



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

**TCN - 04**

Ref: PSER:SCT: RKL-C1755:TCN-04

Date: 29-07-2016

Sub	<b>Tender Change Notice (TCN) - 04</b>	
Job	Main Plant Civil & Structural work including Misc Building. Road work, Levelling & Grading, Fire Fighting, Cooling Tower (IDCT), AHP, Boundary wall and Misc Foundations/ Structures at 1x250 MW Rourkela PP-II Expansion, Odisha.	
Ref	1.0	TENDER NO. PSER:SCT: RKL-C1755:16.
	2.0	BHEL's NIT, vide reference no PSER:SCT: RKL-C1755:5080, Dated 18-06-2016.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT: RKL-C1755:TCN-01, Dated 30-06-2016
	4.0	BHEL's TCN-02, vide reference no PSER:SCT: RKL-C1755:TCN-02, Dated 05-07-2016
	5.0	BHEL's TCN-03, vide reference no PSER:SCT: RKL-C1755:TCN-03, Dated 25-07-2016
	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 the offer.

1. Clarification of Bidders' queries attached vide **Annexure-A to TCN-04**.
2. Revised BOQ cum price schedule, **VOLUME-III-PRICE SCHEDULE, REV-03** is attached **superseding VOLUME-III PRICE SCHEDULE, REV-02** issued earlier. Bidder shall quote as per this revised Volume-III, Rev-02 only. Bidders are 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- PRICE SCHEDULE, REV-03**).  
**Any other document uploaded in the price section other than Price schedule issued alongwith Tender/TCN shall not be taken into cognizance.**  
(For uploading Revised/Latest price schedule format in E-procurement Portal, contact Mjunction.)
3. Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
4. All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

SR.ENGR (SCT)

Encl : As above.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

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

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**ANNEXURE-A TO TCN-04**

**JOB:MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC BUILDING. ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

**TENDER NO. PSER:SCT: RKL-C1755:16.**

**CLARIFICATION OF BIDDERS' QUERIES**

<b>SL NO</b>	<b>REFERENCE CLAUSE OF TENDER DOCUMENT</b>	<b>BIDDER'S QUERY</b>	<b>BHEL'S CLARIFICATION</b>
1.0	ST No. 106 (d)	Two items are having same nomenclature and item nos. with different quantities. Please clarify the same.	Price schedule has been revised. Refer revised Price Schedule- Rev-03.
2.0	ST No. 109	ST no. 109 is having sub items c, d, e. Please clarify if sub items c, d, e are part of ST no. 109.	No. c, d, e are part of ST NO 110. Refer revised Price Schedule- Rev-03.
3.0	ST No. 1845	The item has been shown deleted in Pre bid clarifications Annexue – A of TCN 03. The item is appearing in Volume III Price schedule Rev 02 (Service) . Please clarify same.	Item No. revised. For Detail Specification refer clause no 18.03.00- Page 103 of 117-Civil-Section-1- Technical Specification-Section – VI, Vol – II F Bid Doc. No. : CC&M-C-347-211.
4.0	ST A2320	The quantity appearing in the service part is 90 MT whereas the quantity appearing in the supply part is 31 MT. It is presumed that the balance quantity of 59 MT will be supplied by BHEL as free issue material at site. Please confirm.	No. Bidder shall provide GI pipe as per site requirement. Supply and service will be paid as per item no A2320S and A2320 respectively. Bidders are requested to quote accordingly.
5.0	General	in reference to the TCN 03 for the referred subject and the Volume III Price schedule Rev 02. On going through the Price Schedule many new items, with reference to Volume III Price schedule Rev 01, has been identified which are vendor oriented ones for which we will be required to obtain feedback from specialized vendors for the same specially in ST No. 500, ST No. 900 & ST 1400 series and it will require some time for the vendors to quote for the same also many new items has been added in various STs which requires to be worked out by us. Under the circumstances we will request you to kindly extend the date of submission atleast upto 09/08/2016.	<b>DUE DATE OF SUBMISSION OF BID IS 02-08-2016. NO FURTHER EXTENSION IS ENVISAGED AT THIS JUNCTURE.</b>
6.0	TCC Cl. No. 35.2	Taxes & Duties:As the structural steel is to be procure by the bidder. Kindly confirm the-Form- C will be issued by BHEL.	NO

**ANNEXURE-A TO TCN-04**

**JOB:MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC BUILDING. ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

**TENDER NO. PSER:SCT: RKL-C1755:16.**

**CLARIFICATION OF BIDDERS' QUERIES**

<b>SL NO</b>	<b>REFERENCE CLAUSE OF TENDER DOCUMENT</b>	<b>BIDDER'S QUERY</b>	<b>BHEL'S CLARIFICATION</b>
7.0	TCC Cl. No. 35.2	Tax –Invoice format:-Kindly provide us Tax –Invoice format.	Shall be provided during execution.
8.0	ST 106	Excavation in Hard rock-Identical items marked as"d" have been repeated as under ST 106 of BOQ- Please clarify	Price schedule has been revised. Refer revised Price Schedule- Rev-03.
9.0	ST 109 c,d,e	Each layer compacted-Item marked as c,d,e under ST 109 are not matching w.r.t item description of ST 109 for carriage of excavated earth- Please clarify	Price schedule has been revised. Refer revised Price Schedule- Rev-03.
10.0	ST B201ISG	Concrete-It is obserbed that grade of concrete are mentioned as M-5 and ration 1:4:8 in this item description- Please specify which grade of concrete to be executed	Grade of concrete shall be M-5 and ration 1:5:10.Refer revised Price Schedule- Rev-03.
11.0	Clause no 34.6 of Volume-IF-TCC	Price schedule is split into 2 parts, service part & supply part, total of which shall be taken into account for evaluation and awarding separately for supply & service parts. Contractor shall supply all material covered under supply part of price schedule. Unless otherwise specified in price schedule, contractor shall obtain prior approval from BHEL/ owner regarding manufacturer/ make of all items under contractor's scope of supply (under service part or supply part of price schedule).	Clause No 34.6 shall be revised as follows:  Price schedule is split into 2 parts, service part & supply part, total of which shall be taken into account for evaluation.  However, awrding shall be done separately for supply and service part. Unless otherwise specified in price schedule, contractor shall obtain prior approval from BHEL/ owner regarding manufacturer/ make of all items under contractor's scope of supply.

VOLUME-III PRICE SCHEDULE, REV-03		
JOB: MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC. BUILDING, ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC. FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.		
TENDER NO : PSER:SCT: RKL-C1755:16.		
SL NO	PREAMBLE	Remarks
1	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 Volume-1A, 1B, 1C, 1D, 1E, 1F, II and other tender sections (as applicable as per NIT) and shall have precedence over any contrary statement mentioned anywhere in this document. The tenderer shall sign & stamp all the pages of the tender document as a token of their acceptance. Submission of unfilled formats with sign & stamp shall be construed as acceptance of the contents of the same.	
2	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 guidance/tender purposes giving some idea of the work involved. The work is to be executed as per terms & conditions of the tender and actual drawings/documents, which shall be furnished during execution.	
3	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.	
4	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.	
5	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 (+/- 30 %) of the awarded price as per LOI .	
6	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.	
7	In case Sealed /Paper Price Bids are opened for finalisation of the tender, for any Item Rate/BOQ based service 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.	
8	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. The rates of unit rate/optional items shall remain valid till execution of the order, if the job/work is awarded to the bidder.	NOT APPLICABLE
9	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing, clearing of old structures and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same. However, if separate rate for such item is available in the rate schedule, the same shall be considered.	
10	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.	
11	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.	
12	The tenderer 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 before submission of his bid/offer. No claim whatsoever due to lack of knowledge of site conditions shall be entertained after award of the work.	
13	No splitting of the job is envisaged unless the same is specifically indicated in the TCC/Vol-1F. Decision of BHEL in this regard shall be final and binding to the bidders.	
14	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.	
15	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. The same modality shall be applicable for other item rate service contracts where item with same description is repeated in different schedules.	NOT APPLICABLE
16	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.	
17	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.	
18	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 schedule as prescribed in the tender/BOQ cum Rate Schedule. PVC/escalation is not payable for these Non-scheduled items.	
19	No interest, whatsoever, shall be payable by BHEL on the security deposit, any bank guarantee submitted or any amount due to successful bidder/contractor. No idling charge whatsoever (either for labour or any other resources) is payable by BHEL for any reason whatsoever.	
20	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.	
21	Bidder's GRAND Total price will be considered for evaluation unless stated otherwise.	
22	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.	NOT APPLICABLE

**VOLUME-III  
PRICE SCHEDULE, REV-03**

**JOB: MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC. BUILDING, ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC. FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

**TENDER NO : PSER:SCT: RKL-C1755:16.**

**SCH-1-GRAND TOTAL PRICE**

SL.NO	DESCRIPTION OF WORK	PRICE SCHEDULE REF	TOTAL PRICE (INR)
A	SCHEDULE ITEM		
1.0	TOTAL PRICE OF SCH-2-PART-1-SERVICE (MAIN PLANT CIVIL & STRUCTURAL WORK, ROAD WORK, LEVELLING & GRADING, COOLING TOWER ETC.-SERVICE).	SCH-2-PART-1-SERVICE	
2.0	TOTAL PRICE OF SCH-3-PART-2-SUPPLY (MAIN PLANT CIVIL & STRUCTURAL WORK, ROAD WORK, LEVELLING & GRADING, COOLING TOWER ETC.-SUPPLY).	SCH-3-PART-2-SUPPLY	
3.0	<b>GRAND TOTAL PRICE (1.0+2.0)</b>		
<b>B</b>	<b>NON-SCHEDULE ITEM</b> Quote % above or % below or at par for items not covered as above of this schedule. The rate shall be derived from Delhi schedule of rate 2014.		
1a)	Rate of complete item		_____ % above / _____ % below / At par DSR 2014
1b)	Rate of supply of material at site only		_____ % above / _____ % below / At par DSR 2014
1c)	Rate for execution complete excluding supply of materials.		_____ % above / _____ % below / At par DSR 2014
<b>NOTE</b>			
1.0	Bidder shall quote total price for total price of SCH-2-PART-1 (Service part) and SCH-3-PART-2 (Supply part) only at sl no 1.0, & 2.0 above respectively. 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 grand total price at sl no 3.0 above shall be considered for evaluation. However order shall be issued separately for supply and service part . As such grand total price should be complete in all respect for the full scope defined and considering all terms and conditions of the tender/TCN..		
3.0	Bidder to note that SCH-2 covers service of respective items, unless specified otherwise in the description of items.		
4.0	Bidder to note that SCH-3 covers supply of respective items, unless specified otherwise in the description of items.		

**VOLUME-III  
PRICE SCHEDULE, REV-03**

**JOB: MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC. BUILDING, ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP,  
BOUNDARY WALL AND MISC. FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

**TENDER NO : PSER:SCT: RKL-C1755:16.**

**SCH-1-GRAND TOTAL PRICE**

5.0	Bidder's quoted total price of SCH-2, & SCH-3 at sl no 1.0 & 2.0 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 & its quantity after rounded 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.5 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 8 decimal places will be taken into account. Any adjustment, if required, due to such methodology, will be effected in final bill.
9.0	Successful bidder shall draw a schedule of quantities of various items of work of SCH-3 and obtain BHEL's approval/ clearance in writing before procurement, supply, etc.
10.0	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.
11.0	Price format shall not be changed by bidder in any case and it may lead to cancellation of their offer.

**VOLUME-III  
PRICE SCHEDULE, REV-03**

**JOB: MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC. BUILDING, ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC. FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

(Civil, Structural & Architectural works of Main Power House Building, TG & BFP foundations, Boiler Foundations, Mill Bunker bay ( bowl mill, all floors, roof and bunker supporting structure including coal bunkers), Transformer Yard including fencing & gates, ESP Foundations, ESP Control Room, Mill Reject System, DG System, Pipe and Cable Racks, Compressor House, Admin Building, Fans (PA, FD, ID & seal), Duct Supporting Structures, tank foundation, air washer, CW & CEP Pit , CW thrust block & CW pipe encasing, CST Tank Foundation, ETP sump pits, STP, Permanent store, Fire water pump house, Clarified water storage tank, CW treatment plant, Chlorine dioxide system, Interconnecting & miscellaneous platforms , Plinth protection , Paving and underground works, laying of underground earthing rod, Earth stripping, tree cutting, roads , sewage network, Storm Water Drainage System, plumbing and Sanitary works, rain Water Harvesting, Cooling tower, Levelling & grading, Road works, boundary wall, Miscellaneous foundations for equipment, pump, tanks, fire fighting civil works ,AHP etc. if any etc and any other building/structure/works necessary for completion of project).

**TENDER NO : PSER:SCT: RKL-C1755:16.**

**SCH-2-PART-1-SERVICE**

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
<b>100</b>	<b>EARTH WORK</b>			
	<b>Earth work In excavation, backfilling and disposal including necessary men/women, materials, equipment, loading, transportation, unloading, dewatering etc as per specification, drawing and as directed by engineer- in-charge for the following.</b>			
101	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 500 m, spreading/levelling of disposed materials etc all complete for following depths below ground level.			
a	Depth from ground level but not exceeding 2 m	CUM	<b>202685</b>	0.01930995
b	Depth exceeding 2 m but not exceeding 4 m	CUM	<b>119200</b>	0.01252378
c	Depth exceeding 4 m but not exceeding 6 m	CUM	<b>15000</b>	0.00173625
d	Depth exceeding 6 m but not exceeding 8 m	CUM	<b>1000</b>	0.00012732
e	Depth exceeding 8 m but not exceeding 10 m	CUM	<b>500</b>	0.00006990

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
f	Depth exceeding 10 m but not exceeding 15 m	CUM	<b>500</b>	0.00007702
102	Extra over ST No. 101 for dewatering of ground water by <b>well point method</b> as per IS 9759.	CUM	<b>200</b>	0.00000926
103	<b>Earth work in excavation in soft rock</b> (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), 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 500 m, spreading / levelling of disposed materials etc all complete for following depths below ground level.			
a	Depth from ground level but not exceeding 2 m	CUM	<b>100</b>	0.00001549
b	Depth exceeding 2 m but not exceeding 4 m	CUM	<b>100</b>	0.00001870
c	Depth exceeding 4 m but not exceeding 6 m	CUM	<b>12200</b>	0.00261791
d	Depth exceeding 6 m but not exceeding 8 m	CUM	<b>1700</b>	0.00042988
e	Depth exceeding 8 m but not exceeding 10 m	CUM	<b>1000</b>	0.00029739
f	Depth exceeding 10 m but not exceeding 15 m	CUM	<b>1000</b>	0.00032677
105	Earth work in excavation in hard rock requiring controlled blasting including wedging, line drilling, pre shearing etc as required, setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, necessary licenses/statutory clearances for blasting, supply, storage & handling of blasting materials, stacking/disposal of surplus excavated material within a lead upto 500m, spreading / levelling of disposed materials etc all complete for following depths below ground level.			
a	Depth from ground level but not exceeding 2 m	CUM	<b>10</b>	0.00000346
b	Depth exceeding 2 m but not exceeding 4 m	CUM	<b>10</b>	0.00000382
c	Depth exceeding 4 m but not exceeding 6 m	CUM	<b>100</b>	0.00004363
d	Depth exceeding 6 m but not exceeding 8 m	CUM	<b>500</b>	0.00026133

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
106	Earth work in excavation in hard rock requiring chiselling including wedging, line drilling, pre shearing etc as required, setting out, levelling, deawtering (wherever required), dressing the sides & bottom, all lifts, stacking/disposal of surplus excavated material within a lead upto 500m, spreading / levelling of disposed materials etc all complete for following depths below ground level.			
a	Depth from ground level but not exceeding 2 m	CUM	100	0.00003811
b	Depth exceeding 2 m but not exceeding 4 m	CUM	100	0.00004203
c	Depth exceeding 4 m but not exceeding 6 m	CUM	100	0.00004799
d	Depth exceeding 6 m but not exceeding 8 m	CUM	600	0.00034495
e	Depth exceeding 8 m but not exceeding 10 m	CUM	500	0.00036684
f	Depth exceeding 10 m but not exceeding 15 m	CUM	500	0.00036773
107	<b>Back filling</b> 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 <b>selected materials from compulsorily excavated soil</b> available within a lead upto 500m and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	5100	0.00042231
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	5100	0.00037690
d	Each layer compacted so as to achieve at least 75% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	100	0.00000668
e	Each layer compacted so as to achieve at least 70% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	100	0.00000614
A107	<b>Back filling</b> upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade in well compacted layers of 150 mm thicknessand using/with <b>selected materials from compulsorily excavated soil</b> available within a lead upto 500m and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc all complete.for the following.			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>190000</b>	0.01725564
Aa	Each layer compacted so as to achieve at least 97% maximum dry density as per IS-2720 (Part-VIII)	CUM	<b>3000</b>	0.00027246
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>63000</b>	0.00510457
108	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 materials <b>directly from excavation</b> and compacted as specified including watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>2600</b>	0.00021529
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>5100</b>	0.00037690
c	Each layer compacted so as to achieve at least 85% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>100</b>	0.00000665
d	Each layer compacted so as to achieve at least 75% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>100</b>	0.00000748
e	Each layer compacted so as to achieve at least 70% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>100</b>	0.00000677
A108	Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade in well compacted layers of 150 mm thickness and using/with selected materials <b>directly from excavation</b> and compacted as specified including watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following.			0.00000000
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>40000</b>	0.00331223
b	Each layer compacted so as to achieve at least 90% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>5000</b>	0.00036951

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
c	Each layer compacted so as to achieve at least 85% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>500</b>	0.00003339
d	Each layer compacted so as to achieve at least 75% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>100</b>	0.00000748
e	Each layer compacted so as to achieve at least 70% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>100</b>	0.00000677
109	Extra over ST No. 101 and 103 to 107 for carriage of excavated earth/selected materials for every 1 km or part thereof beyond an initial lead of 500m.	CUM	<b>55000</b>	0.00122428
110	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 approved borrowed soil (borrowed soil to be arranged by the bidder) and compacted as specified including Providing borrowed soil, royalty (if any), watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following.			
c	Each layer compacted so as to achieve at least 85% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>10</b>	0.00000349
d	Each layer compacted so as to achieve at least 75% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>10</b>	0.00000402
e	Each layer compacted so as to achieve at least 70% relative density as per IS-2720 part XIV in case of sandy soils.	CUM	<b>10</b>	0.00000362
111	Providing and filling sand upto any depth under floors, around foundations, plinths etc. in layers not exceeding 250 mm thickness and compacted so as to achieve at least 80% relative density as per IS-2720 (Part-XIV) including spreading, watering, ramming/compaction by manual / mechanical means, dressing, royalty (if any) etc. all complete.	CUM	<b>3200</b>	0.00179786
<b>200</b>	<b>CONCRETE WORKS</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
	<b>Providing and placing concrete work including cost of labour, materials and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc. complete as per drawing, specifications and as per direction of engineer in charge for the following. (CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
201	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as <b>filling course</b> at any depth below finished floor level, under and around foundations/floors, mass fill etc.	CUM	<b>1700</b>	0.00326041
A201 ISG	Providing and laying 75 mm thick P. C. C. ( 1 : 4 : 8 ) with 10 mm nominal size stone aggregates), shall be provided under the raft i.e. over the lean concrete, followed by polymer modified cementitious coating in two layers ( slurry mix application ) as per manufacturer's specification. 75 mm thick P. C. C. ( 1 :4:8 ) with 40 mm nominal size stone aggregates shall then be laid over the polymer modified cementitious coating before laying the raft. For Slurry Mix: A minimum of 2 coats shall be applied on the surface. The first coat being applied, when the surface is still damp and left to harden for 4 to 6 hours. After 4 to 6 hours of the application of second coat, it shall be finished by rubbing down with a soft dry sponge. The coverage shall not be less than 1 : 1 Kgs. / m2 in the 2 coats. A lap of 75 mm shall be provided at the joints. The coating shall be air dried for 4 to 6 hours and, thereafter, cured for 7 days after the application of last coat. The rate quoted should be all inclusive.	Sqm	<b>4000</b>	0.00084765
B201 ISG	<b>Concrete of grade M5</b> (1 part cement, 5 part sand, 10 parts of 40 mm graded aggregate by volume) as <b>filling course</b> at any depth below finished floor level, under and around foundations/floors, mass fill etc.	CUM	<b>10</b>	0.00001824
202	Concrete of <b>grade M10</b> (1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as <b>lean concrete, levelling course</b> , mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	<b>8750</b>	0.01833968

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
203	Concrete of <b>grade M15</b> (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) as <b>lean concrete, levelling course</b> , mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	<b>10</b>	0.00002229
204	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	M20 Grade	CUM	<b>1200</b>	0.00261132
A204 ISG	Concrete under floors, paving, plinth protection, pipe encasing etc complete with 12 mm nominal size graded aggregate at any depth below finished floor level for the following grades.			
a	M15 Grade	CUM	<b>100</b>	0.00019544
b	M20 Grade	CUM	<b>500</b>	0.00105867
205	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 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 IS:9103 (latest) to achieve required slump in concrete all complete as per specification & drawing for the following.			
a	M25 Grade	CUM	<b>43600</b>	0.10481597
b	M30 Grade	CUM	<b>2600</b>	0.00817889
206	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size <b>in superstructure</b> at any level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/ superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete <b>as per specification &amp; drawing for the following.</b>			
a	M25 Grade	CUM	<b>11550</b>	0.02995709
b	M30 Grade	CUM	<b>1510</b>	0.00444754

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A207	Providing and laying Design Mix cement concrete confirming to IS:456 & IS 10262-2009 for reinforced concrete works of grade <b>M-35 Grade</b> in machine foundations for TG, ID/FD/PA fans, BFP, Coal mills at all elevations below/above finished floor level (except TG deck and top decks supported over vibration isolation system) including addition of suitable plasticizer conforming to IS 9103(latest) to achieve a slump more than 125mm in concrete as per manufacturer's recommendation with 20 mm nominal size graded aggregate in concrete all complete as per specification & drawing.	CUM	<b>2000</b>	0.00685595
208	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 of grades mentioned below for reinforced concrete works using graded aggregate in top decks of all machine foundations supported on vibration isolation system (excluding supply and installation of vibration system) and top deck of TG foundation at all levels including addition of suitable plasticizers conforming to IS9103 to achieve a slump more than 125 mm in concrete as per manufacturers recommendation, preparation of scheme for concreting, getting it approved by engineer, labour, materials, equipment, handling, batching, transporting, mixing, pumping, placing, leveling, vibrating, compacting, curing, testing, cleaning and rendering the exposed surface with cement sand mortar to give a smooth and even surface, maintaining and submitting records of concreting, petrographic examination and potential reactivity of aggregate etc. all complete as per specification, drawing and instructions of engineer, including UPV testing as directed by engineer in charge, rectification of the defects in concreting observed by ultra-sonic pulse velocity (UPV) testing by cement/epoxy grout etc, but excluding formwork, staging, reinforcement, embedments and temperature control of concrete. Payment terms - a) After casting 75% ; b) After receipt of ultrasonic test report - 25%.			
b	M35 grade (with 20mm nominal size graded stone aggregate)	CUM	<b>700</b>	0.00226683
209	Extra over St. No. 205 to 208 for controlling of temperature of fresh concrete to less than 23 degree centigrade using ice, including all related arrangements for Providing, storing and mixing of ice with water, cooling of aggregates etc. All complete as per specification, drawing and instruction of engineer in charge.	CUM	<b>2500</b>	0.00079244

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
210	Extra over ST Nos. 205 to 207 for <b>conducting UPV test</b> for concrete at all levels including all equipments, making necessary arrangements, staging, submission of report etc. all complete as directed by engineer in charge and as per specification.	CUM	<b>900</b>	0.00085023
211	Providing and <b>encasing</b> of structural steel member with <b>concrete</b> using nominal aggregate size of 12.5mm down. Encased member shall be wrapped with welded wire mesh/chicken wire mesh with proper lap etc. complete as per specification for the following grades. (Payment of welded wire mesh, chicken wire mesh shall be made separately)			0.00000000
a	M20 grade	CUM	<b>100</b>	0.00020203
b	M25 grade	CUM	<b>10</b>	0.00002886
A211	Providing and <b>encasing</b> of structural steel member with <b>concrete</b> using nominal aggregate size of 12.5mm down. Encased member shall be wrapped with welded wire mesh/chicken wire mesh with proper lap etc. complete as per specification for the following grades.			
b	M25 grade	CUM	<b>1500</b>	0.00432860
212	Screed concrete conforming to IS 456 with coarse sand and graded hard stone aggregate 12.5mm/6 mm nominal size on the roof at any level or thickness, drains etc complete as per following.			
a	1:2:4 (1 part cement, 2 part sand, 4 parts of aggregate by volume)	CUM	<b>150</b>	0.00037543
b	1:1.5:3 (1 part cement, 1.5 part sand, 3 parts of aggregate by volume)	CUM	<b>370</b>	0.00134149

