INSTITUTE WORKS DEPARTMENT, IISER MOHALI NOTICE INVITING SHORT TERM TENDER IISER/EE-EO/TENDER/12/4

- 1. Indian Institute of Science Education and Research (IISER) Mohali, invites item rate tenders for the work of "Cable Management System for Lecture Hall at IISER Mohali"
- 2. Estimated Cost = 2.97,302/-
- 3.Earnest Money Deposit (EMD) = Rs.6,000/-
- 4.Notice Inviting Tender (NIT), General and special terms and conditions Bill of Quantities (BOQ) attached herewith constitute the Tender Document. Interested Agencies/Contractors may download the tender document or obtain the same from the office of the undersigned on payment of Rs.563/- in the form of Demand Draft favouring Registrar, IISER Mohali.

5.Sealed tenders shall be received up to 1500 hrs (3.00 PM) on 12.03.12 in the office of Executive Engineer, IISER Mohali, Chandigarh and technical bids shall be opened at 15.30 hrs (3.30 PM) on the same day i.e.12.03.12 in the presence of bidders who wish to be present.

Executive Engineer

Head IWD, IISER Mohali

(Established by Ministry of Human Resource Development, Govt. of India) IISER Mohali, Sector-81, Knowledge City, SAS Nagar-140306

Phone No.: 0172-2240110 Website: www.iisermohali.ac.in

Notice Board

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER) MOHALI

NOTICE INVITING SHORT TERM TENDER FOR

"Cable Management System for Lecture Hall at IISER Mohali"

1

Sealed tenders are invited on the behalf of Director IISER Mohali from the contractors for the work of "Cable Management System for Lecture Hall at IISER Mohali"

Estimated cost: Rs.2,97,302/-

Earnest Money: Rs.6,000/- favoring Registrar, IISER Mohali and payable at Chandigarh.

2.

This contract document consists of schedule of quantities, tender form, brief specifications, can be had at a cost of Rs. 563/- from the office of the undersigned favoring Registrar, IISER Mohali and payable at Chandigarh.

3(A)

The tender shall be received by the undersigned by 1500 hrs on 12.03.12 and envelope No. 1 only containing earnest money, conditions and tender documents shall be opened on the same day at 1530 hrs in the presence of tenderer or their authorized representative who may like to be present. No consideration will be given to a tender received after the above stipulated time and date . Eligibility related documents shall be evaluated for criteria stipulated at 3(B) and agencies/contractors will accordingly be qualified/disqualified by the competent Authority. The financial bid (Envelope No 2) of qualified tenderer shall then be opened at notified time, date and place in presence of tenderer or their representative. The rates of each items must be quoted in figures and words.

3(B)Contractors who fulfill the following criteria shall be considered by IISER Mohali for technical evaluation (if required) and opening of commercial bids:

I)Contractors /firms should have successfully completed during last 7 years ending last day of the month previous to the one in which the bidding are invited, either three similar works costing not less than 40% or two similar works costing not less than 50% and one similar work costing not less than 80% of the estimated cost of the work out of which at least one should have been executed in Govt departments.

- II)Average annual financial turn over during the last 3 (three) years ending 31st March of the previous year should at least be 30% of the estimated cost of work.
- I11) Not incurred loss in more than two years during the last five years ending 31st March of the previous year.
- 4.The time allowed for the completion of work is one month to be reckoned from the seventh day of date of written order to commence the work.

- 5. Every tender shall be accompanied by earnest money for Rs.6,000/- in the form of demand draft only drawn in favour of the "Registrar, IISER Mohali" payable at Chandigarh . Any tender not accompanied by such earnest money will not be opened. The earnest money in the shape of demand draft/bank guarantee of successful bidder will be adjusted towards initial security deposit.
- 6. The contractor will submit his tender after examining the whole of the tender documents, condition of the contract, clauses of contract, agreement specifications and drawings etc. He may familiarize himself with the site conditions, if he desires so.
- 7. The offer shall remain valid for 120 days from the date of submission of tender. The value of the tender quoted shall be valid for any variation upto 30 percent of the contract value of said work. Any item can be withdrawn or substituted without any claim from the contractor.
- 8. If any tenderer whose tender is accepted fails to undertake the work as per terms of the contract within ten days to be reckoned from the date of issue of allotment letter, the earnest money deposited by him will be forfeited.
- 9. The Engineer -In-Charge (on the behalf of Director IISER) does not bind himself to accept the lowest or any tender and reserves the right to reject any or all tenders without assigning any reason.
- 10. Canvassing in connection with tenders is strictly prohibited and the tender submitted by the contractor who resorts to canvassing will be liable to rejection.
- 11. The undersigned will not reimburse any expenditure, whatsoever, that may be incurred by tenderer's for the preparation and submission of tenders.
- 12. This notice inviting tenders, form the part of the contract agreement to be executed by the successful tenderer with the Engineer -In-Charge
- 13)All the correspondence on the above tender shall be addressed to undersigned.
- 14) The Institute reserves the right to accept or reject any tender without assigning the reasons thereof.

