

## **TENDER NOTICE**

### **NOTICE INVITING TENDER FOR INTERIOR / EXECUTION / MODERNIZATION WORK of Restaurant, Bar, Member's Lounge, a dedicated Cricket Library, and other facilities at The Willingdon Pavilion of the Delhi & District Cricket Association (DDCA), New Delhi.**

TENDERS are invited for Interior / Execution / Modernization work of Restaurant, Bar, Member's Lounge, a dedicated Cricket Library, and other facilities at The Willingdon Pavilion of the Delhi & District Cricket Association (DDCA), New Delhi from reputed company/firm who have undertaken execution of interior work of at least 01 project of a public/community space (e.g. Restaurant, food court, library, museum, gallery etc) along with a redevelopment/modernization in a heritage/historical Precinct. The Tenders shall be subject to terms and conditions as mentioned in Annexure A and such other terms and conditions as DDCA may specify in the work order or otherwise for timely execution of work and for maintenance of requisite quality standards. The work has to be completed in all respect within minimum shortest time for which the contractor has to share activity wise schedule with the Architect / Designer.

Sealed Tender duly filled along with earnest money of Rs. 1,00,000.00; (Rupees One Lakh only) in the form of DD/Pay order in favor of DDCA payable at Delhi may be submitted latest by 2.00 P.M on 11<sup>th</sup> October, 2019 in an envelope containing quotations SUPERSCRIPED with the name of Tender for Interior / Execution / Modernization work of Restaurant, Bar, Member's Lounge, a dedicated Cricket Library, and other facilities at The Willingdon Pavilion of the Delhi & District Cricket Association (DDCA), New Delhi is to be address to CEO, Delhi and District Cricket Association should be dropped in a box kept at the reception of the DDCA during office hours 10:00 am to 5:00 pm and the quotation received shall be opened on 11<sup>th</sup> October, 2019 at 03:00 PM, In the presence of the parties submitting the quotations or their authorized representatives. DDCA reserves the right to accept or reject any/all quotations without assigning any reason whatsoever.

**Particulars of Party Submitting Quotation**

S. No.	Required Information	
1	Name of the Company/Firm with complete registered Address	
2	Legal Status ((Individual / proprietor, partnership firm, limited company, corporation, cooperative society, etc)	
3	Name of the contact person, Designation, Telephone No., Fax No., E-mail id	
4	Registration number issued by Regulation authority, if any (attach photocopies)	
5	year of commencement of Business	
6	Has your company/firm ever changed its name any times? If so when the Earlier name and the reason therefore?	
7	Turnover of the company in the last 3 years.	F.Y. - 2016 -2017 F.Y. - 2017 -2018 F.Y. - 2018 -2019

**DECLARATION**

1) The particulars furnished above are true to the best of my/our knowledge and belief & no material fact has been concealed therein and I/We understand that concealment of material facts shall entitle the DDCA to take penal action including blacklisting/debarring the applicant from submitting any tender, bid to the DDCA for a period extending upto 5 years.

2) I /We shall not withdraw the rates quoted by me/us for the work for 6 months from the date of furnishing this quotation. I understand that the rates finally settled between us and DDCA shall be firm and shall not be subject to change. In the event of work order being awarded to me/us and in case failure to execute the work, the DDCA shall be entitled to forfeit the earnest money deposited by me/us. DDCA shall also be entitled to get the work executed from any other Bidder at my/our risk & cost.

(Signature of Vendor)

Name (In full) & Legal status  
i.e. whether Proprietorship,  
Partnership, Company, Registered  
Society, HUF

### Eligibility Criteria

1. The bidder must have existence of 03 years or more as a legal entity.
2. The Bidder must have an audited average turnover of Rs. 2.0 Crores during the last three years (In case audited balance sheet is not available for the F.Y. 2018-2019 then the previous three financial years shall be considered).
3. The Bidder must have undertaken the interior / execution works of a public/ community space costing not less than Rs. 5.00 Crores (e.g. restaurant, food court, library, museum, gallery etc.).

AND

The Bidder must have undertaken at least 01 redevelopment / modernization project in a heritage / historical precinct costing not less than Rs. 5.00 Crores.

- Completion Certificates / Work Orders to substantiate the experience shall be submitted by the bidder.

### Evaluation Criteria

#### A. Technical Evaluation

S. No.	Pre-qualification Criteria	Parameters	Total Marks										
1	The Bidder must have an average annual turnover of Rs. 2 Crores during the last three financial years.	= INR 2 Crores                      05 Marks > INR 2 Crores <= 5 Crores      10 Marks > INR 5 Crores                      15 Marks	15										
2	The bidder must have undertaken the interior/execution works of a public / community space costing not less than Rs. 5 Crores.	<table border="1"><thead><tr><th>Project Cost</th><th>Marks</th></tr></thead><tbody><tr><td>=INR 5 Crores</td><td>04 Marks</td></tr><tr><td>&gt; INR 5 Crores &lt;= 10 Crores</td><td>08 Marks</td></tr><tr><td>&gt; INR 10 Crores &lt;= 15 Crores</td><td>12 Marks</td></tr><tr><td>&gt; INR 15 Crores</td><td>15 Marks</td></tr></tbody></table>	Project Cost	Marks	=INR 5 Crores	04 Marks	> INR 5 Crores <= 10 Crores	08 Marks	> INR 10 Crores <= 15 Crores	12 Marks	> INR 15 Crores	15 Marks	15
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> INR 10 Crores <= 15 Crores	12 Marks												
> INR 15 Crores	15 Marks												
3	The Bidder must have undertaken at least 01 redevelopment / modernization project in a heritage / historical precinct costing not less than Rs. 5 Crores.		10										
4	Document or Photos (max more than 5 locations) as respect of the project, which is best as per bidder shall be submitted and evaluated by evaluation committee of DDCA. Based on which marks will be awarded to the contractor.		20										
5	Project Architect's /Designer's recommendation on the capacity & capability of the contractor based on the projects undertaken & details submitted by contractor.		20										
<b>TOTAL MARKS</b>			<b>80</b>										

**Note:** Those who secure less than 50 marks out of 80 marks against Sl. No. 1 to 5 above shall not be considered for opening of Financial Bid.

## **B. Financial Evaluation**

Marking will be given to contractors as per their financial bids. The criterion for marking is as follows:

The bidder who will quote lowest rates shall be given 20 Marks.

Other bidders will be given marks based on the mathematical interpolation according to their quoted rates.

### **Note:**

The Final selection will be based on QCBS i.e. Quality & Cost Based Selection.

The lowest Financial Bid (Fm) will be given a financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Bids will be determined using the following formula:

$$\mathbf{Sf = 100 \times Fm/F}$$

In which Sf is the financial score, Fm is the lowest Financial Bid, and F is the Financial Bid under consideration.

Bids will finally be ranked in accordance with their combined technical (St) and financial (Sf) scores:

$$\mathbf{S = St \times Tw + Sf \times Fw}$$

Where S is the combined score, and Tw and Fw are weights assigned to Technical Bid and Financial Bid that will be 80:20 respectively.

The bidder achieving the highest combined technical and financial score will be considered to be the successful Applicant and shall be considered for award of contract.

## **Annexure -A**

### **Terms and Conditions**

- The party submitting the Tender in reference to the notice inviting Tender whether it be a Proprietor / Individual, Partnership firm, Company, Society shall be, hereinafter referred as “the Vendor” and the Delhi & District Cricket Association shall be known as “DDCA”.
- Incomplete Documents will be rejected.
- Bidder must not be a black listed by any Govt. / PSU or any other governing authority, an undertaking to this effect to be submitted along with tender.
- Bidder should be registered with GST Deptt.
- Unless specified otherwise the price quoted should include all transportation, loading/unloading cost and all levies, taxes and duties , but excluding to GST. The price quoted and agreed in the Work Order for the successful Bidder shall remain firm for the Work.
- The Bidder will submit earnest money of Rs.1,00,000.00; (Rupees one lakh only) along with Tender. The earnest Money to all the unsuccessful Vendors shall be refunded within a month from the date of issue of work order to the successful Vendor.
- The Bidder must visit/examine the site and its surroundings on any working day by prior appointment for the proper assessment of work before submitting the tender. No claim later on any account shall be entertained.
- The material to be used in execution of works shall be of the make as specified in tender document and DDCA has the right to insist for genuineness and authenticity of work to be done at the site.
- The Bidder shall not assign the Contract any portion of the contract. In case of breach of this condition, DDCA shall issue a notice in writing to the Bidder rescinding the contract where upon the security deposit shall stand forfeited by DDCA without prejudice to the other remedies of DDCA against the vendor. The determination by DDCA that the contract has been sublet shall be final and will not be called in question.

- TDS and or any other taxes as applicable will be deducted from the bill of the Bidder at the prevailing rate as per applicable Statutory Provisions and the Rules framed there under.
- The entire work shall be completed in accordance to the coordination with DDCA within their stipulated timeframes. However, the Bidder may request for extension of time if the reasons are genuine. Such extension of time may be granted by DDCA at its sole discretion.
- 5% value of the every running bill submitted shall be retained and the same shall be released within 2 months of virtual completion at the site.
- The successful Bidder shall indemnify and keep DDCA indemnified against all losses and / or claims for loss of property, loss of life and / or injury to any person that may be occasioned by any act of omission and / or commission on the part of the successful Bidder or its servants, agents, employees, representatives etc. qua the Work order.
- The goods / services provided by the successful Bidder shall be of the best quality. In case of any defect / deficiency in goods / services constituting the Work or in case of the Work is not of quality acceptable to DDCA, then without prejudice to any other right of DDCA, the amount payable to the successful Bidder shall be appropriately; deducted.
- It will be the responsibility of the successful Bidder to obtain work completion reports from the designated DDCA officials. The Architect / Designer of the project shall approve all payments of the contractor. In the absence of the approval, no payment shall be released.
- The successful Bidder shall be responsible for execution of work at the DDCA Stadium.
- The Successful Bidder to whom work order is issued shall abide by the instructions as may be issued to it by the Department-in-Charge from time to time.
- DDCA has right to increase / decrease the work quantity by 25% in consolidation with the project Architect / Designer.
- Material is received shall be consumed for installation only after the same is verified by the architect / DDCA representative & issued for consumption after all the formality is completed by department.

- The successful Bidder has to sign the agreement.
- Payment terms:-

Mobilization Advance: 20%

Running bills shall be paid on weekly basis after verification / approval from the designated DDCA official and Architect / Designer. All payment shall be made within a week's time of submission of the approved running bill through electronic mode of transfer.

- Force Majeure shall mean and be limited to the followings:
  - a) Any war or hostilities,
  - b) Any riot or civil commotion,
  - c) Strikes lasting for more than 10 days.
  - d) Any earthquake, flood, tempest, lightening or other natural physical disaster, impossibility of the use of any Railway, Airport, shipping Services or other means of transport.

During the period of Force Majeure the respective rights and obligation of the parties shall remain suspended. DDCA shall have the sole and exclusive right to determine whether force majeure event has occurred and the period of continuance thereof.

- If at any time, any question, dispute or difference arises between the DDCA and the successful Bidder under/or in connection with the contract, either party shall as soon as reasonably practicable give to the other notice in writing of the existence of such question/dispute or difference specifying its nature and the point of issue and the same shall be referred for arbitration of sole arbitrator to be appointed by DDCA and the decision of such arbitrator shall be binding on both the parties i.e. DDCA and the successful Vendor. Execution/Performance of the Work shall continue during the arbitration and any subsequent proceedings. Arbitration proceedings are not required to be resorted to for termination of the Quotation.
- The venue of arbitration shall be Delhi.
- The Language of arbitration proceedings shall be English.
- The Law governing rights and obligations of the parties shall be the Indian Law of Contract.

- DDCA reserves the right to cancel or reject any or all the quotations without assigning any reason whatsoever.
- The Prospective Bidder shall furnish its quotation in the format as set out in Tender document.
- Termination of Contract - During the currency of the agreement between DDCA and the successful Vendor, the DDCA shall have the right to terminate the agreement if it is not satisfied with the performance of the Bidder by giving it minimum 3 days' notice in writing. For this purpose, the DDCA shall be the sole Judge to decide whether the performance of the Bidder is satisfactory or not and such decision of the DDCA shall be final, conclusive and binding on the Bidder and the Bidder shall not be entitled to any compensation in that regard.
- The Applicant should not be member of DDCA.

(Signature of Vendor)

Name (In full) & Legal status

i.e. whether Proprietorship, Partnership, Company, Registered Society, HUF.

(Affix rubber stamp in case of Firm, Company and Society)





**PROJECT : ARUN JAITLEY STADIUM ( NEW DELHI)**

**WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM**

S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
		<b>Dismantling</b>				
1	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
2	15.7.4	In cement mortar	Cum	74.99		
3	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	Cum	2.29		
4	15.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	2.29		
5	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	200		
6	15.39	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :				
7	15.39.2	Thickness above 10 mm up to 25 mm	Sqm	56.85		
8	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	Sqm	508.97		
9	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
10	15.23.1	For thickness of tiles 10 mm to 25 mm	Sqm	108.45		
11	NSI	Dismantling Kota stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	Sqm	590.81		
12	15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
13	15.12.2	Of area beyond 3 sq. metres	each	42.00		
14	NSI	Dismantling tile Cladding work in laid in cement mortar including stacking material within 2 metres lead.	Sqm	25.29		
15	NSI	Dismantling stone wall laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 3.4 metres lead.	Sqm	129.54		
16	15.39	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :				
17	15.39.3	Thickness above 25 mm up to 40 mm	Sqm	78.57		
18	15.57	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	332.13		
19	14.82	materials i/c malba all complete as per directions of Engineer-in-Charge.	Nos	4		
20	NSI	Dismantling Urinal of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	Nos	2		
21	NSI	materials i/c malba all complete as per directions of Engineer-in-Charge.	Nos	3		
22	14.81	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	each	20.00		
23	14.84	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineerin-Charge.				
		(a) Internal Work- Exposed on wall	metre	2500.00		
		<b>Total cost of Dismantling</b>				
		<b>Civil work</b>				
24	6.04	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	60.94		
25	6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	109.23		
26	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	Sqm	109.23		
27	NSI	Supplying and filling in Sunkan area with Khangar/ Brick bats, including watering, ramming, consolidating and dressing complete.	Cum	36.69		

WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM						
S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
28	4.20	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. Note : 1) Excess/less cement used than specified in this item is payable/recoverable separately.				
	4.20.2.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	Cum	16.49		
<b>Total Cost of Civil Work</b>						
<b>Wall Cladding &amp; False Ceiling</b>						
29	NSI	Providing and fixing 6-12 mm thick <b>Teak Wood</b> (second Class) wall paneling with 12mm thick waterproof ply pasted over hard wood frame 25x50 mm on surface wall,with necessary screws, all complete as per design & detail drawings approved by the Architect and Client, or direction of Engineer-in-charge.	Sqm	72.77		
30	NSI	Providing and fixing approved shades of <b>4mm thick lacquered Glass</b> manufactured by Saint Gobain/ AIS/ modi Glass and fixing with DC 789/995 or GE Winsil 20/Silpruf neutral cure transparent silicon over wooden structure to be fabricated with 6mm thick BWR grade plywood of Greenply/CenturyPly make after cleaning the plywood surface with (1:1) IPA + water solution and the specific walls should be treated for dampness and termite, all complete as per detail drawings and as specified by the Architect.	Sqm	95.89		
31	NSI	Supply and installation of 12mm thick single <b>toughened glass</b> sliding folding partitions with printed graphics – SW-G12 Series, Panel type – Glasses encased in 26 mm thick and 116mm wide anodized aluminum profiles at top and bottom, side profiles not required, there will be 3-6mm gaps in each panels to avoid glass contacts and with support structure system of MS steel structure for panels and main track support as per site requirement. Panels parking : As per drawings or site requirement. Make : Sliderwalls or equivalent	Sqm	98.58		
32	NSI	Providing and fixing <b>4mm thick mirror</b> of sizes as mentioned in the Approved manufactured by Saint Gobain/ AIS/ modi Glassdrawings,over 12mm thick waterproof ply with necessary screws, all complete as per design & detail drawings approved by the Architect and Client, or direction of Engineer-in-charge.	Sqm	11.82		
33	8.2.2.2	Providing and fixing 18mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut <b>Granite</b> slab for wall cladding of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement,mixed with matching pigment, epoxy touch ups, including rubbing, curing,moulding and polishing to edges to give high gloss finish etc. complete at all levels.	Sqm	66.64		
36	NSI	Providing and laying Dark Grey <b>Slim Tiles</b> in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, over Apply tile adhesive on the wall using trowel at a thickness of 3-6 mm and comb with notch trowel. Do not spread in more than 1 sq. m of area at a time., complete,from the Brands Laminam,Stonelam,or Techlam	Sqm	66.01		
37	NSI	Providing and laying <b>Vitrified tiles</b> in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.				
		Size of Tile 600x600 mm	Sqm	146.88		
38	NSI	Providing and fixing <b>Onyx stone</b> (thickness specified by the manufacturer) on wall over required framework as per the direction of the installer and under supervision of the site engineer	Sqm	18.50		
39						
40	21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter,Sliding and fixed glass of approved brand and manufacture, including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-incharge (Door handle, lock and stopper etc.to be paid separately).	Sqm	74.20		

WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM						
S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
40	12.45	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting				
	12.45.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) : 2011 (Board with BIS certification marks)	Sqm	563.68		
43	NSI	Providing and fixing 10mm thick, 100mm wide wooden strip, pated over 12mm thk waterproof ply fixed with M.S. framing fixed to the roof at all levels, as specified in drawings approved by the Architect and Client	Sqm	31.26		
44	NSI	Supply & Installation of Motorized Retractable Pergorooft Awnings Gorrich-Horivert, or of equivalent brand with Remote Control. Using Serge Ferrari Soltis W96 or Soltis 6002 Opaque Fabric (Excluding MS Structure Frame) Size: 3515mm Width x 15105mm H 3540mm Width x 15105mm H 2638100	Sqm	370.00		
<b>Total cost of Wall Cladding &amp; Ceiling</b>						
<b>Flooring</b>						
45	NSI	Providing and laying <b>Granite Cobbles</b> flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 30-50 mm thick Cobbles Flooring over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (Size 100x100MM)	Sqm	319.83		
46	11.56	Providing and laying Polished <b>Granite stone</b> flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
47	11.56.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	Sqm	185.90		
48	NSI	Providing and fixing 1st quality Laminam tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	21.50		
49	11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
50	11.46.2	Size of Tile 600x600 mm	Sqm	68.63		

WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM						
S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
51	NSI	Providing & Laying 6-12mm thk. Wooden flooring engineered of approved make and approved shade with 4mm thick PU foam underlay, skirting, edge profiles and beadings, inclusive of cutting, sawing, polishing of all exposed surfaces, all wastage included as per detail drawings and as per the Architect.	Sqm	229.16		
52		<b>Total cost of Flooring Work</b>				
		<b>Door &amp; Window</b>				
53	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).				
54	9.1.1	Second class teak wood	cum	0.58		
55	9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:-				
56	9.5.1	Second class teak wood				
57	9.5.1.1	35 mm thick shutters	Sqm	8.07		
58	9.6	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), fixing with butt hinges of required size with necessary screws, all complete as per directions of Engineer- in-charge and panelling with panels of : (Note:- Butt hinges and necessary screws shall be paid separately)				
60	9.6.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade -1, medium density flat pressed, three layer particle board FPT- I or graded wood particle board FPT- I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and pre-laminated conforming to IS : 12823, Grade 1, Type - II marked :	Sqm	14.40		
		<b>Glaas Door &amp; &amp; Wooden Door Hardware</b>				
Note		All ironmongery, hardwares including door viewers, concealed door closers, tracks, hinges, door handles, knobs, locks, acoustic door seal, drop down door seal, fire seal, door stopper, door guard, etc to be supplied by contractor, only RFID lock will be supplied by client. All Hardware installation will be done by contractor.				
61		<b>Glaas Door</b>				
62		FS 2103 double action floor sprfs 2103 double action floor spring with 90 degree hold & SS cover plate size 3 (without accessories)	Nos	12		
63		Top Pivot with ss plate for glaas door with wooden fixed panel on top , ss matt	Pair	28		
64		Pull handle 50mm dia , H 1200mm , door thickness 10-12mm , concrete	Nos	24		
65		Bottom patch fitting, for 10-12mm glass , ss matt	Nos	28		
66		Top patch fitting, for 10-12mm glass , ss matt	Nos	28		
67		Stainless Steel half round floor mounted door stop , ss matt (alternate article for 937.53.100)	Nos	93		
68		Glass Door Lock	Nos	7		
69		<b>Wooden Door</b>				
70		Ball bearing butt hinge , SS304 , SSS,5"x3"x3"-2 BB ,square corner, with timber door screw	Nos			
71		DCL 30, Concealed door closer, closing forcesize4, max door width 950 mm, load weight 80kg , with hold open device , ALU	Nos	2		
72		Mortise cylinder lockcase, 55mm basket, 72mm center distance, 24mm square forend , SS matt	Nos	11		
73		Euro profile double cylinder, 35.5+35.5=71mm , non masterkeyed , matt nickel	Nos	23		
74		L Shape straight cut , hollow lever handle , square roase & escutcheons , SSM	Pair	11		
75		Knob lockset , 60mm basket for entrance & office door , SS Matt (US 32D)	Pair	11		
76		Wall mounted door stop , 72mm , SS Matt	Nos	6		
77			Pair	2		
78		Mortise bathroom lockcase 55mm basket , 78mm center	Pair	2		
		<b>Total cost of Door &amp; Window</b>				
		<b>Finishes</b>				
79	13.1	12 mm cement plaster of mix				
80	13.1.1	1:4 (1 cement : 4 fine sand)	Sqm	467.63		
80	13.2	15 mm cement plaster on the rough side of sinfle or half brick wall of mix				
81	13.2.2	1:6 (1 cement : 6 fine sand)	Sqm	200.00		
82	13.26	Providing and applying whit putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	137.33		
83	NSI	Providing and applying plaster of paris of 10-15 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	558.74		
84	NSI	Providing & Applying <b>superior grade Paint</b> of approved shade of Royal touch of ICI Dulux or equivalent make on walls & Ceiling, Two or more coats of paint with roller including 2 or more coats of cement primer, making smooth surface to the satisfaction of Architect.	Sqm	521.41		

WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM						
S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
85	NSI	Wall painting with premium acrylic texture paint of interior grade, content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour and look and feel of concrete rendering	Sqm	53.58		
86	NSI	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	336.55		
<b>Total cost of Finishes</b>						
<b>Miscellaneous</b>						
87	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. (iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer. (The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.)	Sqm	0.00		
88	22.6	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. (b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. (c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and (d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately.  (For the purpose of measurement the entire treated surface will be measured.)	sqm	0.00		
89	2.35	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :				
90	2.35.3	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:				
91	2.35.3.1	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	sqm	1299.30		
92	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	3860.00		
93	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special				
94	10.16.3	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	kg	150.00		
95	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.				
96	10.26.1	M.S. tube	kg	670.00		
97	14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineerin-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	sqm			

WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM						
S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
98	10.28	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	130.00		
99	NSI	Providing and fixing 12mm thick clear toughened glass partitions grouted into the floor, walls and ceiling with aluminium 'C' channel and sealing them with GE Winsil 20/Silpruf neutral cure transparent silicon and brush finish Stainless Steel patch fitting wherever necessary of Hafele/ Hettich/ Dorma/ Geze makes all complete as per the detail drawings and as specified by the Architect.	Sqm	39.93		
100	NSI	Manual roller blinds :Providing and fixing Serge Ferrari , Somfy, Vista or equivalent approved make manual roller blinds with Soltis fabric & spring drive system with steel ball chain/onetouch with speed control action roller blind with end brackets with head rail, components, bottom bar. Solar protection Fabric of Soltis-99 Color-Alu with manual operation and warranty etc as per manufacturer's specifications. Fabric to be as per approved sample. All the work complete as per the detailed drawing and instruction of Architect/EIC. (Contractor shall provide treated wooden pelmet complete in all respects on which all blinds shall be fixed and should also take load of all the manual roller blinds). Soltis-99-Color-Alu fabric: 39% Polyester/61% PVC with Aluminium Backing. Weight:290 g/sqm, Thickness:0.32 mm, Openess Factor:3%, Visible Light Transmission (N-N): 2%-4%, Solar reflection (white) 65%, Internal Solar Factor (gtot): 0.35 - 0.48, Tensile Strength (Warp/Weft):160/170daN/5cm,Tearing Strength(Warp/Weft):11/13daN, Fungistatic Treatment:Degree 0, Excellent (EN ISO 846-A) Fire Retardancy:B-s2,d0/EN 13501-1. All complete as per approval of designer & instruction of Project Manager. (The mode of Measurement: The size of the blind will be measured from end to end bracket (Left to Right bracket) & height will be measured from top of the pelmet till the bottom of the bottom bar.) ( At all floor)	Sqm	89.76		
<b>Total cost of Miscellaneous</b>						

**PROJECT : ARUN JAITLEY STADIUM ( NEW DELHI)**

**LOUNGE AREA AT ARUN JAITLEY STADIUM**

S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
<b>Dismantling</b>						
1	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
	15.7.4	In cement mortar	Cum	17.28		
2	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
	15.23.1	For thickness of tiles 10 mm to 25 mm	Sqm	71.62		
3	15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
	15.12.2	Of area beyond 3 sq. metres	each	4.00		
4	NSI	Dismantling tile Cladding work in laid in cement mortar including stacking material within 2 metres lead.	Sqm	97.52		
5	15.57	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	368.28		
6	14.82		Nos	2		
7	NSI	Dismantling Urinal of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	Nos	2		
8	NSI	Dismantling Washbasin of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in- Charge.	Nos	2		
<b>Total cost of Dismantling</b>						
<b>Civil work</b>						
9	6.04	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	3.67		
10	6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	12.72		
11	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	Sqm	12.72		
<b>Total cost of Civil Work</b>						
<b>Wall Cladding &amp; False Ceiling</b>						
12	NSI	Providing and fixing approved shades of 4mm thick lacquered Glass manufactured by Saint Gobain/ AIS/ modi Glass and fixing with DC 789/995 or GE Winsil 20/Silpruf neutral cure transparent silicon over wooden structure to be fabricated with 6mm thick BWR grade plywood of Greenply/CenturyPly make after cleaning the plywood surface with (1:1) IPA + water solution and the specific walls should be treated for dampness and termite, all complete as per detail drawings and as specified by the Architect.	Sqm	54.62		
13	NSI	Providing and fixing wall panel made of engineered wood,of approved size,on 12mm thick waterproof ply,fixed ocver hard wood framing on wall,with necessary screws, all complete as the drawings approved by the Architect and the Client, and as per direction of Engineer-in-charge. (Note:-All accessories and fixing items shall be paid separately)	Sqm	9.32		
14	Based on 11.46	Providing and laying Slim Tiles tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade,over Apply tile adhesive on the wall using trowel at a thickness of 3-6 mm and comb with notch trowel. Do not spread in more than 1 sq. m of area at a time., complete,from the Brands Laminam,Stonelam,or Techlam	Sqm	75.00		
15	11.46	Providing and laying Vitrified tiles in different sizes (thickness to bespecified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make,in all colours & shade, on walls,skirting,over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/sqm including grouting the joint with white cement & matching pigments etc.complete.				
	11.46.2	Size of Tile 600x600 mm	Sqm	77.31		
16	21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter,Sliding and fixed glass of approved brand and manufacture, including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge. (Door handle, lock and stopper etc.to be paid separately).	Sqm	29.70		



S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
		<b>Dismantling</b>				
17	12.45	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with.				
	12.45.1	12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- (Part I) : 2011 (Board with BIS certification marks)	Sqm	25.72		
		Providing and fixing Gypsum Grid Ceiling	Sqm	41.21		
18	NSI	Providing and Fixing Cork sheet over 12mm thick waterproof ply, fixed with the ceiling with necessary M.S. framework	Sqm	263.42		
19	NSI	Providing and fixing 10mm thick, 100mm wide wooden strip, pasted over 12mm thk waterproof ply fixed with M.S. framing fixed to the roof at all levels, as specified in drawings approved by the Architect and Client	Sqm	42.56		
20	NSI	Providing and fixing 4mm thick mirror of sizes as mentioned in the Approved manufactured by Saint Gobain/ AIS/ modi Glass drawings, over 12mm thick waterproof ply with necessary screws, all complete as per design & detail drawings approved by the Architect and Client, or direction of Engineer-in-charge.	Sqm	10.68		
<b>Total cost of Wall Cladding &amp; False Ceiling Work</b>						
		<b>Flooring</b>				
21	NSI	Providing and fixing 1st quality Slim tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	70.76		
22	11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
	11.47.2	Size of Tile 600x600 mm	Sqm	40.99		
23	NSI	Providing & Laying 6-12mm thk. Wooden flooring engineered of approved make and approved shade with 4mm thick PU foam underlay, skirting, edge profiles and beadings, inclusive of cutting, sawing, polishing of all exposed surfaces, all wastage included as per detail drawings and as per the Architect.	Sqm	290.87		
<b>Total cost of Flooring work</b>						
		<b>Door &amp; Window</b>				
24	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).				
	9.1.1	Second class teak wood	cum	0.26		
25	9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:-Butt hinges and necessary screws shall be paid separately)				
	9.5.1	Second class teak wood				
26	9.5.1.1	35 mm thick shutters	Sqm	9.36		
27	9.6	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), fixing with butt hinges of required size with necessary screws, all complete as per directions of Engineer- in-charge and panelling with panels of : (Note:- Butt hinges and necessary screws shall be paid separately)				

S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
		<b>Dismantling</b>				
	9.6.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade -1, medium density flat pressed, three layer particle board FPT- I or graded wood particle board FPT- I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and pre- laminated conforming to IS : 12823, Grade 1, Type - II marked :	Sqm	6.72		
		<b>Glaas Door &amp; &amp; Wooden Door Hardware</b>				
Note		All ironmongery, hardwares including door viewers, concealed door closers, tracks, hinges, door handles, knobs, locks, acoustic door seal, drop down door seal, fire seal, door stopper, door guard, etc to be supplied by contractor, only RFID lock will be supplied by client. All Hardware installation will be done by contractor.				
		<b>Glaas Door</b>				
28		FS 2103 double action floor sprfs 2103 double action floor spring with 90 degree hold & SS cover plate size 3 (without accessories)	Nos	10		
29		Top Pivot with ss plate for glaas door with wooden fixed panel on top , ss matt	Pair	10		
30		Pull handle 50mm dia , H 1200mm , door thickness 10-12mm , concrete	Nos	10		
31		Bottom patch fitting, for 10-12mm glass , ss matt	Nos	10		
32		Top patch fitting, for 10-12mm glass , ss matt	Nos	10		
33		Stainless Steel half round floor mounted door stop , ss matt (alternate article for 937.53.100)	Nos	33		
34		Glass Door Lock	Nos	4		
35		<b>Wooden Door</b>				
36		Ball bearing butt hinge , SS304 , SSS,5"x3"x3"-2 BB ,square corner, with timber door screw	Nos	15		
37		DCL 30, Concealed door closer, closing forcesize4, max door width 950 mm, load weight 80kg , with hold open device , ALU	Nos	1		
38		Mortise cylinder lockcase, 55mm basket, 72mm center distance, 24mm square forend , SS matt	Nos	1		
39		Euro profile double cylinder, 35.5+35.5=71mm , non masterkeyed , matt nickel	Nos	4		
40		L Shape straight cut , hollow lever handle , square roase & escutcheons , SSM	Pair	1		
41		Knob lockset , 60mm basket for entrance & office door , SS Matt (US 32D)	Pair	1		
42		Wall mounted door stop , 72mm , SS Matt	Nos	1		
43			Pair	2		
44		Mortise bathroom lockcase 55mm basket , 78mm center	Pair	2		
		<b>Total cost of Door &amp; Window</b>				
		<b>Finishes</b>				
45	13.1	12 mm cement plaster of mix				
	13.1.1	1:4 (1 cement : 4 fine sand)	Sqm	122.30		
46	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	Sqm	49.41		
47	13.6	Wall & Ceiling painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	13.6.1	Two or more coats on new work	Sqm	137.77		
		<b>Total cost of Finishes</b>				
		<b>Miscellaneous</b>				
48	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying :				
		(a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours.				
		(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours.				
		(iii) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cudm/sqm thoroughly embedded in the 2nd layer. (The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.)	Sqm	48.11		
49	2.35	Diluting and injecting chemical emulsion for POST-CONSTRUCTION anti-termite treatment (excluding the cost of chemical emulsion) :				
	2.35.3	including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor:				
	2.35.3.1	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	sqm	58.98		
50	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	580.00		
51	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	10.16.3	With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	kg	0.00		

