



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 04

Ref: PSER:SCT:KLN-C1902:TCN-04

Date: 03-07-2018

Sub	Tender Change Notice (TCN) - 04	
Job	Package # 4: Ground Improvement Of Ash Pond & Coal Stock Yard Areas And Construction Of Ash Pond For 2x660 MW Maitree Rampal Project, Bangladesh.	
Ref	1.0	Tender no PSER:SCT:KLN-C1902:18.
	2.0	BHEL's NIT, vide reference no PSER:SCT:KLN-C1902:6815 Date: 29-05-2018.
	3.0	BHEL's TCN-01 ref PSER:SCT:KLN-C1902:TCN-01 dated 18/06/2018
	4.0	BHEL's TCN-02 ref PSER:SCT:KLN-C1902:TCN-02 dated 23/06/2018
	5.0	BHEL's TCN-03 ref PSER:SCT:KLN-C1902:TCN-03 dated 28/06/2018
	6.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1) Extension of due date of submission of tender **03-07-2018 to 07-07-2018, 15:00 Hrs.** Bidders are requested to submit their offer by extended due date positively.
- 2) Revised BOQ cum price schedule, **VOLUME-III-TOTAL PRICE SCH-REV-02** is attached **superseding VOLUME-III- TOTAL PRICE SCH-REV-01** issued earlier. Bidder shall quote as per this revised Volume-III, Rev-02 only. Bidder is also requested to submit a declaration in techno-commercial offer that they have submitted their price bid as per **Revised price schedule** format (**VOLUME-III- TOTAL PRICE, REV-02**).
- 3) **Reply to Bidder's Queries as per Annexure-A to TCN-04.**
- 4) Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 5) All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

Mgr (SCT)

Encl: As Above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : (033) 2339-8000/ 2339 8236

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
 Power Sector - Eastern Region,
 Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
 Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Package # 4: Ground Improvement Of Ash Pond & Coal Stock Yard Areas And Construction Of Ash Pond For 2x660 MW Maitree Rampal Project, Bangladesh.	
Ref	1.0	Tender no PSER:SCT:KLN-C1902:18.
	2.0	BHEL's NIT, vide reference no PSER:SCT:KLN-C1902:6815 Date: 29-05-2018.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:KLN-C1902:TCN-01, Dated 18-06-2018
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:KLN-C1902:TCN-02, Dated 23-06-2018
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:KLN-C1902:TCN-03, Dated 28-06-2018
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:KLN-C1902:TCN-04, Dated 03-07-2018
	7.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

ANNEXURE-A TO TCN-04

JOB	Package # 4: Ground Improvement Of Ash Pond & Coal Stock Yard Areas And Construction Of Ash Pond For 2x660 MW Maitree Rampal Project, Bangladesh.
TENDER NO	PSER:SCT:KLN-C1902:18

SI no	Reference clause of tender document	Existing provision	Bidder's query	BHEL's clarification
1	4002 of BOQ	<p>“ Item 4002 - Supply and install 3 mm thick ,100mm wide band drains from the top of the filled up ground surface to the required depth in rectangular/triangular grid pattern of spacing 1.2mc/c using hydraulic sticher ,as per drawing, technical specification and as directed by the Engineer -in charge including cost of labour, machinery etc. complete. - Rm 125000 “</p>	<p>Under Item of BOQ 4002 the qty. is shown as 125,000 RM. Depth of PVD/ band drain installation tocover full depth of soft clay appears to vary from 10m to approx. 15m, with average penetration approx. 12m.</p> <p>This would mean that for the qty of PVD and average depth of installation 12m, the no of PVD points for installation is approx. 10,500 nos.</p> <p>At 1.2m c/c triangular spacing specified, the area to be treated in only 13,125 sq.m .As the PVD installation is to cover the ash dyke bund, please clarify the base area of bund for PVD/ Band drain treatment is only about 13,125 sq.m.</p>	<p>Due to typographical error, quantity shown in item no 4002 of BOQ is 125000 RM instead of 1025000 RM. VOL-III R-02 Price Schedule is hereby attached.</p>
2	A115 of Price schedule	Backfilling with borrowed earth	Source of Borrowed Earth	Good Earth to be used in Ash Pond shall be arranged by bidder.