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
213	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in precast works like roof slabs/trench covers, fins, lintels, chajas, beams, columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting, all leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with M30 grade concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing for following grades.			
a	M 25 grade	CUM	<b>100</b>	0.00047457
b	M 30 grade	CUM	<b>10</b>	0.00002667
A213	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete <b>in precast works</b> (Except boundary wall) like roof slabs/trench covers, fins, lintels, chajas, beams, columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting, all leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with M30 grade concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing for following grades.			
a	M 20 grade	CUM	<b>50</b>	0.00014024
b	M 25 grade	CUM	<b>200</b>	0.00061704
c	M 30 grade	CUM	<b>200</b>	0.00067883

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B213	Providing and laying <b>Precast Reinforced concrete</b> wall panels, copings, architectural features etc. as per approved design and drawing submitted by bidder with design Mix cement concrete of <b>grade M30</b> as per IS:456 & IS 10262-2009 using graded aggregate for Concrete <b>in precast boundary-wall works</b> . The work shall include cost of formwork/moulds , provision of suitable grooves/key for interlocking of panels after erection, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting for all leads, erection with required T&P without damage, setting in position with cement sand mortar (1:3), filling the gaps with cement sand mortar (1:3) , etc all complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing.			
a	M 25 grade	CUM	<b>100</b>	0.00036399
b	M 30 grade	CUM	<b>7000</b>	0.02622714
C213	Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete <b>in perforated / withoutperforation precast RCC slabs for cover over drain/trench etc</b> including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transpoting, all leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with M30 grade concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm) and as per specification and drawing for <b>M30 grades</b> .	CUM	<b>125</b>	0.00045499
214	Providing and laying Design Mix cement concrete as per IS:456, IS 3370 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete <b>in water retaining/conveying structures</b> including addition of suitable plastisizer cum waterproofing cement additives conforming to IS 9103 latest to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per IS 2545 and specification with 20 mm nominal size graded aggregate for following grades.			
a	M 25 grade	CUM	<b>800</b>	0.00200728

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
b	M 30 grade	CUM	<b>7010</b>	0.02168952
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 unservicable 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.			
a	Plain cement concrete of all grades	CUM	<b>60</b>	0.00002976
b	Reinforced cement concrete of all grades	CUM	<b>60</b>	0.00004295
A215	Rebate over ST No. 215b for taking into account the deemed cost of all serviceable material including reinforcement steel which bidder will be getting out of it by taking them outside plant for bidder's purpose instead of stacking to a lead of 500m inside plant.			0.00000000
a	Plain cement concrete of all grades	CUM	<b>20</b>	0.00000497
b	Reinforced cement concrete of all grades	CUM	<b>20</b>	0.00000716
216	<b>Chipping of concrete</b> 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	<b>510</b>	0.00061757
217	Extra over and above St No 216 for <b>cutting of reinforcement</b> , 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	<b>310</b>	0.00006818
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	<b>110</b>	0.00000950
220	Providing & laying Plum cement concrete 1:3:6 with 75% graded metal of maximum size 40 mm and 25%plums of maximum size 150 mm.	CUM	<b>150</b>	0.00032014

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
221	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in sloped surface of canal lining or channel cast in alternate panels with provision of expansion gap/construction joints at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/superplasticizer conforming to IS:9103 (latest) to achieve required slump in concrete, compaction with special equipments, etc all complete as per specification & drawing for the following.			
b	M25 Grade	CUM	50	0.00017362
<b>300</b>	<b>FORM WORKS</b>			
	<b>Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffoldings and centereing complete including pockets etc. complete as per drawing, specifications and as per direction of engineer in charge for the following.</b>			
301	Fairface form work with good quality water proof ply wood of required thickness and smooth surface <b>below finished ground floor level</b> for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	SQM	120000	0.03632766
302	Fairface form work with good quality water proof ply wood of required thickness and smooth surface <b>above finished ground</b> floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches, circular overhead tanks etc. for all heights.	SQM	75000	0.02684507
A302	Fairface form work with good quality water proof ply wood of required thickness and smooth surface having high quality shuttering finish with tolerance of +/- 5mm <b>above finished ground</b> floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches, circular overhead tanks etc. for all heights.	SQM	6700	0.00239816

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
303	Fairface Formwork with good quality water proof ply wood of required thickness and smooth surface <b>for TG</b> superstructure (above base raft level) including preparation of scheme, designing, submission and approval of staging drawing with sufficient props, braces and ties at every tier of height of approx. 4m for all heights.	SQM	<b>400</b>	0.00052176
ISG 303	Providing ,fixing & removing curved type of shuttering including staging, propping (cost incl. of submitting supporting design & drawing and approval etc.) at all locations, heights and levels above or bellow ground with Slip Formwork complete as per specification and directions of engineer incharge	SQM	<b>2850</b>	0.00378863
A303	<b>Fairface formwork with good quality water proof ply wood of required thickness and smooth surface for BFP decks</b> supported on vibration isolation system resting on steel framing at approx. 14.5 M including preparation of scheme, designing, submission and approval of staging drawing with necessary removable steel framing for supporting the formwork, sufficient props, braces and ties etc. all complete.	SQM	<b>200</b>	0.00026088
304	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	<b>200</b>	0.00005503
b	Pockets of depths more than 150mm and upto 300 mm depth	Each	<b>200</b>	0.00007693
c	Pockets of depths more than 300mm and upto 600 mm depth	Each	<b>200</b>	0.00013213
d	Pockets of depths more than 600mm and upto 1000 mm depth	Each	<b>200</b>	0.00026427
e	Pockets of depths more than 1000mm and upto 1500 mm depth	Each	<b>200</b>	0.00037432
305	Fairface plywood with filmface/laminated formwork above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches, circular overhead tanks etc. for all heights where ever specifically mentioned in the drawing.	SQM	<b>1</b>	0.00000048

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A306	Fixing and allignment of formwork for fan stack (curved and inclined surfaces) for eleveltion from 10.0m-16.0m (approx.). Formwork only shall be supplied by BHEL. All other scaffolding, staging, tying ,nailing,bolting ,caulking, transportation of formwork from site store, de-shuttering, returning the formwork back to store etc. shall included in cost.	SQM	<b>4000</b>	0.00242184
<b>400</b>	<b>REINFORCEMENT</b>			
401	Transporting, straightening, cutting, bending, placing in position at any level, binding of mild steel reinforcements conforming to grade 1 of IS:432 (part 1 or grade IS-2062) in concrete including cost of reinforcement and binding wire, labour, scaffolding, transportation to & from stores etc. all complete as per specifications & drawings.	MT	<b>37</b>	0.00053650
402	Transporting, straightening, cutting, bending, placing in position at any level, binding in position of <b>steel reinforcements of TMT steel of grade Fe-500</b> HYSD confirming to <b>IS:1786</b> including cost of binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer. <b>(STEEL WILL BE SUPPLIED BY BHEL FREE OF COST AS PER TCC)</b>	MT	<b>6205</b>	0.03129264
A402	Straightening, stretching, placing in position as per drawing, cutting after casting of concrete etc. of <b>uncoated stress relieved strands (diameter, length, ply and number as per drawing)</b> of minimum 0.2 percent proof load of 32460 N confirming to <b>IS:6006</b> in precast wall panels, columns etc. complete all as per specifications, drawings and as directed by Engineer.	MT	<b>15</b>	0.00024942
403	Providing, straightening, cutting, bending, placing in position at any level, binding in position of <b>steel reinforcements of TMT steel of grade Fe-500D or 500EQR</b> confirming to <b>IS:1786</b> including cost of binding wire, labour, scaffolding, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer.	MT	<b>1</b>	0.00004446

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
404	Extra over ST No. 402 & 403 for providing <b>fusion bonded epoxy coating</b> by mechanised & qualified process including blast cleaning to white metal as per Swedish code, heating in induction heater, electrostatically spraying the epoxy powder, complete fusion to give minimum coating thickness of 200-300 microns, gradual cooling without affecting the properties of steel, testing as per ASTM 775 and IS:13620, flexibility & holiday test, proper packing, safe transportation, touchup at site, etc. complete to ensure proper resistance of FBE against corrosive environment. The bidder has to transport the steel from BHEL site store to vendor plant and bringing back to site and special handling during straightening, cutting, bending, placing and providing PVC coated binding wire.	MT	1	0.00000909
405	Straightening, cutting, bending, placing in position at any level, binding in position of corrosion resistant steel -HCRM re-bars of approved make with steel of grade Fe-500 confirming to IS:1786 norms including cost of binding wire, labour, scaffolding, Transporting to & from stores etc complete all as per specifications, drawings and as directed by Engineer. <b>(STEEL WILL BE SUPPLIED BY BHEL FREE OF COST AS PER TCC)</b>	MT	1800	0.01493708
406	Providing, straightening cutting, bending, placing in position at any level, binding of <b>mild steel reinforcements</b> in <b>brickwork</b> including cost of reinforcement and binding wire, labour, scaffolding etc. complete all as per specifications & drawings.	MT	5	0.00022026
407	Providing, straightening, cutting, bending, placing in position at any level, binding in position high yield strength steel reinforcements in brickwork/concrete enchasing including cost of reinforcement and binding wire, labour, scaffolding etc. complete all as per specifications & drawings.	MT	1	0.00004027
<b>500</b>	<b>WATER PROOFING WORKS</b>			
	<b>Water proofing works including all labour, material, equipment, transportation, handling, curing, sampling, testing etc at any level as per specification, drawings and as directed by engineer - in - charge. (CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
501	Providing and laying <b>underbed grading plaster with cement mortar 1:4</b> (1 cement : 4 sand) and average thickness of 25 mm including preparation of surface, batching, mixing, leveling etc. all complete.	SQM	<b>250</b>	0.00003695
A501	Providing and laying <b>underbed screed concrete mix (M-15 grade) grading having</b> minimum 25mm thickness at the lowest point of the slope laid over RCC slab including preparation of surface, batching, mixing, leveling etc. all complete.	SQM	<b>16000</b>	0.00129640
B501	Providing and laying <b>grading plaster with cement mortar 1:4</b> (1 cement : 4 sand) over screed concrete and average thickness of 15 mm including preparation of surface, batching, mixing, leveling etc. all complete.	SQM	<b>14800</b>	0.00260918
A502	Providing and applying over-deck insulation of minimum 75 mm thick Extruded Polyurethane foam with minimum density 18 kg/Cu.m. above water proofing with mortar and Joints sealed with adhesive tape over roof and above it White glazed tile chips shall be provided for roofing over under bed of cement mortar(1:4)/ concrete(1:2:4) including all workmanship, topping spreading white cement slurry at an average rate of 2.5 kg/sq m(unless noted otherwise)jointing and joint filling with white cement slurry (unless noted otherwise) ,laying to plumb and water level in desired pattern ,casting in panels . Cost shall include making of fillets, cleaning & preparation of surface, expansion joints at suitable intervals etc all complete. (water proofing to be paid separately)	SQM	<b>600</b>	0.00028207
A502 ISG	Providing and laying in-situ <b>light weight foam concrete insulation</b> as per relevant IS Code in suitable panels over roofs followed by a layer of 15 mm thick cement sand plaster 1:5 (1 cement: 5 coarse sand) after the curing period of laid foam concrete and providing of expansion joint at intervals as per the recommendation of manufacturer. The insulating properties shall be such that the thermal conductivity shall not exceed 0.125 Kcal/sqm-hr deg C and the weight of the insulating material shall be from 0.5 to 0.75 gm/cm <sup>3</sup> , strength not less than 5 Kg/sq.cm or (0.5N/sq.mm.). Cost shall include making of fillets, cleaning & preparation of surface, expansion joints at suitable intervals etc all complete for following.			
a	Average 50 mm thickness	SQM	<b>2000</b>	0.00092066

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
b	Average 75 mm thickness	SQM	100	0.00005939
c	Average 100 mm thickness	SQM	10	0.00000510
503	Providing and applying <b>bitumen felt water proofing for normal treatment</b> having bonding materials consisting of blown type conforming to IS: 702 or residual bitumen conforming to IS: 73 or a mixture of the two with one layer of felt consisting of five courses and with a minimum overlap of 75 to 100 mm of felt including preparation of surfaces etc all complete. (For description of layers refer specification)			
a	<b>With hessian base felt</b>	SQM	1	0.00000040
b	<b>With fiber base felt</b>	SQM	1	0.00000044
505	Providing and applying <b>bitumen felt water proofing for extra heavy treatment</b> having bonding materials consisting of blown type conforming to IS: 702 or residual bitumen conforming to IS: 73 or a mixture of the two with three layers of felt consisting of nine courses and with a minimum overlap of 75 to 100 mm of felt including preparation of surfaces etc all complete for following base felts (For description of layers refer specification):			
a	<b>With hessian base felt</b>	SQM	1	0.00000049
b	<b>With fiber base felt</b>	SQM	1	0.00000053
506	<b>Providing and applying PU based water proofing treatment with one coat of polyurethane</b> or any other equivalent material based primer with an application rate of minimum 6 sq.m per litre and <b>two successive liquid coatings of high solids content urethane pre-polymers</b> or equivalent material based finish coats as per relevant IS/ASTM standards to form an elastomeric membrane with overall dry film thickness 1.5 mm subject to minimum 500 gm/sqm/coat application rate. Item includes surface preparation, polyscrim cloth /fabric for edges, joints & vulnerable points etc all complete as per specifications and directions of engineer in charge.	SQM	4000	0.00124654

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A506	<b>Providing and applying PU based water proofing treatment with one coat of polyurethane</b> or any other equivalent material based primer with an application rate of minimum 6 sq.m per litre and <b>two successive liquid coatings of high solids content urethane pre-polymers</b> laid over reinforcing layer of polyscrim cloth or non woven geotextile or equivalent material based finish coats as per relevant IS/ASTM standards to form an elastomeric membrane with overall dry film thickness 1.5 mm subject to minimum 500 gm/sqm/coat application rate. Item includes surface preparation, polyscrim cloth /fabric for edges, joints & vulnerable points etc all complete as per specifications and directions of engineer in charge.	SQM	<b>12000</b>	0.00373961
507	<b>Providing and laying wearing course</b> consisting of <b>25mm thick plain cement concrete</b> of grade M15 (1:2:4) with graded aggregate of 12.5mm size cast in panels of maximum size 1.2mx1.2m and reinforced with 0.56 mm dia. galvanised chicken wire mesh and sealing of joints (in grooves of 6mm X 6mm) using silicon /elastomeric compound etc all complete.	SQM	<b>16000</b>	0.00356153
A507	<b>Providing and laying</b> of 20 mm thick 1:4 cement mortar with chicken wire mesh over finished surface of elastomeric membrane etc. all complete as per specifications and direction of engineering incharge.	SQM	<b>12000</b>	0.00273526
508	Providing and laying <b>cement concrete chequered flooring tiles</b> of 22 mm thickness and size 250x250 mm / 300x300 mm conforming to IS 13801 with 8 mm thick 1:4 cement mortar over the top most layer of roofing treatment in pathway and entire equipment area with fine joints including sealing of joints (silicon/elastomeric sealant) etc all complete. (Water proofing paid elsewhere)	SQM	<b>6001</b>	0.00283189
A508	Providing and laying <b>pressed cement concrete tiles</b> of 20 mm thickness and size 250x250 mm / 300x300 mm with 8 mm thick 1:4 cement mortar over the top most layer of roofing treatment in with fine joints including sealing of joints (silicon/elastomeric sealant) etc all complete. (Water proofing paid elsewhere)	SQM	<b>7000</b>	0.00299169
509	<b>Providing and applying two coats of bitumen grade 85/25</b> as per IS 702 ( @ 1.7kg/sqm)with 1% antistripping compound conforming to IS 6241 in foundation, wall, column etc on concrete surfaces exposed to soil / ash including surface preparation etc. all complete.	SQM	<b>9000</b>	0.00250821

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A509	<b>Providing and applying three coats of bitumen grade 85/25</b> as per IS 702 ( @ 1.7kg/sqm / coat, in three coats and it should be heated to about 120 degree celsius before application) with 1% antistripping compound conforming to IS 6241 in foundation, wall, column etc on concrete surfaces exposed to soil / water/ ash including surface preparation etc. all complete. The bitumen coating shall be applied over one coat of suitable primer followed by minimum 3 coats of bitumen paint conforming to IS 9862 to achieve a DFT of 150 micron of bitumen coat. (Cost of primer included in this item).	SQM	<b>20000</b>	0.00267115
B509	<b>Providing and applying two coats of hot bitumen (20/30) over a coat of primer</b> in foundation, wall, column etc on concrete surfaces exposed to soil / ash including surface preparation, primer etc. all complete.	SQM	<b>30000</b>	0.00400673
510	Providing and applying <b>water proofing</b> with blown bitumen bonding material conforming to IS:702 of 65/25 grade in Basements, ducts, pits, tunnels etc below the ground level on the concrete surfaces exposed to soil / ash and up to 150 mm above ground level on outside of walls and top of RCC slab including preparation of surface, brick lining single brick thick with 1:4 cement mortar etc. all complete with following number of layers of <b>bitumen felts:</b>			0.00000000
a	<b>2 Layers of felt for depth up to 5m below ground level for floors</b>	SQM	<b>1000</b>	0.00030460
b	<b>3 Layers of felt for depth beyond 5m below ground level for walls</b>	SQM	<b>1000</b>	0.00045347
511	Providing and mixing water proofing compound conforming to IS:2645 in concrete or cement mortar all complete.	KG	<b>50</b>	0.00000668
512	Anti termite chemical treatment of soil with Chloropyrifos emulsifiable concentrates (1%) conforming to IS :8944 all complete.	SQM	<b>9000</b>	0.00148249
A515	Providing and applying Moisture Compatible Corrosion Resistant Coating System or its equivalent in all surfaces in direct contact with water/ water spray/moist air upto and including Fan Deck slab level including basin slab, inner faces of cladding walls, all faces of cell partition wall, all faces of columns, all faces of beams (both cast in situ and precast), bottom surface of fandeck slab for counter flow tower and both surface of fandeck slab for cross flow tower, inner face of fanstack, all faces of hot water basin (for cross flow tower) etc. of cooling tower as per specification and approval of engineer-in-charge.	SQM	<b>20000</b>	0.00578749

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B515 ISG	<p>Providing and applying on the outer surface of walls, frames and roof slabs coming in contact with earth, polymer modified cementitious coating in two layers as specified and as per manufacturer's specifications shall be provided directly on the concrete surface. Modified liquid polymer blend shall be a dispersion containing 100 % acrylic based polymer solids. Polymer shall be mixed in the ratio of 1 cement: 0.5 polymer (for minimum solid content of polymer 30%). Portland cement based dry powder. Clean, fine specially prepared quartz sand approximately 0.6 mm size. The liquid polymer shall be stirred well and cement based powder shall then be added slowly to make a Slurry Mix. For preparation of Brush Topping Mix, quartz sand shall be added slowly and mixed well till a homogeneous mixture is obtained. The mix shall be used within half an hour of the preparation. Addition of quartz sand may not be necessary, in case dry power contains the same.</p> <p>For Brush Topping Mix: This shall be applied in two coats. A primary coat of slurry mix can also be first applied on the surface as first coat. After the coating has dried up, a coat of Brush Topping Mix shall be applied over it with a push broom or any other similar brush. It shall be left in broom finished condition. The nominal thickness shall be 1.5 mm and minimum thickness shall be 1.0 mm. A lap of 75 mm shall be provided at the joints. It shall be ensured that no pinhole exists and rebrushing shall be done to cover the pinholes, if any. The Coating shall be air dried for 4 to 6 hours and thereafter cured for 7 days after the application of last coat. Rate of application of coating shall be established to achieve the required thickness. The rate quoted should be all inclusive.</p>	SQM	2000	0.00092956
A516	Providing and applying acrylic based polymer modified cementitious composite coating to internal/external concrete surfaces on over/underground structures of approved make, specification and as per manufacturer's recommendation.	SQM	500	0.00022215
600	<b>JOINT AND FILLERS</b>			
	<b>Joints &amp; fillers including all labour, material, equipment, transportation, handling etc at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
601	Providing & installation of bitumen impregnated fibre board conforming to IS 1838 as joint filler at joints in concrete including nailing, coating of both faces with coal tar pitch/bitumin etc. all complete.			
a	12 mm wide joints.	SQM	<b>1010</b>	0.00046133
b	20 mm wide joints.	SQM	<b>110</b>	0.00007267
c	25 mm wide joints	SQM	<b>5100</b>	0.00466356
d	50 mm wide joints	SQM	<b>101</b>	0.00011574
602	Providing and applying polysulphide based sealant conforming to IS:12118 in expansion joints in concrete including cleaning of joints, raking out groove, application of primer, scaffolding etc. all complete for following size grooves:			
a	12mm X 25mm	RM	<b>4001</b>	0.00135728
b	20mmX25mm	RM	<b>700</b>	0.00033245
c	25mmX25mm	RM	<b>3001</b>	0.00203610
d	50mmX25mm	RM	<b>201</b>	0.00025557
603	Providing and filling in position hot applied bitumin sealing compund (Grade A) conforming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints including application of primer etc. all complete.			
a	10mm X 40mm	RM	<b>1</b>	0.00000021
b	12mm X 25mm	RM	<b>201</b>	0.00004635
c	20mmX25mm	RM	<b>1</b>	0.00000033
605	Providing and sealing of joints with premium grade silicon sealant ( Silpruf of GE silicon or approved equivalent) including cleaning of joints, raking out groove, joint filler tapes, application of primer, curing, scaffolding etc. all complete as per manufacturer's recommendation for following size groove:			
a	25mmX25mm	RM	<b>1001</b>	0.00049644
b	50mmX25mm	RM	<b>201</b>	0.00014389
606	Providing and fixing PVC water stops in joints conforming to IS 12200 & IS 15058 all complete for the following:			
c	150 mm wide and 6 mm thick	RM	<b>2500</b>	0.00151588
d	230 mm wide and 6 mm thick	RM	<b>3800</b>	0.00272030

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
607	Providing and fixing <b>copper water stops</b> in joints of deep underground structure all complete for the following:			
a	150 mm wide and 8 mm thick	RM	<b>200</b>	0.00014317
<b>700</b>	<b>MS EMBEDMENTS</b>			
	<b>Embedments including all labour, material, equipment, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
A701	Transporting, 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. <b>The surface shall be prepared by Manual Cleaning and provided with Primer Coat of Chlorinated Rubber based Zinc Phosphate Primer of Minimum 50 Micron Dry Film Thickness (DFT). etc. all complete.</b>	MT	<b>60</b>	0.00087388
A702	Same as above with BHEL supplied material free of cost including loading, transportation, unloading, etc. all complete from BHEL store to plant site. <b>The surface shall be prepared by Manual Cleaning and provided with Primer Coat of Chlorinated Rubber based Zinc Phosphate Primer of Minimum 50 Micron Dry Film Thickness (DFT). etc. all complete.</b>	MT	<b>110</b>	0.00169577
703	Fixing of embedments, inserts, pipe sleeves, angle pieces, anchor bolts of various diameters, plates of dimensions as required etc. including scaffolding, setting in position, transportation from BHEL site stores to work spot etc. all complete.	MT	<b>60</b>	0.00069370
704	Erection, installation and alignment of mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc. including welding, cutting, grinding, threading, drilling etc. all complete.	MT	<b>60</b>	0.00087388
705	Transporting,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 complete.			
a	MS pipes of all diameters	Quintal	<b>15</b>	0.00003829

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
b	PVC pipes / conduits of all diameters	Quintal	105	0.00032946
c	UPVC pipes / conduits of all diameters	Quintal	5	0.00001569
d	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:			
i	Upto 250 kg	Each	101	0.00001115
ii	Beyond 250 Kg and upto 500 kg	Each	210	0.00003459
iii	Beyond 500 Kg and upto 750 kg	Each	201	0.00005530
e	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel:			
i	Upto 250 kg	Each	101	0.00001115
ii	Beyond 250 Kg and upto 500 kg	Each	215	0.00003542
iii	Beyond 500 Kg and upto 750 kg	Each	201	0.00005530
706	Placing, locking and releasing of Vibration Isolation spring modules over the foundation at all elevations including Providing all assistance under the supervision of the supplier, transportation from BHEL store, necessary staging, platforms, leveling, alignment etc. all complete.	Each	55	0.00006507
800	<b>GROUTING</b>			
	<b>Grouting including all labour, material, equipment, roughening surface, cleaning, ramming, curing etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge.</b>			
801	Providing & grouting with cement slurry mix of approved ratio using pressure pump for water retaining concrete structures as per approved procedure including cost of nipples/ nozzles, cement, admixture, curing, pressure pumps, slurry agitator etc. all complete. Cost shall include fixing of nipples at minimum 500 mm centre to centre spacing, cutting of nipples after completing of grouting, making good of the nipple hole with appropriate non-shrink cement paste, water tightness test etc. all complete wherever specified in the drawing. <b>(BHEL will supply cement free of cost as per TCC)</b>	SQM	1100	0.00050097

