 Adjustment of Time for Completion

The time allowed in the Completion Schedule and/or the Programme, as the case may be (as amended as a result of any previous adjustments under this Sub-Clause, or any Extension of Time granted to the Contractor) for the completion of the Works, Sections and/or Milestones comprising the Underground Works, shall be re-assessed (reduced or extended) by the Engineer by applying the production rates provided by the Contractor to the measured quantity of each item of work or activity in the Schedule of Baselines necessarily carried out (as agreed and/or confirmed by the Engineer pursuant to Sub-Clause 3.1.1 [Engineer's Specific Duties and Authority for Excavation and Lining Works])

Based on this reassessment, and if and to the extent that the Time for Completion of the Works, Section or other Milestone is or will be impacted, an adjustment (reduction or extension) shall be calculated for such Time for Completion based only on the logical sequential links provided in the Completion Schedule and/or the Programme, as the case may be.

13.8.4 Adjustment of the Contract Price

The Contract Price shall be adjusted by the Engineer:

The Contract Price shall be adjusted by the Engineer:

- (a) by valuing each item of the Excavation and Lining Works by applying the measurement agreed or determined in accordance with Sub-Clause 13.9.1 [Responsibility for Measurement], and the appropriate rate or price for the item in the Bill of Quantities; and

	(b) by applying the rates for time-related rate items in the Bill of Quantities to the adjusted Time for Completion under Sub-Clause 13.9.3 [Adjustment of Time for Completion].
14.1 The Contract Price	Replace the last para of Sub Clause 14.1 with the following: For the part of Works to be paid according to quantity supplied or work done, the provisions for measurement and valuation shall be as stated in Sub Clause 13.9 [Measurement of Excavation and Lining Works and Adjustment of Time for Completion and Contract Price] or in the Particular Conditions. The Contract Price shall be valued accordingly, subject to adjustments in accordance with the Contract.
Sub-Clause 14.6 Issue of Interim Payment Certificates	Replace the first paragraph of this sub-clause as: No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 14 days after receiving a Statement and supporting documents, issue to the Employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Engineer on the Statement if any.
Sub-Clause 14.7 Payment	Replace the sub paragraph (b) of this sub-clause as: (b) the amount certified in each Interim Payment Certificate within 7 days after the Engineer receives the Statement and supporting documents or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor, within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor including any amounts due in accordance with a decision by the DB which have been included in the Interim Payment Certificate; and
Sub Clause 20.1	Insert Additional Last Paragraph to Sub Clause 20.1 The Contractor shall refer to the guidance notes of “The Society of Construction Law – Delay and Disruption Protocol 2017” when preparing his claim for extension of time and/or cost compensation due to the time delay.