S.No.	DSR 2018	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE PER UNIT	AMOUNT (Rs)
		<b>Dismantling</b>				
52	14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judiciously, necessary deduction for scaffolding in the existing item to be done.	sqm			
53	14.81	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	each	20.00		
54	14.84	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.				
		(a) Internal Work- Exposed on wall	metre	50.00		
55	NSI	Manual roller blinds :Providing and fixing Serge Ferrari , Somfy, Vista or equivalent approved make manual roller blinds with Soltis fabric & spring drive system with steel ball chain/onetouch with speed control action roller blind with end brackets with head rail, components, bottom bar. Solar protection Fabric of Soltis-99 Color-Alu with manual operation and warranty etc as per manufacturer's specifications. Fabric to be as per approved sample. All the work complete as per the detailed drawing and instruction of Architect/EIC. (Contractor shall provide treated wooden pelmet complete in all respects on which all blinds shall be fixed and should also take load of all the manual roller blinds). Soltis-99-Color-Alu fabric: 39% Polyester/61% PVC with Aluminium Backing.Weight:290 g/sqm, Thickness:0.32 mm, Openess Factor:3%, Visible Light Transmission (N-N): 2%-4%, Solar reflection (white) 65%, Internal Solar Factor (gtot): 0.35 - 0.48, Tensile Strength (Warp/Weft):160/170daN/5cm,Tearing Strength(Warp/Weft):11/13daN, Fungistatic Treatment:Degree 0,Excellent (EN ISO 846-A) Fire Retardancy:B-s2,d0/EN 13501-1. All complete as per approval of designer & instruction of Project Manager. (The mode of Measurement: The size of the blind will be measured from end to end bracket (Left to Right bracket) & height will be measured from top of the pelmet till the bottom of the bottom bar.) ( At all floor)	Sqm	84.81		
56	NSI	Partition made of engineered wood, pasted over 12mm thick plywood base,on required Gi.l. framework, as approved by the Architect and Client.	Sqm	77.43		
57	NSI	Wooden ledge work over small height partitions made of engineered wood pasted over 12mm thick waterproof ply	Sqm	14.82		
58	NSI	150mm high 12mm thick toughened glass partition fixed inside the wooden ledge work with with required bid work as per approved design	Sqm	9.88		
		<b>Total cost of Miscellaneous Work</b>				

S. No.	Ref. DSR 2018	Description	Unit	Qty		
<b>SCHEDULE - B</b>						
<b>1.0</b>		<b>SOIL WASTE &amp; VENT PIPES AND FITTINGS</b>				
1.1	17.35	Providing and fixing soil waste and vent pipes				
(a)	17.35.1.2	100mm Centrifugally <b>cast (spun) iron</b> socket & spigot (S&S) pipe as per IS:3989.	Metre	145.00		
1.2	17.38	Providing and fixing <b>bend of required degree with access door</b> , insertion rubber washer 3 mm thick, bolts and nuts complete.				
(a)	17.38.1.2	100mm <b>Sand cast iron S&amp;S as per IS - 3989</b>	Each	7.00		
1.3	17.39	Providing and fixing <b>plain bend</b> of required degree:				
(a)	17.39.1.2	100mm centrifugally cast (spun) iron S&S as per IS:3989.	Each	43.00		
1.4	17.44	Providing and fixing <b>single equal plain junction</b> of required degree :				
(a)	17.44.1.2	100x100x100 mm Sand cast iron S&S as per IS - 3989	Each	31.00		
1.5	17.43	Providing and fixing <b>single equal plain junction</b> of required degree <b>with access door</b> , insertion rubber washer 3 mm thick, bolts and nuts complete.				
(a)	17.43.1.2	100x100x100 mm Sand cast iron S&S as per IS - 3989	Each	6.00		
1.6	17.49	Providing and fixing double equal plain invert branch of required degree:				
(a)	17.49.1.2	100x100x100x100 mm Sand cast iron S&S as per IS 3989	Each	1.00		
1.7	17.60	Providing and fixing <b>cast iron trap</b> of self cleansing design with sand cast iron screwed down or hinged grating with or without vent, arm complete, including cost of cutting and making good the walls and floors				
(a)	17.60.1.1	100mm inlet and 100mm outlet centrifugally cast (spun) iron S&S as per IS: 3989.	Each	17.00		
1.8	18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.				
(a)	18.8.3	25 mm nominal outer dia Pipes	Metre	20.00		
(b)	18.8.4	32 mm nominal outer dia Pipes	Metre	20.00		
1.10	4.1	Providing and laying in position <b>cement concrete</b> of specified grade excluding the cost of centring and shuttering - All work up to plinth level.				
(a)	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	6.38		
1.11		Providing drip seal (Density 1.95 gm/cc) joints to .C.I. pipes and specials including cost of <b>Drip Seal</b> , yarn and tools etc of approved make (as per approval of engineer-in-charge). The drip seal shall be in two pack system which hardnes on mixing. Drip shall have setting time of 4 to 6 hours and shall able to stand pressure of 20 kg/cm2 afer hardeing. Drip seal shall be provided in quantity as indicated against each dia meter of pipe below.				
(a)	N.S.I	100 mm ( 200 to 250 gm/joint)	Each	306.00		
1.12		Providing and fixing CP Brass floor <b>Cleanout Plug (NEER-NCO 8001)</b> as per drawing complete with G.I. Socket jointed to drainage pipe outlet with drip seal joint.				
(a)	N.S.I	100mm dia	Each	7.00		
1.13	N.S.I	<b>Making Connections</b> of proposed CI pipes with existing vertical stacks in workmanship like manner including testing of joints complete in respects. All CI fittings and solvent cement and drip seal joints required for making connections shall be included in the rate.	Each	6.00		
<b>TOTAL OF SOIL WASTE &amp; VENT PIPES AND FITTINGS CARRIED OVER TO SUMMARY</b>						
<b>2.0</b>		<b>WATER SUPPLY</b>				
2.1	18.8	Providing and fixing Chlorinated Polyvinyl Chloride ( <b>CPVC</b> ) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.				
<b>Concealed work, including cutting chases and making good the walls etc.</b>						
(a)	18.8.1	15 mm nominal outer dia Pipes	Metre	25.00		
(b)	18.8.2	20 mm nominal outer dia Pipes	Metre	75.00		
(c)	18.8.3	25 mm nominal outer dia Pipes	Metre	20.00		
(d)	18.8.4	32 mm nominal outer dia Pipes	Metre	5.00		
2.2	18.7	Providing and fixing Chlorinated Polyvinyl Chloride ( <b>CPVC</b> ) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
<b>Internal work - Exposed on Wall</b>						
(a)	18.7.1	15 mm nominal outer dia Pipes	Metre	10.00		

S. No.	Ref. DSR 2018	Description	Unit	Qty		
(b)	18.7.2	20 mm nominal outer dia Pipes	Metre	70.00		
(c)	18.7.3	25 mm nominal outer dia Pipes	Metre	45.00		
(d)	18.7.5	40 mm nominal outer dia Pipes	Metre	5.00		
2.3		Providing and fixing <b>class-O Careflex ST Insulation</b> 6mm thick to hot water pipe and fittings and valves as per manufacturer's recommendations complete to satisfaction of Engineer in charge.				
a)	N.S.I	16mm nominal bore (6 mm thick insulation)	Meter	5.00		
b)	N.S.I	22mm nominal bore (6 mm thick insulation)	Meter	5.00		
2.4		Providing and fixing lever operated gun metal <b>Ball Valve</b> with SS ball.				
a)	N.S.I	25mm nominal bore	Each	3.00		
b)	N.S.I	32mm nominal bore	Each	1.00		
c)	N.S.I	40mm nominal bore	Each	1.00		
2.5	N.S.I	<b>Making Connections</b> of proposed CPVC pipes with existing water supply vertical drop pipes in workmanship like manner including testing of joints complete in respects. All GI pipes and fittings required for making connection shall be included in this rate.	Each	4.00		
<b>TOTAL OF WATER SUPPLY SYSTEM CARRIED OVER TO SUMMARY</b>						
<b>3.0 SANITARY FIXTURES</b>						
3.1	N.S.I.	Providing and fixing white vitreous china extended <b>wall mounting water closet</b> WALL HUNG WC SIZE:360X575X360 mm make of <b>Jaquar / Kohler / Duravit</b> of approved shape including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.as per manufacturers specification and direction of Engineer-in-charge.	Each	5.00		
3.2	N.S.I.	Providing & fixing white vitreous china <b>Concealed Cistern</b> with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including make of Jaquar / Kohler / Duravit of approved shape including cistern fittings, nuts, bolts and gasket etc complete. as per manufacturers specification and direction of Engineer-in-charge.	Each	6.00		
3.3	N.S.I.	Providing & fixing white vitreous china <b>Concealed Cistern Control plate</b> with dual flush fitting, of flushing , including make of Jaquar / Kohler / Duravit of approved shape including fittings, nuts, bolts and gasket etc complete. as per manufacturers specification and direction of Engineer-in-charge.	Each	6.00		
3.4	N.S.I.	Providing and fixing white vitreous <b>urinal</b> wall mounted make of Jaquar / Kohler / Duravit of approved shape including having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	2.00		
3.5	N.S.I.	Providing and fixing white vitreous china battery based infrared <b>sensor operated urinal.</b> make of Jaquar / Kohler / Duravit of approved shape including having pre & post flushing including fixing to Concealed wall finish with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	2.00		
3.6	N.S.I.	Providing and fixing <b>Urinal Partition</b> make of Jaquar / Kohler / Duravit of approved shape including suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	2.00		
3.7	N.S.I.	Providing and fixing vitreous China Sanitary fixturs and CP fitting and other accessories for <b>Handicapped toilet</b> make of Jaquar / Kohler / Duravit of approved shape EWC WITH PP NORMAL CLOSE SEAT COVER, HINGES, FIXING ACCESSORIES SET, S-TRAP, SIZE: 350X475X390 MM complete all respect.	Each	1.00		
3.8	N.S.I.	Providing and fixing white glazed vitreous china <b>Floor Standing Wash Basins</b> with C.P. brass waste 32mm C.P. bottle trap and unions and sealing of joints between wash basins and counter slabs around the wash basins with Silicone rubber cement of approved make of matching colour all complete including cutting and making good the walls and floors where required.	Each	2.00		
3.9	N.S.I.	Providing and fixing white glazed vitreous china <b>Wash Basins</b> with C.P. brass waste 32mm C.P. bottle trap and unions and sealing of joints between wash basins and counter slabs around the wash basins with Silicone rubber cement of approved make of matching colour all complete including cutting and making good the walls and floors where required. as per manufacturers specification and direction of Engineer-in-charge.	Each	5.00		
3.10	N.S.I.	Providing and Fixing <b>Health Faucet</b> make of Jaquar / Kohler / Duravit with 8mm dia 1.2 meter long flexible tube and wall hook with each European W.C. Pan. of approved shape as per manufacturers specification and direction of Engineer-in-charge.	Each	6.00		
3.11	N.S.I.	Providing and Fixing Sensotronic sensor <b>Faucet for wash basin</b> in rectangular shape make of Jaquar / Kohler / Duravit with approved shape as per manufacturers specification and direction of Engineer-in-charge.	Each	5.00		
3.12	N.S.I.	Providing and fixing C.P. brass <b>Paper Towel Dispensers</b> make of JAQUAR /GROHE / KOHLER complete with C.P. brass brackets fixed to rawl plug of approved design with C.P. brass screws. as per manufacturers specification and direction of Engineer-in-charge.	Each	5.00		
3.13	N.S.I.	Providing and fixing C.P. brass twin <b>Robe Hooks</b> , make of JAQUAR /GROHE / KOHLER complete with C.P. brass brackets fixed to rawl plug of approved design with C.P. brass screws. as per manufacturers specification and direction of Engineer-in-charge.	Each	10.00		

S. No.	Ref. DSR 2018	Description	Unit	Qty		
3.14	N.S.I.	Providing and fixing, <b>Soap Dispenser</b> with Metallic Bottle with push lever assembly complete with soap refill make of JAQUAR /GROHE / KOHLER complete with approved design with C.P. brass screws. as per manufacturers specification and direction of Engineer-in-charge..	Each	5.00		
3.15	N.S.I.	Providing and fixing 15mm C.P. brass flexibal <b>Connection Pipe</b> (450mm Long Braided Hose with Two 15mm Nuts & Rubber Washers Without Nipple (Suitable for WC, Geysers & Basin Mixers) or equivalent make union nuts complete with C.P. brass flange including cutting and making good the walls wherever required. (with angle valve)	Each	33.00		
3.16	N.S.I.	Providing and fixing C.P. brass <b>angle valve</b> (15mm nominal bore) with make of JAQUAR /GROHE / KOHLER complete for basin mixer and geyser points of approved quality conforming to IS:8931as per manufacturers specification and direction of Engineer-in-charge..	Each	33.00		
3.17	N.S.I.	Providing and fixing stainless steel <b>Bottle Trap</b> make of JAQUAR / KOHLER / GROHE with internal partition (32mm size with 250 mm & 190mm long wall connection pipes and wall flange .as per manufacturers specification and direction of Engineer-in-charge..	Each	7.00		
3.18		Providing and fixing stainless steel <b>Click Clack Wast</b> make of JAQUAR / KOHLER / GROHE with half thread with 80mm high .as per manufacturers specification and direction of Engineer-in-charge..	Each	7.00		
3.19	N.S.I.	Providing and fixing stainless steel <b>Toilet Paper Holder</b> make of JAQUAR / KOHLER / GROHE fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.as per manufacturers specification and direction of Engineer-in-charge..	Each	6.00		
3.20	N.S.I.	Providing and fixing stainless steel <b>Hand Dryers</b> with sensor operated make of JAQUAR / KOHLER / GROHE fixed in position by means of C.P. screws and rawl plugs embedded in the walls complete including cutting and making good the walls wherever required.as per manufacturers specification and direction of Engineer-in-charge..	Each	5.00		
3.21	N.S.I.	Providing and fixing automatic high pressure <b>Electric Water Heaters</b> (25 Ltr) make of HAVELLS-Monza or equivalent make VENUS-Magma-Vertical 25GV/RACOLD-Etrno-2 ER2 with glass lining thermostats with each element and high temperature cut off, necessary insulation, safety valve, etc. all complete.	Each	3.00		
		<b>TOTAL OF SANITARY FIXTURES AND FITTINGS</b>				

## DDCA, BILL OF QUANTITY, EXPERIENCE DESIGN

ITEM	DSR 2016	DESCRIPTION	UNIT	QTY	RATE PER UNIT	AMOUNT (Rs)
<b>A</b>		<b>FILM/ GRAPHICS/ ARTWORK</b>				
1.00	NSI	<b>Frosted Film</b> Providing and fixing of 3M/ equivalent vinyl with 1 year warranty on printing and material both; and vinyl should be non PVC frosted film with printing/plotter as per design	Sqm	250.00		
3.00	NSI	<b>Frosted Printed Film</b> Providing and fixing of 3m vinyl graphic - NON PVC with 5 year warranty on Walls, with pre finished primer base surface , as per approved size, graphic design	Sqm	85.00		
4.00	NSI	<b>Vinyl Graphics</b> Providing and fixing of 3m vinyl graphic- NON PVC with 5 year warranty on Walls, with pre finished primer base surface , as per approved size, graphic design	Sqm	60.00		
<b>B</b>		<b>INTERNAL SIGNAGES</b>				
1.00	NSI	<b>Reception Name Signage</b> Providing and fixing of signage, in reception area of building as per artwork/logo, of name of the building, with letter height 1' and material Acrylic Box Duco Finished	Nos	1.00		
2.00	NSI	<b>Individual Room Signage</b> Providing and Fixing of Signage's for individual rooms made in Acrylic or similar materials. Design to be approved by DDCA before production. Size of Signage 18" x 9"	Nos	20.00		
5.00	NSI	<b>Way Finding/ Floor Directory</b> Providing and Installation of Glass Signage, with acrylic/vinyl cut letter text on top. The Floor directory / way Finding content needs to be approved by concerned DDCA authorities before production 5' X4'	Nos	1.00		
6.00	NSI	<b>Pull/Push Signage</b> Providing and fixing of push pull signage on each side of all door, except fire doors in vinyl/acrylic, as per approved color and artwork in size 8" x 4"	Nos	150.00		
7.00	NSI	<b>Legal Entity Signage</b>				

		Providing and fixing of legal entity signage, describing legal details of entity/ company with full name of entity, address, gst number etc in best grade stainless steel with text etched and painted on top , of size 2' x 3'	Nos	1.00		
<b>C</b>		<b>FIRE SIGNAGES</b>				
1.00	NSI	<b>Fire Exit Led Signage with Inbuilt Battery Backup</b>				
		Providing & fixing of prolite fire signage as per approved fire norm symbol, with 1 year warranty and battery backup, size 9"x6"	Nos	10.00		
2.00	NSI	<b>Incase of Fire Signage</b>				
		Providing and fixing of fire signage as per approved fire norm symbol, with acrylic base and reflective vinyl sticker , size 6" x 6" , fixed with 3m tape	Nos	5.00		
3.00	NSI	<b>Fire Evacuation Plan</b>				
		Providing and fixing of fire evacuation map signage as per approved fire norms, with acrylic base and reflective vinyl sticker, size 3'x2', fixed with 3m tape	Nos	1.00		
6.00	NSI	<b>Danger High Voltage Signage</b>				
		Providing and fixing of fire signage as per approved fire norm symbol, with acrylic base and reflective vinyl sticker , size 6" x 6" , fixed with 3m tape	Nos	1.00		
7.00	NSI	<b>Push Bar To Open</b>				
		Providing & fixing of fire signage as per approved fire norm symbol, reflective vinyl sticker, size 1.5'x1'.	Nos	2.00		
<b>E</b>		<b>LOUNGE AREA</b>				
		Supply , installation, testing and commissioning of 4000 - 5000 lumen laser projector of (hitachi/epson / similar make), short throw/ ultra short throw mounted on ceiling that will project on glass with specialized holographic film with complete integration.	Nos	4.00		
		Supply , installation, of specialized holographic film which will block the outside view and will make the glass to act like a projection screen to display the digital content	Sqm	18.00		
		Supply installation testing and commissioning of 21". led tv screen installation which is mounted on the wall behind the vision glass as per given design and reference image and with complete integration. Only the display will be visible when the screen is on, this will give a uniform feel to the space. The screens will display content as per requirement.	Nos.	15.00		