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
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. <b>(BHEL will supply cement free of cost as per TCC)</b>	CUM	21	0.00027750
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). <b>(BHEL will supply cement free of cost as per TCC)</b>	CUM	51	0.00044924
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 ConbextraGP-1 or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	30	0.00092494
805	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 Conbextra GP-2 or equivalent. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	30	0.00092494
900	<b>900 DOORS, WINDOWS, VENTILATORS, LOUVERS</b>			
	<b>Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material, equipments, transportation, handling, preparation of working drawings etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
901	Providing and fixing wooden frame conforming to IS 4021 made of best quality seasoned CP teakwood free from large or loose knots, cracks or other defects including sand paper smoothening, hold fasts, beading, primer and finish painting / polishing etc. all complete with proper wood joinery, accurately set to required lines or levels and rigidly secured in place. (Finish painting / polishing paid separately)	CUM	5	0.00024453
902	Providing and fixing teakwood frame panel door shutter as per IS 1003 with 35 mm x 150 mm vertical rail & 35mm x 125 mm horizontal rail and 12 mm thick interlocked panels of teakwood with proper wood joinery including beading, preparation of working drawings, godrej or equivalent make mortice lock with handels on both sides, approved ISI mark anodised fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fitting shall be anodised aluminium color dyed), screws, primer and finish painting / polishing etc. all complete. (Finish painting / polishing paid separately)	SQM	10	0.00004955
903	Transporting, fitting and fixing solid core flush door shutter as per IS 2202 part II, 35mm thick homogenous particle board bonded with BWP type phenolformaldehyde synthetic resin, partial board core conforming to IS 3087 type I, 35x12 mm thick teakwood beading all around including preparation of working drawings. godrej or equivalent make mortice lock with handels on both sides, approved ISI mark anodised fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fittings shall be anodised aluminium color dyed), finish flat oil paint conforming to IS: 137 over primer, screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges. (Finish painting paid separately)	SQM	200	0.00028670

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
904	Transporting and fixing single or double steel door shutters with 35 mm thk flush design shutter comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centres including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	50	0.00008490
A904	Providing and fixing <b>single or double steel door shutters</b> with 35mm(minimum) thk <b>flush design shutter</b> comprising of two outer sheets of 1.2 mm steel sheets rigidly connected and reinforced inside with continuous vertical 1.0 mm stiffeners, spot welded in position at not more than 150mm on centres, side ,top & bottom edges of shutters shall be reinforced by continuous pressed steel channel with minimum 1.2 mm, including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	300	0.00179715
905	Transporting and fixing <b>single or double steel door shutters</b> with <b>18 gauge M.S. sheets shutter</b> presenting a flush surface on the outside and inside stiffened with semitubular edge and central stiffening rail which shall convey the lock including fixtures, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.	SQM	50	0.00007315

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
906	Transporting and fixing <b>anodized extruded aluminium doors (single or double shutter)</b> conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent make having minimum 3mm wall thickness as per IS:1285, IS:733 and anodized and electro color coating of required shade as per IS 1868 ( minimum anodized coating of grade AC15 ). fixed with rawl plugs, expansion fasteners,SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. <b>Glazing shall be clear float glass of 6mm thickness</b> including snap fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete. Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately)	SQM	<b>30</b>	0.00003077
A906	Fixing <b>anodized extruded aluminium doors (single or double shutter)</b> conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent make having minimum 2mm wall thickness as per IS:1285, IS:733 and anodized and electro color coating of required shade as per IS 1868 ( minimum anodized coating of grade AC15 ). fixed with rawl plugs, expansion fasteners,SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. <b>Glazing shall be clear float glass of 6mm thickness</b> including snap fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete. Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately)	SQM	<b>150</b>	0.00013943

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B906	Fixing of <b>anodised tubular aluminium doors</b> (single or double shutter) conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent. The door frame shall be of 101.4mm x 44.6mm and shutter of 50mm tubular extrusions, <b>3mm</b> thick. The opening arrangement shall be single action or double action as shown in drawing with spring hinges in floor. The glazing shall be 5.5mm thick plain glass panes fixed with necessary gaskets and aluminium beading strip. The door shall be provided with one security lock. The shutters shall be provided with 1.6mm thick 300x150mm push plates and 1.6mm thick 300mm wide kick plate of anodised aluminium for full width of door inside and outside. The door frames shall be polished and anodized with approved colour. The average thickness of anodic coating shall not be less than 15 microns as per IS: 1868. Door frame shall be provided with approved anchors @ 90 cm c/c maximum for fixing. (Glazing shall be paid separately)	SQM	<b>150</b>	0.00013169
907	Transporting and fixing fire proof steel doors (single or double shutter) with panic devices having 45mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centers including all fittings, shop painting with approved post office/ signal red color fire resistant paint and mineral wool insulation (64 kg/ cum density) complete and shall be fire proof as per IS:3614, TAC requirements and as per specification. Minimum ratings shall be 2 Hrs.	SQM	<b>50</b>	0.00019531
A907	<b>Transporting and fixing fire proof steel doors</b> (single or double shutter) with panic devices shall be 35mm thk flush design comprising of two outer sheets of 1.2 mm steel sheets rigidly connected and reinforced inside with continuous vertical 1.0 mm stiffeners, spot welded in position at not more than 150mm on centers , side ,top & bottom edges of shutters shall be reinforced by continuous pressed steel channel with minimum 1.2 mm, including all fittings, shop painting with approved post office/signal red color fire resistant paint and mineral wool insulation (64 kg/cum density) complete and shall be fire proof as per IS:3614, TAC requirements and as per specification. Minimum ratings shall be 2 Hrs.	SQM	<b>100</b>	0.00037298

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
908	Transporting and fixing of steel windows/ventilator with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision.including all fittings, metal beadings, hold fasts, shop and final painting ,glazing etc. all complete. (Glazing shall be paid separately)			
a	openable type	SQM	<b>300</b>	0.00024441
b	fixed type	SQM	<b>150</b>	0.00011713
909	<b>Transporting and fixing</b> anodised aluminium work of Jindal, Hindalco or other equivalent approved make for door frames, windows, ventilators, partitions, railing etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-mettalic protection etc.including preperation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, Providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid seperately).Weight of aluminium section only shall be measure.	Kg	<b>400</b>	0.00004808

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A909	<b>Transporting and fixing anodised (Electro colour dyed) aluminium work</b> with 15 micron coating thickness of Jindal, Hindalco or other equivalent approved make for <b>door panels, grill</b> , door frames, windows, ventillators, partitions, railing etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-mettalic protection etc.including preperation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid seperately).Weight of aluminium section only shall be measure.	Kg	<b>21000</b>	0.00252424
910	Transporting and fixing of aluminium composite panel(ACP) of following thickness with PVDF or polyester coating for interior partition of approved shade ,color etc all complete as per specification including all fixing accessories like washer, nut, bolt clip, base frame etc. (Cost of all fixing accessories, base frame arrangement included in this item)			
a	3mm	SQM	<b>1</b>	0.00000092
b	4mm	SQM	<b>1500</b>	0.00291823
c	5mm	SQM	<b>401</b>	0.00095438
911	Fixing of door closers as per IS 3564 ,of approved make & quality all complete of following type :			
a	Over head hydraulic door closures	Each	<b>110</b>	0.00004936
b	Floor mounted Hydraulic door closers	Each	<b>60</b>	0.00004584

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
912	Fixing pressed steel frames fabricated from 16 gauge M.S sheet mortised, reinforced drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars ,paintings etc all complete as per specifications.	Kg	<b>5050</b>	0.00016187
A912	Fixing pressed steel frames for partition fabricated from minimum 2.0mm galvanized steel sheet pressed to form a profile of nominal size 60mm x 70 mm & fixed to the supporting construction by means of M 10 X 120 or bigger steel bolts at 300mm from the edges & every 500mm c/c etc all complete as per specifications. <b>The frames shall be finished with etch primer for scratch resisitance and powder coated of apporved shade &amp; colour as per specifications</b>	Kg	<b>325</b>	0.00001042
913	Transporting and fixing in position rolling shutter of hot rolled double dipped galvanised steel lath section of 18 SWG tested mild steel strips at 75mm rolling centres interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs, top cover, primer & shop coats of approved enamel paint etc, all complete as per IS 6248 and specification of approved make of following types: The bottom lath shall be coupled to a lock plate fabricated from 3mm thick galvanised steel plate and securely rivetted with stiffening angles.(partly coiled and lath/full lath).			
a	Hand Operated	SQM	<b>59</b>	0.00005395
b	Mechanically Operated	SQM	<b>345</b>	0.00038951
c	Electrically operated	SQM	<b>209</b>	0.00048328
914	Transporting and fixing in position PVC doors(25 thk double skin) of sintex or equivalent make including door frame ,all fitting & fixtures as per specification, drawing and instructions of engineer in charge.	SQM	<b>70</b>	0.00005454

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A914	Transporting and fixing in position solid core FRP doors including door frame,all fitting & fixtures as per specification, drawing and instructions of engineer in charge.	SQM	120	0.00010289
915	Transporting and fixing of glazing of first grade class in steel/aluminium/wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete.			
a	4 mm thick clear sheet glass	SQM	10	0.00000248
b	4 mm thick clear float glass	SQM	1810	0.00050765
c	5.5 mm thick clear float glass	SQM	10	0.00000314
d	6 mm thick wired glass	SQM	700	0.00024307
e	6mm thick Polycarbonate sheet multi (twin) wall fire retardant and ultra violet resistant with sealed open edges	SQM	10	0.00000615
f	4 mm thick ground glass	SQM	10	0.00000165
g	6 mm thick tinted heat reflecting type float glass	SQM	10	0.00000380
h	6 mm thick clear toughened safety glass	SQM	710	0.00032430
i	Two nos. 6 mm thick clear toughened float glass hermetically sealed and separated by 12 mm thick air gap for thermal insulation (only single elevation area to be measured)	SQM	210	0.00017819
j	Two nos. 6 mm thick tinted toughened float glass hermetically sealed and separated by 12 mm thick air gap for thermal insulation (only single elevation area to be measured)	SQM	110	0.00009540
k	One outer 6mm thick tinted heat-reflecting type float glass and one inner 6mm thick plain float glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	110	0.00008815
l	6 mm thick clear float glass	SQM	10	0.00000217
Ae	2mm thick fire and UV resistant Polycarbonate sheet	SQM	200	0.00033033
Ak	One outer 6mm thick heat-reflecting type toughened glass and one inner 6mm thick clear toughened glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	100	0.00009910
Am	2 mm thick polycarbonate sheet with profile matching with metal sheeting	SQM	100	0.00016517
An	6 mm thick reflective toughened glass	SQM	300	0.00034672

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
Ao	One outer 6mm thick toughened, fire resistant plane glass and one inner 6mm thick fire resistant, tinted glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	100	0.00009910
916	Providing and fixing weather stripping of approved make and quality to doors as per instructions of engineer in charge and specification complete.	RM	150	0.00004127
917	Providing and fixing 12 mm thick BWP particle board, decorative veneer (prelaminated) on both sides, as panels in aluminium framed door shutter, fixed with necessary snap-on-beading etc. all complete (excluding aluminium works).	SQM	120	0.00022459
918	Providing and fixing steel louvered window with ISMC 100 frame all round including verticals with 18G pressed steel louvers, painting etc. all complete.	SQM	110	0.00024055
919	Providing and fixing 1 mm thk. MS sheet sliding shutters with frame and diagonal braces of 50X50X6 angle iron, 3 mm MS gusset plates at junction and corners, 25 mm dia pulley, 50X50X6 angle and T-iron guide at the top and bottom respectively including painting etc. all complete.	SQM	110	0.00037365
920	Providing & fixing Roof skylight structure for atrium with 6mm thick Polycarbonate sheet multi (twin) wall fire retardant and ultra violet resistant with sealed open edges for sky light for approved shape like dome, pyramidal etc. Joints are properly sealed with sealent, screws with pvc cap, self tapping screws, epdm rubber gasket.etc all complete as per detailed drawing and specification.	SQM	601	0.00187292
A920	Providing & fixing Roof skylight structure for atrium with 4mm embossed clear translucent polycarbonate IR sheet both side UV coated minimum 55% light transmission, solar control, approved make, texture and shade, fixed to powder coated aluminium section with 60mm width top and bottom with EPDM rubber gasket , sealed open edges for sky light for approved shape like dome, pyramidal etc. Joints are properly sealed with sealent, screws with pvc cap, self tapping screws, epdm rubber gasket.etc all complete as per detailed drawing and specification.	SQM	600	0.00260277
A921	Providing and applying minimum 250 micron DFT epoxy based Finish painting / polishing in desired shades on all wooden doors / windows / ventilators / partitions including thinners etc. all complete.	SQM	101	0.00003597

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A922	Providing and fixing automatic closing sliding glass doors with fittings, fixtures including all necessary arrangement including sensor, motor, frames, finishes etc. all complete.	EACH	11	0.00004407
A923	Providing and fixing 120 minutes Fire Rated Fully Glazed non load bearing fixed partition with valid fire test certificate from national or international lab as per specification. The Partition Frame shall be manufactured from minimum 2.0mm galvanized steel sheet pressed to form a profile of nominal size 60mm x 70 mm & fixed to the supporting construction by means of M 10 X 120 or bigger steel bolts at 300mm from the edges & every 500mm c/c. The frame shall be finished with etch primer for scratch resistance and shall be powder coated of approved shade and color. The glass panels shall be minimum 11mm thick, 120 minute fire rated, with 15 minute full insulation non wired toughened glass having a sound reduction of greater than 37dB, light transmission of 87% and compliant to class 1B1category of impact resistance as per EN 12600. Shop drawings for the item with all construction and anchoring details along with fire rating test reports shall be got approved from Engineer-in-charge before execution.	SQM	100	0.00075700
A924	Providing, fabricating and fixing Single sheet steel door of 18 gauge mild steel with suitable stiffeners hot dip galvanized or seal spray zinc coated as per BS:5493 (for a very long period of maintenance of more than 20 years) . The galvanization shall not be less than 610 gm / sq.m as per IS : 4759. The door shall be provided with all fitting, fixture, locking arrangement etc as per specification.	MT	2	0.00011361
A925	Providing and applying fire resistant transparent paint (as per IS:162) over french polish/flat oil paint (minimum 2 coats) on wood surface made from best quality shelac, denatured spirit and other suitable alcohol soluble ingredients and made by a well known approved manufacturer as per IS:348/(flat oil paint IS:137) including required base preparation etc. all complete as per specification	SQM	150	0.00004341
1000	BRICKWORK			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
	<b>Brickwork masonry including all labour, material, equipment, transportation, handling, scaffolding etc. at all levels as per specification, drawings and as directed by engineer - in - charge. (CEMENT FOR BRICK WORK AND MANUFACTURE OF FLY ASH BRICKS IF MANUFACTURE AT PROJECT PREMISES WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
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.			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	CUM	<b>610</b>	0.00171706
b	Using <b>clay ash bricks</b> as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash 25%	CUM	<b>10</b>	0.00002817
c	Using <b>burnt clay bricks</b> of class designation 7.5 of nominal dimension	CUM	<b>60</b>	0.00021946
d	Using <b>burnt clay bricks</b> of class designation 5.0 of nominal dimension	CUM	<b>100</b>	0.00036577
1002	Providing brick work in cement mortar 1:6 (1 cement 6 coarse sand) in walls, chambers etc. in thickness 230mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc complete excluding plastering and painting.			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	CUM	<b>6300</b>	0.02339127
b	Using <b>clay ash bricks</b> as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash 25%	CUM	<b>10</b>	0.00003518
c	Using <b>burnt clay bricks</b> of class designation 7.5 of nominal dimension	CUM	<b>260</b>	0.00096535
d	Using <b>burnt clay bricks</b> of class designation 5.0 of nominal dimension	CUM	<b>50</b>	0.00018565

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1002	Providing brick work in cement mortar 1:6 (1 cement 6 coarse sand) in walls, chambers etc. in thickness 345mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc complete excluding plastering and painting.			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	CUM	<b>301</b>	0.00116743
1003	Providing brick work in cement mortar 1:4 (1 cement 4 coarse sand) in partition walls, chambers etc. in thickness 115mm at all heights, places and position above or below plinth/graded level including Providing two nos. 6 mm diameter MS bars at every third layer, raking out joints, curing, scaffolding etc complete excluding plastering and painting as per specification.			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	SQM	<b>501</b>	0.00026105
b	Using <b>clay ash bricks</b> as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash 25%	SQM	<b>1</b>	0.00000063
c	Using <b>burnt clay bricks</b> of class designation 7.5 of nominal dimension	SQM	<b>101</b>	0.00006262
d	Using <b>burnt clay bricks</b> of class designation 5.0 of nominal dimension	SQM	<b>1</b>	0.00000057
A1003	Providing <b>Light Weight Aerated Concrete Panel of thickness 200mm to 300mm in walls</b> at all heights, places and position above or below plinth/graded level including jointing, scaffolding etc complete as per specification.	CUM	<b>150</b>	0.00011392
1004	Providing <b>brick soling</b> including spreading of earth, ramming, watering including 25mm thick cushion of sand complete but excluding excavation and disposal of surplus earth (excavation and disposal of surplus earth shall be measured under applicable item). <b>Using brick on edge.</b>			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	SQM	<b>51</b>	0.00003483
b	Using <b>clay ash bricks</b> as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash 25%	SQM	<b>1</b>	0.00000062

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
c	Using <b>burnt clay bricks</b> of class designation 7.5 of nominal dimension	SQM	<b>51</b>	0.00003483
d	Using <b>burnt clay bricks</b> of class designation 5.0 of nominal dimension	SQM	<b>1</b>	0.00000058
1005	Providing brick soling including spreading of earth, ramming, watering including 25mm thick cushion of sand complete but excluding excavation and disposal of surplus earth (excavation and disposal of surplus earth shall be measured under applicable item.)- Using flat bricks.			
a	Using <b>fly ash Cement bricks</b> confirming to IS 12894 with crushing strength of 75 kg/cm2	SQM	<b>250</b>	0.00006146
b	Using <b>clay ash bricks</b> as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash 25%	SQM	<b>1</b>	0.00000018
c	Using <b>burnt clay bricks</b> of class designation 7.5 of nominal dimension	SQM	<b>51</b>	0.00001034
d	Using <b>burnt clay bricks</b> of class designation 5.0 of nominal dimension	SQM	<b>150</b>	0.00002586
1006	<b>Breaking</b> of existing brick <b>work</b> at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	<b>51</b>	0.00002529
1007	Providing and encasing of structural steel member with masonry work around flanges, webs etc. and filling the gap between steel and masonry by minimum 12mm thick mortar. Encased member shall be wrapped with chicken wire mesh with 50mm lap etc. complete as per specification. (Chicken wire mesh to paid separately)	CUM	<b>6</b>	0.00001870
1008	Providing and laying 75 mm thick bed of dry brick aggregate including of excavation, disposal of surplus earth spreading of earth, ramming, watering etc. complete in all respects as directed by the engineer.	SQM	<b>51</b>	0.00000809
1009	<b>Making openings</b> in existing brick wall or partition wall including making good the broken edges/surface with cement mortar etc. complete.	CUM	<b>6</b>	0.00000364
1010	Supply and placing in position <b>mild steel wire fabric</b> of square mesh 25 mm size and wire diameter of 2 mm for encasing of steel sections in concrete including cutting, bending, fixing etc. complete.	SQM	<b>1</b>	0.00000031

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1010	Supply and placing in position <b>mild steel wire fabric</b> of square mesh 25 mm size and wire diameter of 2 mm for encasing of steel sections in concrete/brickwork or at the junction of RCC & brickwork including cutting, bending, fixing etc. complete.	SQM	<b>51</b>	0.00001748
1011	<b>Filling existing brick wall/ partition wall opening</b> at all level including making good the broken edges/surface with cement mortar, painting, finishing to match with existing finishing, scaffolding/supporting at any level, removal of debris upto a lead of 1 km including loading, unloading, transportation etc. all complete.	SQM	<b>51</b>	0.00003483
1012	Providing and filling brick bats in soak pits all complete.	CUM	<b>10</b>	0.00000683
A1013	Providing and placing precast cement concrete solid block (size 300x200x100) of mix of M 25 grade , including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), at all height, place and position, including raking out joints, curing, scaffolding etc complete excluding plastering and painting.	CUM	<b>200</b>	0.00073902
<b>1100</b>	<b>DAMP PROOF COURSE</b>			
	<b>Damp proof course including all labour, material, equipment, transportation, handling, shuttering, centering, curing etc at any level as per specification, drawings and as directed by engineer - in - charge. (CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
1101	Providing Damp Proof Course 40mm thick 1:1.5:3 concrete (10mm and down graded aggregate) with 2% of approved admixture of water proofing compound all complete. Two layers of hot bitumen coating 85/25 grade as per IS:702 @ 1.7Kg./sqm shall be applied one before & one after the DPC.	SQM	<b>250</b>	0.00010662
A1101	<b>Providing Damp Proof Course 40mm thick 1:1.5:3 concrete (12mm and down graded aggregate) with 2% of approved admixture of water proofing compound all complete. Two layers of hot bitumen coating 85/25 grade as per IS:702 @ 1.7Kg./sqm shall be applied one before &amp; one after the DPC.</b>	SQM	<b>1200</b>	0.00069450
<b>1200</b>	<b>CEMENT MORTAR PLASTER</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
	<b>Cement mortar plaster including making grooves wherever required including all labour, material, scaffolding, curing etc at any level as per specification, drawings and as directed by engineer - in - charge. (CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL)</b>			
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	<b>100</b>	0.00002199
A1201	Providing 20mm thick plaster in two layers outside the building/boundary wall or unfair face of walls 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	<b>39000</b>	0.00875069
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	<b>100</b>	0.00001870
A1202	Providing 15mm 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	<b>20000</b>	0.00400673
1203	Providing 12mm thick plaster in cement mortar 1:6 on walls with rough finish all complete.	SQM	<b>10</b>	0.00000187
1204	Providing 6mm thick plaster on ceiling in cement mortar 1:4 finished to a smooth all complete.	SQM	<b>8500</b>	0.00131688
1205	Providing 12mm thick plaster in walls, drains/culverts with a paste of neat cement @ 1kg/sqm and rubbed smooth with trowel etc. all complete.	SQM	<b>600</b>	0.00007287
1207	<b>Forming groove</b> of uniform size from 12X12 mm upto 20X15 mm in plastered surface as per approved pattern, using wooden battens nailed to the under layer, including removal of wooden battons, repair of the edges of plaster panel and finishing the groove etc. complete as per specification, drawing and the instructions of engineer in charge.	RM	<b>950</b>	0.00005244
1208	Providing drip coarse on plastered surface at all elevations for all type of work such as chajjas, parapet, projections etc. including scaffolding, finishing etc. complete with all labour, tools and plants as per specification, drawing and instructions of engineer in charge.	RM	<b>450</b>	0.00002484

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1209	Providing and laying encasement to box type steel beams at all levels with lath plaster 50 mm nominal thickness with cement plaster (1:4) over chicken wire mesh including all labour, materials, equipment, handling, transporting, mixing, placing, leveling, curing and cleaning, finishing the exposed surfaces etc including centering and shuttering all complete as per specification, drawing and instructions of engineer in charge (chicken wire mesh to be paid separately)	SQM	<b>200</b>	0.00066066
1210	<b>Ruled pointing</b> in masonry in CM 1:3 (1 cement and 3 fine sand) including raking out joints, curing etc. complete.	SQM	<b>200</b>	0.00005503
A1210 ISG	20 mm thick plaster (1:3) admixed with approved quality water proofing compound	SQM	<b>500</b>	0.00011219
B1210 ISG	10 mm thick plaster (1:3) admixed with approved quality water proofing compound	SQM	<b>500</b>	0.00010017
<b>A1211</b>	Providing <b>20mm thick plaster inside</b> the water retaining structures in cement <b>mortar 1:3 with approved quality of water proofing compound/ admixture</b> on walls finished to a smooth finish as per specification all complete.	SQM	<b>100</b>	0.00002244
<b>A1212</b>	Providing <b>10mm thick plaster below roof slab</b> of water retaining structures in cement <b>mortar 1:3 with approved quality of water proofing compound/ admixture</b> to a smooth finish as per specification all complete.	SQM	<b>50</b>	0.00001002
<b>1300</b>	<b>FINISHES TO CONCRETE / PLASTERED SURFACES</b>			
	<b>Finishes, painting to concrete, plastered surfaces including all labour, material, equipment, surface preparation, scaffolding etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
1301	Two or more coats of <b>white wash/ colour wash</b> as per IS 627 of approved brand and manufacture to give an even shade including a priming coat as per specifications.	SQM	<b>2010</b>	0.00006622