VOLUME-III PRICE SCHEDULE, REV-02	
PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.	
TENDER NO - PSER:SCT:KLN-C1902:18	
SL NO	PREAMBLE
01	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully before filling in rates for various items. Clauses under this preamble shall be read in conjunction with various volumes of tender and other tender sections as applicable and shall have precedence over any contrary statement mentioned any where in this document.
02	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions. Drawings enclosed with the tender are only preliminary and for tender purposes and giving some idea of the work involved. The work is to be executed as per drawings & documents, which shall be furnished during execution.
03	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
04	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes(except service tax), transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the complete tender document and this schedule.
05	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains, within plus minus thirty percent ($\pm 30\%$) of the awarded price as per LOI.
06	Prior written approval of BHEL shall be sought by the contractor in case quantity variation of any item crosses +50% (plus fifty percent) limit during execution and approval to be obtained before execution of further quantity for this item.
07	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based contract, possibility of variation of quantity/ addition/deletion of items can not be ruled out. Under such circumstances, after execution of work, if it is observed that standing as L-1 is changed based on actual quantity executed, the bidder shall give suitable rebate to maintain your standing as L-1. Since this aspect can be assessed at the end of execution, necessary adjustment will be effected at the end of execution in final bill. This condition shall not be applicable where the tender is finalised through Reverse Auction.
08	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate items and/ or other optional items with respect to item-wise lowest rates (amongst the participating bidders), before placement of order.
09	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
10	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted as per BHEL approved payment schedule/billing break-up.
11	The tender shall be deemed to have visited site and made himself aware of all the site conditions, studied the specifications and details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
12	No splitting of the job is envisaged. Decision of BHEL in this regard shall be final and binding to the bidders.
13	Bidders are not allowed to alter the Price Schedule format including item description, quantity etc. and the offer is liable for rejection if the bidders submit their prices in Price Schedules modified by them. BHEL reserves the right to reject the offers of bidders who submit offers in Price Formats which are modified/ altered by them. Also putting any comments instead of rates/price in the designated column of the rate schedule shall make the offer liable for rejection.
14	Bidders to note that for Civil &/Structural packages, against a particular item against a ST No. appearing in more than one schedule of the BOQ, same rate must be quoted in all schedules for that particular items with same descriptions. If by error, different rates are quoted in different schedules for same ST No. (i.e. item with same description), then the higher of the rates shall be considered for evaluation but awarding shall be done with the lower rate, if the bidder becomes L-1."
15	For Lumpsum Service Contract : The items/components indicated in the tender is indicative and may vary to any extent. No compensation shall be payable in case of any variation in the items/components listed in the bill of quantities if the executed weight remains within the variation limit. However, in case of deletion of any item or addition of new items over and above the items listed or variation of existing quantity beyond variation limit specified, adjustment (i.e. Payment or recovery as the case may be) shall be done on pro-rata basis based on the Rate per MT worked out from the quoted lump-sum Price and the total weight of components listed /indicated in price schedule plus 15% weight variation limit.
16	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
17	In case of tender for Civil and/or Structural works, if the Non-schedule items are not quoted by the bidder, it will be treated at par with rate of corresponding item of CPWD/PWD/DSR/BPWD schedule as prescribed in the tender/BOQ cum Rate Schedule.
18	No interest, whatsoever, shall be payable by BHEL on the security deposit, any bank guarantee submitted or any amount due to successful bidder/contractor.
19	Size and weights of various items are mentioned in the attached BOQ cum rate/price schedule for reference purpose only & these shall not be taken into consideration for quoting/calculating amount in the rate schedule. These shall be utilised as per relevant sections of tender. Bidders shall quote for each item in the rate column, taking unit as mentioned in the quantity column. Rates shall be filled in both figures and words. Amount shall be calculated based upon these rates multiplied by the mentioned quantity for the respective items.
20	Bidder's Total price shall be considered for evaluation unless stated otherwise.
21	In case of BOP packages, if Bidder does not quote/indicate the price for freight charges against indicated rate schedule, the same shall be considered as 2% of basic price and adjusted with the total quoted price against each item keeping the total quoted price unaltered.

VOLUME-III PRICE SCHEDULE, REV-02			
PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.			
TENDER NO - PSER:SCT:KLN-C1902:18			
SCH-1 : TOTAL PRICE			
SL NO	DESCRIPTION	PRICE SCHEDULE REF	TOTAL QUOTED PRICE (IN USD)
1.0	PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND, COAL STOCK YARD & CONSTRUCTION OF ASH POND	SCH 2 - BREAK UP OF TOTAL PRICE	<u>IN FIGURES:-</u>
			<u>IN WORDS:-</u>
2.0	NON-SCHEDULE ITEM Quote % above or % below or at par for items not covered as above of this schedule. The rate shall be derived from Schedule of Rates 2014, PWD, Govt. of Bangladesh		
1a)	Rate of complete item	_____ % above/ _____ % below/ at par of BPWD Rate Schedule 2014	
1b)	Rate of supply of material at site only	_____ % above/ _____ % below/ at par of BPWD Rate Schedule 2014	
1c)	Rate for execution complete excluding supply of materials.	_____ % above/ _____ % below/ at par of BPWD Rate Schedule 2014	
NOTE			
1.0	Bidder shall quote total price for total price of SCH-1- Part only at sl no 1 above. All other amounts/ rates of each item of works in respective schedules/ parts will be derived based on allocated percentages. As such, any uncalled figure/ amount noted at any other place/ schedule of Volume-III will not be recknoed & will stand null & void.		
2.0	Bidder to note that total price at sl no 1.0 above shall be considered for evaluation & awarding. As such grand total price should be complete in all respect for the full scope defined and considering all terms and conditions.		
3.0	Bidder to note that SCH-2 is Break- up of Total Price.		
4.0	Bidder to note that SCH-2 covers Service of respective items, unless specified otherwise in the description of items.		
5.0	Bidder's quoted total price at Sl. no 1 above respectively shall be apportioned into amount of various items of works based on allocated percentages against respective item, in respective schedules/ parts. As such, bidder shall not indicate/ quote any amount/ rate in these schedules/ parts and any amount/ rate quoted against any item shall not be taken into cognizance/ account and offer may be liable for rejection.		
6.0	Based on the itemwise percentage allocations, the amount for the individual items of the Bill of Quantity shall be arrived at. The rates of individual items shall be derived from the amount against each items after roundeding off .		
7.0	Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per SI No.6 above.		
8.0	Unit rates of each item of works of respective schedules/ parts will be derived by dividing derived amount by corresponding quantities. In deriving the unit rates of each item in this manner, figures only upto 4 decimal places will be taken into account. Any adjustment, if required, due to such methodology, will be effected in final bill.		
9.0	Any item as per scope of work, if not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.		
10.0	Price format shall not be changed by bidder in any case and it may lead to cancellation of their offer.		
11.0	The quantity of items may vary during execution mainly due to actual requirement etc. The unit rates work out from the overall amount quoted & accepted by BHEL shall be considered and no separate unit rates shall be allowed. Unit rates shall be valid throughout the contract period.		
12.0	For payment of non schedule items, the rate shall be derived from Schedule of Rates 2014, PWD, Govt. of Bangladesh.		