<b>F</b>	<b>GROUND FLOOR</b>				
	Providing and fixing barisol ceiling (make-Euroceil / Barisol / LSI / Durlum) of size 22.56m x 3.5m which suspended from ceiling with backlit modules the barisol canvas will be printed with infographics as per research document as per drg /reference image.	Sqm	78.96		
	Supply , installation, testing and commissioning of 5000 - 6000 lumen laser projector of (hitachi/epson / similar make), long throw/ short throw/ ultra short throw mounted on ceiling that will project on the barisol ceiling. Content would be played as per requirement.	Nos	5.00		
	Providing and fixing of interactive wall panels (touch screen)/ sensor based projections on the wall. The wall panels/ sensory interaction will be insync to the barisol projection for theme based interaction adn experience. This overall experience will give a cumilative experience of the space. The panels will have switch mechanism, to highlight each layer information & infographics as per design and drawings/reference image.	Sqm	15.00		
	Providing and installation of printed glass artwork of 12mm thk framed with metal framing for fixing as per drg/specification. These glasses will be baclit to provide contrasts and the printed graphics on these will be theme basedd as per space experience and design requirements.	sqm	95.00		
	<b>Entrance Foyer</b>				
	Wall1 (Positive wall mural)- Providing and fixing of 2d & 3d Installation on wall, based on concept and design approved, on selected walls. Material - Acrylic / Vinyl / Mdf, size as per size of each selected wall.	Sqm	10.89		
	Wall1 (Negative wall mural)- Providing and fixing of 2d & 3d Installation on wall, based on concept and design approved, on selected walls. Material - Acrylic / Vinyl / Mdf, size as per size of each selected wall.	Sqm	10.89		

		Providing and fixing of non kinectic sculpture of size 2.4'x 2.4' , with MS Pipe Frame and cladded with MDF / Ply (As desired) 12mm and Dia 4" Stainless Steel balls hanging in Desired Shape / Form. Hanged with Cable wire + Other Hardware . SS 3" Balls will be polished for maximum illustre. Includes use of Chemical Fasteners ,Fabrication Work / Installation, Cartage, Wood Working in making frame for the sculpture,as per specifications and approved with the Engineer in charge	Nos.	1.00		
		<b>Dining rooms- 5 in Nos</b>				
		Supply installation testing and commissioning of 48". led tv screen installation which is mounted on the wall behind the vision glass as per given design and reference imange and with complete integration. Only the display will be visible when the screen is on, this will give a uniform feel to the sapce. The screens will display content as per requirement.	Nos	6.00		
		<b>Bar area</b>				
		Supply , installation, testing and commissioning of 4000 - 5000 lumen laser projector of (hitachi/epson / similar make), short throw/ ultra short throw mounted on ceiling that will project on glass with specialized holographic film with complete integration.	Nos	2.00		
		<b>GRAND TOTAL</b>				

per approved detailed & design.					
WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM					
S.NO.	DESCRIPTION/ SPECIFICATIONS	QTY	UNIT	RATE PER UNIT	AMOUNT (Rs.)
1	<b>CHAIR AT RECEPTION &amp; ENTRANCE FOYER (SECURITY)</b> Seat and back is made out of 12mm molded hot pressed plywood in ergonomic shape fitted with Imported Truets and revited in to the wood.The 640mm dia (26 inches) five pronged base is made out of GF nylon – Reinforced with bottom ribbing for additional buttress and strength. Tested prudently and rigorously as per ANSIBIFMA X5.1-2011 General Purpose Office Chair Standards.Seat Calibrating Multilock Mechanism Tested as per BIFMA Standards. Back Frame is upholstered with Thinner Mesh Adjustable Lumbar Support Allows you to adjust the lumbar support position for good back support and blood circulation.Moulded self skinned polyurethane Arms conforming to IS 7078 with steel insets for long life. one way adjustable - Height Adjustable. size 510X440mm	3	NOS		
2	<b>WALK THROUGH METAL DETECTOR ENTRANCE FOYER (SECURITY)</b> size 1025mmX500mmX2200ht		NOS		
3	<b>BAG SCANNER WITH TABLE ENTRANCE FOYER (SECURITY)</b> size 2650X1500		NOS		
4	<b>RECEPTION TABLE</b> Size – 3000mm x 750mm All outer surfaces finished in 6mm thick grey slim tile as approved,on 25mm thick ply board. All storage finished internally with laminate .Continuous PVC Cable Tray with provision to mount switches and sockets as per client requirement. Vertical wire entry cover for wire uptake from floor to cable tray and 450mm Aluminium Flip Up for switch access.	1	NOS		
5	<b>BAR COUNTER</b> Size – 8060mm x 450mm x 1020ht Front,sides & top finished in white on framfork as per design and detail, onyx to the backlit. Storage inside as per detail	1	NOS		
6	<b>CENTRAL BAR ISLAND</b> Size – 5160mm x 600mm	1	NOS		
7	<b>BAR STOOL</b> Size –Dia. 500mm Wood base, with upholstered seat & backrest	23	NOS		
8	<b>CENTER TABLE AT BAR &amp; TEA LOUNGE AREA</b> Size –Dia, 1000mm x 400ht Top in grey slim tile & metal black powder coated base	6	NOS		
9	<b>CONSOLE TABLE AT TOILET LOBBY</b> Size –1200mm x 400mm x 750ht	1	NOS		
10	<b>SERVICE COUNTER (BEHIND DIGITAL SCREEN)</b> Size –3545mm x 650mm x 850ht Providing and fixing granite counter top, 18 mm thick gang saw cut, mirror polished, prepolished and prepolished, machine cut Granite slab for wall cladding of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement,mixed with matching pigment, epoxy touch ups, including rubbing, curing,moulding and polishing to edges to give high gloss finish etc. below storage in SS	1	NOS		
11	<b>SERVICE COUNTER (NEAR PANTRY AREA)</b> Size –3275mm x 750mm x 850ht Providing and fixing granite counter top, 18 mm thick gang saw cut, mirror polished, prepolished and prepolished, machine cut Granite slab for wall cladding of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement,mixed with matching pigment, epoxy touch ups, including rubbing, curing,moulding and polishing to edges to give high gloss finish etc. below storage in SS	1	NOS		
14	<b>CHAIR AT SITTING SPACE</b> Size –510mm x 440mm	16	NOS		
15	<b>DINING TABLE AT SITTING SPACE</b> Size –1000mm Dia. X 750ht Grey slimtile/laminam top with black powder coated metal base	4	NOS		
16	<b>DINING TABLE AT DINING-01,05,07</b> Size –1500mm x 900mm x 750ht Grey slimtile/laminam top with wood base	5	NOS		
17	<b>DINING TABLE AT DINING-02</b> Size –3200mm x 1200mm x 750ht Grey slimtile/laminam top with wood base	1	NOS		
18	<b>DINING TABLE AT DINING-03</b> Size –1950mm x 800mm x 750ht Grey slimtile/laminam top with wood base	1	NOS		
19	<b>DINING TABLE AT DINING-04</b> Size –1500mm Dia. x 750ht Grey slimtile/laminam top with wood base	1	NOS		
20	<b>DINING TABLE AT DINING-06 &amp; SPECIAL ROOM</b> Size –1500mm x 1500mm x 750ht Grey slimtile/laminam top with wood base	2	NOS		
21	<b>DINING CHAIR AT DINING-01-07 &amp; SPECIAL ROOM</b> Size –510mm x 440mm	50	NOS		
22	<b>SIDE TABLE AT LOUNGE AREA (NEAR LIFT LOBBY)</b> Size –Dia. 750mm x 400ht	2	NOS		

S.NO.	DESCRIPTION/ SPECIFICATIONS	QTY	UNIT	RATE PER UNIT	AMOUNT (Rs.)
23	<b>TRIANGULAR BAR COUNTER</b> Size –6150/2700mm x 600mm x 1020ht Front,sides & top finished in white glowing onyx, with back light. Storage inside as per detail	1	NOS		
24	<b>BAR STOOLS (OUTDOOR)</b> Size –500mm Dia.	18	NOS		
25	<b>DINING TABLE AT GLASS BOX (OUTDOOR)</b> Size –1000mm Dia. x 750ht	12	NOS		
26	<b>DINING CHAIR AT TERRACE (OUTDOOR)</b> Size –510mm x 440mm	125	NOS		
27	<b>DINING TABLE TERRACE (OUTDOOR)</b> Size –2250mm x 900mm x 750ht	7	NOS		
28	<b>DINING TABLE TERRACE (OUTDOOR)</b> Size –1350mm x 900mm x 750ht	14	NOS		
29	<b>CONSOLE AT SMOKING ZONE</b> Size –3200mm x 450mm x 750ht	1	NOS		
30	<b>CUSHIONS FOR FIXED SOFA SEATING AT OUTDOOR AREA</b> Size –21540mm x1180mm	14	NOS		
31	<b>COUNTER FOR OPEN CATERING</b> Size –5390/5415/4500mm x60/570/1000mm x 850ht	1	NOS		
<b>LOUNGE AT ARUN JAITLEY STADIUM</b>					
32	<b>RECEPTION TABLE</b> Size – 2100mm x 750mm x 1020ht All outer surfaces finished in 6mm thick grey slim tile as approved, on 25mm thick ply board. All storage finished internally with laminate . Continuous PVC Cable Tray with provision to mount switches and sockets as per client requirement. Vertical wire entry cover for wire uptake from floor to cable tray and 450mm Aluminium Flip Up for switich access.	1	NOS		
33	<b>CHAIR AT RECEPTION</b> Seat and back is made out of 12mm molded hot pressed plywood in ergonomic shape fitted with Imported Truits and revited in to the wood.The 640mm dia (26 inches) five pronged base is made out of GF nylon – Reinforced with bottom ribbing for additional buttress and strength. Tested prudently and rigorously as per ANSI/BIFMA X5.1-2011 General Purpose Office Chair Standards.Self Calibrating Multilock Mechansim Tested as per BIFMA Standards..Back Frame is upholstered with Thinner Mesh Adjustable Lumbar Support Allows you to adjust the lumbar support position for good back support and blood circulation.Moulded self skinned polyurethane Arms confirming to IS 7078 with steel insets for long life. one way adjustable - Height Adjustable size 510X440mm	1	NOS		
35	<b>SERVING COUNTER</b> Size –4075mm x 750mm x 850ht Providing and fixing granite counter top, 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut Granite slab for wall cladding of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement,mixed with matching pigment, epoxy touch ups, including rubbing, curing,moulding and polishing to edges to give high gloss finish etc. below storage in SS	1	NOS		
36	<b>CENTER TABLE AT LOUNGE</b> Size – 1800mm x 650mm x 400ht Table top in grey slim tile	2	NOS		
37	<b>CENTER TABLE AT LOUNGE</b> Size –1200mm Dia.x 400ht Table top in grey slim tile	7	NOS		
38	<b>CENTER TABLE AT LOUNGE</b> Size –1800mm x 550mm x 400ht Table top in grey slim tile	3	NOS		
39	<b>CENTER TABLE AT LOUNGE</b> Size –1600mm x 650mm x 400ht Table top in grey slim tile	3	NOS		
40	<b>CENTER TABLE AT LOUNGE</b> Size –550mm Dia. x 400ht Table top in grey slim tile	3	NOS		
41	<b>SIDE TABLE AT LOUNGE</b> Size –650mm Dia. x 400ht Table top in grey slim tile	9	NOS		
<b>TOTAL</b>					

**PROJECT : ARUN JAITLEY STADIUM ( NEW DELHI)**

Soft Loose Furniture as per approved detailed & design.

**WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM**

S.NO.	DESCRIPTION/ SPECIFICATIONS	QTY	UNIT	RATE PER UNIT	AMOUNT (Rs.)
1	<b>SOFA FOR RECEPTION AND WAITING LOUNGE</b> <b>SIZE:-2400/2050L X 1000D X 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers. ( upholstery fabric and wood base)	2	NOS		
2	<b>L-SOFA FOR BAR LOUNGE AREA</b> <b>Size –3000/2250mm x 1000mm x 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	2	NOS		
3	<b>SINGLE SEATER SOFA AT TEA LOUNGE</b> <b>Size –950 x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	12	NOS		
4	<b>L-SOFA AT TEA LOUNGE</b> <b>Size –2260/2510mm x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (Red leather upholstery with white stitch pattern and wooden legs)	2	NOS		
5	<b>CHAIR AT TEA LOUNGE &amp; LOUNGE NEAR LIFT</b> Size –900 dia.	6	NOS		
6	<b>SOFA AT DINING-03</b> <b>Size –2100mm x 850mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	2	NOS		
<b>LOUNGE AT ARUN JAITLEY STADIUM</b>					
7	<b>3-SEATER SOFA AT LOUNGE</b> <b>Size –3000mm x 1200mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	2	NOS		
8	<b>L-SOFA AT LOUNGE</b> <b>Size –3000/2500mm x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	3	NOS		
9	<b>L-SOFA AT LOUNGE</b> <b>Size –3300/2300mm x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	4	NOS		
10	<b>2 SEATER SOFA AT LOUNGE</b> <b>Size -2000mm x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	2	NOS		

S.NO.	DESCRIPTION/ SPECIFICATIONS	QTY	UNIT	RATE PER UNIT	AMOUNT (Rs.)
11	<b>3 SEATER SOFA AT LOUNGE</b> <b>Size -3000mm x 900mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	2	NOS		
12	<b>3 SEATER SOFA AT LOUNGE</b> <b>Size -2500mm x 900mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	1	NOS		
13	<b>L-SOFA AT LOUNGE</b> <b>Size -3100/1800mm x 1000mmx 850HT</b> Seasoned mirandi solid wood (cross section - 58 mm X 45 mm) Foam cushion : Featherlite , Spring : Temper/bindal , Glue , screw/fastner/nail , fibre , canvas/casement/elastic , buffers (upholstery cherry red leather with white stitch pattern and wooden legs)	1	NOS		
14	<b>LOUNGE CHAIR AT LOUNGE</b> Base in wood & seat & backrest upholstered in fabric	29	NOS		
<b>TOTAL</b>					

**Fixed Furniture as per approved detailed & design.  
WILLINGDON PAVILLION AT ARUN JAITLEY STADIUM**

S.NO.	DESCRIPTION/ SPECIFICATIONS	UNIT	QUANTITY	Rate per Unit	Amount (Rs)
1	<b>BOOKSHELF AT WAITING LOUNGE</b> Providing and fixing 500mm wide full height(up to false ceiling) wooden bookshelf,made of teak wood(second class) with 12mm thick waterproof ply,partly shuttered,and with approved painted/polished finish and required fittings and accessories, as per detailed design and drawing,approved by the Architect and Client. Size – 6.520m x .5m x 2.4mm	Sqm	16		
2	<b>STORAGE UNIT AT BAR AREA</b> Providing and fixing 500mm wide,full height storage unit,with 25mm thick wooden shutters, laminated finished internal shelves, with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size –1.7m x 2.4m Finished externally in wood (to match paneling), internal shelves finished in laminate as approved	Sqm	4.08		
3	<b>SHELVING AT STORE ROOM</b> Providing and fixing 600mm wide,full height storage unit,with 25mm thick wooden shutters, laminated finished internal shelves, with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size –4.624m x 2.7m	Sqm	12.49		
4	<b>SHELVING BEHIND RECEPTION</b> Providing and fixing 450mm wide,full height storage unit,shelves made of wood boxes on black powder coated metal frame,with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size –5m x 2.4m	Sqm	12		
<b>LOUNGE AT ARUN JAITLEY STADIUM</b>					
5	<b>STORAGE AT RECEPTION AREA (BACK WALL)</b> Providing and fixing 865mm wide,full height storage unit,shutters and and rest of the storage made of 19mm thick plywood with external cladding of grey slim tile,and laminated finished internal shelves, with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size – 1.5m x 2.7m	Sqm	4.05		
6	<b>STORAGE AT RECEPTION AREA (SIDEWALL)</b> Providing and fixing 450mm wide,full height storage unit,shutters and and rest of the storage made of 19mm thick plywood with external cladding of grey slim tile,and laminated finished internal shelves, with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size – 3.7m x 2.7m	Sqm	10		
7	<b>STORAGE FOR ELECTRICAL PANEL AT TOILET LOBBY</b> Providing and fixing shutters made of 19mm thick waterproof ply with laminate finish inside and slim tile cladding outside,with partially lacquered glass cladding with necessary screw/fastener/nails, as per the detailed design and drawing,approved by the architect and client. Size - 3.82mx2.4m	Sqm	9.12		

