

BID DOCUMENT
FOR

PROVIDING & LAYING L.T. CABLE WORK IN STONE MASONRY TRENCH

At

National Law University, JODHPUR

Total Number of pages: 23(Twenty Three)

S.no	Particulars	Details
1	Name of the firm	
2	Complete address	
3	Email ID OF FIRM	
4	Mobile Number	
5	Permanent account number (PAN)	
6	GST NUMBER OF FIRM	
7	EARNEST MONEY	Rs.65,000/-
8	EARNEST MONEY DETAILS	BANK NAME:- DD NUMBER:-
9	Date of submission of tender	06/11/24 UPTO 2.00 P.M.
10	Authorized Signatory	

Check List of Documents:-

S.No	Particulars
1	<p>Technical bid in sealed cover super scribed as “Technical Bid” with all required parameters as follows:-</p> <p>(A) Filled in bid document duly signed and stamped at the bottom of each page.</p> <p>(B) Annexure ‘B’ (CONSENT FOR TECHNICAL SPECIFICATIONS)</p> <p>(C) Demand Draft of Rs.65,000 /- submitted as Earnest Money</p> <p>(D) Copy of the Income Tax PAN card of the company/ Firm</p> <p>(E) Copy of valid GST Registration of company/ firm</p> <p>(F) Notarized self certification for not being debarred/blacklisted as per Annexure ‘A’.</p> <p>(G) Successful Completion certificate of Electrical work of total amount Rs 25.00 lacs or more (single work) in any one financial year out of financial years 2021-22,2022-23,2023-24,2024-25 from any Govt Department or any reputed educational organization.</p> <p>(H) The firm/contractor must have digital electrical license from the Govt.Department.</p> <p>(I) All electrical material used should have NABL Testing certificate.</p>
2	Price bid in Annexure C in separate sealed cover super scribed as “Financial Bid”

DETAILS OF TENDER CALL NOTICE

Sealed bids are invited for PROVIDING & LAYING L.T. CABLE WORK IN STONE MASONRY TRENCH at National Law University, Jodhpur.

Sl.No	Item	Quantity
1	PROVIDING & LAYING L.T. CABLE WORK IN STONE MASONRY TRENCH at National Law University, Jodhpur	As mentioned in schedule

Bid document for the above work can be obtained from the office of Registrar NLU, Mandore Road, Jodhpur, Rajasthan on all working days in between 10.00 A.M. to 5.00 P.M.. The bid documents can also be downloaded from University's Website (www.nlujodhpur.ac.in/tenders.php).

Bids will be received up to 2.00P.M. of 06/11/24 and the technical bid will be opened on the same day at 2.30 P.M in presence of the bidders or their authorized representatives if any. Opening date and time of financial bid shall be communicated subsequently after assessing the suitability and eligibility of the bidders.

1. Scope of Work:-

1.1 The trench work includes excavation work by manual means only I.e no machine,JCB are allowed to excavate the trench ,then laying 4” PCC (1:4:8) and then executing random rubble stone masonry work wall on both sides with clear gap of 1.5 to 2 feet (as per requirement) and 2 feet depth (6” above N.G.L. and 1.5’ below N.G.L.).

1.2 Plastering the trench on inside face of wall and putting undressed stone chap of on top after coping by 1:2:4 concrete.

1.3 Laying and commencing required cable on angles/supports/channel fixed on both wall of trench including testing etc,as per direction of engineer in charge.

1.4 Successful bidder shall be required to execute the work within 90 (Ninty days) days from the date of work order.

2. Eligibility Criteria

The bidding concern must fulfill all the following criteria for techno-commercial qualification of the tender.

2.1 The Bidder must have valid PAN, GST number. (attach document)

2.2 The firm must not have been debarred / blacklisted by any Govt. Deptt, agency, PSUs / institution / agencies / autonomous organisations. The bidder shall submit a self certification by an authorized person duly notarized to this effect.(attach self declaration certificate duly notary attested) in the prescribed format attached as Annexue”A”.