VOLUME-III PRICE SCHEDULE, REV-02						
PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.						
TENDER NO - PSER:SCY:KLN-C1902:18 SCH-2: SERVICE PART						
ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH 1
Date At Which Rate Taken						
Rate Conversion Per USD						
100 EARTH WORK						
Earth work in excavation, backfilling and disposal including necessary men/women, materials, equipment, loading, transportation, unloading, dewatering etc as per specification, drawing, relevent laws of Bangladesh, relevent BS (or equivalent international standard) Standards approved by BIFPCL/BHEL and as directed by engineer- in-charge for the following.						
AA101	Preparation of foundation on earth bed including Clearing jungle, grubbing, removal of topsoil with cutting/clearing of all vegetation, shrubs, bushes, jauli flora, trees and plants, removal of stumps etc. upto 300 mm depth and roots existing in the dyke area, diversion channel etc., filling of root hollows, removal of surface water wherever applicable, including cost of labor, equipment, material etc. disposing / burning them including all operations such as collecting, disposal/stacking outside of plant boundary, etc. complete as per detailed technical specifications and directed by Engineer.	Sq.m.	101175		101175.00	0.2731290%
AA102	Removal of Stumps / felling of trees more than 300 mm dia etc., complete as per the specification. (Provisional item)	Nos	50		50.00	0.0089970%
A101	Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), shoring & strutting (wherever required), dressing the sides & bottom, all lifts ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead upto 1 km, spreading/levelling of disposed materials etc all complete for following depths below ground lev.					
a	Depth from ground level but not exceeding 2 m	CUM	34000	250000	284000.00	3.6000580%
A102	Extra over ST No. 101 for dewatering of ground water by well point method as per relevant Bangladesh/BS Standards/Specifications or Equivalent international standards approved by BIFPCL/BHEL	CUM	100000		100000.00	0.7277110%
A107	Earthwork in back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 250 mm thickness using/with selected approved materials from compulsorily excavated earth available within a lead upto 1 Km and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following:					
d	Each layer compacted so as to achieve at least 85% maximum dry density as per ASTM D-1557.	CUM		50000	50000.00	0.6514190%
A109	Extra over ST No. 101 and 103 to 108 for carriage of material/earth for every 500 m or part thereof beyond an initial lead of 1 Km.	CUM	300000		300000.00	0.3873300%
A113	a) Providing and filling the cut off trench with impervious soil selected soil from designated borrowed area - SM/SC/CL as per Unified Soil Classification System) or with prepared soil, mixed with bentonite or approved equivalent (not less than 2 per cent by volume) to achieve a permeability less than 1 x 10-6 cm / sec, in layers of 250 to 300 mm loose thickness including cost of all materials, machinery and labour all operations, such as excavation, sorting, transportation, loading, unloading, dozing to the required depth, breaking the clods, sectioning, watering and compaction is done to achieve 95% maximum dry density as per ASTM D-1557 by mechanical means with all leads within plant area, all lifts, dewatering, desilting etc., complete ..	Cu.m	11000		11000.00	0.4493030%
A114	a) Providing and laying earthen dam by using selected soil from plant area (homogeneous soil conforming to soil classification SM/SC/CL as per Unified Soil Classification System) or with prepared soil mixed with bentonite or approved equivalent (not less than 2 per cent by volume) to achieve a permeability less than 1 x 10-6 cm / sec, in layers of 250 to 300 mm loose thickness including cost of all materials, machinery and labour all operations, such as excavation, sorting, transportation, loading, unloading, dozing to the required depth, breaking the clods, sectioning, watering and compaction is done to achieve 95% maximum dry density as per ASTM D-1557 standard proctor density by mechanical means with all leads within plant area, all lifts, dewatering, desilting etc. complete.	Cu.m	60000		60000.00	1.0845250%
A115	Providing and laying earthen dam by using selected soil from designated borrowed area (homogeneous soil conforming to soil classification SM/SC/CL as per Unified Soil Classification System) or with prepared soil mixed with bentonite or approved equivalent (not less than 2 per cent by volume) to achieve a permeability less than 1 x 10-6 cm / sec, in layers of 250 to 300 mm loose thickness including cost of all materials, machinery and labour all operations, such as excavation, sorting, transportation, loading, unloading, dozing to the required depth, breaking the clods, sectioning, watering and compaction is done to achieve 95% maximum dry density as per ASTM -Ddensity by mechanical means with all leads within plant area, all lifts, dewatering, desilting etc., complete ..	Cu.m	250000		250000.00	9.8299720%
A116	Providing and laying graded sand satisfying filter criteria, for sand blanket, sand chimney, sand filter comprising of graded sand (D15< or = 0.7mm) around rock toe, rip rap and embankment and connecting catch water drain as per drawings, from approved sources including watering and compacting to the required compaction including dewatering, desilting and all other operations such as quarrying, loading, transporting, unloading, screening, placing in the required layers, using form work with all leads and lift etc. complete for finished works as per specifications.	Cu.m	60000		60000.00	20.0918760%
A117	Providing and constructing graded aggregate filter behind rock toe / in embankment drain (min. 300 thk with 10mm -75mm size aggregate) with clean, hard approved graded aggregate, including cost of quarrying, loading, transporting unloading all materials, machinery and labour, all operations such as placing in layers compactions etc., complete as per specifications.	Cu.m	2604		2604.00	1.9417230%
A118	Providing & constructing rock-toe using clean, hard and selected rubble including filling with chips and wedging for face works including all operations such as quarrying, loading, transportation, unloading, packing, finishing the top and sides to required slopes including dewatering, desilting cost of all materials, machinery, labour etc., complete as per specifications.	Cu.m	8500		8500.00	6.8410150%
A119	Providing & laying 300 mm thk earth cushion on top of HDPE liner for pond floor using selected soil from plant area available from excavation as per drawings, including cost of all materials, machinery and labour all operations such as quarrying, loading, transportation, unloading, screening, placing with all leads and lifts etc., complete as per specifications.	cum	30353		30352.50	0.4381950%
B119	Supplying(loading, transporting, unloading) and laying HDPE (High density polyethylene geomembrane having smooth surface on both the sides. HDPE shall be manufactured by using virgin high density polyethylene resin entirely free of plasticisers or other filler materials. HDPE sheet shall have minimum length of 150mand minimum width of 7 m or heigher. The overlapping and welding area shall be marked with a white line to assure on optimum welding. The thickness of HDPE geo membrane shall not vary across the roll by 5%. all materials, labour etc. The material shall not contain more than 3% of carbon black, anti oxidants and thermal stabilizers. Rates are inclusive of placing, HDPE liner with all leads and lifts, manpower and machinery, materials, labour etc. Complete in all respect and as directed by Engineer incharge. for downstream slope and Pond floor as per					
a	1000 Micron thickness	SQM	133199		133199.00	2.7672070%
A120	Slope protection with turf sods including collection, conveyance and providing 50mm thick grass turf sods, ramming and watering for 3 months or till the grass establishes itself uniformly whichever is later, with all leads, lifts, watering charges etc. complete as per specifications, drawings and as directed by engineer.	Sq.m.	36548		36548.21	0.1158240%
A121	Providing and constructing rip rap / stone pitching with minimum 300 mm thk clean, hard approved graded stones of minimum size 150mm, including filter layer comprising of 150mm thk coraser file and 150 mm thk finer filter layer, cost of quarrying, loading, transporting unloading all materials, machinery and labour, all operations such as placing in layers compactions etc., complete as per specifications.	Cu m	1600		1600.00	1.0730690%

VOLUME-III
PRICE SCHEDULE, REV-02

PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.