**PROJECT : ARUN JAITLEY STADIUM, FEROSHAH KOTLA GROUND  
( NEW DELHI )**

**BOQ - ELECTRICAL WORKS FOR PAVILION**

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
1		<b>Main Distribution Board / Distribution Board (MDB / DB)</b>						
		S.I.T.C. of Main Distribution Board (MDB) indoor, floor / wall-mounted type, conforming to IS : 13032 (Latest Edition) with key-lockable door; complete with the bus-bars components and accessories mounted and wire connections terminated in the board as per SLD & as follows: Make: Vidyut Control / Shivalic / Tricolite						
1.1	NSI	<b>MDB LIGHT+POWER+I/D AC-PAVILION (INDOOR TYPE)</b>	No.	1				
		INCOMER: : 100A (16KA), 4P, 415 V, 50 Hz. MCCB : 1 No. MCCB shall be with LED phase indications as per SLD.						
		BUS BARS : : 100A TP + N Copper Bus bar insulated with Heat Shrinkable Coloured Sleeves, suitable for 1.1 K V with a fault level withstand: 10 K A for 1 second. The Earth Bus shall be of CU & run continuously throughout the width of the panel.						
		OUTGOINGS : : 415 V, 50 Hz, 63 A, 4Pole MCB : 3 Nos. : 415 V, 50 Hz, 40 A, 4Pole MCB : 3 Nos.						
1.2	NSI	<b>MDB HVAC PAVILION-1 (OUTDOOR TYPE)</b>	No.	1				
		INCOMER: : 100A (16KA), 4P, 415 V, 50 Hz. MCCB : 1 No. MCCB shall be with LED phase indications as per SLD.						
		BUS BARS : : 100A TP + N Copper Bus bar insulated with Heat Shrinkable Coloured Sleeves, suitable for 1.1 K V with a fault level withstand: 10 K A for 1 second. The Earth Bus shall be of CU & run continuously throughout the width of the panel.						
		OUTGOINGS : : 415 V, 50 Hz, 80 A, 4Pole RCBO : 2 Nos. : 415 V, 50 Hz, 50 A, 4Pole RCBO : 2 Nos. : 415 V, 50 Hz, 32 A, 4Pole RCBO : 2 Nos.						
1.3	NSI	<b>MDB HVAC PAVILION-2 (OUTDOOR TYPE)</b>	No.	1				
		INCOMER: : 100A (16KA), 4P, 415 V, 50 Hz. MCCB : 1 No. MCCB shall be with LED phase indications as per SLD.						
		BUS BARS : : 100A TP + N Copper Bus bar insulated with Heat Shrinkable Coloured Sleeves, suitable for 1.1 K V with a fault level withstand: 10 K A for 1 second. The Earth Bus shall be of CU & run continuously throughout the width of the panel.						
		OUTGOINGS : : 415 V, 50 Hz, 80 A, 4Pole RCBO : 2 Nos. : 415 V, 50 Hz, 32 A, 4Pole RCBO : 5 Nos. : 230 V, 50 Hz, 32 A, 2Pole RCBO : 1 Nos.						
1.4	NSI	<b>AUTO PHASE REVERSAL PANEL FOR MDB HVAC PAVILION-1 AND MDB HVAC PAVILION-2 (OUTDOOR TYPE)</b>	No.	2				
1.5	NSI	<b>MDB KITCHEN</b>	No.	1				
		INCOMER: : 100A (16KA), 4P, 415 V, 50 Hz. MCCB : 1 No. MCCB shall be with LED phase indications as per SLD.						
		BUS BARS : : 100A TP + N Copper Bus bar insulated with Heat Shrinkable Coloured Sleeves, suitable for 1.1 K V with a fault level withstand: 10 K A for 1 second. The Earth Bus shall be of CU & run continuously throughout the width of the panel.						
		OUTGOINGS :						





Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
<b>2</b>		<b>UPS System</b>						
2.1	NSI	S.I.T.C. natural / forced air-cooled, <b>ON-LINE UPS</b> suitable to operate in 'Hot Standby' or 'Parallel' or 'Stand-alone' mode, work at 45° C temperature and relative humidity of 95% with IGBT technology complete with Fast Recharging Charger, short circuit protection included Battery Bank & Rack for 30minutes back-up as under: : In-put power supply : 415V (+ 10% - 15%), 50Hz (± 3%), Three phase. : Output power supply : 415V (± 1 %) Three Phase, 50Hz (± 0.5%) : Pure sinusoidal waveform : Overload capacity of 110% for 15minutes : Out-put regulation shall be ± 2% against input and load variation. : Protected against output overload, DC input, Low/over input voltage, : Battery pre-exhaust alarm at-least two minutes before 'DC Low' tripping. : Batteries shall be SMF type with 3 years warranty. : Open Battery Rack & Interlinks : 30 Minutes Battery Backup : Capacity of the <b>UPS shall be 20 KVA</b> Make: Powertron Products Pvt. Ltd. / Consul / Schneider-EPC	Each	1				
		<b>Sub total UPS System</b>						
<b>3</b>		<b>Internal Wiring</b>						
3.1	DSR-2018	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.						
a	1.7.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	2400				
3.2	DSR-2018 1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.						
a	1.3.1	- 1 No. 5 A 1 Way Sw. controlling 1 light point/ fan point/ exhaust fan point/ call bell point. (Group A)	No	25				
b	1.3.2	- 1 No. 5 A 1 Way Sw. controlling 2 light point/ fan point/ exhaust fan point/ call bell point. (Group B)	No	70				
c	1.3.3	- 1 No. 5 A 1 Way Sw. controlling 4 light point/ fan point/ exhaust fan point/ call bell point. (Group C)	No	40				
3.3	1.25	Supplying and fixing two/one module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	No	0				
3.4	1.26	S/F modular blanking plate on the existing modular plate switch box excluding modular plate etc as required.	No	25				
3.5	1.50.1	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. : Upto 450 mm sweep	No	0				
3.6		<b>POWER POINTS :</b>						
3.6.1	DSR-2018 1.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.						
a	1.7.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire (for Power circuit & loop-in-out)	Metre	3000				
b	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 13/6 amps modular universal socket outlet and 13/6 amps modular switch, connection etc. as required.	Each	90				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
c	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	70				
3.7	15.1	Supplying, installation, testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Amp, for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	6				
3.8	1.24.7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : TV antenna socket outlet	Each	10				
3.9	1.27.1	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required. : 1 or 2 Module (75mmX75mm)	Each	10				
3.10	1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	500				
3.11	1.20.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. : 25mm (for TV Cable)	Metre	500				
3.12	2.20	Supplying and fixing 30 A - 32 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	Each	1				
3.13	2.18	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required. (For Kitchen-Gyser)	Each	2				
3.14	NSI	Supplying and fixing of NetBox – Turn Comfort 4 gang, comprising of: i) Wieland Male Connector with 200mm cable. ii) Universal Socket 3 Nos. iii) RJ45 Cat6 I/O's for data/voice Colour : Silver or as per consultant /client approval HSN Code : 8537 Make: A & H Meyer: NetBoxes / Extron / CMD	Each	4				
		<b>Sub total Internal Wiring</b>						
4		<b>LT Cable System</b>						
4.1		S.I.T.C. 1100Volts grade cable as per I S: 7098, pt.1 (latest edition) with stranded Aluminium conductor; XLPE insulated, multi-core, bunched, armoured/un-armoured with overall heat resistant type ST-2 PVC insulation / Copper stranded conductor; PVC insulated as per I S: 1554 (latest edition) armoured/un-armoured with overall heat resistant type ST-2 PVC insulation. Cable shall have nominal identification plates at both ends ('supply from' & 'supply to') run on surface / cable tray with clamp in shaft or (-) 750mm Below ground level as required at site. The sizes are as follows:						
a	NSI	: 3C x 4 sq. mm. 2XY	Metre	50				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
b	NSI	: 3C x 6 sq. mm. 2XY	Metre	25				
c	NSI	: 3C x 10 sq. mm. 2XY	Metre	50				
d	NSI	: 4C x 4 sq. mm. 2XY	Metre	300				
e	NSI	: 4C x 6 sq. mm. 2XY	Metre	100				
f	NSI	: 4C x 10 sq. mm. 2XY	Metre	50				
g	NSI	: 4C x 16 sq. mm. 2XY	Metre	150				
h	NSI	: 3.5C x 25 sq. mm. A2XFY	Metre	50				
i	NSI	: 3.5C x 35 sq. mm. A2XFY	Metre	175				
j	NSI	: 3.5C x 50 sq. mm. A2XFY	Metre	R/o				
4.2	DSR-2018	Supplying and making end termination with brass compression gland and copper / aluminium lugs for following size of PVC insulated and PVC sheathed XLPE copper / aluminium conductor cable of 1.1 KV grade as required.						
a	9.1.7	up to & 3 X 10 sq. mm (22mm)	Each	16				
b	9.1.32	up to & 4 X 10 sq. mm (25mm)	Each	34				
c	9.1.33	4 X 16 sq. mm (28mm)	Each	8				
d	9.1.22	3½ X 50 sq. mm (35mm)	Each	R/o				
e	9.1.21	3½ X 35 sq. mm (32mm)	Each	16				
f	9.1.20	3½ X 25 sq. mm (28mm)	Each	4				
4.3	DSR-2018	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.						
a	4.6.2	: 150 mm width X 50 mm depth X 1.6 mm thickness	Metre	25				
b	4.6.4	: 300 mm width X 50 mm depth X 1.6 mm thickness	Metre	10				
		<b>Sub total LT Cable System</b>						
5	DSR-2018	<b>Earthing System</b>						
5.1	5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Each	0				
5.2	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	2				
5.3	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	0				
5.4	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	30				
5.5	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	300				
		<b>Sub total Earthing System</b>						

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6		<b>Internal Lighting</b>						
6.1	NSI	Supply & Fixing of approx 25W/Meter Tunable White 24 V Constant Voltage flexible LED strip with AL profile, white top surface offering optimal reflection and 3M adhesive tape on the back. With a step measurement of 250 mm (9.34") and variable color temperatures between 2,500 K and 4,000 K for an optimal CCT tuning along the Planckian Locus. Assembled using state of the art automated Reel to Reel (R2R) production process supporting LED Linear™ Tj Away® thin flexible circuit board technology. In combination with ceramic LED packages a thermal resistivity of 18.3 K/W is achieved for an optimal heat dissipation (junction to installation surface) which guarantees an outstanding lifetime of > 60,000 hrs L80/B10. Each steps embeds 14 high quality japanese LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (One Bin Only) with an extended photometric code of Wxxx/339 ensuring an exceptional color consistency over the rated lifetime. Premium color rendition with a CRI of 85 and TM-30-15 up to Rf = 86 / Rg = 98 ensuring a remarkable light quality. Consistent light intensity all along the strip length is obtained thanks to active current regulation operated by dedicated integrated circuits (ICs) on each step. Protected against electrostatic discharge ± 2,000 V and polarity miswiring. Fully PWM dimmable for frequency > 0 Hz up to 2 kHz (flicker free for frequency higher then 1.2 kHz according to IEEE P1789 standard). Engineered and produced in Germany. Product should be complete with Mounting accessories and suitable drivers, decoders Make. LED Linear Hydra IQ LD25 / IBL / iGuzzini / Dotspot	Mtr	0				
6.2	NSI	Controller required for above Tunable white LED Strip including mounting accessories etc complete	Each	0				
6.3	NSI	Decorative Table Lamp-Led 5W E14m, White finish With Grey Cable, Original 1227 Mini Ceramic Wall Lamp, Code: 32243 LED. Make: Anglepoise, UK or Equ.	Each	0				
6.4	NSI	Decorative Floor Lamp-9W LED E27, Jet Black, Type 75™ Floor Lamp, Code: 32679. Make: Anglepoise, UK or Equ.	Each	0				
6.5	NSI	Supply & Fixing of 36 Watt Recess mounted LED 600 x 600 mm fitting made of CRCA, fixture should have minimum net efficacy at System level (Not Chip Level)≥120 lumens/watt, nominal system lumen of 3600lm, Life of fixture 50000 hrs@ L70 Lumen maintenance, CCT 3000, 4000, 5700K, CRI≥80, PF>0.95, and suitable for 230V AC, 50Hz. supply, Internal Surge Protection≥2.5KV. LED Chip SDCM should be 3.The fixture should comply with the parameters as per IS10322 and IEC60598, EMC / EMI compliance, and LED driver shall be BIS registered & luminaire manufacture shall provide LM79report from NABL accredited lab & LM80 report issued by LED manufacturer. Make: Enterio IND M73 OA LED 3600 HE ET- Trilux / Regent / Lighting Technology	Each	0				
6.6	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 7.3W in 3000K CRI90 having net lumen out of 532lm. LED's should be from MacAdam Step:3. Fixed Super Comfort version: the LEDs are set a long way back to minimize glareand guarantee a high level of visual comfort. Main body is made of die-cast aluminium, gh definition reflector - flood optic, Safety glass included Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 67mm including trim and height of the fixture should not be more than 77mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finsih and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part pf th product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	0				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6.7	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 10W in 3000K CRI90 having net lumen out of 960lm. LED's should be from MacAdam Step:2. Fixed Super Comfort version: the LEDs are set a long way back to minimize glare and guarantee a high level of visual comfort. Main body is made of die-cast aluminium, high definition reflector - wide flood optic, Safety glass included Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 83mm including trim and height of the fixture should not be more than 90mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finish and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part of the product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	32				
6.8	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 10W in 3000K CRI90 having net lumen out of 552lm. LED's should be from MacAdam Step:2. Fixed Wall Washer version: the optic system is designed to aim the light flow on a vertical surface with no shadow zones and a precise outline. The main body is made of die-cast aluminium with a radiant surface that guarantees optimum heat dissipation. Structure with die-cast aluminium external contact frame with a single white finish. The optic unit includes two shaped metallized thermoplastic reflectors, a PMMA refractor/safety screen and a plastic anti-glare casing available in a range of painted and metallised finishes. Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 83mm including trim and height of the fixture should not be more than 90mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finish and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part of the product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	51				
6.9	NSI	Supply of Indoor type, approx 6Watt recessed LED Light, Luminous Flux 900 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K /4K/5.7K ..Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells	Each	23				
6.10	NSI	Supply of Indoor type, approx 12Watt recessed LED Light, Luminous Flux 1200 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K /4K/5.7K ..Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells	Each	23				
6.11	NSI	Supply of Indoor type, approx 6Watt surface LED Light, Luminous Flux 900 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K /4K/5.7K ..Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells	Each	5				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6.12	NSI	Supply & Fixing of 28 Watt up-down Recessed / Suspended / Surface luminaire with HE-High Efficiency LED (Light Emitting Diode) system power: 28~33W, LED Chip SDCM should be 3. colour temperature of 3000 - 5700K, neutral white, CRI≥80, PF .95 & 230V constant current driver, 70% of luminous flux after 50,000 operating hours, energy efficient LEDs with high CRI, direct light emission, luminaire profile in anodised aluminium, pre-wired luminaire, diffuser for a homogenous light distribution, internal wiring, integral electronic control gear, Protection class I, IP20 and luminaire should be feasible for end to end connection for making shapes. Make: Trilux / Regent / Lighting Technology / Led Linear	Each	2				
6.13	NSI	Supply & Fixing of wall recessed round IP65 LED Step light in 4W , 3000K having option of White, Balck and Aluminiuk finsih. Fixture should have integral driver. Complete with Hosuing for wall recessed application. Dia of the step light should not be more then 65mm and depth of the fixture should not be more than 50mm. Make: IBL LED Step Light/ Litolux / Dot spot	Each	12				
6.14	NSI	Supply & Fixing of approx. 3 Watt tiltable Led on Ground surface , ww, LED Light with mounting base, wide beam, IP 65, 230V Make: IBL / Litolux / Dotspot	Each	12				
6.15	NSI	Supply & Fixing of 36 Watt Surface mounted type 4 feet Batten LED fixture made up of extruded polycarbonate housing, fixture should have minimum net efficacy at System level (Not Chip Level)≥100lumens/watt, nominal system lumen of 3600 lumens, Life of fixture 50000hrs @ L70 Lumen maintenance, CCT 4000 - 6000K, CRI≥80, PF>0.95, and suitable for 230V AC, 50Hz. supply. Minimum Internal Surge Protection≥2.5KV. The fixture should comply with the parameters as per IS10322 and IEC60598, EMC / EMI compliance, and LED driver shall be BIS registered & luminaire manufacture shall provide LM79report from NABL accredited lab & LM80 report issued by LED manufacturer, IK 10 & IP Protection shall be IP-65. Make: TRL OTA 3600-840 ET, Trilux / Regent / Lighting Technology	Each	6				
6.16	NSI	Supply & Fixing of ceiling recessed fixed LED light fixture with Trim of 2W in 3000K CRI90 having net lumen out of 104lm. LED's should be from MacAdam Step:2. Fixed round mini-recessed luminaire with contact frame. The LED is set back to minimize direct glare. The recessed body is madeof machined aluminium and the inside of the ring of thermoplastic available in a range of painted and metallised finishes. PMMA -medium (25°) high resolution optic lens. High color rendering index 2700K LED. Tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 31mm including trim and height of the fixture should not be more than 58mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finsih and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP43 on the visible part pf th product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	29				
6.17	NSI	Supply & Fixing of 24V Linear LED IP20 Flexible strip in 3000K Constant Voltage flexible LED strip with AL profile, adhesive tape on the back. Product should be complete with Mounting accessories and suitable drivers Make: IBL 3000K LED Strip / iGuzzini / LED Linear	Mtr	68.4				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6.18	NSI	Supply & Fixing of 24V Linear LED IP65 Flexible strip in 3000K Constant Voltage flexible LED strip with AL profile, adhesive tape on the back. Product should be complete with Mounting accessories and suitable drivers Make: IBL 3000K LED Strip / iGuzzini / LED Linear	Mtr	70.8				
6.19	NSI	Supply & Fixing of 24V Constant Voltage, flexible approx 20w/mtr RGBW LED strip consisting of RGB LEDs in combination with white LEDs offering a superior light quality. AL profile with White top surface offering optimal reflection and Nitto adhesive tape on the back. With a step measurement of 83.33mm (3.28") provides atmospheric light and color accents for a large panel of applications. With a total lumen output up to 2,220 lm/m (677 lm/ft), this tape is also suitable for HCL general lighting. Assembled using state of the art automated Reel to Reel (R2R) production process, thin flexible circuit board technology. In combination with ceramic LED packages (RGB) and CSP LEDs (white) a thermal resistivity of 43.3K/W is achieved for an optimal heat dissipation (junction to installation surface) which guarantees a lifetime of 30,000hrs L80/B10 (RGB) and >60,000hrs L90/B10 (white). Each step is composed of 6 x "3 in 1" high quality Japanese RGB LEDs and 6 CSP white LEDs. Consistent light intensity all along the strip length is obtained thanks to active current regulation operated by dedicated integrated circuits (ICs) on each step. Protected against electrostatic discharge ±2,000V and polarity miswiring. Fully PWM dimmable for frequency >0Hz up to 2kHz (flicker free for frequency higher than 1.2kHz according to IEEE P1789 standard). Engineered and produced in Germany. Make: IBL RGB LED Strip / iGuzzini / LED Linear	Mtr	20				
6.20	NSI	Controller required for above RGBW LED Strip including mounting accessories etc complete.	Each	1				
6.21	NSI	SITC of Self Contained Rechargeable LED Emergency Egress Routes Lighting With The Following Features: Maintained type, Surface mounting Type, multi LED which provides illumination on normal mains power supply and the same lamp continues to provide illumination during mains failure on self contained battery source. ON resumption of mains supply, the lamp switches back to the mains automatically and simultaneously starts recharging the battery to the required level, LED Exit Light with Less Than 5W LED lamp Fitting with 3 Hours backup with rechargeable Ni- Mh/Ni-cd battery, Directional arrows double sided as required & painted in Epoxy polyester powder coating, White in colors, with Made up of CRCA Sheet steel -22SWG, with 16 to 24 hours Recharging period with constant current charger, Input Single Phase - 230V 50 HZ - IP 42, Confirms to IS: 95831981 & CE Certified / ROHS Compliance. The signage shall be as follows: (as per design & approval) Make : Binay Opto/ Prolite/ Regnant						
a	NSI	SITC of Left / Right, Front / UP / down Side Exit Sign as required at site.	No	5				
		<b>Note: All Lights &amp; Qty. has to be Approved from Consultant / Client before Purchase.</b>						
		<b>Sub total Internal Lighting</b>						
7		<b>Fan</b>						
7.1	NSI	Supply & Fixing of Exhaust fan complete with base plate as follows: : 200mm diameter. Make: Ventil Air - DX White, Havells / Crompton / Havells	No	0				





Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8		<b>ELV System</b>						
		Background Music						
8.1	NSI	Supply , installation , testing and commissioning of Compact Indoor/Outdoor type IP55 rated wall mount Music Loudspeaker: Free field Frequency range (-10dB) of 80Hz to 16kHz; Power handling of 64 Watt peak; Nominal dispersion of 150 H X 150 V; Free field Sensitivity of 84 dB SPL and Max SPL of 103 dB SPL peak; Nominal Impedance 8 Ohms; Integral multi-tap Transformer with tap settings of 2/4/8/16 W @ 100V. with Powder-coated steel grille; Brackets with pitch/yaw adjustment included. complete with standard accessories as per the tender specifications.	Each	12				
8.2	NSI	Supply , installation , testing and commissioning of Ceiling Flush Music/PA Loudspeaker: Free field Frequency range (-10dB) of 80Hz to 16kHz; Power handling of 64 Watt peak; Nominal dispersion of 110 Conical; Free field Sensitivity of 84 dB SPL and Max SPL of 103 dB SPL peak; Nominal Impedance 8 Ohms; Integral multi-tap Transformer with tap settings of 2/4/8/16 W @ 100V. with Powder-coated steel grille; Shall include necessary standard hardware for ceiling install. complete with standard accessories as per the tender specifications.	Each	9				
8.3	NSI	Supply , installation , testing and commissioning of 35 w passive volume controller, Models Feature a Range of Attenuation Steps (3dB or 1.5dB Steps) as Well as Continuous to Meet Application and Budget Requirements complete with standard accessories as per the tender specifications.	Each	7				
8.4	NSI	BGM Backend						
8.5	NSI	Supply,installation, testing & Comissioning of Class D configurable amplifier with total 600W output power or better across 2 outputs, 4/8ohms, 70/100 Volt or mixed use operation; Frequency Response : 20Hz - 20kHz for LZ mode ; S/N Ratio > 99db and THD <.3% at rated output complete with standard accessories as required. Phoenix input and output connectors Built in DSP for Matrix routing, Speaker EQs, delays etc	Each	1				
8.6	NSI	Supply, Installation, testing and commissioning of zone controllers provide volume control. The zone controllers use Cat 5 wiring and can be daisy-chained using the two RJ-45 connectors for simplified wiring.	Each	2				
8.8	NSI	Supply, Installation, Testing and Commissioning of 2 core 14 AWG Speaker Cable with stranding 19x27, bare copper material, UL voltage rating-300V RMS, UL temp rating-75 degree, Operating Temp Range: -20°C To +75°C complete with standard accessories as per tender specifications.	Each	300				
8.9	NSI	Supply, Installation, Testing and Commissioning of Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system, Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond. ETL Verified, UL Listed andUL channel verified- All three Certificates are mandatory. Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel.	Each	200				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8.10	NSI	Supply , installation , testing and commissioning of Portable, standalone design with built-in 1000-watt amplifier and 9 transducers: 8 high-output drivers and a 30-cm high-power woofer, Lower crossover point than conventional loudspeakers for clear and natural vocals even at high volumes, Powerful full-range loudspeaker with 132 dB max SPL and low-frequency performance down to 43 Hz (-10 dB), Flexible Array technology: easily adjust coverage pattern—Straight, C, J or Reverse J—to optimise sound for different spaces: floor level, on stage, for raked seating or stands, and more Built-in handles for easy transport and compatible with standard 35-mm speaker stands complete with standard accessories as per tender specifications.	Each	2				
8.11	NSI	Supply , installation , testing and commissioning of portable 1000W Subwoofer with Two 10" high-excursion drivers built into a compact enclosure that is light and easy to transport, Frequency Response(-3dB): 40Hz-250Hz, Frequency Range(-10 dB): 38Hz-250Hz, Maximum SPL @ 1 m: 130 dB SPL (peak 6 dB CF), Polarity switch to adjust polarity of subwoofer. Selections are NORM and REV. Reversing polarity allows for easy correction of low-frequency overlap between the main loudspeaker and subwoofer, Line output EQ sets the subwoofer output to a high-pass filter or full range, which allows for easy crossover selection when used with a main loudspeaker complete with standard accessories as per tender specifications.		2				
8.12	NSI	Supply , installation , testing and commissioning of 4 Channel audio mixer, the stereo mixer gives you unprecedented connectivity with control. Four main channels feature high-quality audio preamps with XLR-combo jacks for microphones or instruments, and switchable phantom power. Additionally, the mixer offers two Aux sends, two Aux inputs, stereo balanced outputs, two outputs for digital audio with remote power, USB-A and -B for USB drive playback or PC/Mac interfacing, a dedicated headphone jack, and ¼" TRS analog outputs complete with standard accessories as per tender specifications.		1				
8.16	NSI	Supply, Installation, Testing and Commissioning of HD Set-Up Box complete with standard accessories as per tender specifications.		1				
8.17	NSI	Supply, Installation, Testing and Commissioning of I-5 Desktop with 22" diagonal monitor, Processor :- 7th gen Intel Core™ i5 (6MB Cache, up to 3.00 GHz), RAM :- 8GB, 2400MHz, DDR4    Hard Disk :- 1TB 7200 rpm Hard Drive, complete with standard accessories as per tender specifications.		1				
8.21	NSI	Wireless Access Point						
8.22	NSI	Supply, Installation, Testing and Commissioning of Tri-band Wi-Fi System with Radio 1: IEEE 802.11b/g/n 2.4GHz–256QAM support, Radio 2: IEEE 802.11a/n/ac 5GHz–256QAM support, Radio 3: IEEE 802.11a/n/ac 5GHz–256QAM support, 6 high-performance antennas with high-power amplifiers, Implicit/Explicit Beamforming for 2.4 & 5GHz bands (1,733 + 866 + 400Mbps), MU-MIMO capable for simultaneous data streaming on multiple devices, Four (4) 10/100/1000Mbps Gigabit Ethernet ports, Security: WPA/WPA2-PSK support; Three (3) wireless networks like Administrative devices, Employee devices and Guest devices with Capital Challenge. complete with standard accessories as per tender specifications		2				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8.23	NSI	Supply, Installation, Testing and Commissioning of 24 port PoE network switch with Advanced VLAN support for better networksegmentation, L2/L3/L4 access control lists (ACLs) forgranular network access control including 802.1x port authentication, Advanced per port PoE controls for remotepower management of PoE connected devices including operation scheduling (e.g. Wireless APs, IP security cameras, LED lighting, secure access door locks, IoT devices...), Advanced QoS (Quality of Service) for trafficprioritization including port-based, 802.1p and L2/L3/L4 DSCP-based, Auto "denial-of-service" (DoS) prevention, IGMP Snooping and Querier for multicastroptimization, Rate limiting and priority queuing for betterbandwidth allocation, Port mirroring for network monitoring, Energy Efficient Ethernet (IEEE 802.3az) formaximum power savings complete with standard accessories as per tender specifications		1				
8.24	NSI	Supply, Installation, Testing and Commissioning of Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system, Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond. ETL Verified, UL Listed andUL channel verified- All three Certificates are mandatory. Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel.	Mtr	600				
8.25	NSI	Supply, Installation, Testing and Commissioning of Bulk connector and accessories as required.	LS	1				
8.26		<b>CCTV and Telephone</b>						
8.27	NSI	Supply, Installation, Testing and Commissioning of 1/2.8" Progressive Scan CMOS sensor, Signal System:PAL/NTSC, Min. Illumination:Color: 0.01 Lux @(F1.2; AGC ON), 0.028 Lux @(F2.0; AGC ON), Shutter time:1/3 s to 1/100,000 s, Slow shutter:Support, Lens:2.8 mm, horizontal FOV: 114°, vertical FOV: 62°, diagonal FOV: 135° 4 mm, horizontal field of view: 86°, vertical FOV: 46°, diagonal FOV: 102°, Lens Mount:M12, Adjustment Range:Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°, Day& Night:IR cut filter with auto switch, Wide Dynamic Range:Digital WDR, Video Compression:H.265+/H.265/H.264+/H.264/MJPEG, Video bit rate:32Kbps~8Mbps, Audio Compression:G.711/G.722.1/G.726/MP2L2/PCM, Audio bit rate:64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2) complete with standard accessories as per tender specifications. Make : Hikvision / Honeywell / Bosch		2				
8.28	NSI	Supply, Installation, Testing and Commissioning of 4 port NVR with Two-way audio input: 1-ch, RCA (2.0 Vp-p, 1kΩ), Incoming bandwidth: 40Mbps, Outgoing bandwidth:80Mbps, HDMI Output:1-ch, resolution:4K (3840 × 2160)/30Hz,1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 ×1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz., Recording Resolution:8MP/6MP/5MP/4MP/3MP/1080p/UXGA/720p/VGA/4 CIF/DCIF/2CIF/CIF/QCIF, VGA Output:1-ch, resolution: 1920*1080P/60Hz, 1600*1200/60Hz, 1280*1024/60Hz, 1280*720/60Hz, 1024*768/60Hz, Audio Output:1-ch, RCA (Linear, 1kΩ), decoding Capability:4-ch@1080P, Live view / Playback:8MP/6MP/5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCI F/2CIF/CIF/QCIF, Network Interface:1 RJ-45 10 / 100 Mbps selfadaptive Ethernet interface, USB Interface:2, USB2.0 complete with standard accessories as per tender specifications. Make : Hikvision / Honeywell / Bosch		1				
8.29	NSI	Supply, Installation, Testing and Commissioning of Analog display phone with built-in speaker, slim design. C-ID, 30 call log, 5 redial memory, LCD(7 segment 2 line) complete with standard accessories as per tender specifications.		1				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8.30	NSI	Supply, Installation, Testing and Commissioning of Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system, Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond. ETL Verified, UL Listed and UL channel verified- All three Certificates are mandatory. Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel.	Mtr	50				
8.31	NSI	Supply, Installation, Testing and Commissioning of 12 U av rack complete with standard accessories as per tender specifications.	Each	1				
		<b>Sub total ELV System</b>						

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
9		<b>Safety items</b>						
9.1	NSI	Supply and fixing of fire extinguisher, ABC Type 4.00kg. Capacity (ISI Marked IS : 15683 & TAC approved) complete with initial charge and wall bracket, along with Supply & Fixing of all materials and labour for proper completion of work.	Each	4				
		<b>Sub total Safety items</b>						
		<b>Total</b>						
		<b>Grand Total</b>						

Note:

1. Considered 415V Power supply available at site with Full DG Back-up.
2. Considered Fire Alarm & Detection system is already available at site.