2.3 Successful Completion certificate of Electrical work of total amount Rs 25.00 lacs or more (single work) in any one financial year out of financial years 2021-22,2022-23,2023-24,2024-25 from any Govt Department or any reputed educational organization

2.4 The firm/contractor must have digital electrical license from the Govt.Department.

2.5 All electrical material used should have NABL Testing certificate

3. INSTRUCTIONS TO BIDDERS

- 3.1 A Bidder can submit a single bid only.
- 3.2 Incomplete, telegraphic or conditional bids shall not be accepted.
- 3.3 The contractor /firm shall not be allowed to transfer, assign, pledge or sub-contract work order/supply order under this contract to any other agency.
- 3.4 Prices quoted must be firm and fixed. No price variation / escalation shall be allowed during process of completion of the project.
- 3.5 The approved rate may be considered for future requirement with the consent of both the parties.
- 3.6 The bidders must sign at the bottom of each page of the bid documents at the time of submission in token of unconditional acceptance of the terms and conditions, technical specifications etc.
- 3.7 Valid GSTIN certificate / e-submission document duly self attested must be submitted along with the bid.
- 3.8 Deviations in terms and conditions, Specification of material, Inspection clause etc. will not be accepted under any condition.
- 3.9 Bids received late due to postal delay or otherwise **will not be considered**.
- 3.10 The bidders are required to furnish their offers in the price bid both in words & figures. In case of corrections ,if any, the original text/numerical must be clearly crossed out and re-written legibly above, below or on the side of the crossed out characters as per availability of space and the authorized person must put his dated initial under such corrections. In case of any conflict between figures and words, the lower rate shall prevail.
- 3.11 **Since timely execution of works is of paramount importance, requests for extension of time shall not be entertained.**

- 3.12 Canvassing in any manner shall not be entertained and will be viewed seriously leading to rejection of the bid.
- 3.13 University reserves its right to modify the bid document/details by way of amendment .Notification for Such amendment shall be notified only on university website, therefore bidders are advised to visit university website time to time.
- 3.14 Bids will be accepted & will be opened as per information mentioned in the notice-inviting tender. No receipt against submission of bid shall be issued by NLU, Jodhpur.
- 3.15 The last date of receipt of the bid is 06/11/24 upto 2.00 P.M. Sealed tenders may only dropped in the specified tender box kept in the **Office of Registrar**, NLU Jodhpur during office hours on working days. Bids received after due date & time will not be considered. If due to any reason the due date is declared as a holiday the bid will be opened on next working day at the same time.
- 3.16 The technical bid shall be opened on 06/11/24 at 2.30 P.M. in the office of Registrar, NLU Jodhpur, in presence of such bidders or their authorized representatives, who are present at the time of opening.
(The bid document should be submitted in two parts as detailed below:
- 3.16.1 Bids should be submitted in two separate sealed envelope as mentioned below & addressed to the Registrar, NLU Jodhpur, inside a sealed envelope super-scribed “Bid for LT Cable work in masonry trench should contain Technical Bid as per Annexure – B prescribed Firm Registration certificate, decleration in lieu of Earnest Money, Technical Specification, GST Registration , Commercial terms & conditions, notarized undertaking as per ANNEXURE “A” ,other bid documents duly signed & sealed, It should be super-scribed with **Part-1 Technical Bid** ". All the papers of bid documents except the price bid duly signed should be submitted in the first envelope.
- 3.16.2 Second sealed envelope (part-II) should contain Price bid as per Annexure –C in a separate sealed envelope. It should be super-scribed with **"PART II Price Bid"**. Any condition in regard to

financial aspects, payments, terms of rebate etc beyond the prescribed financial terms of NLU, Jodhpur will make the bid invalid. Therefore it is in the interest of the bidders not to write anything extra in the Price Bid in Annexure-C except price.