TENDER NO - PSER:SCT:KLN-C1902:18
SCH-2 : SERVICE PART

ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH-1
A200	CONCRETE WORKS					
	Providing and placing concrete work including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, cleaning and rendering the exposed surface with cement sand mortar to give a smooth and even surface (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc, preparation of scheme for concreting, getting it approved by engineer, maintaining and submitting records of concreting, complete as per drawing, specifications, relevant laws of Bangladesh, manufacturer's recommendation, relevant BS standards/equivalent international standards and as approved by BIFPCL/BHEL and as per direction of engineer in charge for the following.(Type -I cement as per ASTM C150-16 with C3A content limited to 5 to 8 % shall be used . Supply of cement is in the scope of contractor. No separate payment shall be given against supply of cement by contractor]					
AA204	Concrete under floors, paving, plinth protection, pipe encasing etc complete with 20 mm nominal size graded aggregate at any depth below finished floor level for the following grades:					
b	Grade C16/20 as per BS EN-206 and BS 8500 or equivalent international standard	CUM	60		60.00	0.0753040%
AA205	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following					
b	Grade C25/30	CUM	250		250.00	0.3673710%
c	Grade C30/37	CUM	120		120.00	0.1763690%
AA206	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following .					
b	Grade C25/30	CUM	20		20.00	0.0287020%
c	Grade C30/37	CUM	12		12.00	0.0177030%
A214	Providing and laying Design Mix cement concrete as per BS 8500 and BS EN 206 or equivalent International code for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plastisizer cum waterproofing cement additives conforming to BS 934 or equivalent international standard to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per relevant BS code or equivalent international code and specification with 20 mm nominal size graded aggregate for following grades. Watertightness is to be ensured including structural grouting if required.					
b	C 30/37 grade	CUM	50		50.00	0.0928480%
C200	CONCRETE WORKS					
	Placing concrete work including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, cleaning and rendering the exposed surface with cement sand mortar to give a smooth and even surface (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc, preparation of scheme for concreting, getting it approved by engineer, maintaining and submitting records of concreting, complete as per drawing, specifications, relevant laws of Bangladesh, manufacturer's recommendation, relevant BS standards/equivalent international standards and as approved by BIFPCL/BHEL and as per direction of engineer in charge for the following.(RMC SHALL BE PROVIDED BY BHEL AT BATCHING PLANT IN PROJECT PREMISES . TRANSPORTATION FROM THE BATCHING PLANT UP TO THE POURING POINT SHALL BE UNDER THE SCOPE OF CONTRACTOR)					
CC204	Concrete under floors, paving, plinth protection, pipe encasing etc complete with 20 mm nominal size graded aggregate at any depth below finished floor level for the following grades.					
b	Grade C16/20 as per BS EN-206 and BS 8500 or equivalent international standard	CUM	480		480.00	0.0951560%
C205	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following					
b	Grade C25/30	CUM	2000		2000.00	0.4518850%
c	Grade C30/37	CUM	960		960.00	0.2228770%
CC206	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following .					
b	Grade C25/30	CUM	160		160.00	0.0362820%
c	Grade C30/37	CUM	96		96.00	0.0223780%
C214	Providing and laying Design Mix cement concrete as per BS 8500 and BS EN 206 or equivalent International code for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plastisizer cum waterproofing cement additives conforming to BS 934 or equivalent international standard to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per relevant BS code or equivalent international code and specification with 20 mm nominal size graded aggregate for following grades. Watertightness is to be ensured including structural grouting if required.					
b	C 30/37 grade	CUM	400		400.00	0.1173730%

VOLUME-III
PRICE SCHEDULE, REV-02

PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.