**PROJECT : ARUN JAITLEY STADIUM, FEROSHAH KOTLA GROUND  
( NEW DELHI )**

**BOQ - ELECTRICAL WORKS FOR LOUNGE**

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
1		<b>Main Distribution Board / Distribution Board (MDB / DB)</b>						
1.1	DSR-2018 2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)						
a	2.3.3	12 way , Double door	Each	0				
1.2	DSR-2018 2.5	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for						
a	2.5.2	8 way (4 + 24), Double door	Each	1				
b	2.5.3	12 way (4 + 36), Double door	Each	1				
1.3	DSR-2018	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
a	2.10.1	Single pole	Each	50				
1.4	DSR-2018 2.12	Supplying and fixing following rating, double pole, 240 V, MCB / Isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
a	2.12.1	25A	Each	0				
b	2.12.2	40A	Each	1				
1.50	DSR-2018 2.13	Supplying and fixing following rating, four pole, 415 V, MCB / Isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
a	2.13.1	40A-50A	Each	2				
b	2.13.2	63A	Each	2				
1.6	2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	10				
1.7	2.23.3	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 Volts, on surface/ recess, complete with testing and commissioning etc. as required. : For 10 way, Double door SPN MCBDB	Each	0				
1.8	2.25	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each	2				
1.9	2.16	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32/40 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	1				
1.10	2.17	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32/63 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	Each	1				
		<b>Sub total Main Distribution Board / Distribution Board (MDB / DB)</b>						
2		<b>UPS System</b>						
2.1	NSI	S.I.T.C. natural / forced air-cooled, <b>ON-LINE UPS</b> suitable to operate in 'Hot Standby' or 'Parallel' or 'Stand-alone' mode, work at 45° C temperature and relative humidity of 95% with IGBT technology complete with Fast Recharging Charger, short circuit protection included Battery Bank & Rack for 30minutes back-up as under: : In-put power supply : 415V (+ 10% - 15%), 50Hz (± 3%), Three phase.	Each	1				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
		: Output power supply : 415V (± 1 %) Three Phase, 50Hz (± 0.5%)						
		: Pure sinusoidal waveform						
		: Overload capacity of 110% for 15minutes						
		: Out-put regulation shall be ± 2% against input and load variation.						
		: Protected against output overload, DC input, Low/over input voltage,						
		: Battery pre-exhaust alarm at-least two minutes before 'DC Low' tripping.						
		: Batteries shall be SMF type with 3 years warranty.						
		: Open Battery Rack & Interlinks						
		: 30 Minutes Battery Backup						
		: Capacity of the <b>UPS shall be 10 KVA</b>						
		Make: Powertron Products Pvt. Ltd. / Consul / Schneider-EPC						
		<b>Sub total UPS System</b>						
3		<b>Internal Wiring</b>						
3.1	DSR-2018	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.						
a	1.7.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	500				
3.2	DSR-2018 1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.						
a	1.3.1	- 1 No. 5 A 1 Way Sw. controlling 1 light point/ fan point/ exhaust fan point/ call bell point. (Group A)	No	15				
b	1.3.2	- 1 No. 5 A 1 Way Sw. controlling 2 light point/ fan point/ exhaust fan point/ call bell point. (Group B)	No	20				
c	1.3.3	- 1 No. 5 A 1 Way Sw. controlling 4 light point/ fan point/ exhaust fan point/ call bell point. (Group C)	No	10				
3.3	1.25	Supplying and fixing two/one module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	No	1				
3.4	1.26	S/F modular blanking plate on the existing modular plate switch box excluding modular plate etc as required.	No	10				
3.5	1.50.1	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. : Upto 450 mm sweep	No	6				
3.6		<b>POWER POINTS :</b>						
3.6.1	DSR-2018 1.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.						
a	1.7.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire (for Power circuit & loop-in-out)	Metre	1000				
b	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 13/6 amps modular universal socket outlet and 13/6 amps modular switch, connection etc. as required.	Each	40				
c	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	25				



Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
3.7	15.1	Supplying, installation, testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Amp, for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	4				
3.8	1.24.7	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. : TV antenna socket outlet	Each	2				
3.9	1.27.1	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required. : 1 or 2 Module (75mmX75mm)	Each	2				
3.10	1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	100				
3.11	1.20.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. : 25mm (for TV Cable)	Metre	100				
3.12	2.20	Supplying and fixing 30 A - 32 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	Each	0				
3.13	2.18	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required. (For Kitchen-Gyser)	Each	0				
3.14	NSI	Supplying and fixing of NetBox – Turn Comfort 4 gang, comprising of: i) Wieland Male Connector with 200mm cable. ii) Universal Socket 13/6A- 3 Nos. iii) RJ45 Cat6 I/O's for data/voice Box Colour : Silver or as per consultant /client approval HSN Code : 8537 (For reception table) Make: A & H Meyer: NetBoxes / Extron / CMD	Each	1				
		<b>Sub total Internal Wiring</b>						
4		<b>LT Cable System</b>						
4.1		S.I.T.C. 1100Volts grade cable as per IS: 7098, pt.1 (latest edition) with stranded Aluminium conductor; XLPE insulated, multi-core, bunched, armoured/un-armoured with overall heat resistant type ST-2 PVC insulation / Copper stranded conductor; PVC insulated as per IS: 1554 (latest edition) armoured/un-armoured with overall heat resistant type ST-2 PVC insulation. Cable shall have nominal identification plates at both ends ('supply from' & 'supply to') run on surface / cable tray with clamp in shaft or (-) 750mm Below ground level as required at site. The sizes are as follows:						
a	NSI	: 3C x 4 sq. mm. 2XY	Metre	0				
b	NSI	: 3C x 6 sq. mm. 2XY	Metre	0				
c	NSI	: 3C x 10 sq. mm. 2XY	Metre	0				
d	NSI	: 4C x 4 sq. mm. 2XY	Metre	0				
e	NSI	: 4C x 6 sq. mm. 2XY	Metre	0				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
f	NSI	: 4C x 10 sq. mm. 2XY	Metre	50				
g	NSI	: 4C x 16 sq. mm. 2XY	Metre	50				
h	NSI	: 3.5C x 25 sq. mm. A2XFY	Metre	0				
i	NSI	: 3.5C x 35 sq. mm. A2XFY	Metre	0				
j	NSI	: 3.5C x 50 sq. mm. A2XFY	Metre	R/o				
4.2	DSR-2018	Supplying and making end termination with brass compression gland and copper / aluminium lugs for following size of PVC insulated and PVC sheathed XLPE copper / aluminium conductor cable of 1.1 KV grade as required.						
a	9.1.7	up to & 3 X 10 sq. mm (22mm)	Each	0				
b	9.1.32	up to & 4 X 10 sq. mm (25mm)	Each	6				
c	9.1.33	4 X 16 sq. mm (28mm)	Each	2				
d	9.1.22	3½ X 50 sq. mm (35mm)	Each	R/o				
e	9.1.21	3½ X 35 sq. mm (32mm)	Each	0				
f	9.1.20	3½ X 25 sq. mm (28mm)	Each	0				
4.3	DSR-2018	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.						
a	4.6.2	: 150 mm width X 50 mm depth X 1.6 mm thickness	Metre	15				
b	4.6.4	: 300 mm width X 50 mm depth X 1.6 mm thickness	Metre	0				
		<b>Sub total LT Cable System</b>						
5	DSR-2018	<b>Earthing System</b>						
5.1	5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Each	0				
5.2	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mmthick including accessories, and providing masonry enclosurewith cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	0				
5.3	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	0				
5.4	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	0				
5.5	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	100				
		<b>Sub total Earthing System</b>						

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6		<b>Internal Lighting</b>						
6.1	NSI	Supply of approx 25W/Meter Tunable White 24 V Constant Voltage flexible LED strip with AL profile, white top surface offering optimal reflection and 3M adhesive tape on the back. With a step measurement of 250 mm (9.34") and variable color temperatures between 2,500 K and 4,000 K for an optimal CCT tuning along the Planckian Locus. Assembled using state of the art automated Reel to Reel (R2R) production process supporting LED Linear™ Tj Away® thin flexible circuit board technology. In combination with ceramic LED packages a thermal resistivity of 18.3 K/W is achieved for an optimal heat dissipation (junction to installation surface) which guarantees an outstanding lifetime of > 60,000 hrs L80/B10. Each steps embeds 14 high quality japanese LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (One Bin Only) with an extended photometric code of Wxxx/339 ensuring an exceptional color consistency over the rated lifetime. Premium color rendition with a CRI of 85 and TM-30-15 up to Rf = 86 / Rg = 98 ensuring a remarkable light quality. Consistent light intensity all along the strip length is obtained thanks to active current regulation operated by dedicated integrated circuits (ICs) on each step. Protected against electrostatic discharge ± 2,000 V and polarity miswiring. Fully PWM dimmable for frequency > 0 Hz up to 2 kHz (flicker free for frequency higher then 1.2 kHz according to IEEE P1789 standard). Engineered and produced in Germany. Product should be complete with Mounting accessories and suitable drivers, decoders Make. LED Linear Hydra IQ LD25 / IBL / iGuzzini / Dotspot	Each	50				
6.2	NSI	Controller required for above Tunable white LED Strip including mounting accessories etc complete.	Each	1				
6.3	NSI	Decorative Table Lamp-Led 5W E14m, White finish With Grey Cable, Original 1227 Mini Ceramic Wall Lamp, Code: 32243 LED. Make: Anglepoise, UK or Equ.	Each	32				
6.4	NSI	Decorative Floor Lamp-9W LED E27, Jet Black, Type 75™ Floor Lamp, Code: 32679. Make: Anglepoise, UK or Equ.	Each	0				
6.5	NSI	Supply & Fixing of 36 Watt Recess mounted LED 600 x 600 mm fitting made of CRCA, fixture should have minimum net efficacy at System level (Not Chip Level)≥120 lumens/watt, nominal system lumen of 3600lm, Life of fixture 50000 hrs@ L70 Lumen maintenance, CCT 3000, 4000, 5700K, CRI≥80, PF>0.95, and suitable for 230V AC, 50Hz. supply, Internal Surge Protection≥2.5KV. LED Chip SDCM should be 3.The fixture should comply with the parameters as per IS10322 and IEC60598, EMC / EMI compliance, and LED driver shall be BIS registered & luminaire manufacture shall provide LM79report from NABL accredited lab & LM80 report issued by LED manufacturer. Make: Enterio IND M73 OA LED 3600 HE ET- Trilux / Regent / Lighting Technology	Each	6				
6.6	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 7.3W in 3000K CRI90 having net lumen out of 532lm. LED's should be from MacAdam Step:3. Fixed Super Comfort version: the LEDs are set a long way back to minimize glareand guarantee a high level of visual comfort. Main body is made of die-cast aluminium, gh definition reflector - flood optic, Safety glass included Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 67mm including trim and height of the fixture should not be more than 77mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finsih and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part pf th product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	2				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6.7	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 10W in 3000K CRI90 having net lumen out of 960lm. LED's should be from MacAdam Step:2. Fixed Super Comfort version: the LEDs are set a long way back to minimize glare and guarantee a high level of visual comfort. Main body is made of die-cast aluminium, high definition reflector - wide flood optic, Safety glass included Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 83mm including trim and height of the fixture should not be more than 90mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finish and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part of the product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	0				
6.8	NSI	Supply of ceiling recessed fixed LED light fixture with Trim of 10W in 3000K CRI90 having net lumen out of 552lm. LED's should be from MacAdam Step:2. Fixed Wall Washer version: the optic system is designed to aim the light flow on a vertical surface with no shadow zones and a precise outline. The main body is made of die-cast aluminium with a radiant surface that guarantees optimum heat dissipation. Structure with die-cast aluminium external contact frame with a single white finish. The optic unit includes two shaped metallized thermoplastic reflectors, a PMMA refractor/safety screen and a plastic anti-glare casing available in a range of painted and metallized finishes. Quick and easy tool free assembly. Life of LED should be > 50,000h - L80 - B10 (Ta 25°C). Diameter of the fixture should not exceed 83mm including trim and height of the fixture should not be more than 90mm. Fixture should be compatible with dimming protocol of DALI/Analog/Triac/DMX. Fixture should have an option of White, Black finish and Internal frame should have option of White, Black, Gold, Chrome, Burnished Chrome options as per site requirement. IP44 on the visible part of the product when installed. Complies with EN60598-1 and pertinent regulations and should be BIS certified. Make: iGuzzini Laser / ERCO / LTS	Each	23				
6.9		Supply of Indoor type, approx 6Watt recessed LED Light, Luminous Flux 900 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K / 4K / 5.7K .. Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells		8				
6.10		Supply of Indoor type, approx 12Watt recessed LED Light, Luminous Flux 1200 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K / 4K / 5.7K .. Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells		8				
6.11		Supply of Indoor type, approx 6Watt surface LED Light, Luminous Flux 900 @ 5700 K (Lm), Color Rendering Index > 80 Ra, Power Factor (PF) > 0.97, Operating Temperature -30°C ~ +50°C, IP43, Color Temperature (CCT) 3K / 4K / 5.7K .. Operating Voltage 200-240 V AC, 50/60 Hz, Make: Trilux / Corvi / Havells		0				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
6.12	NSI	Supply & Fixing of 28 Watt up-down Recessed / Suspended / Surface luminaire with HE-High Efficiency LED (Light Emitting Diode) system power: 28~33W, LED Chip SDCM should be 3. colour temperature of 3000 - 5700K, neutral white, CRI≥80, PF .95 & 230V constant current driver, 70% of luminous flux after 50,000 operating hours, energy efficient LEDs with high CRI, direct light emission, luminaire profile in anodised aluminium, pre-wired luminaire, diffuser for a homogenous light distribution, internal wiring, integral electronic control gear, Protection class I, IP20 and luminaire should be feasible for end to end connection for making shapes. Make: Trilux / Regent / Lighting Technology / Led Linear	Each	1				
6.13	NSI	Supply of 24V Linear LED IP20 Flexible strip in 3000K Constant Voltage flexible LED strip with AL profile, adhesive tape on the back. Product should be complete with Mounting accessories and suitable drivers Make: IBL 3000K LED Strip / iGuzzini / LED Linear	Mtr	5.25				
6.14	NSI	SITC of Self Contained Rechargeable LED Emergency Egress Routes Lighting With TheFollowing Features: Maintained type, Surface mounting Type ,multi LED which provides illumination on normal mains power supply and the same lamp continues to provide illumination during mains failure on self contained battery source.ON resumption of mains supply,the lamp switches back to the mains automatically and simultaneously starts recharging the battery to therequired level , LED Exit Light with Less Than 5W LED lamp Fitting with 3 Hours backup with rechargeable Ni- Mh/Ni-cd battery ,Directional arrows double sided as required & painted in Epoxy polyester powder coating, White in colors , with Made up of CRCA Sheet steel -22SWG ,with16 to 24 hours Recharging period with constant current charger, Input Single Phase - 230V 50 HZ - IP 42 , Confirms to IS: 95831981 & CE Certified / ROHS Complainece. The signage shall be as follows: (as per design & approval) Make : Binay Opto/ Prolite/ Regnant						
a	NSI	SITC of Left / Right, Front / UP / down Side Exit Sign as required at site.	Each	5				
		<b>Note: All Lights &amp; Qty. has to be Approved from Consultant / Client before Purchase.</b>						
		<b>Sub total Internal Lighting</b>						
7		<b>Fan</b>						
7.1	NSI	Supply & Fixing of Exhaust fan complete with base plate as follows: : 200mm diameter. Make: Ventil Air - DX White, Havells / Crompton / Havells	No	6				
7.2	NSI	Supply & Fixing of Ceiling fan complete with starting and p f improvement capacitors, suspension rod (extendable as required at site), Energy Saving Models, 5 star rating, sizes as follows: : 1200 mm sweep. Make: ES40-White, Havells / Crompton / Havells	No.	0				
		<b>Sub total Fan</b>						