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1302	Two or more coats of <b>Exterior masonry paint</b> (water or solvent base) of special resins, adhesives and additives mixed with fine, hard stone aggregate and suitable pigment. The paint shall be applied on a coat of primer over dried, prepared plaster surface as manufacturers guidelines. The final finished coating shall be fungus resistant, UV resistant, water repellent, alkali resistant and extremely durable with color fastness as per specification.	SQM	<b>6200</b>	0.00081702
1303	Providing and applying two or more coats of oil bound distemper as per IS 428 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.	SQM	<b>100</b>	0.00001104
A1303	Providing and applying two or more coats of <b>oil bound distemper</b> as per IS 428 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline. <b>(Cost of primer is included in this item).</b>	SQM	<b>100</b>	0.00001861
1304	Two or more coats of <b>acrylic distemper</b> of approved brand and manufacture to give an even shade including a priming coat with distemper primer complete.	SQM	<b>29200</b>	0.00272992
A1304	Two or more coats of <b>acrylic distemper</b> of approved brand and manufacture to give an even shade including a priming coat with distemper primer complete.	SQM	<b>510</b>	0.00005268
1305	Providing and applying two or more coats of acrylic emulsion paint as per IS 5411 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.	SQM	<b>100</b>	0.00001647
A1305	Providing and applying two or more coats of <b>acrylic emulsion paint</b> as per IS 5411 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.(Cost of primer is included in this item)	SQM	<b>6200</b>	0.00115376

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B1305	Providing and applying two or more coats of premium quality <b>acrylic emulsion paint</b> as per IS 15489 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.(Cost of primer is included in this item)	SQM	<b>42100</b>	0.00925883
1306	Providing and applying 2 or more coats of acid/alkali resistant paint of approved brand and colour to floors, walls and ceiling including preparation of surface to receive paint, Providing and applying bitumen primer conforming to IS 158 complete all as per manufacturer's recommendations and as approved by engineer, at all heights above or below grade level, complete as per specifications.	SQM	<b>200</b>	0.00005503
1307	Two or more coats of <b>fire resistant transparent paint</b> as per IS 162 on all woodwork over french polish as per IS 348 or flat oil paint as per IS 137 of approved grade and manufacture to give an even shade as per specifications.	SQM	<b>10</b>	0.00000385
1308	Two or more coats of black <b>anti-corrosive bitumastic</b> painting of approved brand and manufacture to give an even shade complete.	SQM	<b>10</b>	0.00000165
1309	Two or more coats of <b>synthetic enamel paint</b> of approved make made from synthetic resins and drying oil with rutile titanium dioxide and other selected pigments to give smooth, hard, durable & glossy finish to all interior and exterior surfaces complete.	SQM	<b>12</b>	0.00000198
1310	Providing and applying 3 coats of <b>water proof cement paint</b> of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc including primer coat complete as per specification.	SQM	<b>5510</b>	0.00090761

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1311	Providing and applying <b>resin bonded granular textured finish, for external applications</b> shall consist of crushed stone/quartz chips of .5 mm to 2.5 mm size and of approved natural color/shade and bonded with synthetic resins, adhesives and additives altogether in a single pack mix, applied on cured and dried plaster surface with a dry film thickness of minimum 2 mm. The final finish shall have UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade as per specification/drawing/approval of engineer in charge.	SQM	7900	0.00479018
A1311	Providing and applying resin bonded granular textured finish with low VOC (volatile organic compound) , for external applications shall consist of crushed stone/quartz chips of .5 mm to 2.5 mm size and of approved natural color/shade and bonded with synthetic resins, adhesives and additives altogether in a single pack mix, applied on cured and dried plaster surface with a dry film thickness of minimum 2 mm. The final finish shall have UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade as per specification/drawing/approval of engineer in charge.	SQM	100	0.00022135
1312	Providing and applying 2 mm thick <b>plaster of paris punning on walls</b> including preparation of surface, staging, etc. to achieve a smooth even surface all complete as per specification and as directed by Engineer.	SQM	12100	0.00113123
1313	Providing and applying ready made <b>Epoxy Paint</b> over areas other than steel structure with suitable pigments of approved shade as per specification and direction of Engineer. The epoxy paint shall be a two pack material and shall be resistant to water, splash, spillage & acidic environment. The epoxy paint coating shall be of 150micron thickness over epoxy primer.	SQM	110	0.00018168
A1313	Providing and applying ready made <b>Epoxy Paint</b> over areas other than steel structure with suitable pigments of approved shade as per specification and direction of Engineer. The epoxy paint shall be a two pack material and shall be resistant to water, splash, spillage & acidic environment. The epoxy paint coating shall be of 150micron thickness over epoxy primer.(Cost of epoxy primer is included in this item)	SQM	100	0.00018591

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1314	Providing and applying Synthetic plaster for external applications composed of synthetic fibre and petroleum based chemical similar to RENOVO or equivalent and of approved natural color/shade applied on cured and dried plaster surface.The final finish Paint shall have UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade as per specification/drawing/approval of engineer in charge.	SQM	10	0.00000496
1315	Providing and applying two or more coats of Acrylic based weather coat paint of approved brand and manufacture and required shade over one coat of primer after necessary cleaning/ washing, preparing the surface using coir brush/ wire brush, sand paper, including filling of cracks with putty wherever required etc. all complete to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guidelines. The final finished coating shall be fungus resistant, UV resistant, water repellent and extremely durable with color fastness as per specification.	SQM	10	0.00000275
<b>1400</b>	<b>FLOORING AND SKIRTING</b>			
	<b>Flooring and skirting at any level including base layer, labour, material, equipments, transportation, handling, curing, polishing etc. at any level as per specification, drawings and as directed by engineer - in - charge.(CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
1401	Providing and laying 50 mm thick <b>heavy duty cement concrete in flooring</b> with <b>metallic hardener pigmented topping</b> 12mm thick uniform graded treated iron particles in flooring. Under layer of 38mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, aluminium strips etc. all complete for following (Quoted item rate shall be inclusive of providing glass joint strips):	SQM	2900	0.00147180

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1402	Providing and laying 25 mm thick <b>heavy duty cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates )</b> flooring with metallic hardener pigmented topping of 10 mm thick uniform graded treated iron particles <b>in skirting and dado</b> complete as per specification.	SQM	<b>100</b>	0.00005075
A1401	Providing and laying 52 mm thick <b>heavy duty cement concrete in flooring</b> with <b>metallic hardener pigmented topping</b> 12mm thick uniform graded treated iron particles in flooring. Under layer of 40mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 20mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume (hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturers specification) including cement slurry, rounding off edges, aluminium strips etc. all complete as per specification (Quoted item rate shall be inclusive of providing aluminium joint strips)	SQM	<b>27000</b>	0.01370301
A1402	Providing and laying 25 mm thick <b>heavy duty cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates )</b> flooring with metallic hardener pigmented topping of 12 mm thick uniform graded treated iron particles <b>in skirting and dado</b> complete as per specification.	SQM	<b>200</b>	0.00010150
1403	Providing and laying precast polished heavy duty cement concrete tiles (Carborundum topping) of size 300X300X25 thick of approved shade as per IS 1237, including cement mortar bedding of 1:3 (1 cement : 3 sand) jointed with neat cement slurry etc. all complete with pigment to match the shade of the tiles including rubbing, curing, grinding and polishing complete with laying as per IS 1443 etc. all complete for following:			
a	<b>Laid in floors</b>	SQM	<b>1210</b>	0.00113231
b	<b>Laid in skirting</b>	SQM	<b>160</b>	0.00016739
A1404	Providing and laying interlocking M35 Grade concrete blocks in paving with approved colour and pattern and underlain by 200mm thick with 63 mm and down aggregate with interstices filled with selected moorum including aggregate, sand, moorum etc all complete as per specifications and recommendations of manufacturer.			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
a	<b>60mm</b>	SQM	<b>1</b>	0.00000061
b	<b>75mm</b>	SQM	<b>301</b>	0.00021548
c	<b>80mm</b>	SQM	<b>1901</b>	0.00140487
1405	Providing and laying 50 mm thick floor finish with <b>25mm thk Terrazo Tiles</b> including cement mortar bedding of 1:3 (1 cement : 3 sand) with neat cement slurry etc. all complete.	SQM	<b>5</b>	0.00000331
1406	Providing and laying <b>polished Kota stone</b> 18mm to 20mm thk in <b>flooring</b> . Under bed shall average 30mm thk of 1 cement : 2 sand : 4 stone aggregates by volume and brought to proper level. The kota stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	<b>250</b>	0.00020657
1407	Providing and laying <b>polished Kota stone</b> 14mm to 16mm thk in <b>flooring</b> . Under bed shall average 35mm thk of 1 cement : 2 sand : 4 stone aggregates by volume and brought to proper level. The kota stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	<b>150</b>	0.00014339
1408	Providing <b>polished Kota stone 18mm to 20mm thk in skirting</b> projecting 6mm from adjacent plaster including cutting brickwall upto the required depth, edging, finishing etc. all complete.	SQM	<b>125</b>	0.00011973
1409	Providing <b>polished Kota stone 14mm to 16mm thk in skirting</b> projecting 6mm from adjacent plaster including cutting brickwall upto the required depth, edging, finishing etc. all complete.	SQM	<b>25</b>	0.00002385

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1410	<b>Marble stone Flooring laid in 50mm overall thickness</b> with 18-20mm thick marble slabs (grade -1) with minium 30mm thick underbed of 1 cement : 2 sand : 4 stone aggregate by volume and brought to proper level.The marbel slabs/tiles laid over underbed with mortar 1:3, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	<b>50</b>	0.00015417
1411	<b>Marble stone Flooring laid in 50mm overall thickness</b> with 14 -16mm thick marble slabs (grade -1) with minium 35mm thick underbed of 1 cement : 2 sand : 4 stone aggregate by volume and brought to proper level.The marbel slabs/tiles laid over underbed with mortar 1:3, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	<b>10</b>	0.00002753
1412	Providing and laying 18-20mm thick polished Granite stone of approved color and texture in flooring with brass/ stainless steel strips. Under bed shall average 30mm thk of 1 cement : 2 sand : 4 stone aggregate by volume and brought to proper level. The granite stone slabs/tiles laid over under bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete.	SQM	<b>1810</b>	0.00637869
1414	Providing and laying polished Granite stone 18-20mm thk in skirting and dado with 6mm thick projection from adjacent plaster including mortar ,cement slurry ,pigments, curing, grinding,moulding, granite polishing etc. all complete.	SQM	<b>110</b>	0.00042389
1415	Providing and laying <b>polished Granite stone 14-16mm thk in skirting and dado with 6mm thick projection from adjacent plaster</b> including mortar ,cement slurry ,pigments, curing, grinding,moulding, granite polishing etc. all complete.	SQM	<b>10</b>	0.00001784

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1416	Providing and laying <b>vitrified ceramic tiles of polished variety</b> of size 600x600 from reputed / approved manufacturer, complete including underbed of cement mortar 1:3 minimum 20mm thick underbed for flooring and 12mm thick underbed for dado/skirting with neat cement slurry @3.3kg/sqm etc. all complete for following			
a	9mm to 10mm thick tiles In flooring	SQM	<b>1000</b>	0.00154927
b	5mm to 6mm thick tiles In skirting and dado upto specific height	SQM	<b>200</b>	0.00023114
A1416	Providing and laying <b>vitrified ceramic (with recycle content) tiles</b> of polished variety of size 600x600/800x800 from reputed / approved manufacturer, complete including including underbed of 40.5 mm thick cement concrete mix 1:1.5:3 (1 cement: 1.5 sand : 3 stone aggregates 12.5mm well graded) with 3mm groove joints as per approved pattern pointed neatly with 3X4mm stainless epoxy grout SP- 100 of Laticrete or approved equivalent in approved colour to match colour of tile etc. all complete for following.			
a	10mm thick tiles In flooring	SQM	<b>10</b>	0.00001266
b	10mm thick tiles In skirting and dado upto specific height	SQM	<b>300</b>	0.00037984
1417	Providing and laying vitrified ceramic tiles of matt/mirror finish of size 600x600mm from reputed / approved manufacturer including underbed of cement mortar 1:3 with neat cement slurry etc. all complete for following.			
a	7mm thick tiles In flooring	SQM	<b>10</b>	0.00001143
b	10mm thick tiles In flooring	SQM	<b>10</b>	0.00001376
c	7mm thick tiles In skirting and dado upto specific height	SQM	<b>1</b>	0.00000116
d	10mm thick tiles In skirting and dado upto specific height	SQM	<b>1</b>	0.00000138
A1417	Providing and laying <b>vitrified ceramic tiles of matt finish</b> of size 600x600mm from reputed / approved manufacturer complete including underbed of cement mortar 1:3 minimum 20mm thick underbed for flooring and 12mm thick underbed for dado/skirting with neat cement slurry @3.3kg/sqm etc. all complete for following			
b	10mm thick tiles In flooring	SQM	<b>200</b>	0.00024379

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1418	Providing and laying 10 mm thk non-skid fully <b>vitrified tiles</b> of make 'MARBONITE' or 'FERRASTONE of BOSS Profile limited' or equivalent in <b>flooring and skirting</b> over 30 mm thick underbed of 1 part cement and 3 parts coarse sand by weight mixed with sufficient water, complete as per specification laid in pattern of following sizes			
a	400X400 mm	SQM	<b>100</b>	0.00011557
b	600X600 mm	SQM	<b>100</b>	0.00012661
1419	Providing and laying <b>granite stone slab</b> of 20mm thickness single piece for wash basin / sink slab /facia of black or approved colour with cutting,making corners,moulding and opening etc. all complete.	SQM	<b>51</b>	0.00019653
1420	Providing and laying <b>Heavy Duty dust pressed Ceramic Tiles</b> of 7mm thick of reputed manufacturer of approved finish shade and colour including underbed of cement mortar 1:3 with neat cement slurry etc. all complete.			
a	300X300 mm	SQM	<b>10</b>	0.00000936
b	600X600 mm	SQM	<b>210</b>	0.00021970
1421	Providing and laying <b>Heavy Duty dust pressed (grade-5) Ceramic Tiles (Matt Finish) of size 600x600mm(approved size) and 7mm thick</b> of reputed / approved manufacturer (Kajaria,jhonson, Spartek or equivalent) of approved finish, shade and colour. The tiles shall be scratch resistance of minimum 5 on Mohr's scale and shall have a bending strength of 350 Kg./sqm,with Under bed shall average 43mm thk of 1 cement : 2 sand : 4 stone aggregates by volume and brought to proper level including cement mortar all complete.	SQM	<b>15</b>	0.00001597
1422	Providing & fixing <b>Acid / Alkali resistant (Chemical resistant) tiles</b> confirming to IS:4457 in <b>flooring/Dado</b> and shall be laid over bitumastic lining of min 12mm thick ( to be laid in layers of 6mm each). The tiles shall be applied with 6mm thick Potassium Silicate bedding mortar as per IS:4441, 4443 & 4832 and including preparation of surface, application of bitumen primer, curing etc. all complete for following thicknesses. The tiles should be abrasion resistant & durable.			
a	20mm thick	SQM	<b>50</b>	0.00012114
b	38mm thick	SQM	<b>350</b>	0.00100190

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
Ac	300x300x14mm thick	SQM	<b>300</b>	0.00093490
1423	Providing & fixing Acid / Alkali resistant (Chemical resistant) tiles confirming to IS:4457 in flooring/Dado bedded and jointed with epoxy mortar all complete for following thicknesses. The tiles should be abrasion resistant & durable.			
a	20mm thick	SQM	<b>1</b>	0.00000242
b	38mm thick	SQM	<b>801</b>	0.00246980
Ac	300x300x14mm thick	SQM	<b>500</b>	0.00155817
A1424	Providing & fixing chemical resistant (AR)(Acid / Alkali) bricks (75mm thick) <b>conforming to IS:4860 in the floor of neutralization pit.</b> Surface on which lining to be applied shall be prepared in accordance with IS:2395. Bitumen primer as per IS:158 followed by 18mm thick bituminastic layer followed by 6mm thick potassium silicate mortar bedding shall be provided before laying AR bricks. The joints between AR bricks shall be filled with acid/alkali resistant epoxy mortar upto a depth of 20 mm/ cover up any porosity that may be left in mortar. End sealing shall be done with bituminastic AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furnace / CNSL) & acid curing shall be done all complete as per specification.	SQM	<b>101</b>	0.00035235
B1424	Providing & fixing chemical resistant (AR)(Acid / Alkali) bricks (115mm thick) <b>conforming to IS:4860 in the wall of neutralization pit.</b> Surface on which lining to be applied shall be prepared in accordance with IS:2395. Bitumen primer as per IS:158 followed by 18mm thick bituminastic layer followed by 6mm thick potassium silicate mortar bedding shall be provided before laying AR bricks. The joints between AR bricks shall be filled with acid/alkali resistant epoxy mortar upto a depth of 20 mm/ cover up any porosity that may be left in mortar. End sealing shall be done with bituminastic AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furnace / CNSL) & acid curing shall be done all complete as per specification.	SQM	<b>51</b>	0.00021043

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
C1424	Providing & fixing chemical resistant (AR)(Acid / Alkali) bricks (20mm thick) <b>conforming to IS:4860 in acid/alkali storage area ,floors,pedestals, saddles, dado etc.</b> Surface on which lining to be applied shall be prepared in accordance with IS:2395. Bitumen primer as per IS:158 followed by 12mm thick bituminastic layer followed by 6mm thick potassium silicate mortar bedding shall be provided before laying AR bricks. The joints between AR bricks shall be filled with acid/alkali resistant epoxy mortar upto a depth of 20 mm/ cover up any porosity that may be left in mortar. End sealing shall be done with bituminastic AR bricks shall be laid with 6mm wide & 50mm deep pointing (epoxy / furnace / CNSL) & acid curing shall be done all complete as per specification.	SQM	50	0.00012109
1425	Providing and laying polished Marble slabs (Aranga white or equivalent approved shade/color /design) 20 mm thk in staircase landing/skirting and corridors over minimum 20 mm thick underbed of 1 cement : 2 sand : 4 stone aggregates by volume mixed with sufficient water to form a stiff workable mass. The marble slabs shall be laid over underbed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including moulded marble nosing, pigments, curing, grinding, making corners, granite polishing etc. complete.	SQM	1401	0.00431984
1426	Providing and laying <b>marble skirting /dado (Aranga white or approved shade/color /design) equivalent of minimum 20mm thickness</b> projecting 6mm from adjacent plaster all complete including underbed cement mortar 1:3, scaffolding etc. all complete.	SQM	1	0.00000330
1427	Providing and fixing glazed ceramic tiles of approved color and design of size 200x300mm / 300x300mm in dado of approved size, projecting 6mm uniformly from adjacent plaster or wall finish. The mix for underbed plaster shall consist of 1part cement and 3 parts sand by weight. fairly moist but firm, tiles shall be pressed over under bed by applying cement slurry including pigments, curing etc all complete for following thicknesses:			
a	5mm thick	SQM	1	0.00000083

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
b	7mm thick	SQM	501	0.00052415
1429	Providing and fixing removable type flooring system consisting of fire resistant particle board of size 600X600X35 mm with 0.05 mm thick aluminium foil lining at bottom and with 2 mm thick anti static PVC topping including proprietary floor supporting system complete as per specification.	SQM	101	0.00072294
A1430	Providing and fixing <b>dividing strips</b> in joints of cast in situ floorings at various elevations, finishing, all labour, material etc. complete as per drawing, specification and instructions of engineer in charge.			
a	Glass strips 40 mm wide and minimum 6 mm thick.	RM	200	0.00001870
b	Aluminium strips 40 mm wide and minimum 3 mm thick	RM	200	0.00005449
c	Brass strips 20 mm wide and minimum 4 mm thick.	RM	210	0.00002489
d	Glass strips 50 mm wide and minimum 6 mm thick.	RM	500	0.00005164
e	Aluminium strips 50 mm wide and minimum 3 mm thick.	RM	310	0.00009136
1431	Providing and laying wooden panel flooring and skirting of PERGO or equivalent of approved color,shade all complete as per manufacturer specification.	SQM	1	0.00000165
A1432	Providing and laying 2 mm thick homogenous anti-static PVC skirting of approved color,shade all complete as per manufacturer specification.	SQM	51	0.00002498
A1433	Providing and laying 10 mm thick x 37 mm high teak-wood lining shall be provided around the room where the floor panels meet the wall surfaces with the top of the lining matching with the finished top of floor panels of approved color,shade all complete as per manufacturer specification.	RM	101	0.00005845
1500	<b>ROOFING / SIDE CLADDING</b>			
	<b>Roofing / side cladding work including all labour, material, equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1501	Transportation and fixing permanently color coated galvanised MS troughed metal sheet decking plate of approved colour and conforming to class3 of IS 14246 over roof purlins for cast-in-situ roof slab as per relevant IS code and specification. Bare metal thickness of deck plate shall be minimum 0.8mm with minimum trough depth of 44 mm having minimum yield strength of 250 MPa and shall serve as permanent shuttering to the roof slab 100mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 150 kg/sqm during construction between purlins as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to purlins, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyester paint of minimum 20 micron DFT on exposed surface (facing operating floor) and minimum 7 micron on other face over epoxy primer applied ory coat of slurry mix can also be first applied on the surface as first coat. After the coating has dried up, a coat of Brush Topping Mix shall be applied over it with a push broom or any other similar brush. It shall be left in broom finished condition. The nominal thickness shall be 1.5 mm and minimum thickness shall be 1.0 mm. A lap of 75 mm shall be provided at the jo			
a	Span Upto 1800mm	SQM	<b>5600</b>	0.00190969
b	Span Exceeding 1800mm and upto 2500 mm	SQM	<b>6200</b>	0.00274363
1502	Providing and fixing shear connectors of mild steel studs having 16mm dia and minimum 75 mm projected length above purlin passing through metal decking as per relevant IS codes and specification.	QUINTAL	<b>50</b>	0.00209218

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1504	Transportation and fixing <b>External sheet of Permanent colour coated metal cladding</b> shall be troughed (Minimum depth of trough= 28 mm & Maximum pitch of trough= 200 mm) zinc-aluminium alloy (55% Aluminium, 43.4% Zinc and 1.6% Silicon) coated, not less than 150 gm/sq m, having High Tensile sheet (Fy=550 MPa) of <b>0.5 mm (minimum) Base Metal Thickness</b> including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over minimum 5 microns of suitable primer. Inner face of the sheet shall be provided with suitable pre-coating of minimum DFT 12 microns over minimum 5 microns of suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	SQM	<b>2300</b>	0.00065737
A1505	Transportation and fixing <b>Inner sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.6mm bare metal thickness</b> having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 150 gm/sqm total on both sides of both sheets including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed surface of the sheet shall be permanently colour coated with silicon modified polyester paint of minimum dry film thickness (DFT) 20 microns over suitable primer. Other face of the sheet shall be provided with suitable pre-coating of minimum DFT 7 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability. The sheet shall be fixed directly to side runners and Z spacers as per IS : 277. The sheet shall be fixed at the rate not more than 1500mm center to center to hold the insulation and external sheeting.	SQM	<b>2000</b>	0.00059478

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1506	Providing and fixing <b>insulation of resin bonded mineral wool</b> of 50 mm nominal thickness conforming to IS 8183 having a density of 32 kg/cum glass wool or 48 kg/cum for rock wool, for cladding/under deck insulation including application of glue and tying with lacing wire, for glass/rock wool as per manufacturer's recommendations.	SQM	1000	0.00077107
A1506 ISG	<b>Transportation and fixing of</b> Prefabricated sandwich panels comprising troughed profile with outer sheet matching with permanent color coated (non-insulated) metal sheet specified above at point "a" and inner sheet made up of slight profiled linear tray of 0.5mm BMT 340 Mpa galvanized steel of 150 gsm zinc coating (total on both sides) with RMP color coating of 25 microns on the exposed side over the primer and 12 microns on the covered side over a 5 microns primer coat. The insulation material shall be of high density CFC- free 30mm (at the valley position of the outer sheet) thick polyurethane foam insulation of density 40 – 42 Kg/m <sup>3</sup> sandwiched in between the two sheets. The panel should be finished with a malefemale jointing system. The panels shall be fixed to the purlins with hexa-headed self-drilling fasteners of required size with synthetic washers at the crests. Flashing and capping (top and bottom) shall be made of pre-coated Galvalume sheet in plain form but in required shape.	SQM	100	0.00003731
1507	Providing and fixing <b>insulation of resin bonded mineral wool</b> of 50 mm nominal thickness conforming to IS 8183 having a density of 32 kg/cum glass wool or 48 kg/cum for rock wool, for cladding/under deck insulation including wrapping in black polythene black supported over weld mesh 75X75X1.6 MM dia to hold in position and application of glue & tying with lacing wire, for glass/rock wool as per manufacturer's recommendation.	SQM	1000	0.00095182
1508	Providing and installing <b>under deck insulation</b> using minimum 0.05 mm thick aluminium foil on exposed surface followed by 0.56 mm dia and 25 mm mesh GI wire netting, fixed at various elevations with rawl plugs including clips but excluding cost of insulation.	SQM	600	0.00061810

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1509	Transportation and fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured outof 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabilizer in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent,clear or pigmented, textured or smooth as specified.			
a	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6" ) as specified	SQM	<b>250</b>	0.00007145
1510	Transportation and fixing 1 mm thick corrugated/semicorrugated <b>G.I. sheet in roofs, cladding</b> of minimum galvanisation of 275 gsm total on both sides with minimum 150mm overlapping, 8 dia G.I. hook bolts or 'J' Bolts and nuts @305 mm c/c along with G.I. and bitumen washers including cutting of sheets for opening etc. all complete.	SQM	<b>1050</b>	0.00026084