TENDER NO - PSER:SCY:KLN-C1902:18
SCH-2: SERVICE PART

ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH 1
D200	CONCRETE WORKS					
	Placing concrete work including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, cleaning and rendering the exposed surface with cement sand mortar to give a smooth and even surface (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc, preparation of scheme for concreting, getting it approved by engineer, maintaining and submitting records of concreting, complete as per drawing, specifications, relevant laws of Bangladesh, manufacturer's recommendation, relevant BS standards/equivalent international standards and as approved by BIFPCL/BHEL and as per direction of engineer in charge for the following(RMC SHALL BE PROVIDED BY BHEL AT POURING POINT BUT DEVELOPMENT OF ACCESS ROAD FROM NEAREST SITE ROAD TO POURING POINT IS UNDER THE SCOPE OF CONTRACTOR)					
DD204	Concrete under floors, paving, plinth protection, pipe encasing etc complete with 20 mm nominal size graded aggregate at any depth below finished floor level for the following grades:					
b	Grade C16/20 as per BS EN-206 and BS 8500 or equivalent international standard	CUM	60		60.00	0.0088870%
DD205	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following					
b	Grade C25/30	CUM	250		250.00	0.0421660%
c	Grade C30/37	CUM	120		120.00	0.0208030%
DD206	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for the following.					
b	Grade C25/30	CUM	20		20.00	0.0033870%
c	Grade C30/37	CUM	12		12.00	0.0020890%
D214	Providing and laying Design Mix cement concrete as per BS 8500 and BS EN 206 or equivalent International code for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plasticizer cum waterproofing cement additives conforming to BS 934 or equivalent international standard to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per relevant BS code or equivalent international code and specification with 20 mm nominal size graded aggregate for following grades. Watertightness is to be ensured including structural grouting if required.					
b	C 30/37 grade	CUM	50		50.00	0.0109570%
	MISC. CONCRETE RELATED WORKS					
215	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unsevicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.					
b	Reinforced cement concrete of all grades	CUM	10		10.00	0.0025110%
216	Chipping of concrete in reinforced concrete work, cutting pockets, making openings at all levels and according to shapes, disposal of waste materials upto a lead of 2 km as directed by engineer including equipment, safety precautions, making good the broken surface etc all complete as per specification, drawing, instructions of engineer in charge but excluding cutting of reinforcement .	CUDM	10		10.00	0.0000790%
217	Extra over and above St No 216 for cutting of reinforcement, all sizes and types including labour, equipment, return of cut reinforcement to store etc all complete as per specification, drawings and instructions of engineer in charge. Measurement shall be on the cross sectional area of reinforcement cut.	SQCM	5		5.00	0.0000040%
218	Cutting Reinforced concrete with mechanised tools like Core drilling machine etc. for cutting pockets, holes, cores in slab, beam, column or foundation as per direction of engineer in charge.	CUDM	5		5.00	0.0001870%
219	Providing and applying curing compound (water based) of approved make where ever required as per manufacturer's specification.	SQM	500		500.00	0.0084510%
220	Providing & laying Plim cement concrete 1:3:6 with 75% graded metal of maximum size 40 mm and 25% plums of maximum size 150 mm.	CUM	250		250.00	0.2860670%
	300 FORM WORKS					
	Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffolding and centering complete including pockets etc. complete as per drawing, specifications, relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL and as per direction of engineer in charge for the following.					
A301	Fairface form work with good quality water proof ply wood (Plywood lining for form shall be of timber, which is resin bonded and water repellent) of minimum 12 mm thickness and smooth surface above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies etc. for all heights including rubbing the concrete surface with carborundum stone to make smooth finish and providing 25mmx25mm chamfer at all exterior corner	SQM	11000		11000.00	0.8521270%
A302	Fairface form work with good quality water proof ply wood (Plywood lining for form shall be of timber, which is resin bonded and water repellent) of minimum 12 mm thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc including providing 25mmx25mm chamfer at all exterior corners.	SQM	2400		2400.00	0.2062010%
A304	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm plan area) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size all complete as per specification, drawing and instruction of engineer in charge.					
a	Upto 150 mm depth	Each	500		500.00	0.0200710%
b	Pockets of depths more than 150mm and upto 300 mm depth	Each	500		500.00	0.0365030%
	400 REINFORCEMENT					
	Reinforcement work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling etc at all level as per specification, relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL drawings and as directed by engineer - in - charge for the following					
402	Providing, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of grade B500B conforming to BS 4449:2005+A:2009 including cost of reinforcement steel, binding wire, labour, scaffolding, transportation & from stores etc complete all as per specifications, drawings and as directed by Engineer. (REINFORCEMENT SHALL BE PROVIDED BY BHEL FREE OF COST AS PER TCC)	MT	145		145.00	0.1669910%
	700 MS EMBEDMENTS					
	Embedments including all labour, material (unless otherwise specified in BOQ/specification), equipment, transportation, handling etc. at any level as per specification, drawings, relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL and as directed by engineer - in - charge.					
701	Supply, fabricating and fixing of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. including welding, bolting, cutting, drilling, scaffolding, setting etc. all compl	MT	2		2.00	0.0256880%
703	Same as above items 701 & 702 with BHEL supplied material free of cost including loading, transportation, unloading etc. all complete from BHEL store to plant site					
a	Mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc.	MT	5		5.00	0.0123340%
704	Supplying, fabricating, erecting and installing following items in concrete/brickwall for all kind of works, including setting material in concrete layout, scaffolding, cutting, forming, grinding, drilling, bolting, welding, jointing, testing etc. all compl					
a	MS pipes of all diameters	Quintal	5		5.00	0.0068090%
b	PVC pipes / conduits of all diameters	Quintal	5		5.00	0.0352400%
c	UPVC pipes / conduits of all diameters	Quintal	1		1.00	0.0068230%

VOLUME-III
PRICE SCHEDULE, REV-02

PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.

TENDER NO - PSER: SCT:KLN-C1902:18
SCH-2: SERVICE PART

ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH-1
800 GROUTING						
	Grouting including all labour, material (unless otherwise specified in BOQ/specification), equipment, roughening surface, cleaning, ramming, curing etc. at any level unless otherwise specified as per specification, drawings, relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL and as directed by engineer - in - charge.					
802	Providing & grouting of pocket holes, pipe sleeves under base plates, machinery, pipe supporting structures etc. with mix 1:1 (1 cement :1 sand) using non shrink admixture etc. all Complete.	CUM	5		5.00	0.0210920%
803	Providing & grouting of pocket holes, pipe sleeves and under base plate of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with mix 1:1:2 (1 cement : 1 coarse sand : 2 aggregate of 6 mm down graded stonechips) using non shrink admixture. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor).	CUM	1		1.00	0.0039580%
804	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConextraGP-1 or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contracte	CUM	1		1.00	0.0112090%
1000 BRICKWORK						
	Brickwork masonry including all labour, material (unless otherwise specified in BOQ/specification), equipment, transportation, handling, scaffolding etc. at all levels as per relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL, specification, drawings and as directed by engineer - in - charge.					
1001	Providing brick work in cement mortar 1:6 (1 part cement 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.					
c	Using burnt clay bricks as per relevant BS code or equivalent international code with crushing strength of 75 Kg/cm ²	CUM	150		150.00	0.1723270%
1001AA	Providing masonry work with Autoclaved Aerated Concrete (AAC) block (600 mm x 200 mm, thickness ranging from 201 mm to 400 mm and conforming to Category I of BS EN 771-4) in cement mortar 1:6 (1 part cement, 6 part sand of fineness 1.1) in walls, chambers etc. at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc complete (excluding plastering and painting) complete as per relevant BS or equivalent international standards, drawings, specifications, manufacturer's recommendations.	CUM	150		150.00	0.2422050%
1200 CEMENT MORTAR PLASTER						
	Cement mortar plaster including making grooves wherever required including all labour, material (unless otherwise specified in BOQ/specification), scaffolding, curing etc at any level as per relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL, specification, drawings and as directed by engineer - in - charge.					
1201	Providing 18mm thick plaster in two layers outside the building/boundary wall in cement mortar 1:6 on walls, finished to a smooth finish including providing 3mmx3mm size grooves at junctions of two dissimilar materials all complete	SQM	2500		2500.00	0.0892030%
1202	Providing 12mm thick plaster inside the building/boundary wall in cement mortar 1:6 on walls finished to a smooth finish as per specification all complete.	SQM	1250		1250.00	0.0312510%
1203	Providing 12mm thick plaster in cement mortar 1:6 on walls with rough finish all complete.	SQM	500		500.00	0.0120890%
1800 MISCELLANEOUS WORKS						
	Miscellaneous works including all labour, material (unless otherwise specified in BOQ/specification), equipment etc. at any level unless otherwise specified as per relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL, specification, drawings and as directed by engineer - in - charge.					
1817	Providing and fixing HDPE pipes in concrete/ brick work of following sizes including cutting, fixing and levelling in position etc. all complete.					
b	100 mm dia	RM	100		100.00	0.0066790%
c	150 mm dia	RM	350		350.00	0.0376710%
2200 SANITARY WORKS						
	Sanitary work including all labour, material (unless otherwise specified in BOQ/specification), equipment etc. at any level as per relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL, specification, drawings and as directed by engineer - in - charge.					
2208	Providing, laying light duty non pressure RCC pipes conforming to BS 5911 (equivalent to NP3 class) with collars jointed with stiff mixture of cement mortar including testing of joints etc all complete for following.					
c	450mm dia	RM	5		5.00	0.0018600%
b	600mm dia	RM	10		10.00	0.0054330%
e	900mm dia	RM	10		10.00	0.0092920%
2210	Providing, laying light duty non pressure RCC pipes conforming to BS 5911 (equivalent to NP4 class) with collars jointed with stiff mixture of cement mortar including testing of joints etc all complete for following.					
c	900mm dia	RM	10		10.00	0.0107070%