- 3.17 The procedure of opening of the bid shall be as under
- 3.17.1. First envelope "**PART-1 Technical Bid**" shall be opened at the time & date mentioned in the bid notice by NLU, Jodhpur representative in the presence of bidders, who choose to be present.
- 3.17.2 Second envelope (part-II) containing Price bid shall be opened after evaluation of technical-commercial suitability of the offer by assessing responsiveness in line with the requirements mentioned in the bid document. The time for opening of second envelope (Price bid) shall be informed separately after assessing and evaluation of technical bid. Second envelope of price bid only those bidders shall be opened who qualify in the technical bid. If necessary, the firms may be called for Technical Presentation of their product as per the time intimated by NLU, Jodhpur.
- 3.18 **Successful bidder shall be calculated on the basis of total cost of all items as mentioned in FINANCIAL bid**
- 3.19 In case of supply of any defective material or substandard material, the materials will be rejected & it will be the responsibility of the supplier for taking back & replacing the rejected materials at their own cost. In case of non-lifting of such rejected materials within a reasonable time offered by the office it will have the right to suitably dispose off the same and forfeit the amount.
- 3.20 The supplied materials/execution of work should strictly comply with the specifications as mentioned in the bid, otherwise the material would be liable for rejection.
- 3.21 Any clarification on the technical specification and commercial terms and conditions may be clarified in writing from NLU, Jodhpur
- 3.22 Deviation of any commercial terms and condition and technical specification shall not be entertained under no circumstances.

- 3.23 **Bidders may in their own interest visit the sites and undertake site visit before submitting bids. NLU, Jodhpur will not be responsible for any incidental or consequential losses of the firms while execution and till expiry of the period of maintenance.**
- 3.24 The contractor shall abide by all laws, rules and regulations framed there under or any other statutory obligations which are in force from time to time. The contractor/firm shall indemnify the Institute from any claims in this regards.
- 3.25 Any losses sustained by Institute due to negligence of contractor's service in the form of loss/damage of property, will be recoverable from the contractor, as the money value shall be estimated by the Institute. The decision of the institute in this regard will be final and binding on the contractor/firm.
- 3.26 The Contractor/firm will adopt all safety measures /precautions while executing the work/supply. In case of any accident /causality of any personnel, involved in work/supply the complete responsibility will be borne by the contractor/firm himself and University will not be held responsible for any claim/compensation.
- 3.27 University may take clarification from bidder and may take appropriate decision accordingly. The decision of University shall be final and binding to all.
- 3.28 NLU, Jodhpur does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected
- 3.29 The NLU, Jodhpur reserves its right to reject/accept any or reject all tenders at any time without assigning any reason thereof. It shall be without any liability towards the bidder.

3.30 The firm/contractor will adopt all safety measures /precautions while executing the work in relation to all material, equipment and accessories etc. University will not be responsible for any loss, theft, damage etc for any reason

4. COMMERCIAL TERMS & CONDITIONS:

4.1 EARNEST MONEY:-

4.1.1 Firm/Contractor must submit the Earnest Money of Rs 65,000/-, in the form of a Demand-draft issued by a Nationalized/Schedule Bank in favour of the Registrar, National Law University, Jodhpur payable at Jodhpur at the time of submission of tender documents. Earnest Money shall be refunded/adjusted against security deposit, if any, after award of work order, as the case may be.

4.1.2 In absence of earnest money, quotation of the firm shall not be entertained in any circumstances

4.1.3. In case of claim for exemption from deposit of Earnest money sufficient proof in support of claim for exemption of EMD as prescribed in Govt. of India Notification is to be attached with the bid.

4.2 Security Deposit:

4.2.1 The successful bidder must deposit the Security amount @ 10%(Ten percent) of the ordered value with the Registrar, NLU, Jodhpur within the time frame provided in letter for depositing of security in shape of DEMAND DRAFT OR irrevocable Bank Guarantees or FDR of equivalent amount for a period of one year.

4.2.2 The security deposit would be forfeited, if the firm/contractor denies to execute the work or supply the ordered items as the case may be.

4.2.3 The security deposit would be forfeited, if the supplies are not made or work not done as per the Terms & Conditions of the purchase order/bid document.

4.2.4 The security deposit amount will be refunded after the period of one year without any interest.

4.3 Payment:

4.3.1 Payment will be made after satisfactorily completion of work as per specifications after submission of GST bill by the firm and after inspection and verification by a committee constituted by the University.