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1511	<p>Transportation and fixing Prefabricated sandwich panels comprising troughed profile with outer sheet of permanent Color coated (non-insulated) metal sheets troughed (Minimum depth of trough= 28 mm &amp; Maximum pitch of trough= 200 mm) zinc-aluminium alloy (55% Aluminium, 43.4% Zinc and 1.6% Silicon) coated, not less than 150 gm/sq m, having High Tensile sheet (Fy=550 MPa) of 0.5 mm (minimum) Base Metal Thickness. The exposed face of the outer sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over minimum 5 microns of suitable primer. Inner face of the outer sheet shall be provided with suitable pre-coating of minimum DFT 12 microns over minimum 5 microns of suitable primer and inner sheet made up of slight profiled linear tray of 0.5mm BMT 340 Mpa galvanized steel of 150 gsm zinc coating (total on both sides) with RMP color coating of 25 microns on the exposed side over the primer and 12 microns on the covered side over a 5 microns primer coat. The insulation material shall be of high density CFC- free 30mm (at the valley position of the outer sheet) thick polyurethane foam insulation of density 40 – 42 Kg/m<sup>3</sup> sandwiched in between the two sheets. The panel should be finished with a malefemale jointing system. The panels shall be fixed to the purlins with hexa-headed self-drilling fasteners of required size with synthetic washers at the crests. Flashing and capping (top and bottom) shall be made of pre-coated Galvalume sheet in plain form but in required shape.</p>	SQM	4015	0.00122619
1600	<b>FALSE CEILING</b>			
	<b>False ceiling including all labour, material, equipment, transportation, handling, suspension system etc at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1601	Transportation and fixing glass fibre reinforced gypsum plaster board (GRG) ceiling (having gypsum core mixed with glass fibre) system consisting of metal supporting grid system forming panels of specified size, suspended from RCC slab/structural steel or catwalkway grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawing, Providing openings for AC ducts, return air grills, light fixtures etc (but excluding the cost of catwalkway grid) all complete as per drawings, specification and instructions of the engineer.			
a	12 mm thick GRG board with galvanised light gauge steel load bearing supporting GI frame and finished flat (seamless).	SQM	5	0.00000204
b	12 mm thick GRG board in profile (dome ,curved profiled etc.) with galvanised light gauge steel load bearing supporting GI frame and finished smooth (seamless).	SQM	10	0.00000341
A1601	Transportation and fixing <b>glass fibre reinforced gypsum plaster board (GRG) ceiling</b> (having gypsum core mixed with glass fibre) system consisting of metal supporting grid system forming panels of specified size, suspended from RCC slab/structural steel or catwalkway grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawing, providing openings for AC ducts, return air grills, light fixtures etc (but excluding the cost of catwalkway grid) all complete as per drawings, specification and instructions of the engineer.			
a	12.5 mm thick GRG board with galvanised light gauge steel load bearing supporting GI frame and finished flat (seamless).	SQM	200	0.00008166

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1602	Transportation , fixing and laying light weight <b>mineral fiber tile false ceiling</b> of minimum thickness 15 mm and exposed surface semi-perforated with depth of perforation as 4 mm and humid resistance of 95% RH and fire performance of class 0/1 as per BS 476 with metal suspension grid system with galvanized Tees of section 24 X 38 mm for main runners of approved colour and make as per specification including 50mm thick mineral wool insulation (density48kg/cum) as per IS:8183 bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75 @ 1.2m) grid shall also beprovided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. complete with cut-outs etc.The size of tiles shall be 600 X 600 mm or 600 X 1200 mm. Required MS channel shall be measured & paid extra under respective item unit rate.	SQM	<b>710</b>	0.00012976
1603	Transportation and Fixing <b>permanently colour coated aluminium false ceiling</b> of approved colour and <b>Luxalon 84 C</b> or approved equivalent with corrosion resistant aluminium alloy panels of minimum thickness 0.5mm including 50mm thick mineral wool insulation(density 48 kg/cum) conforming to IS:8183 bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures, A.C. ducts etc all complete. Suitable M.S. channel grid with minimum MC 75 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. ( Materials for structural platform grid made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>1800</b>	0.00157980

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1604	Transportation ,Fixing etc. <b>permanently colour coated aluminium false ceiling</b> of approved colour with stove enamel finish of approved make in LINEAR and SQUARE type with corrosion resistance aluminium alloys panels of minimum thickness 0.5mm including 50mm thick mineral wool insulation (as per IS:8183) bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75) grid 1200 c/c maximum shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>10</b>	0.00000878
1605	Transportation , fixing and laying anodised natural colour matt finished aluminium false ceiling of Jindal/Hindalco make with corrosion resistance aluminium alloys panels of minimum thickness 0.5mm including 50mm thick mineral wool (density 48kg/cum insulation (as per IS:8183) bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75) grid shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>10</b>	0.00000714

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1606	Transportation , fixing and laying <b>12mm thick Gypsum board plain/perforated false ceiling tiles(600x600mm)</b> of India Gypsum or equivalent make in plan or elevation with aluminium grid, metal suspension system, anchor fastener adjustable hangers etc. including two or more coats of acrylic emulsion paint of approved colour to give an even shade with smooth finish all complete.as per architectural design and detail.metal suspension system as per ASTM C-635 shall be hot dipped M.S.galvanized (grade 180 as per is :277) nominal size of T-section shall be 24 x 38 mm or 24 x 25 mm cross runners. 24mm wide exposed flange surface shall be permanently color coated.suspension system shall be as per manufaturer's specification supported over movment platform.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	10	0.00000373
A1606	Transportation and fixing <b>12.5mm thick Gypsum board plain/perforated false ceiling tiles(600x600mm)</b> of India Gypsum or equivalent make in plan or elevation with aluminium grid, metal suspension system, anchor fastener adjustable hangers etc. including two or more coats of acrylic emulsion paint of approved colour to give an even shade with smooth finish all complete.as per architectural design and detail.metal suspension system as per ASTM C-635 shall be hot dipped M.S.galvanized (grade 180 as per is :277) nominal size of T-section shall be 24 x 38 mm or 24 x 25 mm cross runners. 24mm wide exposed flange surface shall be permanently color coated.suspension system shall be as per manufaturer's specification supported over movment platform.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	700	0.00026124

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1607	Transportation ,Fixing etc. 12 mm thick calcium silicate board of 'HILUX' or equivalent with suspension system as per manufacturers details including supporting grid system, expansion fasteners for suspension arrangement , providing openings for AC ducts, return air grills, light fixtures, etc., all complete. (With concealed grid and finished flat seamless).	SQM	<b>200</b>	0.00005709
<b>1700</b>	<b>RAIN WATER DOWN TAKE PIPES</b>			
	<b>Rain water down take pipes including all labour, material, transportation, 2 coats of approved paint over one primary coat, fixtures, accessories etc at any level as per specification, drawings and as directed by engineer - in - charge.(CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
1701	Fixing of HCl down take pipes of 100 mm dia. with water tight lead joint, fixing clamps etc. all complete.	RM	<b>10</b>	0.00000326
1702	Fixing of galvanised MS down take pipes of 100 mm dia- Medium quality as per IS:1239(part-I) / IS:3589 all complete.	RM	<b>510</b>	0.00014304
1703	Fixing of HCl down take pipes of 150mm dia with water tight lead joint etc. all complete.	RM	<b>210</b>	0.00011094
1704	Fixing of galvanised MS down take pipes of 150 mm dia- Medium quality as per IS:1239(part-I) all complete.	RM	<b>1500</b>	0.00061837
1705	Fixing of UPVC down take pipes of 110mm diameter- Class 3 as per IS:4985 all complete.	RM	<b>510</b>	0.00008051
1706	Fixing of UPVC down take pipes of 160mm diameter- Class 3 as per IS:4985 all complete.	RM	<b>410</b>	0.00009123
1707	Fixing of GI down take pipes conforming to IS:1239 /IS:3589 of medium duty all complete for following diameters.			
a	100 mm Dia	RM	<b>10</b>	0.00000309
b	150 mm Dia	RM	<b>10</b>	0.00000445
c	200 mm Dia	RM	<b>10</b>	0.00000675
1708	Fixing HDPE down take pipes conforming to IS:4984 as per specification of following diameters.			
a	110 mm Dia	RM	<b>10</b>	0.00000102

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
b	160 mm Dia	RM	10	0.00000144
c	200 mm Dia	RM	10	0.00000192
A1709	Fixing of cast iron cement down take pipes conforming to IS:4984 as per specification of following diameters.			
a	110 mm Dia	RM	510	0.00016795
b	160 mm Dia	RM	510	0.00020473
c	200 mm Dia	RM	10	0.00000483
A1710	Fixing ,installation etc. of 450x450 <b>KHURRAS</b> for rain water down take pipes with 1:2:4 concrete over PVC sheet of 1000x1000x400 micron and finished with 12mm thk, cement sand plaster 1:3 etc, all complete as per specification.	Each	200	0.00013356
Ab 1710	Fixing of Galvanised steel ERW pipes (273mm OD, 4mm thick) of steel grade Fe330 conforming to IS: 3589 with welded joints shall be used for all TP's, Crusher house, and Conveyor galleries specification of diameter 273 OD , 4 mm thick all complete as per the directions of Engineer in charge	Rmt	1000	0.00048272
<b>1800</b>	<b>MISCELLANEOUS WORKS</b>			
	<b>Miscellaneous works including all labour, material, equipment etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge.(CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			
1801	<b>Providing and Filling in trenches, plinths, area paving and other underground structures with graded stone aggregate of size range 63 mm to 45 mm</b> in layers not exceeding 230 mm in thickness including breaking of stone boulders to required sizes, filling the interstices with selected sand and compacting to 85 % of original volume of stone stack for all lifts etc. all complete. Payment shall be made for the measurement of the volume of the compacted fill.	CUM	1750	0.00388764

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1801	<b>Providing and Filling in trenches, plinths, area paving and other underground structures with graded stone aggregate of size range 63 mm to 45 mm</b> in layers not exceeding 300 mm in thickness including breaking of stone boulders to required sizes, filling the interstices with selected sand and compacting to 85 % of original volume of stone stack for all lifts etc. all complete. Payment shall be made for the measurement of the volume of the compacted fill.	CUM	<b>7100</b>	0.01655660
B1801	Providing and Filling in trenches, plinths, area paving and other underground structures with graded stone aggregate of size range 63 mm to 45 mm in layers not exceeding 200 mm in thickness including breaking of stone boulders to required sizes, filling the interstices with selected sand and compacting to 85 % of original volume of stone stack for all lifts etc. all complete. Payment shall be made for the measurement of the volume of the compacted fill.	CUM	<b>300</b>	0.00066645
1802	Providing and mixing approved <b>Bipolar Concrete penetrating Corrosion inhibiting admixture</b> in concrete as per detail specification of manufacturer etc. all complete.	Kg	<b>1</b>	0.00000018
1803	Anti termite chemical treatment of soil with <b>Chlorpyrifos/Lindane E.C. 20% with 1% concentration</b> conforming to IS:8944 and as per IS 6313 all complete. (Plinth area of building at ground floor only shall be measured for payment)	SQM	<b>5200</b>	0.00085655
1804	Transportation and installation of approved <b>25mm thick vibration damping resilient pads</b> on/around foundation of vibrating equipment and at other locations all complete.	SQM	<b>55</b>	0.00002728
A1805	Providing 50mm thick <b>premix carpet surfacing</b> laid to slope in two layers 30mm and 20mm respectively with 12mm downgraded stone chips mixed with 80/100 grade bitumen @ 52 Kg/Cu.M including compaction etc. all complete. Tack coat of hot bitumen at the rate of 1kg/sqm shall be uniformly applied in between the layers by means of sprayers as per specification.	SQM	<b>250</b>	0.00008659

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1806	Providing 50mm thick <b>anti corrosive layer</b> laid to required slope consisting of clean & well graded coarse sand mixed with A90 grade bitumen for softening point upto 45 degree Celcius or A65 grade bitumen for softening point above 45 degree celcius as per IS: 73 or its equivalent quality 8 to 10% by volume and rolled or compacted all complete.	SQM	<b>251</b>	0.00022527
1807	Providing and fixing <b>G.I strips</b> minimum 1.5mm thk and 150mm wide including fixing accessories etc. all complete.	Kg	<b>201</b>	0.00003311
1808	Providing and fixing <b>aluminium strips</b> minimum 18 SWG thk and 300mm wide over expansion joints with minimum lap of 50mm length including brass / aluminium screws, rawl plugs etc. all complete.	Kg	<b>201</b>	0.00010523
1809	Providing Chemical injection grouting with pressure pump for <b>water retaining concrete structures</b> conforming to IS:6494, including fixing nozzles, cost of approved cement, admixture, curing etc. all complete . Payment shall be made as per the consumption of chemical grout.	Kg	<b>150</b>	0.00002471
1810	Transporting, laying and fixing <b>rails and guide rails in concrete</b> for transformer, rail track including cutting of rails, joining of rails, anchoring lugs etc all complete.	MT	<b>36</b>	0.00087370
1811	Providing and fixing <b>weep holes</b> in Drains consisting of <b>100 mm dia HDPE pipe sleeves</b> with single side covering for the pipe mouth with galvanised welded wire fabric of 20 mm sq. opening covered with 40 mm downgraded aggregates in 300 X 300 mm sq. and 300 mm deep size all complete.	EACH	<b>700</b>	0.00023684
1812	Laying of <b>earthing mats/rods</b> including risers, transportation from yard stores, loading, unloading, cutting to length, welding, protective painting of joints etc. all complete. (Excavation & Back filling shall be paid separately under respective item of earth work. Earthing mats/rods shall be supplied by BHEL free of cost)	MT	<b>51</b>	0.00067392
1813	Providing <b>Earthing pit</b> as per drawing with charcoal & salt, GI pipes, GI earth electrodes, GI wire, GI strips, brick chamber with covers including associated earthwork etc. all complete.	EACH	<b>10</b>	0.00008259

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1814	Construction of below ground earthing system test pits as per drawing/ sketches including brickwork, plaster, concreting, reinforcement, formwork, Providing & fixing GI strips/pipes, GI wires, covers etc as per drawing & specification including associated earthwork.	EACH	10	0.00011012
1815	Providing and fixing <b>GI rungs</b> in concrete/brick walls having zinc coating of <b>minimum 900 g/sqm</b> etc. all complete.	Kg	625	0.00010295
1816	Fixing PVC <b>pressure release valve</b> of minimum dia 90mm in water retaining structure including 160 mm dia housing pipe of minimum length 3.75 m with perforation as per IS4558, nylon jali, perforated end plug, collar, graded filter, excavation, fixing in concrete slab/wall etc. all complete.	EACH	200	0.00079285
1817	Fixing <b>HDPE pipes in</b> concrete/ brick work of following sizes including cutting, fixing and levelling in position etc. all complete.			
a	Upto 75 mm dia	RM	1	0.00000008
b	100 mm dia	RM	1	0.00000010
c	150 mm dia	RM	501	0.00007949
d	200 mm dia	RM	501	0.00014065
1818	Providing and laying dry <b>stone pitching</b> of <b>230 mm</b> thickness for slope protection in <b>cement mortar 1:6</b> including hammer dressing, raking of joints, pointing, preparing the bedding surface and voids filling with stone aggregate etc. all complete.	SQM	25	0.00006520

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1819	Transportation and erection of <b>stoplog gates in CW Pumps</b> with embedments required, lifting beams, special tools & plants, spare parts for three years, machining, casting, all materials such as structural steel, cast steel, stainless steel, brass used for seals, rubber seals, gears, ball and roller bearing, branch bushings, greasing, bolts, nuts, lugs, threaded fastners etc., cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc 750 gms/sqm., following by an application of etching primer and dipping in black bitumen as per B.S. 3416, erection along with a second stage concreting to true plumb and levels, submission of drawings / fabrication drawings for engineers approval etc all complete. The leakage through rubber seal shall not be more than 5 lit/min/metre length of seal under maximum head.(only weight of structural steel including embedments shall be considered for payment purpose) (SS component shall be measured separately for payment)	MT	<b>70</b>	0.00267192
1820	SS component mentioned under ST No. 1819.	MT	<b>10</b>	0.00077864
1821	Transportation and erecting in position and testing / examining bolted and / or welded structural steel work for <b>stationary screens</b> made out of rolled sections and / or plates including cutting, straightening if required, edge preparation, bolting / welding of joints, cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc as 750 gms./sqm. followed by application of an etching primer and dipping in black bitumen as per BS 3416 etc all complete.	MT	<b>60</b>	0.00209017
1825	Supply and laying approved quality Stone aggregate 40mm size in transformer yards.	CUM	<b>5</b>	0.00001214
1826	Supply and laying approved quality rounded pebbles / gravels of 40mm size in transformer yards.	CUM	<b>305</b>	0.00074056
1827	Supply and laying fire clay refractory brick work with fire clay mortar conforming to IS: 6 & 195 including curing etc. all complete on tank pads & in building walls.	CUM	<b>5</b>	0.00002312

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
1828	Dismantling old existing reinforced/non-reinforced brickwork/blockwork/stone masonry work in mud/lime/ cement mortar at any level including clearing/cleaning, stacking the serviceable materials at plant site and disposal of unserviceable materials within a lead upto1km all complete.	CUM	51	0.00002529
1829	Dismantling old existing plain/re-inforced concrete work at any level including clearing/cleaning, stacking the serviceable materials at plant site and disposal of unserviceable materials within a lead upto 1km all complete.	CUM	51	0.00004214
A1829	Rebate over ST No. 1828/ 1829 for taking into account the deemed cost of all serviceable material which bidder will be getting out of it by taking them outside plant for bidder's purpose instead of stacking at plant site.	CUM	50	0.00038540
1830	Dismantling old existing structural steel work at any level including plates, bolts, cutting rivets, welding, dismembering and stacking the dismantled materials within a lead upto 1km etc all complete.	MT	51	0.00039311
A1834	Providing and fixing aluminium angle nosing with minimum 50x25x3 angle for edge protection of RCC stairs including jigs and fixtures all complete.	MT	5	0.00015582
A1835	Anti weed chemical treatment of soil with suitable chemical etc all complete.	SQM	500	0.00015582
A1836	Providing and fixing sliding layer of bitumen paper or craft paper over the screed layer for water retaining structures to destroy the bond between the screed and the base slab concrete of the water retaining structure etc all complete.	SQM	8500	0.00264889
A1837	Supply and fixing of bar screen of 5 mm square M. S. bar at inlet point of Rain water collecting tanks with 50 mm X 50 mm opening etc all complete	SQM	10	0.00000490
A1838	Making 250mm dia bore hole up to a maximum depth of 20 m below ground level in all types of rocks including all equipments, tools & plants, lowering casing pipes, bentonite slurry, removal of casing pipes etc. complete in all types of soil.	RM	400	0.00032054
A1839	Supply & fixing 150mm dia perforated PVC pipe ISI mark 6 Kg/ cm2 with air vent at top as per the drawing & specification complete.	RM	150	0.00010017
A1840	Providing & fixing 150 dia PVC pipe ISI mark 6 Kg/cm2 as per specification.	RM	300	0.00018030

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A1841	Supply & packing uniformly 6mm to 3mm size gravel in the bore hole surrounding the perforated PVC pipe.	CUM	50	0.00008013
A1842	Supply & packing uniformly downgraded 40mm size gravel at all depth in the well dug for rain water harvesting.	CUM	50	0.00007568
A1843	Supply & packing uniformly downgraded 40mm size pebbles at all depth in the well dug for rain water harvesting.	CUM	300	0.00048081
A1844	Supply & laying 300mm thick coarse sand layer at all depth in the well dug for rain water harvesting.	CUM	1100	0.00102839
A1845	Providing 3 tier Racking System in store including installation etc. all complete as per specification. (refer clause 18.03.00, Technical Specification Section – VI, Vol – II F Bid Doc. No. : CC&M-C-347-211, Civil - Section 1 (Tech. Spec.), Page 103 of 117)	L.S.	1	0.00044412
A1846	Basin cleanig and conducting water tightness test as per IS:3370 etc. all complete as per directions of Engineer-In-Charge. Cost to include all rectification measures such as pressure injection grouting etc complete in order to pass water tightness test. Measurement shall be for each basin compartment.	EACH	2	0.00088825
A1848	Supply and Fixing of lightning arrester over structure/building in any level/any location including laying & fixing of earthing strip from earthing pit to Lighting arrester as per IS standard 3070 or any relevant IS standard	Each	8	0.00010685
<b>2000</b>	<b>FENCING AND GATES</b>			
	<b>Fencing and gates including all labour, material (unless otherwise specified in BOQ/contract specification), equipment etc at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2001	Supplying and erecting in position <b>2.4 m high PVC coated gavanised chain linked fencing</b> of minimum <b>8 gauge</b> (including PVC coating ) of mesh size 75mm x 75mm. The diameter of the hot dip galvanised steel wire for chain link fencing excluding PVC coating shall not be less than <b>12 gauge. GI barbed wire fencing of height of 600 mm</b> confirming to IS 298 at top of chain link fencing shall be provided with 4 strands of barbed wire hot dip galvanised wire of 12G comprising of 2 ply of wires with barbs of 16G spaced at 100mm. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts, accessories etc. all complete. (Structural post shall be separately under item 2007)	RM	<b>100</b>	0.00026712
A2001	Supplying and erecting in position <b>2.4 m high above toe wall PVC coated gavanised chain linked fencing</b> of minimum <b>8 gauge</b> (including PVC coating ) of mesh size 75mm x 75mm. The diameter of the hot dip galvanised steel wire for chain link fencing excluding PVC coating shall not be less than <b>12 gauge</b> . (Toe wall and Fence post to be paid separately)	RM	<b>100</b>	0.00026712
2002	Supplying and erecting in position <b>2.4 m high gavanised chain linked fencing</b> conforming to IS 2761 of <b>10G</b> hot dip galvanised steel wires woven in the form of zig-zag mesh giving an opening size of 50 mm square. <b>GI barbed wire fencing of height of 600 mm</b> confirming to IS 298 at top of chain link fencing shall be provided with 4 strands of barbed wire hot dip galvanised wire of 12G comprising of 2 ply of wires with barbs of 16G spaced at 100mm. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts, accessories etc. all complete. (Structural post shall be separately under ST No. 2007)	RM	<b>100</b>	0.00044519

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2003	Supplying and erecting in position <b>2.4 m high PVC coated gavanised chain linked fencing</b> of minimum <b>8 gauge</b> (including PVC coating ) of mesh size 75mm x 75mm. The diameter of the hot dip galvanised steel wire for chain link fencing excluding PVC coating shall not be less than 12 gauge. <b>Concertina of height of 600 mm</b> at top of chain link fencing shall be provided with all accessories. Concertinal shall be from tensile serrated galvanised wire (HTSW) made with wire diameter of 2.5 mm which will be stretched to 6m and attached on two strands of galvanised HTSSW (high tensile spring steel wire) of 2.5mm dia by means of clips at 1m interval. These two HTSSW strands will be attached to the fence posts/ angles with 12 mm security fasteners. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts etc. all complete. (Structural post shall be separately under ST No. 2007)	RM	151	0.00016766
2004	Supplying and erecting in position <b>2.4 m high gavanised chain linked fencing</b> conforming to IS 2761 of 10G hot dip galvanised steel wires woven in the form of zigzag mesh giving an opening size of 50 mm square. <b>Concertina of height of 600 mm</b> at top of chain link fencing shall be provided with all accessories. Concertinal shall be from tensile serrated galvanised wire (HTSW) made with wire diameter of 2.5 mm which will be stretched to 6m and attached on two strands of galvanised HTSSW (high tensile spring steel wire) of 2.5mm dia by means of clips at 1m interval. These two HTSSW strands will be attached to the fence posts/ angles with 12 mm security fasteners. Cost to include for GI hook bolts, rings & washers, hot dip galvanised tension wires, 25X6 mm GI flat stretcher bar at end posts etc. all complete.	RM	1	0.00000445
2005	Supplying and fixing <b>600mm high G.I. barbed wire fencing on top of boundary wall</b> consisting of min. <b>6 nos.</b> strands of barbed wire hot dip galvanised wire of 12G comprising of 2 ply with barbs of 16G spaced at 100mm including GI clips, anchors, accessories etc. all complete. (Structural post shall be separately under ST No. 2007)	RM	1	0.00000445