VOLUME-III
PRICE SCHEDULE, REV-02

PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.

TENDER NO - PSER:SCY:KLN-C1902:18
SCH-2: SERVICE PART

ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH 1
	2300 STRUCTURAL STEEL					
	Structural steel works including all labour, material (unless otherwise specified in BOQ/specification), equipments, transportation, handling etc. at any level as per relevant laws of Bangladesh, relevant BS Standards or Equivalent International standards approved by BIFPCL/BHEL, specification, drawings and as directed by engineer - in - charge.					
2301	Supply, fabrication, erection and alignment of structural steel with mild steel conforming to BS EN 10025-2 or equivalent, pipes/chequered plate, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc including 1 coat of red oxide zinc-chromate primer (one coat at shop), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating, post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete as per specification, relevant BS code or equivalent international code. Including appointment of a separate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.					
a	For Built up sections composed of Structural plates only (Grade S355) including stiffeners e.g. plated columns, girders, etc. (other than coal bunker)	MT	4		4.00	0.0444970%
b	For built up section composed of "rolled sections (Grade S275)" or "rolled sections (Grade S275) and plates (Grade S275)" including stiffeners (other than coal bunker	MT	4		4.00	0.0453180%
A2301	Supply, fabrication, erection and alignment of structural steel with mild steel conforming to BS EN 10025-2 or equivalent, pipes/chequered plate, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc including 1 coat of red oxide zinc-chromate primer (one coat at shop), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating, post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete as per specification, relevant BS code or equivalent international code. Including appointment of a separate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.(STRUCTURAL STEEL SHALL BE PROVIDED BY BHEL AS FREE OF COST AS PER TCC)					
a	For Built up sections composed of Structural plates only (Grade S355) including stiffeners e.g. plated columns, girders, etc. (other than coal bunker)	MT	3		3.00	0.0123130%
b	For built up section composed of "rolled sections (Grade S275)" or "rolled sections (Grade S275) and plates (Grade S275)" including stiffeners (other than coal bunker	MT	3		3.00	0.0129290%
2301A	Erection and alignment of structural steel with mild steel conforming to BS EN 10025-2 or equivalent, pipes/chequered plate, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platform ladders, stairs, stringers, treads, landings, hand-rails etc including collection of steel from stores, minor rectification in fabricated members, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating, post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools, touch-up painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete as per specification, relevant BS code or equivalent international code with hardened and tempered washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work etc all complete.					
a	For Built up sections composed of Structural plates only (Grade S355) including stiffeners e.g. plated columns, girders, etc. (other than coal bunker)	MT	25		25.00	0.0410450%
b	For built up section composed of "rolled sections (Grade S275)" or "rolled sections (Grade S275) and plates (Grade S275)" including stiffeners (other than coal bunker	MT	50		50.00	0.0861930%
d	For all other items (Grade S275) not covered above e.g. rolled sections, pipes, chequered plate, seal plates etc	MT	6		6.00	0.0098510%
2305A	Providing and applying two coats of epoxy high solid intermediate paint with minimum 80 micron total dry film thickness (DFT) of each coat (total 160 micron DFT of both the coats) and 1 coat of 2-comp polyurethane finish paint with minimum 50 micron total dry film thickness (DFT) of approved make and shade to achieve an even shade over steel sections already having primer coats and keeping overall DFT with primer not less than 290 microns including protection, cleaning, rectification of damaged primer, scaffolding etc. all complete as per specification.	MT	80		80.00	0.0615880%
2310	Providing and fixing in position of permanent mild steel bolts (class 4.6 as per relevant BS code or equivalent international code) and nuts, washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work etc all complete.	Quintal	2		2.00	0.0064020%
2311	Providing and fixing in position of high strength structural bolts (of property class 8.8, 10.9 as per relevant BS code or equivalent international code) and high strength structural hardened and tempered nuts conforming to relevant BS code or equivalent international code with hardened and tempered washers etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.	Quintal	1		1.00	0.0065850%
2320	Supply, fabrication and fixing of GI pipe hand railing (900 mm high) of 32 mm/40 mm dia (Medium Grade) including transportation loading/unloading, painting etc. all complete	MT	2		2.00	0.0540200%
2400	Providing Road Work including necessary material, labour, machinery, transportation etc as per specification, drawing, relevant laws of Bangladesh, relevant BS Standards (or equivalent international standard approved by BIFPCL/BHEL) and as directed by the Engineer-in-charge for the following.					
2401A	Preparation of sub grade by excavating earth to required depth for all types of soil/rock, dressing to camber and compacting the base (top layer of minimum 500 mm thickness) to 85% relative density (ASTM D-4253 and D-4254) for free draining soils containing less than 15% by weight finer than 75 micron sieve non plastic material or 98% of the maximum density as determined by ASTM D-1557 for soils containing more than 15% material passing the 75 micron sieve including making good the undulation etc and disposal of surplus earth within a lead upto 1 km etc. all complete	CUM	4000		4000.00	0.0361510%
2403A	Providing, stacking & laying wet mix material in layers of required thickness for shoulder consisting of crushed gravel or crushed rock, including watering, compaction with road roller to required camber etc all complete	CUM	900		900.00	0.5873330%
2404A	Providing & laying granular sub-base in layers of required thickness with crushed rock or other approved local material like brick metal, stone screening & blinding material including screening, sorting, spreading to template & consolidation with road roller including carriage, soreading & consolidation of blinding material etc all complete as per specification	CUM	2000		2000.00	1.7636440%

VOLUME-III
PRICE SCHEDULE, REV-02

PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.