4.3.2 In case supply /work is not found as per specifications of the University, whole supply/work shall be rejected and there shall not be any liability towards University for any reason.

4.4 PENALTY CLAUSE:-

In case of delay in supply/execution of work without prejudice to the right to reject the bid, penalty should be imposed as decided by the competent authority.

However, if there is any hindrance/barrier in execution of work from University side, then relaxation will be granted without penalty as deemed fit.

5. Settlement of Dispute:

5.1 All disputes pertaining to the work contract is limited to the jurisdiction of the courts at Jodhpur District, Rajasthan

5.2 Without prejudice to above, the parties reserve the right to enter into an Arbitration process in accordance with the relevant clause of Arbitration and Conciliation Act, 1996.

ACCEPTANCE

I/We have carefully read and understood the above terms and conditions of the bid and agree to abide by them.

SEAL AND SIGNATURE OF BIDDER

**DECLARATION REGARDING BLACKLISTING/DEBARRING FOR
TAKING PART IN TENDER**

(To be executed & attested by Public Notary/executive Magistrate on Rs 100/-non judicial stamp paper by the Tendered]

1. * I/We _____ of M/s _____ hereby declare that our company _____ having registered _____ address _____ at _____
_____ has never been ‘Blacklisted/debarred by any State/Central Govt,Department/Organization till date nor we are facing/filed any Litigation proceeding regarding debarring (blacklisting) with either of the above said agencies.

OR

1. * I/We _____ of M/s _____ hereby declare that our company _____ having registered address at _____
_____ was blacklisted or debarred by State/ Central Govt,Department/Organization from taking part in tenders for a period of _____ years wef _____ to _____ .the period is over on _____ and now the firm /company is entitled to take part in tenders.

2. In case of above information found false, I/we are fully aware that the tender/contract will be rejected/cancelled by National Law University, Jodhpur, and EMD/Security deposit shall be forfeited.
3. In addition to the above National Law University, Jodhpur will not be responsible to pay the bills for any completed /partially completed work/supply.

DEPONENT

ATTESTED:

(Public Notary/executive Magistrate)

NAME:- _____

Address: _____

***please strike out the non applicable para**

Annexure”B”

TECHNICAL SPECIFICATION & BID

S.no	Item	Appro. Qty	Unit	CONSENT YES/NO
1	Earth work in excavation by manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, with all lead and lift disposed earth to be levelled and neatly dressed : All kinds of soil	363.00	Cum	
2	Providing and laying in position cement concrete in tranches including curing, compaction etc. complete in specified grade excluding the cost of centering and shuttering - All work up to plinth level. 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	66.00	Cum	
3	Random Rubble stone masonry for with hard stone in tranches in Cement Sand mortar above 30 CM thick wall in:Cement Mortar 1:6 (1-Cement : 6-Sand).	250.80	Cum	
4	Plaster on new surface on walls of tranches in cement sand mortar 1:6 including racking of joint etc. complete fine finish :25 mm thick	660.00	sqm	
5	Supply and fixing 7 to 10 cm.thick bhura or red or equivalent stone chaps over tranches in cement mortar rough dressed 0.75 m. in length	412.50	Sqm	
6	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, making of lines or groove etc complete but excluding the cost of nosing of steps etc. complete. 40mm thick with 20mm/10mm thick nominal size aggregate.	418.00	Sqm	
7	Providing & Laying P.V.C. / XLPE insulated & P.V.C. sheathed Armoured Aluminium cable conforming to IS:1554 P-I / IS :7098 P - I of 1.1 KV with H4- Grade electrolytic aluminium conductor conforming to IS 8130 of purity >99.6 %, round / flat strip armouring of cables, Inner / outer sheath conforming to IS:5831 in existing RCC / Hume / Stoneware / PVC pipe/ open duct/cable trench / Cable tray(with cable tie) including testing etc. as required of following size. OEM must have it's own in house NABL accredited Laboratory for testing procedure as per IS:10810.For additional technical parameters of product / work refer as Enginner incharge. Make:- Havells , Polycab , KEI			
	120.0 Sq. mm 4 Core	1000.00	mtr	