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2006	Supplying and fixing <b>600mm high concertina on top of boundary wall</b> including GI tension wires, clips, anchors, accessories etc. all complete. Concertinal shall be from tensile serrated galvanised wire (HTSW) made with wire diameter of 2.5 mm which will be stretched to 6m and attached on two strands of galvanised HTSSW (high tensile spring steel wire) of 2.5mm dia by means of clips at 1m interval. These two HTSSW strands will be attached to the fence posts/ angles with 12 mm security fasteners. (Structural post shall be separately under ST No. 2007)	RM	<b>201</b>	0.00003257
A2006	Supplying and fixing <b>600mm high concertina on top of boundary wall</b> as per specification with Y shaped MS angle (maximum loop spacing of 125mm) including GI tension wires, clips, anchors, accessories, embedded plates etc. all complete. Concertina shall be from tensile serrated galvanised wire (HTSW) made with wire diameter of 2.5 mm which will be stretched to 6m and attached on two strands of galvanised HTSSW (high tensile spring steel wire) of 2.5mm dia by means of clips at 1m interval. These two HTSSW strands will be attached to the fence posts/ angles with 12 mm security fasteners. All nuts, bolts, fasteners, clamping strips, clamps, clips etc. shall be galvanized(@610 gm/sq.m.).	RM	<b>2400</b>	0.00038892
2007	Supply and fixing of hot dip galvanised mild steel posts for fencing. Rate of zinc coating shall not be less than 710 g/m2 on steel posts.	MT	<b>16</b>	0.00146232
A2007	Supply and fixing of pre- cast R. C. C. of minimum M20 grade Fence posts as per specification all complete.	CUM	<b>1</b>	0.00000490
2008	Supply, fabrication and fixing of mild steel posts for fencing including painting etc all complete.	MT	<b>1</b>	0.00007157
2009	Supply, fabrication and installing in position and testing <b>galvanised MS Gates</b> out of channels, joists, angles, flats, plates, pipes, welded steel wire mesh & sheets including stiffeners, bracings, fabricated hinges, MS Aldrops with locking arrangement, tempered steel pivot, guide track of MS Tee, bronze aluminium ball bearing arrangements, castor wheels, paintings etc. all complete.	MT	<b>2</b>	0.00023124

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2010	Supply, fabrication and installing in position and testing <b>MS Gates</b> out of channels, joists, angles, flats, plates, pipes, welded steel wire mesh & sheets including stiffeners, bracings, fabricated hinges, MS Aldrops with locking arrangement, tempered steel pivot, guide track of MS Tee, bronze aluminium ball bearing arrangements, castor wheels, paintings etc. all complete.	MT	4	0.00038320
A2011	Supply, fabrication and installing in position <b>Cantilever type motorized sliding MS gate</b> of approved size and design, erecting and fixing at main entrance including all guides, rails, alignments, control panels, switches, paintings etc all complete as per specification and as directed by Engineer. Gate latches shall be arranged for padlocking with the padlock accessible from both sides of the gate.	MT	11	0.00115918
A2012	Supply, fabrication and installing in position <b>Motorized sliding MS</b> gate of approved size and design, erecting and fixing at main entrance including all guides, rails, alignments, control panels, switches, paintings etc all complete as per specification and as directed by Engineer. The gate shall be operable by push button at designated areas at both the guard house and the security office in the Administration / Plant Service area, and by card reader or key switches	MT	11	0.00107932
A2013	Supply, fabrication and installing in position wicket gate of approved size and design, erecting and fixing including all fittings, fixtures, paintings etc all complete as per specification and as directed by Engineer.	MT	1	0.00009812
<b>2100</b>	<b>WATER SUPPLY</b>			
	<b>Water supply work including men, material, equipment etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
2101	Providing and fixing in position tested heavy duty type <b>chromium plated (CP) brass long neck bib cocks</b> including sockets, union, nuts etc all complete - <b>15mm</b> nominal bore.	EACH	51	0.00006176
2102	Providing and fixing in position heavy duty <b>brass stop cock</b> of approved quality including all specials etc all complete - <b>15mm</b> nominal bore.	EACH	86	0.00005215
2103	Providing and fixing in position heavy duty <b>brass full way valve</b> with wheel of approved quality including all specials etc all complete for following sizes:			
a	25mm nominal bore.	EACH	24	0.00003171
b	50mm nominal bore.	EACH	24	0.00006607

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2104	Providing and fixing <b>GI pipes class B medium class</b> conforming to IS:1239 pipes shall be concealed and painted with anticorrosive paint, <b>complete for internal works</b> with GI sockets, unions, elbows, tees, nipples etc and clamps including cutting and making good the walls etc all complete for following sizes:			
a	15 mm nominal bore.	RM	<b>101</b>	0.00002446
b	20 mm nominal bore.	RM	<b>301</b>	0.00007960
c	25 mm nominal bore.	RM	<b>150</b>	0.00004461
2105	Providing and fixing <b>GI pipes class B complete for external work</b> with GI sockets, unions, elbows, tees, nipples etc including trenching & refilling, anti-corrosive paint etc all complete for following sizes:			
a	15 mm nominal bore.	RM	<b>101</b>	0.00002671
b	20 mm nominal bore.	RM	<b>101</b>	0.00002896
c	25 mm nominal bore.	RM	<b>101</b>	0.00003228
d	50 mm nominal bore.	RM	<b>200</b>	0.00009919
2106	Providing and fixing 610mmx453mmx6mm thk mirror from reputed mirror manufacturer. Mirror shall be mounted with glass adjustable revolving CP brackets with CP screws etc all complete.	EACH	<b>32</b>	0.00006342
A2106	Providing and fixing <b>wall to wall mirror( 5.5 mm thick float glass) with bevelled edges including all fittings</b> in toilet from reputed mirror manufacturer. Mirror shall be mounted with CP brass screws, washers etc all complete.	SQM	<b>25</b>	0.00004955
2107	Providing and fixing 610mmx127mmx6mm thk clear glass with C.P Guard rails and mounted on C.P. brackets etc all complete.	EACH	<b>26</b>	0.00004294
2108	Providing and fixing 25 mm diameter stainless steel towel rails (600mm X 25mm) all complete.	EACH	<b>12</b>	0.00000330
A2108	Providing and fixing 25 mm diameter stainless steel towel rails (600mm X 20mm) all complete.	EACH	<b>31</b>	0.00000853
2109	Providing and fixing 20mm dia chromium plated M.S. pipes wall mounted towel rod with C.P. Brackets etc all complete.	EACH	<b>21</b>	0.00000636

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2110	Providing and fixing C.P. soap holder mounted with C.P. screws etc all complete.	EACH	36	0.00001090
2111	Providing and fixing stainless steel / C.P. <b>liquid soap dispenser</b> . Dispenser shall be round and easily revolving with removable threaded nozzle and mounted on C.P. brackets etc all complete.	EACH	42	0.00001156
2112	Providing and fixing glazed vitreous wall mounted <b>paper holder</b> with suitable cover cum cutter fitted with CP screws etc. all complete.	EACH	42	0.00001156
2113	Providing and fixing <b>chromium plated brass shower</b> rose with 15 or 20 mm inlet all complete.	EACH	17	0.00000654
A2113	Providing and fixing of <b>heavy quality shower rose of chromium plated brass with flat bottom, of dia 100 mm or with uniform perforation</b>	EACH	10	0.00000385
2114	Providing & fixing in position <b>P.V.C. water tank</b> of Syntex or approved equivalent including making all necessary inlet & outlet pipes, fixture, ball cocks, valves etc all complete for following capacities. GI pipes shall be paid separately under ST No. 2105.			
a	1000 litres capacity	EACH	6	0.00006607
b	2000 litres capacity	EACH	5	0.00012113
c	5000 litres capacity	EACH	4	0.00014301
2115	Providing and fixing approved <b>stainless steel sink with integrated drainboard</b> as per IS:13983 of size 915x460x178mm with CI brackets, stainless steel chain with rubber plug 40mm, cp brass waste trap with necessary union complete including painting the fittings, cutting and making good the wall where required etc. all complete.	EACH	6	0.00002512
<b>2200</b>	<b>SANITARY WORKS</b>			
	<b>Sanitary work including all labour, material, equipment etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2201	Supply and fixing <b>glazed vitreous china Wash Basin</b> conforming to IS:2556 part 4 of oval shape with R.S. or C.I. brackets painted white, 15mm chromium plated brass hot & cold faucets with nylon washers, chromium plated brass chain with rubber plug, 32mm chromium plated brass bottle trap and waste of standard pattern, 32mm dia chromium plated brass trap unions, plastic connection pipe with chromium plated nuts, fittings, cutting and making good the walls where required etc all complete.			
a	White	EACH	13	0.00007873
b	Colored	EACH	42	0.00025437
2202	Providing and fixing approved vitreous china <b>laboratory sink of size 600x400x200mm conforming to IS:2556 (part-5)</b> with R.S. or C.I. brackets, chromium plated brass chain with rubber plug 40mm, CP brass waste and 40mm CP brass trap with necessary union complete including painting the fittings, cutting and making good the wall where required etc. all complete.	EACH	4	0.00002863
2203	Providing and fixing stainless steel kitchen sink of size 610x510x200mm conforming to IS: 13983 including all fittings etc. all complete.	EACH	17	0.00008423
2204	Providing and fixing <b>colour glazed vitreous china European type water closet conforming to IS:2556</b> with siphon, open front solid plastic seat and plastic cover, low level 12.5 litre PVC flushing cistern (same colour as WC) with valveless fittings, necessary C.P connections etc all complete.			
a	Floor mounted	EACH	18	0.00008919
b	Wall mounted	EACH	17	0.00008423
2205	Providing and fixing <b>colour glazed vitreous indian type Orissa pattern (580x440mm) water closet</b> conforming to IS:2556 part 3 with all fittings including foot rests, low level 12.5 litre PVC flushing cistern with valveless fittings, necessary C.P connections etc all complete.	EACH	18	0.00007929
2206	Providing and fixing white <b>flat back glazed vitreous china urinals</b> of size 440x265x355 mm with photo voltaic control flushing system as per IS:2556 (part 6, section 1) with flush pipes, lead pipes, gratings, traps and necessary C.P. fittings etc. all complete.	EACH	63	0.00045094

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2207	Supply, laying and jointing UPVC pipes of class 3 as per IS:4985 including bends, branches and all other necessary fittings, M.S holder bats/clamps, cutting and making good the walls and floors, jointing, testing etc all complete for following.			
a	75mm dia pipes	RM	310	0.00026277
b	110mm dia pipes	RM	510	0.00061394
c	160mm dia pipes	RM	120	0.00021861
d	200mm dia pipes	RM	10	0.00001863
2208	Providing, laying light duty non pressure <b>NP3 class RCC pipes</b> with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc all complete for following.			
a	200mm dia	RM	600	0.00036381
b	300mm dia	RM	330	0.00035817
c	450mm dia	RM	30	0.00004461
d	600mm dia	RM	30	0.00007444
e	900mm dia	RM	30	0.00014203
A2208	Providing, laying non pressure <b>spun CI pipes</b> with collars including jointing, testing of joints etc all complete for following.			
a	200mm dia	RM	515	0.00068782
b	300mm dia	RM	215	0.00030151
c	450mm dia	RM	15	0.00002314
b	600mm dia	RM	15	0.00002545
e	900mm dia	RM	15	0.00002801
2209	Providing, laying light duty non pressure <b>NP2 class RCC pipes</b> with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc complete for following.			
a	150mm dia	RM	15	0.00000797
b	250mm dia	RM	15	0.00000959
c	300mm dia	RM	15	0.00001316
d	500mm dia	RM	65	0.00008525

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2210	Providing, laying light duty non pressure <b>NP4 class RCC pipes</b> with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc complete for following:			
a	450mm dia	RM	1	0.00000187
b	600mm dia	RM	50	0.00012639
c	900mm dia	RM	1	0.00000461
2211	Providing and fixing <b>C.I Manhole heavy duty cover of size 600mmx450mm</b> including frame from reputed manufacture etc. all complete.	EACH	5	0.00002455
2212	Providing and fixing <b>circular heavy duty C.I. manhole cover of 600 mm dia</b> with frame etc. all complete.	EACH	25	0.00023424
2213	Providing and fixing <b>square mouth S.W Gully trap</b> grade 'A' complete with CI grating, brick masonry chamber and water tight CI cover with 300x300mm (inside). The weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg etc all complete for following sizes:			
a	100x100mm P or S Type.	EACH	2	0.00000347
b	150x100mm P or S Type.	EACH	65	0.00012264
c	150x150mm P or S Type.	EACH	15	0.00003028
2214	Providing and fixing <b>square mouth S.W Gully trap</b> grade 'A' complete with CI grating, brick masonry chamber and water tight CI cover with 300x300mm (inside). The weight of cover to be not less than 4.53 Kg and frame to be not less than 2.72 Kg etc all complete for following sizes:			
a	100x100mm P or S Type.	EACH	2	0.00000264
b	150x100mm P or S Type.	EACH	15	0.00002807
c	150x150mm P or S Type.	EACH	15	0.00003717
2215	Providing and fixing <b>C.I. floor traps with C.P jalli</b> all complete.	EACH	95	0.00007850
2216	Providing and fixing <b>heavy duty UPVC floor traps with C.P jalli</b> all complete.	EACH	32	0.00003348
2217	Providing and installing approved brand single tap <b>water cooler</b> of <b>80 L</b> cooling capacity all complete.	EACH	2	0.00010461
2218	Providing and installing approved brand single tap <b>water cooler</b> of <b>150 L</b> cooling capacity all complete.	EACH	19	0.00198756

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2219	Providing and fixing white vitreous <b>urinal partitions</b> of size 675x325x85mm all complete.	EACH	<b>32</b>	0.00008810
A2219	Providing and fixing 18 mm thick white marble <b>urinal partitions</b> of size 600x1200mm all complete.	EACH	<b>20</b>	0.00005506
2220	Providing and fixing eye and face drinking water fountain (combined unit with receptacle conforming to IS: 10592) all complete as per specification.	EACH	<b>2</b>	0.00016517
<b>2300</b>	<b>STRUCTURAL STEEL</b>			
	<b>Structural steel works including all labour, material, equipments, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A2301	<p>Transportation, fabrication and erection of <b>structural steel with mild steel rolled section / built up section / combination of both</b> conforming to IS:2062, pipes conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, 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 <b>including blast cleaning of steel structures to near white metal surface(Sa 2 1/2 ), 2 coats of primer &amp; touch up panting as per requirement and item No.2302/A2302 (Cost of primer , blast cleaning and touch up painting shall be paid separately in item No.2302/A2302) ,</b> connection design &amp; 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 &amp; nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating (min preheat and interpass temperature of 20o C for welding over 20 mm and upto 40 mm &amp; 66o C for welding over 40 mm and upto 63 mm &amp; 110o C for thickness over 63 mm &amp; use of low hydrogen/ radiogenic electrodes), 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 as per IS:1477 part 1, 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. Including appointment of a seperate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.( <b>Item also includes submission of optimized cutting plan as per fabrication drawing and stacking of cut pieces/scrap steel as per sizes for easy retrieval for further use).(STRUCTURAL STEEL WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b></p>	MT	1780	0.03577081

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B2301	Bolted Erection of structural steel of mild steel/High strength steel rolled section / built up section / combination of both conforming to IS:2062, pipe sections] true to line, level, plumb & dimension, rectification if any, and assembly, installation of erection/connection bolts and application of final finish paint coat(Payment for <b>final finish paint coat</b> shall be made separately as per Item No. <b>C2304</b> ) as per approved drawing, specification and approval of engineer in charge. Erection joints shall be mostly bolted with HSFG bolts/washer/nut, which will be paid separately under item BOQ. Erection bolts shall be arranged by the bidder and is not payable. the work shall be satisfactorily completed with required tightening of HSFG bolts along with DTI (DIRECT TENSION INDICATOR) washers to be supplied by the bidder(Cost of DTI washer isincluded in this item and not payable separately). Welding required for erection/seating shall be included in this item. The prefabricated structure shall be supplied in variable length to the maximum length of 10 meters -12 metersand all erection work on ground or at any elevation is included in this item. Payment shall be made for weight of permanent structure, HSFG nuts, bolts & splice plate, DTI washers, gusset plates, stiffeners but not for erection bolts & nuts, etc.	MT	7670	0.07031389
2302	Extra over ST NO. 2301 for <b>blast cleaning of steel structures</b> to near white metal surface(Sa 2 1/2 ) and applying epoxy based zinc phosphate primer in coats of minimum 25 micron (DFT) at shop and 25 micron (DFT) after erection <b>including touch-up painting</b> etc all complete.	MT	1	0.00000272

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
A2302	Extra over ST NO. <b>A2301</b> for blast cleaning of steel structures to near white metal surface(Sa 2 1/2 ) and two component self curing Inorganic Zinc ethyle Silicate Primer Coat (Solid by Volume Minimum 62+2% and Zinc Dust %age on dry film minimum 80%).Zinc dust pigment shall conform to ISO 3549 and Zinc dust pigment content shall be determined in accordance with ASTM D 2371. Minimum Dry Film Thickness (DFT) of primer coat shall be 60 Micron. It shall be applied over shot blast cleaned surface to near white metal finish conforming to Sa 2 ½ finish of Swedish standard SIS-05-5900 and shall have profile of 20 to 30 micron. The Primer Coat shall be applied in Shop immediately after blast cleaning by Airless spray technique. including touch-up painting etc all complete as per specification.	MT	<b>1780</b>	0.00484499
2304	Providing and applying two coats of <b>synthetic enamel paint</b> 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 110 microns including protection and cleaning, scaffolding etc. all complete.	MT	<b>1</b>	0.00000232
A2304	Providing and applying Intermediate Coat of Polyamide Cured pigmented Micaceous Iron Oxide (MIO content minimum 30%) Epoxy based Paint (Solid by Volume Minimum 62+2%) of Minimum 75 Micron DFT at shop by Airless spray technique of approved make and shade to achieve an even shade over steel sections already having primer coats including touch-up painting etc all complete as per specification.	MT	<b>1780</b>	0.00141530
B2304	Providing and applying Finish Coat of Polyamide Cured colour pigmented Epoxy based Paint (Solid by Volume Minimum 60%) of Minimum 75 Micron DFT by brush/Airless spray technique before/after erection of approved make and shade to achieve an even shade over steel sections already having intermediated coats including touch-up painting, protection, cleaning, scaffolding etc all complete as per specification.	MT	<b>1780</b>	0.00144066

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
C2304	Providing and applying Final Finish Coat of Polyurethane based colour pigmented Paint (Solid by Volume Minimum 55+2%) of Minimum 50 Micron DFT by brush/Airless spray technique after erection of approved make and shade to achieve an even shade over steel sections already having finish coats including touch-up painting, protection, cleaning, scaffolding etc all complete as per specification.	MT	<b>9450</b>	0.00884325
2305	<b>Providing and applying two coats of epoxy based colour 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 110 microns including protection and cleaning, scaffolding etc. all complete.</b>	MT	<b>1</b>	0.00000292
2306	Providing, laying and clamping of <b>crane rails</b> over the crane girder at all elevations as per IS 3443 including all fixtures, clamps, testings etc. all complete as per drawing and specification.	MT	<b>10</b>	0.00098387
2307	Transportation, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel (having minimum galvanisation of 610 g/sqm) conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete. (Bolts, nuts, washers shall be paid separately under item 2310 & 2311 as applicable)	MT	<b>215</b>	0.00591477
2308	Transportation,, fabrication, erection and alignment of factory made <b>galvanised welded grating units</b> with mild steel conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including 2 coats of redoxide zinc-chromate primer (one coat at shop and one coat after erection), fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	MT	<b>15</b>	0.00033306

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2309	Extra over above ST NO. 2301/2307 for <b>finishing the grating units</b> with hot dipped galvanisation @ 610 gm/sqm over blast cleaned steel surfaces instead of painting with two coats of red oxide zinc-chromate primer all complete.	MT	<b>16</b>	0.00040523
2310	Transporting and fixing in position of permanent mild steel bolts (class 4.6 as per IS : 1367 and grade `C' as per IS: 1363) and nuts, washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work etc all complete.	Quintal	<b>30</b>	0.00005221
A2311	<b>Fixing of high strength structural bolts</b> (of property class 8.8/10.6 and product grade `C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.	Quintal	<b>255</b>	0.00133718
2312	<b>Dismantling of steel structure</b> , lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting, re-welding, supporting, and restoring to correct position all temporarily dismantled members, re-alignment of all adjacent connected members to their correct positions ( weight of such adjacent members and temporarily dismantled members not payable), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	<b>30</b>	0.00020480
2313	Addition to, alterations in and/or modification of " <b>Erection Marks</b> " including cutting of parts, gauging of welds, cutting, grinding, fabrication, welding, drilling holes, straightening, removal of bends, raising to the required level, painting, transportation, return of unutilised steel pieces to the project store, temporarily dismantling, cutting, re-welding, supporting and restoring to correct position of all the temporarily dismantled members, realignment of adjacent connected members (weight of such temporarily dismantled and adjacent members not payable) etc all complete for the following:			
a	In erected position	MT	<b>20</b>	0.00017177
b	In fabrication yard	MT	<b>20</b>	0.00015416

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2314	<b>Re-erection of dismantled fabricated structural steel</b> members including carriage of modified "Erection Marks" from the field fabrication shop to erection site, lifting to required position, aligning in position, tack welding, final welding and touch up painting including temporary dismantling and re-erection of temporarily dismantled members, cutting, rewelding, supporting and restoring to the correct position of all temporarily dismantled members, re-alignment of adjacent connected members(weight of such temporarily dismantled members and adjacent members not payable), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	<b>25</b>	0.00028492
A2315	Fabrication and erection of <b>minimum 6mm thick stainless steel liner of grade SS:304</b> on M.S. plate for inside surfaces vertical portion of bunkers including fixing with stainless steel studs, bolting (including countersunk), welding with electrode classification E308L for welding of stainless steel to stainless steel and E309 for stainless steel to mild steel etc. all complete. <b>(STRUCTURAL STEEL WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>	MT	<b>150</b>	0.00612856
2317	Transportation and fixing in position PTFE type sliding bearings of reputed manufacturer, individual bearing suitable for required vertical loads as per the construction drawings and for maximum displacement of $\pm 50$ mm including all taxes, duties, transportation, installation, drilling, bolting, erecting, aligning etc all complete for following vertical loads.			
a	20 Tons	EACH	<b>10</b>	0.00003974
c	40 Tons	EACH	<b>10</b>	0.00006847
d	50 Tons	EACH	<b>10</b>	0.00007163
2318	Providing and fixing flexible open ended bellow strap of neoprene of minimum thickness 2 mm and minimum width 200 mm with aluminium stripped edges as sealing below top of bunker and bottom of tripper floor to avoid the coal dust nuisance all complete.	RM	<b>150</b>	0.00022304
2319	Transporting, fabrication ,fixing ,polishing etc of <b>stainless steel pipe hand railing</b> of <b>38mm</b> dia including SS Accessories ,transportation, loading/unloading etc. all complete..	MT	<b>11</b>	0.00055107

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2320	Supply, fabrication and fixing of <b>GI pipe hand railing (900 mm high)</b> of 32 mm/40 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete..	MT	1	0.00008412
A2320	Fabrication and fixing of <b>GI pipe hand railing</b> of 32 mm/40 mm dia (Medium Grade) with galvanised using 610 gm/sqm of zinc including transportation, loading/unloading, painting etc. all complete..	MT	90	0.00210074
2321	Conducting <b>radiography test on welds</b> wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	60	0.00019157
2322	Conducting <b>ultasonic test on welds</b> wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	60	0.00006934
2323	Conducting <b>ultasonic test on steel plates</b> as per ASTM-A435 or equivalent wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	SQM	60	0.00000411
2324	Conducting <b>magnetic particle test on welds</b> wherever specified including equipments, measuring devices, gauges, test report etc. all complete.	RM	60	0.00005219
2325	Conducting <b>dye penetration test on welds</b> wherever specified by the engineer including provision of necessary equipments, measuring devices, gauges etc. all complete (over and above the work already specified in the specifications.)	RM	60	0.00004098
A2326	Supplying, fabrication, erection and alignment of factory made CI grill units for catch pit including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.	MT	5	0.00033417
2400	<b>ROAD WORKS</b>			
	<b>Providing and placing concrete work including cost of labour, materials and equipment for handling, transportation, batching, mixing, placing, vibrating, shuttering, formwork and curing (excluding cost of reinforcement), with mechanised equipments like batching plant, transit mixer, concrete pump etc. complete as per drawing, specification and as per direction of engineer in charge for the following(Item No 2418 &amp; 2419).(CEMENT WILL BE SUPPLIED FREE OF COST BY BHEL AS PER TCC)</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2401	<b>Preparation of sub grade</b> by excavating earth to required depth for all types of soil, dressing to camber and consolidating the base including making good the undulation etc and disposal of surplus earth within a lead upto 1 km etc. all complete.	CUM	<b>33000</b>	0.00273259
2402	Supplying and <b>filling with selected good earth</b> of approved quality in layers not exceeding <b>300 mm loose thickness</b> using borrowed soil (borrowed soil to be arranged by the bidder) and compacted so as to achieve at least 95 % maximum dry density as per IS-2720 (Part-VII) including royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete.	CUM	<b>5000</b>	0.00166502
2404	Providing & laying <b>water bound macadam sub base course</b> in layers of required thickness with crushed stone aggregates 90 to 40 mm down size, stone screening & blinding material including screening, sorting, spreading to template & consolidation with road roller including carriage, spreading & consolidation of blinding material moorum etc all complete.	CUM	<b>10800</b>	0.01725136
2405	Providing & laying <b>water bound macadam base course</b> in layers of required thickness with stone aggregate 63mm to 40mm size, stone screening and blinding material including screening sorting, spreading to template and consolidation with road roller including carriage, spreading and consolidation of blinding material moorum etc all complete.	CUM	<b>500</b>	0.00079867
2406	Providing & Laying <b>water bound macadam base course</b> with stone aggregate 50mm to 20mm size stone screening & binding material including screening, sorting, spreading to template & consolidation with road roller including carriage spreading & consolidation of blinding material moorum etc all complete.	CUM	<b>3700</b>	0.00640435
2407	Providing & applying <b>tack coat</b> of low viscosity liquid bitumen of grade 80/100 confirming to IS 73, 217 or 454 as applicable @10 kg/ 10 sqm for untreated WBM surface including scraping, cleaning with compressed air etc all complete.	SQM	<b>2000</b>	0.00026712