TENDER NO - PSER: SCT:KLN-C1902:18
SCH-2 : SERVICE PART

ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE-Quantity	COAL-STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH-1
2412A	Supplying and laying 400mmx100mmx325mm deep precast concrete kerb stone of grade C40/50 as per BS EN-206 and BS 8500 or equivalent international standard with 20 mm nominal size stone aggregate and of shape as per detailed drawing including fixing with cement mortar (1:2) in 13mm thick joints, finishing of joints with neat cement paste, making drainage opening where required etc all complete. [Type –I cement as per ASTM C150-16 with C3A content limited to 5 to 8 % shall be used . Supply of cement is in the scope of contractor. No separate payment shall be given against supply of cement by contractor]	RM	45		45.00	0.0038870%
C2412A	Supplying and laying 400mmx100mmx325mm deep precast concrete kerb stone of grade C40/50 as per BS EN-206 and BS 8500 or equivalent international standard with 20 mm nominal size stone aggregate and of shape as per detailed drawing including fixing with cement mortar (1:2) in 13mm thick joints, finishing of joints with neat cement paste, making drainage opening where required etc all complete. (RMC SHALL BE PROVIDED BY BHEL AT BATCHING PLANT IN PROJECT PREMISES . TRANSPORTATION FROM THE BATCHING PLANT UP TO THE POURING POINT SHALL BE UNDER THE SCOPE OF CONTRACTOR)	RM	105		105.00	0.0014300%
2414A	Supply and laying 150mm dia non pressure RCC pipes conforming to BS 5911 or equivalent in raised shoulders as rain water drains as per detailed drawing including fixing with cement mortar (1:2) in 13mm thick joints, finishing of joints with neat cement paste etc all complete	RM	760		760.00	0.0947340%
2417A	Providing & laying dry lean concrete of required thickness of grade C8/10 as per BS EN-206 and BS 8500 or equivalent international standard (with well graded picked jhama birch chips conforming to ASTM C33) including breaking chips and screening including providing and fixing formwork, compaction, finishing, curing etc all complete. [Type – cement as per ASTM C150-16 with C3A content limited to 5 to 8 % shall be used . Supply of cement is in the scope of contractor. No separate payment shall be given against supply of cement by contractor]	CUM	550		550.00	0.5338060%
C2417A	Providing & laying dry lean concrete of required thickness of grade C8/10 as per BS EN-206 and BS 8500 or equivalent international standard (with well graded picked jhama birch chips conforming to ASTM C33) including breaking chips and screening including providing and fixing formwork, compaction, finishing, curing etc all complete. (RMC SHALL BE PROVIDED BY BHEL AT BATCHING PLANT IN PROJECT PREMISES . TRANSPORTATION FROM THE BATCHING PLANT UP TO THE POURING POINT SHALL BE UNDER THE SCOPE OF CONTRACTOR)	CUM	595		595.00	0.0912070%
2418A	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for C30/37 grade [Type – cement as per ASTM C150-16 with C3A content limited to 5 to 8 % shall be used . Supply of cement is in the scope of contractor. No separate payment shall be given against supply of cement by contractor]	CUM	188		188.00	0.2687430%
C2418A	Providing and laying Design Mix cement concrete conforming to BS EN-206 and BS 8500 or equivalent international standard for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at all level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to BS EN 934 (latest) or equivalent international standard to achieve required slump in concrete all complete as per specification & drawing for C30/37 grade (RMC SHALL BE PROVIDED BY BHEL AT BATCHING PLANT IN PROJECT PREMISES . TRANSPORTATION FROM THE BATCHING PLANT UP TO THE POURING POINT SHALL BE UNDER THE SCOPE OF CONTRACTOR)	CUM	188		188.00	0.0424770%
REINFORCEMENT						
2420A	Providing and fixing in position MS dowel bar reinforcement conforming to AASHTO M-31/ASTM-Designation A615 of Grade-60 including surface painted with bitumen and greasing, dowel end caps with cotton fills etc all complete as per specification, drawing and as directed by Engineer.	MT	2		2.00	0.0222140%
MISCELLANEOUS						
2423A	Supplying & installation of bitumen impregnated fibre board conforming to relevant BS code or equivalent international code as joint filler at joints in concrete including nailing, coating of both faces with coal tar pitch/bitumin etc. all complete					
b	20 mm wide joints.	SQM	60		60.00	0.0078520%
2424A	Supplying and filling in position hot applied bitumin sealing compound of specified thickness conforming to relevant BS code or equivalent international code including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints including application of primer etc. all complete.	RM	3500		3500.00	0.0267020%
2428	Providing and laying Impermeable plastic sheeting 125 microns thick laid flat without creases conforming to relevant BS code or equivalent international code etc all complete as per specification, drawing and as directed by Engineer	SQM	8350		8350.00	0.1293680%
2429	Providing brick work in cement mortar 1:6 (1 part cement 6 parts coarse sand) of 100mm in thickness at road edge including curing etc. all complete excluding plastering and painting					
c	Using burnt clay bricks as per relevant BS code or equivalent international code with crushing strength of 75 Kg/cm;	CUM	100		100.00	0.1148840%
A2430	Designing, providing, fixing and installing in position guard rails (Railings shall be of galvanized steel, which shall be epoxy-painted) including foundation, supporting posts, signs, glass reflector elements, painting etc all complete as per specification, relevant laws of Bangladesh, AASHTO guidelines/equivalent relevant International standards, approved by BIFPCL/BHEL and as directed by Engineer.	RM	15		15.00	0.0022340%
A2431	Designing, providing, fixing and installing in position Plastic guideposts including signs, glass reflector elements, painting etc all complete as per specification, relevant laws of Bangladesh, AASHTO guidelines/equivalent relevant International standards, approved by BIFPCL/BHEL and as directed by Engineer.	Each	8		8.00	0.0017210%
2500	PILING					