8	<p>SITC of wall/ free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet , required hardware ,duly treated for derusting in 7 tank process with dephosphating and with powder coating on both side of panel in desired shade The panel having PU/ Neoprene rubber gasket of not less than 3mm thickness , separate detachable gland plate M.S. base channel ,hinged door with locking arrangement for equipment/switchgear . Thickness of sheet shall not be less than 1.6 mm up to 600 mm length / width of any compartment and be of 2.0 mm above 600 mm. Load bearing structure shall be of 2.0 mm thick sheet supported by base M.S. channel if required . Side walls and cable alley compartments having bolted type doors with / without detachable extension type structure.</p> <p>(only outer area on all sides shall be measured & panel to be fabricated from CPRI approved fabricator). Interconnection between busbar and swithgeard/cable/shall be rigidy supported and made out by flexible copper wires (up to 125 amp) and by solid bus bar(>125amp) All joints/interconnections of copper busbar shall be dully tinned. Clearence between main bus bar and risters/metal parts shall be at least 10 mm additional to width of bus bar. Bus Bar is insulated by heat shrikable sleeves earth and neutral by heat of the size of phase bus bar.</p>	7.50	Sqmtr	
9	<p>Supplying and fixing of Aluminium / Copper bus bar by means of SMC / DMC type insulator, high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves. As Per Required Engineer incharge</p>			
	Electrolytic grade Aluminium bus bar	15.00	KG	
10	SF of (0-500) V range Volt meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required.			
	Analog type (96 mm x 96 mm)	1.00	EACH	
11	SF of CT operated direct reading type Ampere meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required.			
	Above 500A	1.00	EACH	
12	SF of Current Transformer , with all necessary support in existing panel including connection etc. as required .			
	from 500 / 5 to 1600/5 Ratio , 15 VA , class 1	3.00	EACH	

	accuracy			
13	SF of selector switch of 10 A for voltmeter (4 position) including making connection etc. as required .	1.00	EACH	
14	SF of CT linked selector switch of 10 A for Ampere meter (4 position) including making connection etc. as required .	1.00	EACH	
15	SF of 110/220 V, LED (22.5 mm dia) Indicating lamp with integral circuit, terminal block, including connection etc. as required.			
i	Red/yellow/Green colour	8.00	EACH	
ii	Blue colour	1.00	EACH	
16	SITC of quick make and quick break 4 POLE current limiting MCCB having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings and conforming to IS 60947-2 / IEC 60947-2 with front face and centralised adjustable, line load interchangeability, having positive isolation capability, provision for UVR , shunt trip ,earth fault trip, push (test) to trip , including making connections with lugs & spreaders, etc. as required.			
	With Thermal Magnetic release			
i	250 Amp , 35 kA, adjustable O/L & fixed S/C setting, Ics = 100 % Icu	5.00	EACH	
ii	630 Amp , 35/50 kA, adjustable O/L & adjustable S/C setting, Ics = 100 % Icu	1.00	EACH	
17	Supply and fixing of following accessories for MCCB			
	Direct Rotary Handle	6.00	EACH	
18	Add extra in item no. 11.1 to 11.4 for Laying Charges for cable through Manual Boggi by making pit at regular interval and repairing the pit after laying of cable with PCC/ Bitumin As Per Required Engineer incharge	50.00	mtr	
19	Supplying and making end termination with heavy aluminium lugs (Pin / ring type) confirming to IS 8309 -1993 & IS 8337-1976 duly crimped with crimping tool, PVC tape etc of following size.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work			
	120.0 Sq.mm	72.00	EACH	
20	S/F cable route marker with 10cm x 10cm x 5mm thick or 10 cm dia. G.I.plate with inscription thereon, bolted/welded to 35mm x 35mm x 5mm angle iron, 60cm long and fixing the same in ground in C C (1:3:6) as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work As Per Required Engineer incharge	40.00	EACH	