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2409	Providing, mixing & laying of <b>bituminous macadam course</b> of specified thickness using bitumen of grade 60/70 conforming to IS 73, aggregates and binder material including hot mixing, hot laying, rolling etc all complete for the following.			
a	75mm compacted thickness	SQM	<b>2000</b>	0.00119846
2410	Providing, mixing & laying <b>20 mm compacted thick premix carpet</b> in a single course composed of suitable small size aggregate premixed with bituminous binder using medium setting grade bitumen on a prepared base including mixing, applying, rolling etc all complete.	SQM	<b>2000</b>	0.00080135
2411	Providing and applying <b>liquid seal coat</b> comprising of an application of a layer of bituminous binder using medium setting grade bitumen at the rate of 9.8kg/10sqm followed by a cover of stone chips at the rate of 0.09 cum/10sqm including rolling etc all complete.	SQM	<b>2000</b>	0.00018342
A2412	Supplying and laying <b>450mmx250mmx500mm</b> deep <b>precast concrete kerb stone</b> of grade <b>M-25</b> 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.	RM	<b>7000</b>	0.00186981
B2412	Supplying and laying <b>300mmx250mmx150mm</b> deep <b>precast concrete kerb stone</b> of grade <b>M-25</b> 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.	RM	<b>6100</b>	0.00137956
2415	<b>Dismantling of existing road</b> consisting of premix carpet, kerb stone/ brick on edge, bitumen macadem course, WBM, preparing subgrade to receive new WBM including camber consolidation including disposal of debris within a lead of 1 km etc all complete.	SQM	<b>5900</b>	0.00183864

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2416	Providing 20mm compacted thick <b>premix carpet on existing/damaged</b> road surfaces in a single course composed of suitable small size aggregate premixed with a bituminous binder using medium setting grade bitumen on the existing base including tack coat, cleaning of existing surface, mixing, applying, rolling etc all complete.	SQM	<b>1000</b>	0.00042738
A2417	Providing and laying of plain cement concrete of grade <b>M20</b> using 40 mm graded stone aggregate including providing and fixing formwork, compaction etc. all complete	CUM	<b>300</b>	0.00092742
A2418	Providing and laying <b>cement concrete of grade M35</b> using 20 mm nominal size stone aggregate with approved admixture (if required), provision for necessary joints including compaction, finishing to lines and grades, curing and providing & fixing forwork etc. all complete. (Excluding the cost of reinforcement and dowel bar)	CUM	<b>8000</b>	0.04123545
A2419	Providing & laying dry lean cement <b>concrete of grade M10</b> with 20 mm nominal size graded stone aggregate over a prepared sub-grade including compaction, finishing, curing etc all complete.	CUM	<b>6000</b>	0.02376790
	<b>REINFORCEMENT</b>			
2420	Fixing in position <b>MS dowel bar</b> reinforcement 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. <b>(STEEL WILL BE SUPPLIED BY BHEL FREE OF COST)</b>	MT	<b>60</b>	0.00030259
2421	Providing, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements of <b>TMT steel of grade Fe-500</b> confirming to IS:1786 including cost of binding wire, labour, scaffolding, transportation to & from stores etc all complete as per specification, drawing and as directed by Engineer.	MT	<b>250</b>	0.00126078
2422	Providing, straightening cutting, bending, placing in position at any level, binding in position of steel reinforcement of <b>mild steel reinforcements</b> including cost of binding wire, labour, scaffolding transportation to & from stores etc all complete as per specifications, drawings and as directed by Engineer.	MT	<b>10</b>	0.00005043
	<b>MISCELLANEOUS</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2423	Providing & installation of <b>bitumen impregnated fibre board</b> of specified thickness confirming to IS 1838 as joint filler including nailing, coating of both faces with coal tar pitch/bitumin etc. all complete as per specification, drawing and as directed by engineer.	SQM	<b>1000</b>	0.00032499
2424	Providing and filling in position <b>hot applied bitumen sealing compound (Grade A)</b> of specified thick confirming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints, sealant primer etc all complete as per specification, drawing and as directed by Engineer.	RM	<b>16500</b>	0.00374629
A2426	Providing & laying <b>75 mm thick precast interlocking concrete pavers (Grade M35)</b> of approved colour and pattern as per specification and recommendation of manufacturer.	SQM	<b>15000</b>	0.01425059
A2427	Providing and laying <b>20mm thick sand layer</b> below concrete pavers including compaction etc all complete as per specification, drawing and as directed by Engineer.	SQM	<b>25000</b>	0.00035615
A2428	Providing and laying Impermeable plastic sheeting 125 microns thick laid flat without creases as per IRC 15-2002 etc all complete as per specification, drawing and as directed by Engineer.	SQM	<b>20000</b>	0.00092600
A2429	Providing and laying <b>Inverted Choke with 25 mm course of screenings (Grading-B)</b> over prepared subgrade including compaction etc all complete as per specification, drawing and as directed by Engineer.	CUM	<b>600</b>	0.00308732
B2430	Providing and installation of Variable message signs including Cantilever type MS supports etc. all complete as per drawings, specifications, manufacturer's recommendations, indian standards.	EACH	<b>100</b>	0.00008904
A2431	Scarifying the existing bituminous road surface/tiles to a depth of 50mm by mechanical/manual means including disposal of the scarified materials within 1km lead etc all complete and as directed by the Engineer-in-charge.	SQM	<b>2000</b>	0.00044519
A2432	Scarifying the existing WBM to a depth of 75mm by mechanical/manual means, consolidation/compaction including making good the undulations to receive new WBM layer over the thus prepared surface etc all complete and as directed by the Engineer-in-charge.	SQM	<b>2000</b>	0.00053423
<b>2600</b>	<b>LEVELING ,GRADING &amp; ENABLING WORK</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2601	<b>Cutting of trees having girth more than 300 mm</b> measured at a height of 1m above ground level including removal of roots, stacking the seviceable material like trunks,branches etc at specified area within the plant boundary and disposal of unseviceable parts/materials wwithin a lead upto 1km etc all complete.	EACH	<b>1000</b>	0.00013356
2602	<b>Earth work in stripping</b> of top soil upto a maximum <b>depth of 0.30m</b> below ground level so as to exclude all debris, grass, vegetation, bushes, trees having girth upto 300mm including roots and organic materials etc for leveling and grading including dressing to specified levels & grades and compacting the graded/stripped surface by manual/mechanical means, disposal of stripped materials within a <b>lead upto 1km</b> etc all complete as per specification, drawing and as directed by the engineer-in-charge.	Sq.m	<b>75000</b>	0.00233726
2603	Earth work in excavation upto any <b>depth below ground level in all types of soil</b> including moorum, ash which can be excavated by any means for grading including setting out, levelling, dewatering (wherever required), dressing the sides & bottom, levelling to grade, all lifts, ramming/compacting the excavated bottom/graded surface, stacking/disposal of surplus excavated materials within a <b>lead upto 1km</b> , spreading/levelling of disposed materials etc all complete as per specification, drawing and as directed by the engineer-in-charge.	CUM	<b>27000</b>	0.00257232
2608	<b>Earth work in filling</b> upto any depth below ground level for grading to proper grade and level in layers <b>not exceeding 300mm loose thickness</b> with selected approved soil <b>directly from excavation</b> within a lead upto1km and compacted as specified including dewatering if required, sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete as per specification, drawing and as directed by the engineer for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>7000</b>	0.00057964

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2609	<b>Earth work in filling</b> upto any depth below ground level for grading to proper grade and level in layers <b>not exceeding 300mm loose thickness</b> with selected approved soil from compulsorily <b>excavated soil available within a lead upto 1km</b> and compacted as specified including re-excavation of stacked earth, all lifts, sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing etc all complete as per specification, drawing and as directed by the engineer for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>32000</b>	0.00264978
2610	Extra over <b>ST No. 2601,2602,2603,2608,2609</b> for carriage of unserviceable material/earth for every 1 km or part thereof beyond an initial lead of 1km.	CUM	<b>45000</b>	0.00100168
2611	<b>Earth work in filling</b> upto any depth below ground level for grading to proper grade and level in layers <b>not exceeding 300 mm loose thickness</b> with <b>approved borrowed soil</b> (borrowed soil to be arranged by the bidder) and compacted as specified including supplying boorowed soil, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer for the following.			
a	Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	CUM	<b>40000</b>	0.00804907
b	Each layer compacted so as to achieve at least 75% relative density as per IS-2720 part XIV in case of sandy soils	CUM	<b>5000</b>	0.00193658
A2612	Providing and laying <b>300 mm thick stone pitching</b> including caulking with 1 cement: 4 sand mortar on the slopes of earth fill/cut with approved quality of rock fragments including materials, testing, necessary excavations if any, compaction etc all complete as per specification, drawing and as directed by the engineer.	CUM	<b>3500</b>	0.00623269

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
2613	Consolidation of subgrade/ existing surface with 12 T power roller or vibromax including making good the undulations with earth and rerolling the subgrade for road, hard surfacing of equipment store,fabrication yard, assembly yard etc as directed by BHEL.	SQM	5000	0.00133558
2614	Providing and laying stone/boulder for making road with specified sizes of approved quality hard rock rubble or hand broken hard metal of sizes ranging from 100mm to 200mm, any depths etc in one layers approximately 250mm thickness after compaction, hand packing, filling in interstices with quarry spalls/ moorum and providing a layer of 25mm thickness (consolidated) including watering, thoroughly compacting layer with 12 tonne power roller or vibromax with minimum 8 passes etc all as per the direction of the engineer and as per specification.	CUM	1000	0.00178077
2615	Providing & laying water bound macadam base for hard surfacing of open equipment store, preassembly yard etc in layers of required thickness with stone aggregate 90mm to 45mm size stone screening and binding material including screening, sorting, spreading and consolidation with power road roller 12T including carriage spreading and consolidation of blinding material moorum etc Including cost of material, labour, all complete.	CUM	1000	0.00159735
2616	1.5M high fencing with MS angle post of size 45X45X5/6 mm 2.1 M long post placed every 3M centre to centre embeded in concrete blocks(1:2:4), every 15th post, last but one end post corner post shall be strutted on both sides and post on one side only and provided with 8 horizontal lines and two diagonal sinterwoven with horizontal wires, of barbed wire 9.38 kg per 100 metres (min) between two post fitted and fixed with GI staples turn buckles, angle post shall be embeded in plain cement concrete(1:2:4)size 300x300x600mm deep below ground etc complete including excavation, backfilling, concreting, one coat of primer, two coat of synthetic enamel paint finish. (Contractor will supply all materials including cement, structural steel, paint, labour etc complete.			
A)	For structural angle with two coata of bitumen based protective coating etc complete.	MT	4	0.00027184

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SERVICE PART.
B)	Providing, fitting, fixing galvanised chain link fencing of approved quality 50mmx50mmx8 g, by means of galvanised `C` clips, with fixing of galvanised special clips etc. Contractor to supply all materials. Angle post to be paid separately as per item no 2732 (A).	SQM	3000	0.00080135
C)	For G I barbed with all fixing etc complete.	MT	1	0.00007781
2617	Installation of 30 mtr high lighting mast with head frame, power winch rope ,trailing cable, concrete foundation including bolt, lamps, lighting fixture, controlgear, built in wiring etc complete of make BAJAJ/Crompton Greaves/ Philips/ Havels/ any other BHEL approved vendor make.(Lamp shall be as per 2x400W BGENF 22 R or equivalent make with CG Boxes and Lamps etc complete in all respects -16 Nos). Supply of control panel housing suitable control for the operation of the mast-1 No ( Civil work like excavation, concrete etc will be p[aid separately as per relevant items of BOQ)	set	7	0.00024788
	<b>TOTAL</b>			<b>1.00000000</b>

**VOLUME-III  
PRICE SCHEDULE, REV-03**

**JOB: MAIN PLANT CIVIL & STRUCTURAL WORK INCLUDING MISC. BUILDING, ROAD WORK, LEVELLING & GRADING, FIRE FIGHTING, COOLING TOWER (IDCT), AHP, BOUNDARY WALL AND MISC. FOUNDATIONS/ STRUCTURES AT 1X250 MW ROURKELA PP-II EXPANSION, ODISHA.**

Civil, Structural & Architectural works of Main Power House Building, TG & BFP foundations, Boiler Foundations, Mill Bunker bay ( bowl mill, all floors, roof and bunker supporting structure including coal bunkers), Transformer Yard including fencing & gates, ESP Foundations, ESP Control Room, Mill Reject System, DG System, Pipe and Cable Racks, Compressor House, Admin Building, Fans (PA, FD, ID & seal), Duct Supporting Structures, tank foundation, air washer, CW & CEP Pit , CW thrust block & CW pipe encasing, CST Tank Foundation, ETP sump pits, STP, Permanent store, Fire water pump house, Clarified water storage tank, CW treatment plant, Chlorine dioxide system, Interconnecting & miscellaneous platforms , Plinth protection , Paving and underground works, laying of underground earthing rod, Earth stripping, tree cutting, roads , sewage network, Storm Water Drainage System, plumbing and Sanitary works, rain Water Harvesting, Cooling tower, Levelling & grading, Road works, boundary wall, Miscellaneous foundations for equipment, pump, tanks, fire fighting civil works ,AHP etc. if any etc and any other building/structure/works necessary for completion of project.

**TENDER NO : PSER:SCT: RKL-C1755:16.**

**SCH-3-PART-2-SUPPLY**

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
<b>400S</b>	<b>REINFORCEMENT</b>			
401S	Supplying mild steel reinforcements conforming to grade 1 of IS:432 (part 1 or grade IS-2062) as per specifications & drawings.	MT	<b>37</b>	0.00259190
A402S	Supplying uncoated stress relieved strands (diameter, length, ply and number as per drawing) of minimum 0.2 percent proof load of 32460 N confirming to IS:6006 in precast wall panels, columns etc. complete all as per specifications, drawings and as directed by Engineer.	MT	<b>15</b>	0.00120502
<b>700S</b>	<b>MS EMBEDMENTS</b>			
	Embedments including all labour, material, equipment, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.			0.00000000
A701S	Supply of mild steel embedments, inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. all complete.	MT	<b>60</b>	0.00422199

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
704S	Supply of mild steel foundation bolt assembly conforming to IS:2062 and grade 1 of IS:432 in concrete along with nuts, lock nuts (as per IS:1363, 1364 and IS:3138), washers, anchor plates, stiffner plates, protective tape, pipe sleeves, templates etc. all complete.	MT	60	0.00422199
705S	Supplying 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 complete.			
a	MS pipes of all diameters	Quintal	15	0.00018501
b	PVC pipes / conduits of all diameters	Quintal	105	0.00159198
c	UPVC pipes / conduits of all diameters	Quintal	5	0.00007581
d	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:			0.00000000
i	Upto 250 kg	Each	101	0.00010372
ii	Beyond 250 Kg and upto 500 kg	Each	210	0.00027527
iii	Beyond 500 Kg and upto 750 kg	Each	201	0.00029793
e	Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel:			0.00000000
i	Upto 250 kg	Each	101	0.00011526
ii	Beyond 250 Kg and upto 500 kg	Each	215	0.00031868
iii	Beyond 500 Kg and upto 750 kg	Each	201	0.00033462
900S	<b>DOORS, WINDOWS, VENTILATORS, LOUVERS</b>			
	<b>Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material, equipments, transportation, handling, preparation of working drawings etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
903S	<p><b>Supplying of solid core flush door shutter</b> as per IS 2202 part II, 35mm thick homogenous particle board bonded with BWP type phenolformaldehyde synthetic resin, particle board core conforming to IS 3087 type I, 35x12 mm thick teakwood beading all around including preparation of working drawings. godrej or equivalent make mortice lock with handles on both sides, approved ISI mark anodised fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fittings shall be anodised aluminium color dyed), finish synthetic paint over primer, screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges. (Finish painting paid separately)</p>	SQM	<b>200</b>	0.00138528
904S	<p>Supplying of <b>single or double steel door shutters</b> with <b>45mm thk flush design shutter</b> comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centres including void filled with mineral wool (density as per specification), all fittings, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.</p>	SQM	<b>50</b>	0.00041039
905S	<p>Supplying of <b>single or double steel door shutters</b> with <b>18 gauge M.S. sheets shutter</b> presenting a flush surface on the outside and inside stiffened with semitubular edge and central stiffening rail which shall convey the lock including fixtures, Godrej or equivalent make mortice lock with handle on both sides, shop and final painting etc all complete.</p>	SQM	<b>50</b>	0.00035342

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
906S	Supplying of <b>anodized extruded aluminium doors (single or double shutter)</b> conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent make having minimum 3mm wall thickness as per IS:1285, IS:733 and anodized and electro color coating of required shade as per IS 1868 ( minimum anodized coating of grade AC15 ). fixed with rawl plugs, expansion fasteners,SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. <b>Glazing shall be clear float glass of 6mm thickness</b> including snap fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete. Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately)	SQM	<b>30</b>	0.00014856
A906S	Supplying <b>anodized extruded aluminium doors (single or double shutter)</b> conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent make having minimum 2mm wall thickness as per IS:1285, IS:733 and anodized and electro color coating of required shade as per IS 1868 (minimum anodized coating of grade AC15). fixed with rawl plugs, expansion fasteners,SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. <b>Glazing shall be clear float glass of 6mm thickness</b> including snap fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete. Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately)	SQM	<b>150</b>	0.00067365

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
B906S	Supplying <b>anodised tubular aluminium doors</b> (single or double shutter) conforming to IS:1948, IS:1949 fabricated from extruded sections of HINDALCO/JINDAL or equivalent. The door frame shall be of 101.4mm x 44.6mm and shutter of 50mm tubular extrusions, <b>3mm</b> thick. The opening arrangement shall be single action or double action as shown in drawing with spring hinges in floor. The glazing shall be 5.5mm thick plain glass panes fixed with necessary gaskets and aluminium beading strip. The door shall be provided with one security lock. The shutters shall be provided with 1.6mm thick 300x150mm push plates and 1.6mm thick 300mm wide kick plate of anodised aluminium for full width of door inside and outside. The door frames shall be polished and anodized with approved colour. The average thickness of anodic coating shall not be less than 15 microns as per IS: 1868. Door frame shall be provided with approved anchors @ 90 cm c/c maximum for fixing. (Glazing shall be paid separately)	SQM	150	0.00063604
907S	<b>Supplying of fire proof steel doors</b> (single or double shutter) with panic devices shall be 45mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm on centers including all fittings, shop painting with approved post office/signal red color fire resistant paint and mineral wool insulation (64 kg/cum density) complete and shall be fire proof as per IS:3614, TAC requirements and as per specification. Minimum ratings shall be 2 Hrs.	SQM	50	0.00094355
A907S	<b>Supplying fire proof steel doors</b> (single or double shutter) with panic devices shall be 35mm thk flush design comprising of two outer sheets of 1.2 mm steel sheets rigidly connected and reinforced inside with continuous vertical 1.0 mm stiffeners, spot welded in position at not more than 150mm on centers, side, top & bottom edges of shutters shall be reinforced by continuous pressed steel channel with minimum 1.2 mm, including all fittings, shop painting with approved post office/signal red color fire resistant paint and mineral wool insulation (64 kg/cum density) complete and shall be fire proof as per IS:3614, TAC requirements and as per specification. Minimum ratings shall be 2 Hrs.	SQM	100	0.00180212

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
908S	Supplying of <b>steel windows/ventilator</b> with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision.including all fittings, metal beadings, hold fasts, shop and final painting ,glazing etc. all complete. (Glazing shall be paid separately)			0.00000000
a	<b>openable type</b>	SQM	<b>300</b>	0.00118138
b	<b>fixed type</b>	SQM	<b>150</b>	0.00056608
909	<b>Supplying</b> of anodised aluminium work of Jindal, Hindalco or other equivalent approved make for door frames, windows, ventilators, partitions, railing etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-mettalic protection etc.including preperation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, Providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid seperately).Weight of aluminium section only shall be measure.	Kg	<b>400</b>	0.00023229

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
A909S	<b>Supplying</b> anodised (Electro colour dyed) aluminium work with 15 micron coating thickness of Jindal, Hindalco or other equivalent approved make for door panels, grill, door frames, windows, ventilators, partitions, railing etc with extruded standard tubular and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, anodised and electro color dyed to required shade according to IS 1868 (minimum anodic coating of grade AC15), fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-metallc protection etc.including preparation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid seperately).Weight of aluminium section only shall be measure.	Kg	<b>21000</b>	0.01219541
910S	Design,drawing,Supplying of aluminium composite panel(ACP) of following thickness with PVDF or polyester coating for interior partition of approved shade ,color etc all complete as per specification.			0.00000000
a	3mm	SQM	<b>1</b>	0.00000446
b	4mm	SQM	<b>1500</b>	0.01409523
c	5mm	SQM	<b>401</b>	0.00461682
911S	Supplying of door closers as per IS 3564 ,of approved make & quality all complete of following type :			0.00000000
a	Over head hydraulic door closures	Each	<b>110</b>	0.00023869
b	Floor mounted Hydraulic door closers	Each	<b>60</b>	0.00022156

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
912S	Supplying pressed steel frames fabricated from 16 gauge M.S sheet mortised, reinforced drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars ,paintings etc all complete as per specifications.	Kg	<b>5050</b>	0.00079136
A912S	Supplying pressed steel frames for partition fabricated from minimum 2.0mm galvanized steel sheet pressed to form a profile of nominal size 60mm x 70 mm & fixed to the supporting construction by means of M 10 X 120 or bigger steel bolts at 300mm from the edges & every 500mm c/c etc all complete as per specifications.	Kg	<b>325</b>	0.00005093
913S	Supplying rolling shutter of hot rolled double dipped galvanised steel lath section of 18 SWG tested mild steel strips at 75mm rolling centres interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation including wire springs, top cover, primer & shop coats of approved enamel paint etc, all complete as per IS 6248 and specification of approved make of following types: The bottom lath shall be coupled to a lock plate fabricated from 3mm thick galvanised steel plate and securely rivetted with stiffening angles.(partly coiled and lath/full lath).			0.00000000
a	Hand Operated	SQM	<b>59</b>	0.00026062
b	Mechanically Operated	SQM	<b>345</b>	0.00188141
c	Electrically operated	SQM	<b>209</b>	0.00138173
914S	Supplying of PVC doors(25 thk double skin) of sintex or equivalent make including door frame,all fitting & fixtures as per specification, drawing and instructions of engineer in charge.	SQM	<b>70</b>	0.00026352
A914S	Supplying of <b>solid core FRP doors</b> including door frame, all fitting & fixtures as per specification, drawing and instructions of engineer in charge.	SQM	<b>120</b>	0.00049693
915S	Supply of glazing of first grade class in steel/ aluminium/ wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete as per Specification for the followings			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
a	4 mm thick clear sheet glass	SQM	10	0.00001198
b	4 mm thick clear float glass	SQM	1810	0.00245597
c	5.5 mm thick clear float glass	SQM	10	0.00001515
d	6 mm thick wired glass	SQM	700	0.00117308
e	6mm thick Polycarbonate sheet multi (twin) wall fire retardant and ultra violet resistant with sealed open edges	SQM	10	0.00002970
f	4 mm thick ground glass	SQM	10	0.00000796
g	6 mm thick tinted heat reflecting type float glass	SQM	10	0.00001838
h	6 mm thick clear toughened safety glass	SQM	710	0.00156682
i	Two nos. 6 mm thick clear toughened float glass hermetically sealed and separated by 12 mm thick air gap for thermal insulation (only single elevation area to be measured)	SQM	210	0.00086103
j	Two nos. 6 mm thick tinted toughened float glass hermetically sealed and separated by 12 mm thick air gap for thermal insulation (only single elevation area to be measured)	SQM	110	0.00046096
k	One outer 6mm thick tinted heat-reflecting type float glass and one inner 6mm thick plain float glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	110	0.00042567
j	6 mm thick clear float glass	SQM	10	0.00001051
Ae	2mm thick fire and UV resistant Polycarbonate sheet	SQM	200	0.00159582
Ak	One outer 6mm thick heat-reflecting type toughened glass and one inner 6mm thick clear toughened glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	100	0.00055861
Am	2 mm thick polycarbonate sheet with profile matching with metal sheeting		100	0.00079791
An	6 mm thick reflective toughened glass	SQM	300	0.00167583
Ao	One outer 6mm thick toughened, fire resistant plane glass and one inner 6mm thick fire resistant, tinted glass hermetically sealed and seperated by 12 mm thick gap for thermal insulation (only single elevation area to be measured).	SQM	100	0.00055861
1500S	<b>ROOFING / SIDE CLADDING</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
	<b>Roofing / side cladding work including all labour, material, equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
A1501S	Designing & supplying <b>permanently color coated galvanised MS troughed metal sheet decking</b> plate of approved colour and conforming to class3 of IS 14246 over roof purlins for cast-in-situ roof slab as per relevant IS code and specification. Bare metal thickness of deck plate shall be minimum <b>0.8mm</b> with minimum trough depth of <b>44 mm</b> having minimum yield strength of <b>250 MPa</b> and shall serve as permanent shuttering to the roof slab 100mm thick measured over crest of metal decking & shall have adequate strength to support weight of green concrete and imposed loads of min 150 kg/sqm during construction between purlins as per manufacturer's recommendations/ calculations/ test certificates for approval including fixing of plates to purlins, side lapping, end lapping etc. all complete for below mentioned spans. The sheet shall be permanently coated with silicon modified polyester paint of minimum 20 micron DFT on exposed surface (facing operating floor) and minimum 7 micron on other face over epoxy primer applied over hot dipped galvanising @ 275 gm/sqm including fixing of sheet to purlin with self drilling white zinc plated heat treated carbon steel screws of minimum 5.6 mm dia @ 260mm c/c in the trough and stich screws between two adjacent sheets and sealing with epoxy sealant. Measurement of profile sheeting shall be of the plan area of roof covered by MS trough metal decking.			
a	Span Upto 1800mm	SQM	<b>5600</b>	0.00922979
b	Span Exceeding 1800mm and upto 2500 mm	SQM	<b>6200</b>	0.01325916