GENERAL CONDITIONS OF THE TENDER

- 1. The rates shall be quoted in the enclosed schedule of quantities and duly signed by the contractor.
- 2. Rates to be inclusive of all taxes, duties ,royalty, VAT, etc.
- 3. Rates to remain firm during the duration of work as well as for the extended period, if any No escalation in rates will be allowed in any circumstances.
- 4. The contractor shall comply with all statutory requirements in respect of said work.
- 5. The work shall be for the period of one month to be reckoned from the day of issue of award letter.
- 6. All work to be carried out as per specifications stipulated in DNIT.
- 7. Work to be executed in accordance with CPWD general conditions of contract and all payments/guarantee/security/and other conditions as deemed necessary shall be governed in accordance with it.
- 8. EMD amounting to Rs.6,000/- in favour of Registrar IISER, Mohali payable at Chandigarh.

Executive Engineer
EXECUTIVE ENGINEER
CUM ESTATE OFFICER

IISER, MOHALI

General Commercial & Technical Conditions: (Only Rolevent knt + k real)

- All the works shall be carried out as per CPWD General specification for Electrical Works, Part-I (Internal); Part-II (External)-1995; Part-IV (Sub-Station)-2007, amended up to date and should also comply with relevant provisions of the Indian Electricity Rules and Acts as applicable, amended up to date.
- 2.0 The contractor is advised to visit the site of work to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.
- 3.0 Rates:
- 3.1. The work shall be treated as on works contract basis and the rates tendered shall be for complete items of work (except the materials, if any, stipulated for supply by the department) inclusive of all taxes (including works contract tax, if any), duties, and levies atc. and all charges for items contingent to the work, such as packing, forwarding, incurance, freight and delivery at site for the materials to be supplied by the contractor, watch and ward of all materials (including those supplied by the department, if any) for the work at site etc.
- 3.2. Prices quoted shall be firm.
- 4.0 Taxes and Duties:
- 4.1. Being an indivisible works contract, Sales Tax, Excise Duty etc. are not payable separately
- 4.2. The works contract tax shall be deducted from the bills of the contractor as applicable in the State in which the work is carried out, at the time of payments.
- 50 Mobilization Advance:

No mobilization advance shall be paid for the work, unless otherwise stipulated in tender papers for any individual works/ composite work.

6.0 Completeness of Tender:

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.

7.0 Works to be arranged by the department:

Unless and otherwise specified in the tender documents, the following works shall be arranged by the Department:

Works to be done by the contractor:

Unless and otherwise mentioned in the tender documents, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost:-

- (i) Foundations for equipments and components where required, including foundations bolts.
- (ii) Cutting and making good all damages caused during installation and restoring the same to their original finish.
- (iii) Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same.
- (iv) Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/distribution gear items, cubicle switchboard etc. Damages to finished surfaces of these items while handling and erection, shall however be rectified to the satisfaction of the Engineer-in-Charge.
- (v) Testing and commissioning of completed installation.
- (vi) Storage space for all equipments, components and materials for the work

9.0 Storage and Custody of Materials:

The contractor has to make his own arrangement for the storage of the material at site a necessary watch and ward of the electrical installation during the execution of work till the same is handed over to the department. No extra payment will be made on this account. The storage space shall however be arranged by the department at site, if available.

The main contractor shall arrange for proper storage of the electrical fans and fittings at site and that double lock system shall be arranged for the ions and fittings after receipt at site until the time they are taken for installation. The contractor shall however be responsible for proper storage and safe custody of the same till their installation and handing over to the department.