21	Shifting of Existing Panel As per Engineer direction form one place to other with all respect of work like remove , Shifting , and installation and reconnect to existing cable as well as per Engieneer incharge	2.00	Job	
22	Supply & fabrication steel structure with MS channel /angle/ joist / ISMB/sheetetc. including welding, rivetting, cutting, nut & bolt ,onecoat of primer & two coat of enamel paint etc. as required complete in all respect.All as per pre approved by Engineer in charge.	400.00	kg	
23	Plate Earthing as per IS:3043 with copper Earth plate of purity >95% of size 600mm x 600mm x 3.0mm by embodying 3 mtr. below the ground level with 20 mm dia. G.I. 'B' class watering Pipe ,including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and Heavy duty weather proof poly-propylene earth pit chamber with lockable Jam free lid suitable for safe working load 5000 Kg or more of size Top Dia. 225 to 260 mm, Bottom Dia 300 to 350 mm. and Height 250 to 300 mm. and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance for value of 5 ohms or less as required All as per pre approved by Engineer in charge.	12.00	EACH	

Annexure”C”

FINANCIAL BID

S.No	Item	Qty	Unit	Price per unit		Total Amount	
				In Figures	In words	In Figures	In words
1	Earth work in excavation by manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, with all lead and lift disposed earth to be levelled and neatly dressed : All kinds of soil	363.00	Cum				
2	Providing and laying in position cement concrete in tranches including curing, compaction etc. complete in specified grade excluding the cost of centering and shuttering - All work up to plinth level. 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	66.00	Cum				
3	Random Rubble stone masonry for with hard stone in tranches in Cement Sand mortar above 30 CM thick wall in:Cement Mortar 1:6 (1-Cement : 6-Sand).	250.80	Cum				

4	Plaster on new surface on walls of tranches in cement sand mortar 1:6 including racking of joint etc. complete fine finish :25 mm thick	660.00	sqm				
5	Supply and fixing 7 to 10 cm.thick bhura or red or equivalent stone chaps over tranches in cement mortar rough dressed 0.75 m. in length	412.50	Sqm				
6	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, making of lines or groove etc complete but excluding the cost of nosing of steps etc. complete. 40mm thick with 20mm/10mm thick nominal size aggregate.	418.00	Sqm				
7	Providing & Laying P.V.C. / XLPE insulated & P.V.C. sheathed Armoured Aluminium cable confirming to IS:1554 P-I / IS :7098 P - I of 1.1 KV with H4- Grade electrolytic aluminium conductor confirming to IS 8130 of purity >99.6 %, round / flat strip armouring of cables, Inner / outer sheath confirming to						

	IS:5831 in existing RCC / Hume / Stoneware / PVC pipe/ open duct/cable trench / Cable tray(with cable tie) including testing etc. as required of following size. OEM must have it's own in house NABL accredited Laboratory for testing procedure as per IS:10810.For additional technical parameters of product / work refer as Enginner incharge. Make:- Havells , Polycab , KEI						
	120.0 Sq. mm 4 Core	1000.00	mtr				
8	SITC of wall/ free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet , required hardware ,duly treated for derusting in 7 tank process with dephosphating and with powder coating on both side of panel in desired shade The panel having PU/ Neoprene rubber gasket of not less than 3mm thickness , separate detachable gland plate M.S. base channel ,hinged door with locking arrangement for equipment/switchgear . Thickness of sheet shall not be less than 1.6 mm up to 600 mm length / width of any compartment and be of 2.0 mm above 600 mm. Load bearing structure	7.50	Sqmtr				

	<p>shall be of 2.0 mm thick sheet supported by base M.S. channel if required . Side walls and cable alley compartments having bolted type doors with / without detachable extension type structure.</p> <p>(only outer area on all sides shall be measured & panel to be fabricated from CPRI approved fabricator).</p> <p>Interconnection between busbar and swithgeard/cable/shall be rigidy supported and made out by flexible copper wires (up to 125 amp) and by solid bus bar(>125amp) All joints/interconnections of copper busbar shall be dully tinned. Clearence between main bus bar and risters/metal parts shall be at least 10 mm additional to width of bus bar. Bus Bar is insulated by heat shrikable sleeves earth and neutral by heat of the size of phase bus bar.</p>							
9	<p>Supplying and fixing of Aluminium / Copper bus bar by means of SMC / DMC type insulator, high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves. As Per Required Engineer</p>							