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
A1504S	Designing, Supplying External sheet of Permanent colour coated metal cladding shall be troughed (Minimum depth of trough= 28 mm & Maximum pitch of trough= 200 mm) zinc-aluminium alloy (55% Aluminium, 43.4% Zinc and 1.6% Silicon) coated, not less than 150 gm/sq m, having High Tensile sheet (Fy=550 MPa) of 0.5 mm (minimum) Base Metal Thickness including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over minimum 5 microns of suitable primer. Inner face of the sheet shall be provided with suitable pre-coating of minimum DFT 12 microns over minimum 5 microns of suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	SQM	<b>2300</b>	0.00317173
A1505	Designing & supplying <b>Inner sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.6mm bare metal thickness</b> having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 150gm/sqm total on both sides of both sheets including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed surface of the sheet shall be permanently colour coated with silicon modified polyester paint of minimum dry film thickness (DFT) 20 microns over suitable primer. Other face of the sheet shall be provided with suitable pre-coating of minimum DFT 7 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability. The sheet shall be fixed directly to side runners and Z spacers as per IS : 277. The sheet shall be fixed at the rate not more than 1500mm center to center to hold the insulation and external sheeting.	SQM	<b>2000</b>	0.00287601

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
A1506 ISG	<b>Supplying of</b> Prefabricated sandwich panels comprising troughed profile with outer sheet matching with permanent color coated (non-insulated) metal sheet specified above at point "a" and inner sheet made up of slight profiled linear tray of 0.5mm BMT 340 Mpa galvanized steel of 150 gsm zinc coating (total on both sides) with RMP color coating of 25 microns on the exposed side over the primer and 12 microns on the covered side over a 5 microns primer coat. The insulation material shall be of high density CFC- free 30mm (at the valley position of the outer sheet) thick polyurethane foam insulation of density 40 – 42 Kg/m3 sandwiched in between the two sheets. The panel should be finished with a malefemale jointing system. The panels shall be fixed to the purlins with hexa-headed self-drilling fasteners of required size with synthetic washers at the crests. Flashing and capping (top and bottom) shall be made of pre-coated Galvalume sheet in plain form but in required shape.	SQM	<b>100</b>	0.00018030
1509S	Designing & supplying UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured outof 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabilizer in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent,clear or pigmented, textured or smooth as specified.		<b>0</b>	0.00000000
a	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6" ) as specified	SQM	<b>250</b>	0.00034475
1510S	Supplying of 1 mm thick corrugated/semicorrugated <b>G.I. sheet in roofs, cladding</b> of minimum galvanisation of 275 gsm total on both sides with minimum 150mm overlapping, 8 dia G.I. hook bolts or 'J' Bolts and nuts @305 mm c/c along with G.I. and bitumen washers including cutting of sheets for opening etc. all complete.	SQM	<b>1050</b>	0.00125826

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
A1511S	<p>Designing &amp; supplying Prefabricated sandwich panels comprising troughed profile with outer sheet of permanent Color coated (non-insulated) metal sheets troughed (Minimum depth of trough= 28 mm &amp; Maximum pitch of trough= 200 mm) zinc-aluminium alloy (55% Aluminium, 43.4% Zinc and 1.6% Silicon) coated, not less than 150 gm/sq m, having High Tensile sheet (Fy=550 MPa) of 0.5 mm (minimum) Base Metal Thickness. The exposed face of the outer sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over minimum 5 microns of suitable primer. Inner face of the outer sheet shall be provided with suitable pre-coating of minimum DFT 12 microns over minimum 5 microns of suitable primer and inner sheet made up of slight profiled linear tray of 0.5mm BMT 340 Mpa galvanized steel of 150 gsm zinc coating (total on both sides) with RMP color coating of 25 microns on the exposed side over the primer and 12 microns on the covered side over a 5 microns primer coat. The insulation material shall be of high density CFC- free 30mm (at the valley position of the outer sheet) thick polyurethane foam insulation of density 40 – 42 Kg/m<sup>3</sup> sandwiched in between the two sheets. The panel should be finished with a malefemale jointing system. The panels shall be fixed to the purlins with hexa-headed self-drilling fasteners of required size with synthetic washers at the crests. Flashing and capping (top and bottom) shall be made of pre-coated Galvalume sheet in plain form but in required shape.</p>	SQM	4015	0.00592164
<b>1600S FALSE CEILING</b>				
	<b>False ceiling including all labour, material, equipment, transportation, handling, suspension system etc at any level as per specification, drawings and as directed by engineer - in - charge.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
1601S	Supplying of glass fibre reinforced gypsum plaster board (GRG) ceiling (having gypsum core mixed with glass fibre) system consisting of metal supporting grid system forming panels of specified size, suspended from RCC slab/structural steel or catwalkway grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawing, Supplying openings for AC ducts, return air grills, light fixtures etc (but excluding the cost of catwalkway grid) all complete as per drawings, specification and instructions of the engineer.			
a	12 mm thick GRG board with galvanised light gauge steel load bearing supporting GI frame and finished flat (seamless).	SQM	5	0.00000986
b	12 mm thick GRG board in profile (dome ,curved profiled etc.) with galvanised light gauge steel load bearing supporting GI frame and finished smooth (seamless).	SQM	10	0.00001648
A1601S	Supplying <b>glass fibre reinforced gypsum plaster board (GRG) ceiling</b> (having gypsum core mixed with glass fibre) system consisting of metal supporting grid system forming panels of specified size, suspended from RCC slab/structural steel or catwalkway grid above with 4 mm (minimum) galvanised wires (rods) with special height adjustment clips, including preparation of working drawing, providing openings for AC ducts, return air grills, light fixtures etc (but excluding the cost of catwalkway grid) all complete as per drawings, specification and instructions of the engineer.			0.00000000
a	12.5 mm thick GRG board with galvanised light gauge steel load bearing supporting GI frame and finished flat (seamless).	SQM	200	0.00039453

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
1602S	Supplying of light weight <b>mineral fiber tile false ceiling</b> of minimum thickness 15 mm and exposed surface semi-perforated with depth of perforation as 4 mm and humid resistance of 95% RH and fire performance of class 0/1 as per BS 476 with metal suspension grid system with galvanized Tees of section 24 X 38 mm for main runners of approved colour and make as per specification including 50mm thick mineral wool insulation (density48kg/cum) as per IS:8183 bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75 @ 1.2m) grid shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. complete with cut-outs etc.The size of tiles shall be 600 X 600 mm or 600 X 1200 mm. Required MS channel shall be measured & paid extra under respective item unit rate.	SQM	<b>710</b>	0.00062699
1603S	Supplying <b>permanently colour coated aluminium false ceiling</b> of approved colour and <b>Luxalon 84 C</b> or approved equivalent with corrosion resistant aluminium alloy panels of minimum thickness 0.5mm including 50mm thick mineral wool insulation(density 48 kg/cum) conforming to IS:8183 bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures, A.C. ducts etc all complete. Suitable M.S. channel grid with minimum MC 75 shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc. ( Materials for structural platform grid made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>1800</b>	0.00763250

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
1604	Supplying <b>permanently colour coated aluminium false ceiling</b> of approved colour with stove enamel finish of approved make in LINEAR and SQUARE type with corrosion resistance aluminium alloys panels of minimum thickness 0.5mm including 50mm thick mineral wool insulation (as per IS:8183) bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75) grid 1200 c/c maximum shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>10</b>	0.00004240
1605S	Supplying of anodised natural colour matt finished aluminium false ceiling of Jindal/Hindalco make with corrosion resistance aluminium alloys panels of minimum thickness 0.5mm including 50mm thick mineral wool (density 48kg/cum insulation (as per IS:8183) bound in polythene bags on top of panels. Additional hangers and height adjustment clips shall be provided for return air grills, light fixtures. A.C. ducts etc. suitable M.S. channel (minimum MC 75) grid shall also be provided above the false ceiling level for movement of personnel to facilitate maintenance of lighting fixtures, AC ducts etc.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>10</b>	0.00004240

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
1606	Supplying of <b>12mm thick Gypsum board plain/perforated false ceiling tiles(600x600mm)</b> of India Gypsum or equivalent make in plan or elevation with aluminium grid, metal suspension system, anchor fastener adjustable hangers etc. including two or more coats of acrylic emulsion paint of approved colour to give an even shade with smooth finish all complete.as per architectural design and detail.metal suspension system as per ASTM C-635 shall be hot dipped M.S.galvanized (grade 180 as per is :277) nominal size of T-section shall be 24 x 38 mm or 24 x 25 mm cross runners. 24mm wide exposed flange surface shall be permanently color coated.suspension system shall be as per manufacturer's specification supported over movement platform.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>10</b>	0.00001803
A1606S	Supplying <b>12.5mm thick Gypsum board plain/perforated false ceiling tiles(600x600mm)</b> of India Gypsum or equivalent make in plan or elevation with aluminium grid, metal suspension system, anchor fastener adjustable hangers etc. including two or more coats of acrylic emulsion paint of approved colour to give an even shade with smooth finish all complete.as per architectural design and detail.metal suspension system as per ASTM C-635 shall be hot dipped M.S.galvanized (grade 180 as per is :277) nominal size of T-section shall be 24 x 38 mm or 24 x 25 mm cross runners. 24mm wide exposed flange surface shall be permanently color coated.suspension system shall be as per manufacturer's specification supported over movement platform.The work to be complete as per specifications, drawings and direction of engineer.( Materials for structural platform grid for movement made up of MS Channels/ Beams / Angles shall be supplied by BHEL and shall be paid under ST No 2301)	SQM	<b>700</b>	0.00126213
A1607S	Supply of 12 mm thick calcium silicate board of 'HILUX' or equivalent with suspension system as per manufacturers details including supporting grid system, expansion fasteners for suspension arrangement , providing openings for AC ducts, return air grills, light fixtures, etc., all complete.(With concealed grid and finished flat seamless).	SQM	<b>200</b>	0.00027580

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
<b>1700 RAIN WATER DOWN TAKE PIPES</b>				
	<b>Rain water down take pipes including all labour, material, transportation, 2 coats of approved paint over one primary coat, fixtures, accessories etc at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
1701S	<b>Supplying of HCl down take pipes of 100 mm dia. with water tight lead joint, fixing clamps etc. all complete.</b>	RM	<b>10</b>	0.00001573
1702S	<b>Supplying of galvanised MS down take pipes of 100 mm dia- Medium quality as per IS:1239(part-I) / IS:3589 all complete.</b>	RM	<b>510</b>	0.00069201
1703S	<b>Supplying of HCl down take pipes of 150mm dia with water tight lead joint etc. all complete.</b>	RM	<b>210</b>	0.00048743
1704S	<b>Supplying of galvanised MS down take pipes of 150 mm dia- Medium quality as per IS:1239(part-I) all complete.</b>	RM	<b>1500</b>	0.00299216
1705S	<b>Supplying of UPVC down take pipes of 110mm diameter- Class 3 as per IS:4985 all complete.</b>	RM	<b>510</b>	0.00038926
1706S	<b>Supplying of UPVC down take pipes of 160mm diameter- Class 3 as per IS:4985 all complete.</b>	RM	<b>410</b>	0.00044068
1707S	<b>Supplying of GI down take pipes conforming to IS:1239 /IS:3589 of medium duty all complete for following diameters.</b>			
a	100 mm Dia	RM	<b>10</b>	0.00001491
b	150 mm Dia	RM	<b>10</b>	0.00002151
c	200 mm Dia	RM	<b>10</b>	0.00003261
1708S	<b>Supplying HDPE down take pipes conforming to IS:4984 as per specification of following diameters.</b>			0.00000000
a	110 mm Dia	RM	<b>10</b>	0.00000494
b	160 mm Dia	RM	<b>10</b>	0.00000697
c	200 mm Dia	RM	<b>10</b>	0.00000931
A1709S	<b>Supplying of cast iron cement down take pipes conforming to IS:4984 as per specification of following diameters.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
a	110 mm Dia	RM	510	0.00081142
b	160 mm Dia	RM	510	0.00098913
c	200 mm Dia	RM	10	0.00002332
A1710S	Supplying 450x450 <b>KHURRAS</b> for rain water down take pipes as per specification.	Each	200	0.00064526
Ab 1710S	Supplying Galvanised steel ERW pipes (273mm OD, 4mm thick) of steel grade Fe330 conforming to IS: 3589 with welded joints shall be used for all TP's, Crusher house, and Conveyor galleries specification of diameter 273 OD , 4 mm thick all complete as per the directions of Engineer in charge	Rmt	1000	0.00233215
1800S	<b>MISCELLANEOUS WORKS</b>			
	<b>Miscellaneous works including all labour, material, equipment etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge.</b>			
1804S	Supplying of approved <b>25mm thick vibration damping resilient pads</b> on/around foundation of vibrating equipment and at other locations all complete.	SQM	55	0.00010657
1810S	Supplying of <b>rails and guide rails in concrete</b> for transformer, rail track including cutting of rails, joining of rails, anchoring lugs etc all complete.	MT	36	0.00422113
1816S	Supplying PVC pressure release valve of minimum dia 90mm in water retaining structure including 160 mm dia housing pipe of minimum length 3.75 m with perforation as per IS4558, nylon jali, perforated end plug, collar, graded filter, excavation, fixing in concrete slab/wall etc. all complete.	EACH	200	0.00383063
1817S	Supplying HDPE pipes in concrete/ brick work of following sizes including cutting, fixing and levelling in position etc. all complete.			
a	Upto 75 mm dia	RM	1	0.00000041
b	100 mm dia	RM	1	0.00000047
c	150 mm dia	RM	501	0.00016459
d	200 mm dia	RM	501	0.00067980

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
1819S	Design, supply, fabrication of <b>stoplog gates in CW Pumps</b> with embedments required, lifting beams, special tools & plants, spare parts for three years, machining, casting, all materials such as structural steel, cast steel, stainless steel, brass used for seals, rubber seals, gears, ball and roller bearing, branch bushings, greasing, bolts, nuts, lugs, threaded fastners etc., cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc 750 gms/sqm., following by an application of etching primer and dipping in black bitumen as per B.S. 3416, erection along with a second stage concreting to true plumb and levels, submission of drawings / fabrication drawings for engineers approval etc all complete. The leakage through rubber seal shall not be more than 5 lit/min/metre length of seal under maximum head.(only weight of structural steel including embedments shall be considered for payment purpose) (SS component shall be measured separately for payment)	MT	<b>70</b>	0.01290893
1820S	SS component mentioned under ST No. 1819.	MT	<b>10</b>	0.00376186
1821S	Design,Supply, fabricating, bolted and / or welded structural steel work for <b>stationary screens</b> made out of rolled sections and / or plates including cutting, straightening if required, edge preparation, bolting / welding of joints, cleaning, sand blasting, hot double dip galvanised with minimum coating of zinc as 750 gms./sqm. followed by application of an etching primer and dipping in black bitumen as per BS 3416 etc all complete.	MT	<b>60</b>	0.01009824
2300S	<b>STRUCTURAL STEEL</b>			
	<b>Structural steel works including all labour, material, equipments, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.</b>			
2301S	<b>SUPPLY OF FINISHED PRODUCT OF DIFFERENT STRUCTURES IN POWER PLANT ITEMS AS PER SPECIFICATION AND AS DIRECTED BY ENGINEER-IN-CHARGE.</b>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
a	<p>Total firm price for procurement of required steel, fabrication/manufacture as required based on approved drawing and Supply on FOR site basis all required finished product of structure involving Supply, transportation, Unloading and Receipt of steel materials from vehicles using bidder's own resources like T&amp;P , manpower etc at bidder's facilities /works/factory, outside project premises, stacking, stockkeeping, fabrication, welding, blast cleaning of steel structures to near white metal surface(Sa 2 1/2 ) and two component self curing Inorganic Zinc ethyle Silicate Primer Coat (Solid by Volume Minimum 62+2% and Zinc Dust %age on dry film minimum 80%).Zinc dust pigment shall conform to ISO 3549 and Zinc dust pigment content shall be determined in accordance with ASTM D 2371. Minimum Dry Film Thickness (DFT) of primer coat shall be 60 Micron. It shall be applied over shot blast cleaned surface to near white metal finish conforming to Sa 2 ½ finish of Swedish standard SIS-05-5900 and shall have profile of 20 to 30 micron. The Primer Coat shall be applied in Shop immediately after blast cleaning by Airless spray technique .</p> <p>Primer Coat shall be followed with the application of Intermediate Coat of Polyamide Cured pigmented Micaceous Iron Oxide (MIO content minimum 30%) Epoxy based Paint (Solid by Volume Minimum 62+2%) of Minimum 75 Micron DFT. This Coat shall be applied in Shop after an interval of Minimum overnight (from the application of Primer Coat) by Airless spray technique .</p> <p>Intermediate Coat shall be followed with the application of Finish Coat of Polyamide Cured colour pigmented Epoxy based Paint(Solid by Volume Minimum 60%) of Minimum 75 Micron DFT.This Coat shall be applied after an interval of Minimum overnight and maximum indefinite (from the application of Intermediate Coat) either before Erection by Airless spray technique or after Erection by brush and / or airless spray in coats of minimum 35 micron (DFT) at shop and 40 micron (DFT) after erection. Colour and shade of the Coat shall be as approved by the Owner(cost of primer, intermediate coat,finish coat as mentioned above are included in this item. ) -</p>			

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
	<p>- B140on structural steel made from mildsteel conforming to IS:2062, pipes conforming to IS:1161/IS:1239, chequered plate conforming toIS:3052 and mild steel rounds, at all elevations involving rolled sections (including mild steel rounds), builtup sections fabricated out of plates, rolled sections and combination of plates and rolled sections, in columns, beams, junction towers, trestles, conveyor galleries, gantry girders, bunkers, roof trusses, portals , lacedpurlins, spaceframes, shearconnectors, hangers, struts, monorails, galleries, stiffeners, wallbeams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, gratings, chequered plate flooring, decking and seal plates, diaphragm, steel frame gridover false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails, toe plates, MS Rungs, insert plates, edge angles-embedments, lugs, posts, cccstays, louvers, lacings, gusset plates, safety chains for walkways adjacent to crane girders etc, Straightening, making cutting plan, cutting, bending, rolling, grinding, drilling, bolting, erection bolts &amp; nuts (weight of erection bolts &amp; nut not payable, Supply of permanent bolt of grade C mild steel bolts &amp; nuts to be paid separately under respective items of BOQ), temporary preassembly (full length column height), edge preparation, preheating (min preheat and interpass temperature of 20 degree C for welding over 20 mm and upto 40 mm &amp; 66 degree C for welding over 40 mm and upto 63mm &amp; 110 degree C for thickness over 63mm &amp; use of low hydrogen / radiogenic electrodes), postheating, testing of welders, inspection of welds, visua linspection, nondestructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing as per erection scheme, Delivering finished products to Rourkela project site, protection against damage in transit, again receipt of finished product, stock at project site as per specification, drawings and instructions of the Engineer and as detailed in the tender for 1 x 250 MW NSPCL Rourkela Project. Scope also included for preparation of detailed fabrication drawing &amp; BOM by approved detailer and getting approval of drawing &amp; BOM from BHEL/NSPCL</p>	MT	7670	0.79003852
2307S	<p>Supplying, fabrication of factory made <b>electroforged galvanised grating units</b> with mild steel (having minimum galvanisation of 610 g/sqm) conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.</p>	MT	215	0.02857617
2308S	<p>Supplying, fabrication of factory made <b>galvanised welded grating units</b> with mild steel conforming to IS:2062 in flooring, platforms, drain and trench covers, walk-ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including 2 coats of redoxide zinc-chromate primer (one coat at shop and one coat after erection), fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.</p>	MT	15	0.00160907

ST. NO	DESCRIPTION OF ITEM	UNIT	QUANTITY	WEIGHTAGE FOR AMOUNT OF EACH ITEM( Nearest to the 8 decimal points) W.R.T THE TOTAL AMOUNT OF SUPPLY PART.
2310S	Supplying of <b>permanent mild steel bolts (class 4.6 as per IS : 1367 and grade `C' as per IS: 1363)</b> and nuts, washers etc. up to and inclusive of 39 mm diameter and upto 300mm long for structural steel work etc all complete.	Quintal	<b>30</b>	0.00025226
A2311	<b>Supplying of high strength structural bolts</b> (of property class 8.8 and product grade `C' as per IS: 1367) and conforming to IS: 3757 and high strength structural hardened and tempered nuts (of property class `8' as per IS:1367) conforming to IS:6623 with hardened and tempered washers as per IS:6649 etc. up to and inclusive of 39 mm diameter and upto 300 mm long for structural steel work etc all complete.	Quintal	<b>255</b>	0.00646036
2317S	Supplying of <b>PTFE type sliding bearings</b> of reputed manufacturer, individual bearing suitable for required vertical loads as per the construction drawings and for maximum displacement of ±50 mm including all taxes, duties, transportation, installation, drilling, bolting, erecting, aligning etc all complete for following vertical loads.			0.00000000
a	20 Tons	EACH	<b>10</b>	0.00019201
c	40 Tons	EACH	<b>10</b>	0.00033083
d	50 Tons	EACH	<b>10</b>	0.00034608
2319S	Supply of Polished <b>stainless steel pipe hand railing</b> of <b>38mmdia</b> including SS Accessories ,transportation, loading/unloading etc. all complete..	MT	<b>11</b>	0.00266241
A2320S	Supply of <b>GI pipe hand railing</b> of 32 mm/40 mm dia (Medium Grade) with galvanised using 610 gm/sqm of zinc including transportation, loading/unloading, etc. all complete..	MT	<b>31</b>	0.00349590
<b>2617S</b>	Supply of 30 mtr high lighting mast with head frame, power winch rope ,trailing cable, concrete foundation including bolt, lamps, lighting fixture, controlgear, built in wiring etc complete of make BAJAJ/Crompton Greaves/ Philips/ Havels/ any other BHEL approved vendor make.(Lamp shall be as per 2x400W BGENF 22 R or equivalent make with CG Boxes and Lamps etc complete in all respects -16 Nos). Supply of control panel housing suitable control for the operation of the mast-1 No	set	<b>7</b>	0.00119760
	<b>TOTAL</b>			<b>1.00000000</b>

**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	Main Plant Civil & Structural work including Misc Building. Road work, Levelling & Grading, Fire Fighting, Cooling Tower (IDCT), AHP, Boundary wall and Misc Foundations/ Structures at 1x250 MW Rourkela PP-II Expansion, Odisha.	
Ref	1.0	Tender no PSER:SCT:RKL-C1755:16.
	2.0	BHEL's NIT, vide reference no PSER:SCT:RKL-C1755:5080 Date:18-06-2016
	3.0	BHEL's TCN-01, vide reference no PSER:SCT: RKL-C1755:TCN-01, Dated 30-06-2016
	4.0	BHEL's TCN-02, vide reference no PSER:SCT: RKL-C1755:TCN-02, Dated 05-07-2016
	5.0	BHEL's TCN-03, vide reference no PSER:SCT: RKL-C1755:TCN-03, Dated 25-07-2016
	6.0	BHEL's TCN-04, vide reference no PSER:SCT: RKL-C1755:TCN-04, Dated 29-07-2016
	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)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

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

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 2339-8000/ 2339-8236