

<b>PREAMBLE FOR BOQ CUM RATE SCHEDULE</b>	
<b>1</b>	<b>Preamble for the Schedule of Quantities/BOQ Cum Rate Schedule:</b>
1.1	Details of the items in the BOQ Cum Rate Schedule shall be read in conjunction with the Corresponding Consultants/ Customer specifications, drawings and other documents and shall have precedence over any contrary statement mentioned anywhere in this document.
1.2	The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions, Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may vary at a large extent during actual construction. Final drawings will be issued progressively during the execution of the work.
1.3	Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
1.4	Unless specifically mentioned otherwise in the contract, the contractor shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant , temporary works, labour materials, levies , taxes , transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
1.5	The rate shall also be inclusive of carrying out topography survey of site to establish levels and coordinates at suitable intervals, form existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the location and levels of the proposed structures, constructions and making references, pillars and other identification marks etc. No separate payment will be made towards the same.
1.6	The quantities of the various items mentioned in the BOQ cum Rate Schedule are approximate and may vary up to any extent or be deleted altogether. The overall variation in contract value on execution shall be dealt as per GCC. Contractor has to obtain prior approval of BHEL/ Customer before procurement of bought out items/ building materials.
1.7	BHEL Engineer's decision shall be final and binding on the contractors regarding clarification of items in BOQ cum Rate schedule with respect to the other sections of the contract.
1.8	In case of any discrepancy between item description, relevant specification, clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the contractor has quoted for the more stringent requirement.

PROJECT: 2X800 MW NTPC LARA TPP STAGE II, RAIGARH, CHHATTISGARH STATE, INDIA						
SCOPE OF WORK:- Hiring of RMC Agency for Installation of Batching Plant & Production of Required Grade of Concrete for 2x800 MW Lara STPS						
BOQ cum Rate Schedule						
ST NO	Item Description	Unit	Qty	Rate	Value	Weightage (%) upto 10 decimal point
200	<b>CONCRETE WORK: Providing ready mix concrete at Batching Plant including cost of labour, materials (unless otherwise specified in BOQ/contract specification) and equipment for handling, batching, etc. with mechanised equipments like batching plant, etc. complete as per specifications and as per direction of engineer in charge for the following. (Cement shall be issued by BHEL free of cost)</b>					
NS	<b>With Natural River Sand(Uncrushed Sand)</b>					
NS-AA201	Concrete of grade M5 (1 part cement, 5 part sand, 10 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	4365			3.16278847%
NS-201	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	9505			7.01001952%
NS-202	Concrete of grade M10 (1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	4434			3.43694184%
NS-203	Concrete of grade M15 (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	71			0.05215520%
NS-204	Concrete of grade M20 (1 part cement, 1.5 part sand, 3 parts of 10-20 mm graded aggregate by volume) under floors, paving, plinth protection, pipe encasing etc.	CUM	670			0.49510385%
NS-205	Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc. including use of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% to achieve required slump in concrete all complete as per specification & drawing for the following.					
a	M 20 Grade	CUM	7786			5.75355014%
b	M 25 Grade	CUM	34896			26.50491049%
c	M 30 Grade	CUM	5033			3.83142844%
NS-206	Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for reinforced concrete works with sand and graded hard stone aggregate of 20mm nominal size in superstructure including use of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% to achieve required slump in concrete all complete as per specification & drawing for the following.					
b	M 25 Grade	CUM	8740			6.63838026%
c	M 30 Grade	CUM	197			0.14996849%
NS-211	Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for concrete using nominal aggregate size of 12.5mm down for Encasing of structural steel member.					
Ac	M 30	CUM	151			0.11495047%
NS-212	Screed concrete conforming to IS 456 with sand and graded hard stone aggregate 12.5mm/6 mm nominal size on the roof, drains etc complete as per following.					
a	1:2:4	CUM	99			0.07272344%
NS-213	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 as per specification for following grades.					
b	M25	CUM	311			0.23621696%
c	M30	CUM	347			0.26415769%
NS-214	Design Mix cement concrete as per IS:456, IS 3370 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% and suitable waterproofing cement additives 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.					
b	M30	CUM	34523			30.12561478%
MS	<b>With Crushed Stone Sand(M-Sand) These BOQ items(MS-AA201 to MS-221) to be operated under exceptional circumstances with the approval of Construction Manager at Site.</b>					
MS-AA201	Concrete of grade M5 (1 part cement, 5 part sand, 10 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	485			0.36977353%

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MS-201	Concrete of grade M7.5 (1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as mass filling course, lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	1056			0.81931501%
MS-202	Concrete of grade M10 (1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors, etc.	CUM	493			0.40235869%
MS-203	Concrete of grade M15 (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) as lean concrete, levelling course, mud mat under and around foundations/floors at any depth below finished floor level etc.	CUM	8			0.00618195%
MS-204	Concrete of grade M20 (1 part cement, 1.5 part sand, 3 parts of 10-20 mm graded aggregate by volume) under floors, paving, plinth protection, pipe encasing etc.	CUM	74			0.05911555%
MS-205	Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc. including use of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% to achieve required slump in concrete all complete as per specification & drawing for the following.					
a	M 20 Grade	CUM	865			0.69101281%
b	M 25 Grade	CUM	3877			3.17696053%
c	M 30 Grade	CUM	559			0.45902796%
MS-206	Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for reinforced concrete works with sand and graded hard stone aggregate of 20mm nominal size in superstructure including use of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% to achieve required slump in concrete all complete as per specification & drawing for the following.					
b	M 25 Grade	CUM	971			0.79567415%
c	M 30 Grade	CUM	22			0.01806550%
MS-211	Design Mix cement concrete of grade conforming to IS:456 & IS 10262-2009 for concrete using nominal aggregate size of 12.5mm down for Encasing of structural steel member.					
Ac	M 30	CUM	17			0.01395971%
MS-212	Screed concrete conforming to IS 456 with sand and graded hard stone aggregate 12.5mm/6 mm nominal size on the roof, drains etc complete as per following.					
a	1:2:4	CUM	11			0.00850018%
MS-213	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 as per specification for following grades.					
b	M25	CUM	35			0.02868032%
c	M30	CUM	39			0.03202521%
MS-214	Design Mix cement concrete as per IS:456, IS 3370 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of high performance PCE-based BIS approved water reducing admixture of Type-G/F as per ASTM C-494 of approved make FOSROC/SIKA/BASF or Equivalent having minimum water reduction capability of 30% and suitable waterproofing cement additives 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.					
b	M30	CUM	3836			3.57715534%
MS-221	Rebate over ST No MS-AA201 to MS-214 for Crushed Stone Sand(M-Sand) for use in Concrete in case BHEL issues free supply Crushed Stone Sand(M-Sand) withing plant premises.(Mode of measurement here "CUM" means the volume of concrete supplied)	CUM	1000			-0.21967005%
A209	Extra over ST. No. NS/MS-205 to NS/MS-206 for controlling of temperature of fresh concrete to less than 25 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	6294			1.91295357%
	<b>Total</b>					<b>100.00000000%</b>