VOLUME-III PRICE SCHEDULE, REV-02						
PACKAGE # 4:GROUND IMPROVEMENT OF ASH POND & COAL STOCK YARD AREAS AND CONSTRUCTION OF ASH POND FOR 2X660 MW MAITREE RAMPAL PROJECT, BANGLADESH.						
TENDER NO - PSER:SCT:KLN-C1902:18 SCH-2 : SERVICE PART						
ST. NO	DESCRIPTION OF ITEM	UNIT	A.DYKE- Quantity	COAL- STOCK Quantity	Quantity	ALLOTTED PERCENTAGE FOR AMOUNT OF EACH ITEM(Nearest to the 6 decimal points) W.R.T THE TOTAL OF QUOTED PRICE IN SCH 1
4000	GROUND IMPROVEMENT WITH PRE-FABRICATED VERTICAL BAND DRAINS INSTALLATION					
4001	Mobilizing all necessary plant and machinery for prefabricated vertical band drain installation and demobilizing after completion of job.	No.	2		2.00	0.5868640%
4002	Supply and install 3 mm thick ,100mm wide band drains from the top of the filled up ground surface to the required depth in rectangular/triangular grid pattern of spacing 1.2m/c using hydraulic sticher ,as per drawing, technical specification and as directed by the Engineer -in charge including cost of labour, machinery etc. complete	Rm	1025000		1025000.00	10.9238860%
4003	Providing the following instruments as per the technical specification and as directed by the Engineer -in- charge for the monitoring of consolidation.					
A	Platform settlement marker	Nos.	10		10.00	0.0234750%
B	Casagrande Piezometer	Nos.	10		10.00	0.0751190%
C	Water level indicator	Nos.	2		2.00	0.0089200%
D	Monitoring and submission of report	Months	5		5.00	0.0469490%
4004	Design and execution of ground improvement with dynamic compaction on <u>Engineering and Execution basis</u> for the specified area (s) so as to achieve at least 80% of relative density for the top existing dredged sand fill (about 6m thick layer) including preparation of drawings and getting it approved, conducting field trials for validation of design, providing necessary equipments, labours, plants & tools, machineries, quality testing/ quality control etc., all complete as required/as per specification and as directed by the engineer-in-charge	SQM		178380	178380.00	29.5211130%
4005	Excavating trial pit of size 3m x 3m at various locations up to a maximum depth of 3m below ground level for conducting plate load test in all types of soil which can be excavated with pick axe/crow bar etc including sheeting or shoring the sides for the purpose of stability, dewatering and maintaining the pit dry at all times and backfilling of the pit with excavated material etc all complete as per specification and as directed by the engineer-in-charge	CUM		140	140.00	0.0050780%
4006	Conducting plate load test at specified depth using 600mmx600mmx25mm mild steel plate as per ASTM 1195 and submission of approved test report etc as per specification, drawing and as directed by the engineer-in-charge. The rate shall include mobilization of necessary testing equipments etc to the project site and demobilization of the same after completion of tests	NOS.		5	5.00	0.0508200%
4007	Providing and laying a layer of 150mm thick three dimensional cellular confinement system(geo cell)made of HDPE(High density poly ethylene) strips filled and compacted with broken brick having material size ranges from 45mm to 63 mm which act as confinement system layer in two layers .Density of material shall be 0.9 to 0.96 g/cc. Thickness of material shall not be less than 1 mm. Tensile strength and desired strain shall not be less than 40kN/M.Cell size 259x254mm(+/- 10%).Work shall complete in all respect . Rates are inclusive of all machinery, equipment, labour and mobilization charges. (Measurement is done for each layer of geo cell separately)	SQM		500	500.00	0.0357990%
4008	Providing and laying a layer of high modulus polypropylene geo grids, grid structure shall be extruded bi- axial, mesh opening size of geo grid varies from 35x35mm (+/-) 15%. Work shall complete in all respect. Rates are inclusive of all machinery, equipment, labour and mobilization charges etc., complete.	SQM		500	500.00	0.0173120%
4009	Providing and laying a layer of mechanically bonded poly propylene layer of non-woven geo textile having wide width tensile strength (MD/CD) of geo textile of 6.0/7.5kN/m, apparent opening size of 0.120 to 0.3 (max)mm and hydraulic conductivity having more than 10-6 m/s.	SQM		500	500.00	0.0039320%
4010	Providing and filling of sand in layer not exceeding 100 mm thickness over geo-grid including spreading, watering, ramming/compaction by manual / mechanical means, dressing, royalty (if any) etc. all complete.	Cu.m		500	500.00	0.1100960%
4011	Providing geo membrane around the decantation well to avoid infusion of ash inside the decantation well	smt	100		100.00	0.0013850%
4012	Providing and installing in position porous tube, piezometers at specified locations including drilling cased boreholes of 100mm diameter, cleaning them, assembling porous tube and PVC pipe of about 12 m length with couplings, cleaning, driving out air from the pores of porous tube, pouring clean saturated , coarse sand around the porous tube, back filling with cement sand grout (1 cement : 4 sand) around the PVC pipe, providing removable cover for the PVC pipe and the casing and fabricating and installing protective fence complete with the cost of brass bottom plug, cost of brass adopter, cost of portion of steel casing pipe to be left in the bore hole, cost of all labor, equipment, materials, transportation to site, all leads and lifts etc. complete as per specifications and directed by engineer.	Nos	5		5.00	0.0865200%
4013	Providing and installing in position the surface settlement points of 1.0 meter depth at specified location, including drilling holes and back filling with 1:2:4 cement concrete and cost of all labor, equipment, materials, transportation to site, all leads and lifts etc. complete as per specifications and directed by engineer.	Nos	5		5.00	0.0086520%
TOTAL ALLOCATED PERCENTAGE						100.0000000%