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8		<b>ELV System</b>						
8.1	NSI	Supply , installation , testing and commissioning of Surface mount Music purpose satellite - Speaker	Pair	3				
8.2	NSI	Supply , installation , testing and commissioning of Surface mount Music purpose satellite - subwoofer system: Free field Frequency range (-10dB) of 40Hz to 18kHz; Power handling of 800 Watt peak; Nominal dispersion of 140 Conical; Free field Sensitivity of 82 dB SPL and Max SPL of 93 dB SPL (99dB peak); Nominal Impedance 4-6 Ohms; Integral multi-tap Transformer with tap settings of 25/50/100/200 W @ 100V. with Powder-coated steel grille; Shall include necessary standard hardware for ceiling install. Subwoofer shall support 2 or 4 satellite connections for flexibility.	Each	2				
8.3	NSI	Supply, installation, testing & Commissioning of Class D configurable amplifier with total 600W output power or better across 2 outputs, 4/8ohms, 70/100 Volt or mixed use operation; Frequency Response : 20Hz - 20kHz for LZ mode ; S/N Ratio > 99db and THD <.3% at rated output complete with standard accessories as required. Phoenix input and output connectors Built in DSP for Matrix routing, Speaker EQs, delays etc	Each	1				
8.4	NSI	Supply, Installation, testing and commissioning of zone controllers provide volume control. The zone controllers use Cat 5 wiring and can be daisy-chained using the two RJ-45 connectors for simplified wiring.	Each	1				
8.5	NSI	Supply, Installation, Testing and Commissioning of HD Set-Up Box complete with standard accessories as per tender specifications.	Each	1				
8.6	NSI	Supply, Installation, Testing and Commissioning of I-5 14" Laptop with 4GB Ram and 250GB Harddisk 7200 RPM to provide lag free fast performance. Long battery backup (4 hr+*) to ensure you remain productive for long hrs.Work in your comfort zone with 180-degree LCD movement and tactile keyboard with best feedback, Communicate effectively worldwide with array microphones and a high-performing antenna for ideal mobile broadband connections Connect anyway you like with Network connector (RJ-45); USB 2.0 (4) – 1 USB/eSATA combo; Stereo headphone/ Microphone combo jack, Memory card reader, 54 mm ExpressCard, 1394, Docking Connector, VGA, HDMI, 1 Full and 2 Half Mini Card Slots, integrated modem (RJ-11) option, TPM 1.21 complete with standard accessories as per tender specifications.	Each	1				
8.11	NSI	Supply, Installation, Testing and Commissioning of 2 core 14 AWG Speaker Cable with stranding 19x27, bare copper material, UL voltage rating-300V RMS, UL temp rating-75 degree, Operating Temp Range: -20°C To +75°C complete with standard accessories as per tender specifications.	Each	250				
8.14	NSI	Supply, Installation, Testing and Commissioning of 12 U av rack complete with standard accessories as per tender specifications.	Each	1				
8.15		Wireless Access Point:-						
8.16	NSI	Supply, Installation, Testing and Commissioning of Tri-band Wi-Fi System with Radio 1: IEEE 802.11b/g/n 2.4GHz-256QAM support, Radio 2: IEEE 802.11a/n/a/c 5GHz-256QAM support, Radio 3: IEEE 802.11a/n/ac 5GHz-256QAM support, 6 high-performance antennas with high-power amplifiers, Implicit/Explicit Beamforming for 2.4 & 5GHz bands (1,733 + 866 + 400Mbps), MU-MIMO capable for simultaneous data streaming on multiple devices, Four (4) 10/100/1000Mbps Gigabit Ethernet ports, Security: WPA/WPA2-PSK support; Three (3) wireless networks like Administrative devices, Employee devices and Guest devices with Capital Challenge. complete with standard accessories as per tender specifications	Each	1				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8.17	NSI	Supply, Installation, Testing and Commissioning of 24 port PoE network switch with Advanced VLAN support for better networksegmentation, L2/L3/L4 access control lists (ACLs) forgranular network access control including 802.1x port authentication, Advanced per port PoE controls for remotepower management of PoE connected devices including operation scheduling (e.g. Wireless APs, IP security cameras, LED lighting, secure access door locks, IoT devices...), Advanced QoS (Quality of Service) for trafficprioritization including port-based, 802.1p and L2/L3/L4 DSCP-based, Auto "denial-of-service" (DoS) prevention, IGMP Snooping and Querier for multicastroptimization, Rate limiting and priority queuing for betterbandwidth allocation, Port mirroring for network monitoring, Energy Efficient Ethernet (IEEE 802.3az) formaximum power savings complete with standard accessories as per tender specifications	Each	1				
8.18	NSI	Supply, Installation, Testing and Commissioning of Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system, Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond. ETL Verified, UL Listed andUL channel verified- All three Certificates are mandatory. Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel.	Each	400				
8.19	NSI	Supply, Installation, Testing and Commissioning of Bulk connector and accessories as required.	Each	1				
8.20		CCTV and Telephone						
8.21	NSI	Supply, Installation, Testing and Commissioning of 1/2.8" Progressive Scan CMOS sensor, Signal System:PAL/NTSC, Min. Illumination:Color: 0.01 Lux @(F1.2; AGC ON), 0.028 Lux @(F2.0; AGC ON), Shutter time:1/3 s to 1/100,000 s, Slow shutter:Support, Lens:2.8 mm, horizontal FOV: 114°, vertical FOV: 62°, diagonal FOV: 135° 4 mm, horizontal field of view: 86°, vertical FOV: 46°, diagonal FOV: 102°, Lens Mount:M12, Adjustment Range:Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°, Day& Night:IR cut filter with auto switch, Wide Dynamic Range:Digital WDR, Video Compression:H.265+/H.265/H.264+/H.264/MJPEG, Video bit rate:32Kbps~8Mbps, Audio Compression:G.711/G.722.1/G.726/MP2L2/PCM, Audio bit rate:64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2) complete with standard accessories as per tender specifications.	Each	3				
8.22	NSI	Supply, Installation, Testing and Commissioning of 4 port NVR with Two-way audio input: 1-ch, RCA (2.0 Vp-p, 1kΩ), Incoming bandwidth: 40Mbps, Outgoing bandwidth:80Mbps, HDMI Output:1-ch, resolution:4K (3840 × 2160)/30Hz,1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 ×1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz., Recording Resolution:8MP/6MP/5MP/4MP/3MP/1080p/UXGA/720p/VGA/4 CIF/DCIF/2CIF/CIF/QCIF, VGA Output:1-ch, resolution: 1920*1080P/60Hz, 1600*1200/60Hz, 1280*1024/60Hz, 1280*720/60Hz, 1024*768/60Hz, Audio Output:1-ch, RCA (Linear, 1kΩ), decoding Capability:4-ch@1080P, Live view / Playback:8MP/6MP/5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCI F/2CIF/CIF/QCIF, Network Interface:1 RJ-45 10 / 100 Mbps selfadaptive Ethernet interface, USB Interface:2, USB2.0 complete with standard accessories as per tender specifications.	Each	1				
8.23	NSI	Supply, Installation, Testing and Commissioning of Analog display phone with built-in speaker, slim design. C-ID, 30 call log, 5 redial memory, LCD(7 segment 2 line) complete with standard accessories as per tender specifications.	Each	1				

Sl. No.	DSR-2018	DESCRIPTION	UNIT	QTY.	DSR RATE	DSR Amount	NDSR RATE	NDSR Amount
8.24	NSI	Supply, Installation, Testing and Commissioning of Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system, Supports ultrahigh speed data networks such as Gigabit Ethernet (1000 Base-T and 1000 Base-TX) and beyond. ETL Verified, UL Listed and UL channel verified- All three Certificates are mandatory. Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel.	Each	1				
		<b>Sub total ELV System</b>						
9		<b>Safety items</b>						
9.1	NSI	Supply and fixing of fire extinguisher, ABC Type 4.00kg. Capacity (ISI Marked IS : 15683 & TAC approved) complete with initial charge and wall bracket, along with supply of all materials and labour for proper completion of work.	Each	2				
		<b>Sub total Safety items</b>						
		<b>Total</b>						
		<b>Grand Total</b>						

Note:

1. Considered 415V Power supply available at site with Full DG Back-up.
2. Considered Fire Alarm & Detection system is already available at site.



**Air-Conditioning Work for Wellington Pavilion at Firozshah Kotla New Delhi**

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
<b>A</b>	<b><u>For New Pavilion Block</u></b>				
1	<b><u>Variable Refrigerant Volume System (Heat Pump Type)</u></b>				
	Supply, installation, testing and commissioning of variable refrigerant volume modular type, Top discharge Heat Pump air-conditioning system complete with indoor and out door units with individual controller and with refrigerant top up with R-410a, M.S. stand, control cabling as per detail given in specifications and having following items:				
a)	<b><u>Outdoor Unit (Top Discharge Type)</u></b>				
	28 HP (22.4 TR)	Nos.	1		
	26 HP (20.8TR)	Nos.	1		
	16 HP (12.8TR)	Nos.	1		
b)	<b><u>Indoor Units</u></b>				
	VRV Ductable Unit : 8.0 TR	Nos.	4		
	VRV Ductable Unit : 6.4 TR	Nos.	1		
	VRV Cassette Unit : 3.2 TR	Nos.	1		
	VRV Cassette Unit : 2.6 TR	Nos.	2		
	VRV TFA Unit : 8.0 TR / 1250 CFM	Nos.	1		
	VRV TFA Unit :4.0 TR / 650 CFM	Nos.	1		
c)	Imported fittings Y-joints and headers etc.	Nos.	7		
d)	Corded remote controls	Nos.	7		
e)	Cordless remote controls	Nos.	3		
2	<b><u>Cassette Split Unit ( 5-Star Rating )</u></b>				
	Providing, fixing, testing and commissioning of cassette split unit airconditioners with evaporator with fan with motor, cooling coil, filter, decorative ceiling grill/panel condenser with hermetically sealed rotary/scroll compressor, CFC free refrigerant, condenser coil, propeller fan with motor, interconnecting refrigerant piping, control panel with cabling & earthing, cordless remote control, fresh air inlet damper with HDP filter M.S. frame for mounting condensing unit with 10 Rm refrigerent pipe & cabling complete as per specifications and drawings.				
2.1	2.5 Tons ( 5 star Rated )	Nos.	1		
3	<b><u>Floor Mount Tower AC Split Unit</u></b>				

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
	Providing, fixing, testing and commissioning of floor mounted Tower AC split unit airconditioners with evaporator with fan with motor, cooling coil, filter, condenser with hermetically sealed scroll compressor, CFC free refrigerant, condenser coil, propeller fan with motor, interconnecting refrigerant piping, control panel with cabling & earthing, cordless remote control, M.S. frame for mounting condensing unit with 15 Rm refrigerent pipe & cabling complete as per specifications and drawings.				
3.1	4.0 Tons	Nos.	6		
4	<b>Inline Fans</b>				
	Providing, fixing, testing and commissioning inline fans of G.I. construction complete with centrifugal fan with motor, canvass connection at inlet and outlet complete with electric panel with MCB and relays & and speed controller with 5 Rm cabling and earthing with louvers bird screen at outlet, complete as per standards, requirement and drawings.				
4.1	200 cfm, 10 mmwg S.P.	Nos.	2		
5	<b>Propeller Type Fan</b>				
	Providing, fixing, testing and commissioning of propeller type fan for exhaust complete with MCB panel with cabling complete as per specifications and drawings.				
5.1	100 cfm, 5 mmwg S.P, 300 dia.	Nos.	2		
6	<b>Refrigerant Piping</b>				
	Supply, installation, testing and commissioning of interconnecting refrigerant pipe work with (19mm/13 mm thick) closed cell elastomeric nitrile rubber tubular insulation between each set of indoor & outdoor units complete with supports, PVC sleeves as per requirements, all the piping shall be eddy current test certified the pipe installation shall be protected with UV & water protective coating of approved make as per specifications and drawings.				
6.1	34.9 mm O.D.(insulation : 19 mm) (Hard Pipe)	Rm	65		
6.2	28.6 mm O.D.(insulation : 19 mm) (Hard Pipe)	Rm	75		
6.3	22.2 mm O.D.(insulation : 13 mm) (Hard Pipe)	Rm	230		
6.4	19.1 mm O.D.(insulation : 13 mm) (Soft Pipe)	Rm	55		
6.5	15.9 mm O.D.(insulation : 13 mm) (Soft Pipe)	Rm	85		
6.6	12.7 mm O.D.(insulation : 13 mm) (Soft Pipe)	Rm	35		
6.7	9.5 mm O.D.(insulation : 13 mm) (Soft Pipe)	Rm	210		
6.8	6.4 mm O.D.(insulation : 13 mm) (Soft Pipe)	Rm	35		
7	<b>Drain Piping</b>				

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
	Supply, installation and testing of UPVC drain piping complete with fittings, U-trap, supports valves and insulated with 9 mm thick Nitrile rubber insulation complete as per standards, requirements and drawings.				
7.1	32 mm dia	Rm	75		
7.2	25 mm dia	Rm	35		
7.3	20 mm dia	Rm	40		
8	<b>Ducting</b>				
	Providing, fixing, testing and commissioning of steel metal ducting complete with supports, dampers, etc. as per specifications & drawings.				
8.1	<b>G.I. Sheet Metal Ducting (Rectangular) (Factory Fabricated)</b>				
8.1.1	0.63 mm (24 Gauge)	Sqm	150		
8.1.2	0.80 mm (22 Gauge)	Sqm	130		
8.1.3	1.25 mm (18 Gauge)	Sqm	20		
8.2	<b>G.I. Sheet Metal Ducting (Oval) (Factory Fabricated)</b>				
8.2.1	0.63 mm (24 Gauge)	Sqm	30		
8.3	<b>G.I. Sheet Metal Ducting (Rectangular) (Site Fabricated)</b>				
8.3.1	0.63 mm (24 Gauge)	Sqm	25		
8.3.2	0.80 mm (22 Gauge)	Sqm	10		
8.3.3	1.25 mm (18 Gauge)	Sqm	10		
9	<b>Duct Acoustic Lining</b>				
	Duct acoustic lining with glass wool insulation boards, covered with perforated aluminium sheet, nuts, bolts etc.				
9.1	25 mm thick	Sqm	35		
10	<b>Duct Insulation</b>				
	Providing and fixing Class 'O' of nitrile rubber insulation on ducts complete as per specifications and drawings.				
10.1	9 mm	Sqm.	90		
10.2	6 mm	Sqm.	250		
11	<b>Flexible Duct Connection</b>				
	Providing and fixing Fire retardant non porous double layer flexible connection between each indoor unit and duct.	Nos.	9		
12	<b>Grilles/Diffusers</b>				

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
	Providing, fixing, testing and commissioning supply and return air grilles/ diffusers as per specifications and drawings including fixing frame of G.I./wooden in false ceiling/walls.				
12.1	Aluminium supply air grill with damper	Sqm	2.8		
12.2	Aluminium return air grill without damper	Sqm	1.0		
12.3	Aluminium supply air diffuser with damper	Sqm	0.5		
12.4	Aluminium return air diffuser without damper	Sqm	0.5		
13	<b><u>Slot Diffusers</u></b>				
13.1	Supply and installation of aluminium slot diffuser of 3 slot 150 mm width linear type.	Sqm	9.5		
13.2	Supply and installation of Hit and Miss damper for slot diffuser, complete as per specification.	Sqm	2.2		
14	<b><u>Flexible Duct</u></b>				
	Flexible duct connection of Aluminium wired duct for slot diffuser with clamps.				
14.1	200 mm dia	Rm	20.0		
14.2	150 mm dia	Rm	10.0		
15	<b><u>Fresh / Exhaust air Louvers with Birdscreen</u></b>				
	Supply & installation of aluminium fresh / exhaust air louvers with bird screen and aluminium damper as per specifications and drawings.	Sqm	0.6		
16	<b><u>Control &amp; Transmission Wiring</u></b>				
	Supply and installaiton of control cum transmission wiring of 2 core x 1.5 sqmm copper in suitable conduits between indoor and out door unit.	Rm	350		
17	<b><u>Controller Wiring</u></b>				
	Supply and installaiton of control wiring of 2 core x 1.5 sqmm copper between indoor units and their wired remote.	Rm	150		
18	<b><u>Isolator</u></b>				
	Supplying & fixing of weather proof isolator with suitable rating near each VRV outdoor unit.				
18.1	63 Amp	Nos.	2		
18.2	40 Amp	Nos.	1		
19	<b><u>Cable / Pipe Tray</u></b>				
	Supplying and installation of following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.				
19.1	150 mm width X 50 mm depth X 1.6 mm thickness	Rm	125		
19.2	200 mm width X 62.5 mm depth X 2.0 mm thickness	Rm	250		

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
19.2	300 mm width X 62.5 mm depth X 2.0 mm thickness	Rm	80		
20	<b>Earthing</b> Double earthing continuity conductors of G.S.S between panel boards and equipments as required.	L.S.	L.S.		
<b>B</b>	<b>For Lounge Area</b>				
1	<b>Unitary Airhandling Units</b> Dismantling, servicing, reinstalling to new location, testing and commissioning of existing below mentioned ceiling mounted unitary type airhandling unit complete with all its fitted accessories and other required accessories like power cable as per specifications and drawings.				
1.1	1600 cfm	Nos.	8		
2	<b>Chilled water Cassette Units</b> Dismantling, of existing below mentioned ceiling mounted chilled water type cassette unit complete with all its fitted accessories and storing to new location..				
2.1	4.0 TR	Nos.	2		
3	<b>Ducting</b> Providing, fixing, testing and commissioning of steel metal ducting complete with supports, dampers, etc. as per specifications & drawings.				
3.1	<b>G.I. Sheet Metal Ducting (Oval) (Factory Fabricated)</b>				
3.1.1	0.63 mm (24 Gauge)	Sqm	200		
3.2	<b>G.I. Sheet Metal Ducting (Rectangular) (Site Fabricated)</b>				
3.2.1	0.63 mm (24 Gauge)	Sqm	20		
3.2.2	0.80 mm (22 Gauge)	Sqm	5		
3.2.3	1.25 mm (18 Gauge)	Sqm	25		
4	<b>Duct Acoustic Lining</b> Duct acoustic lining with glass wool insulation boards, covered with perforated aluminium sheet, nuts, bolts etc.				
4.1	25 mm thick	Sqm	35		
5	<b>Duct Insulation</b> Providing and fixing Class 'O' of nitrile rubber insulation on ducts complete as per specifications and drawings.				

S.No.	Description	Unit	Qty.	Rate per Unit	Amount (Rs.)
5.1	6 mm	Sqm.	175		
6	<b>Flexible Duct Connection</b>				
	Providing and fixing Fire retardant non porous double layer flexible connection between each indoor unit and duct.	Nos.	8		
7	<b>Grilles/Diffusers</b>				
	Providing, fixing, testing and commissioning supply and return air grilles/ diffusers as per specifications and drawings including fixing frame of G.I./wooden in false ceiling/walls.				
7.1	Aluminium supply air grill with damper	Sqm	3.2		
7.2	Aluminium return air grill without damper	Sqm	4.0		
7.3	Aluminium supply air diffuser with damper	Sqm	0.5		
7.4	Aluminium return air diffuser without damper	Sqm	0.5		
8	<b>Chilled Water Piping</b>				
	Providing, fixing , testing and commission- ing `C' class mild steel black steel pipes with all necessary fittings, supports & moulded pipe section of EPS insulation etc. as per specifications and drawings.				
8.1	<b>Piping</b>				
8.1.1	80 mm	Rm	12		
8.1.2	65 mm	Rm	12		
8.1.3	50 mm	Rm	15		
8.1.4	40 mm	Rm	15		
8.1.5	32 mm	Rm	40		
9	<b>Drain Piping</b>				
	Supply, installation and testing of UPVC drain piping complete with fittings, U-trap, supports valves and insulated with 9 mm thick Nitrile rubber insulation complete as per standards, requirements and drawings.				
9.1	50 mm dia	Rm	20		
9.2	40 mm dia	Rm	20		
9.3	32 mm dia	Rm	25		
9.4	25 mm dia	Rm	11		
	<b>Sub-Total Rs. (B)</b>				
	<b>Total Rs. (A+B)</b>				