	incharge						
	Electrolytic grade Aluminium bus bar	15.00	KG				
10	SF of (0-500) V range Volt meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required.						
	Analog type (96 mm x 96 mm)	1.00	EACH				
11	SF of CT operated direct reading type Ampere meter on existing panel , making connection by PVC insulated copper conductor with PVC sleeves / channel etc. as required.						
	Above 500A	1.00	EACH				
12	SF of Current Transformer , with all necessary support in existing panel including connection etc. as required .						
	from 500 / 5 to 1600/5 Ratio , 15 VA , class 1 accuracy	3.00	EACH				
13	SF of selector switch of 10 A for voltmeter (4 position) including making connection etc. as required .	1.00	EACH				
14	SF of CT linked selector switch of 10 A for Ampere meter (4 position) including making connection etc. as required .	1.00	EACH				
15	SF of 110/220 V, LED (22.5 mm dia) Indicating lamp with integral circuit, terminal block, including connection etc. as required.						

i	Red/yellow/Green colour	8.00	EACH				
ii	Blue colour	1.00	EACH				
16	SITC of quick make and quick break 4 POLE current limiting MCCB having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings and conforming to IS 60947-2 / IEC 60947-2 with front face and centralised adjustable, line load interchangeability, having positive isolation capability, provision for UVR , shunt trip ,earth fault trip, push (test) to trip , including making connections with lugs & spreaders, etc. as required.						
	With Thermal Magnetic release						
i	250 Amp , 35 kA, adjustable O/L & fixed S/C setting, Ics = 100 % Icu	5.00	EACH				
ii	630 Amp , 35/50 kA, adjustable O/L & adjustable S/C setting, Ics = 100 % Icu	1.00	EACH				
17	Supply and fixing of following accessories for MCCB						
	Direct Rotary Handle	6.00	EACH				
18	Add extra in item no. 11.1 to 11.4 for Laying Charges for cable through Manual Boggi by making pit at regular interval and repairing the pit after laying of cable with PCC/Bitumin As Per	50.00	mtr				

	Required Engineer incharge						
19	Supplying and making end termination with heavy aluminium lugs (Pin / ring type) confirming to IS 8309 - 1993 & IS 8337-1976 duly crimped with crimping tool, PVC tape etc of following size.All as per pre approved by Engineer in charge. For additional technical parameters of products/ work						
	120.0 Sq.mm	72.00	EACH				
20	S/F cable route marker with 10cm x 10cm x 5mm thick or 10 cm dia. G.I.plate with inscription thereon, bolted/welded to 35mm x 35mm x 5mm angle iron, 60cm long and fixing the same in ground in C C (1:3:6) as required. All as per pre approved by Engineer in charge. For additional technical parameters of products/ work As Per Required Engineer incharge	40.00	EACH				
21	Shifting of Existing Panel As per Engineer direction form one place to other with all respect of work like remove , Shifting , and installation and reconnect to existing cable as well as per Engieneer incharge	2.00	Job				
22	Supply & fabrication steel structure with MS channel /angle/ joist / ISMB/sheetetc. including welding, rivetting, cutting, nut &	400.00	kg				

	bolt ,onecoat of primer & two coat of enamel paint etc. as required complete in all respect.All as per pre approved by Engineer in charge.						
23	Plate Earthing as per IS:3043 with copper Earth plate of purity >95% of size 600mm x 600mm x 3.0mm by embodying 3 mtr. below the ground level with 20 mm dia. G.I. 'B' class watering Pipe ,including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and Heavy duty weather proof poly-propylene earth pit chamber with lockable Jam free lid suitable for safe working load 5000 Kg or more of size Top Dia. 225 to 260 mm, Bottom Dia 300 to 350 mm. and Height 250 to 300 mm. and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance for value of 5 ohms or less as required All as per pre approved by Engineer in charge.	12.00	EACH				
					Total		
					TAX		
					G.Total		