10.0 Electric Power Supply and Water Supply:

Power and water cupply will be arranged by the contractor at the site for installation purpose Hovever, for testing purpose after complete installation of the electrical items, electricity supply will be made available free of cost to the contractor. Contractor will take due care to ensure safety of electrical installation during execution of work.

11.0 Tools for handling and Erecting:

All tools and tackles required for handling of equipments and materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor.

12.0 Payment Terms:

Payment shall be made as per the relevant clauses of form PWD 7/8 forming part of the tender documents.

13.0 Co-ordination with other agencies:

The contractor shall co-ordinate with all other agencies involved in the building work so that the building work is not hampered due to delay in his work. Recessed conduit and other works, which directly affect the progress of building work should be given priority.

13.1. Care of buildings:

Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove, at his costs, all unwanted and waste materials arising out of his work, from the site.

14.0 Structural Alterations to Buildings:

- (i) No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-n-charge.
- (ii) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications, or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost
- (iii) All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains etc. as the case may be, by any suitable means as approved by the Engineer-in-charge without any extra payment.
- (iv) All chases required in connection with the electrical works shall be provided and filled by the contractor at his cwn cost to the original architectural finish of the buildings.

15.0 Addition to an installation:

Any addition, temporary or permanent to the existing electrical installation shall not be made without a properly worked out scheme design by a qualified Electrical Engineer to ensure that such addition does not lead to overloading, safety violation of the existing system.

16.0 Work in occupied buildings:

- (i) When work is executed in occupied buildings, there would be minimum of inconvenience to the occupients. The work shall be programmed in consultation with the Engineer-in-charge and the occupying department. If so required, the work may have to be done even before and after the office hours.
- (ii) The contractor shall be responsible to abide by the regulations or restrictions set in regard to entry into, and movement within the premises.
- (ii) The contractor shall not tamper with any of the existing installations including their switching operations or connections there to without specific approval from the Engineer-in-charge.

- (i). The work shall be carried out in accordance with the drawings and the tender documents and also in accordance with modification thereto from time to time as
- approved by the Engineer-in-charge.
- (ii) All wiring diagrams shall be deemed to be 'Drawings' within the meaning of the term as used in Clause 11 of the conditions of contract (PWD 7 or PWD 8). They shall indicate the main switch board, the distribution boards (with circuit numbers controlled by them), the runs of various mains and sub mains and the position of all points with their controls.
- (iii) All circuits shall be indicated and numbered in the wiring diagram and the points shall be given the same number as the circuit to which they are electrically connected.
- After award of the work, the firm will be required to submit the drawings for the (iv) proposed work including layout plan, conduit routes etc. Work will be carried out as per the approved drawings.

18.0 Conformity to IE act, IE Rules, and standards:

18.1. All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1955 amended up to date (Date of call of tender unless specified otherwise). List of rules of particular importance to electrical installations under these General Specifications is given in Appendix C for reference.

19.0 General requirements of components:

Quality of material: All materials and equipments supplied by the contractor shall be new. 19.1. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site

20.0 Inspection of materials and equipments:

- 20.1. Materials and equipments to be used in the work shall be inspected by the departmental officers. Such inspection will be of following categories:
 - (i) Inspection of materials / equipments to be witnessed at the Manufacturer's premises in accordance with relevant BIS /Agreement Inspection Procedure.
 - (ii) To receive materials at site with Manufacturer's Test Certificate(s)
 - (iii) To inspect materials at the authorized dealer's go downs to ensure delivery of genuine materials at site.
 - (iv) To receive materials after physical inspection at site.
- Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by firm. The firm shall ensure that:
 - (i) Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
 - (ii) As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, rising main, other main items etc, its copy shall be endorsed to the CPWD Engineer-incharge.

- (iii) The firm will be required to procure material like electrical fittings & fans, exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears, rising mains, poles, outdoor fittings etc. directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor if required by the department.
- (iv) Inspection at factory or at godown, as required, shall be arranged by the firm for a mutually agreed date.
- (v) Delivery of material shall be taken up only with the consent of department, after clearance of the material.
- (vi) Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.
- 20.3. Similarly, for fabricated equipments, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

21.0 Ratings of components:

- 21.1. All components in a wiring installation shall be of appropriate ratings of voltage, current and frequency, as required at the respective sections of the electrical installations in which they are used.
- 21.2. All cenductors, switches and accessories shall be of such size as to be capable of carrying the maximum current which will normally flow through them, without their respective ratings being exceeded.

22.0 Conformity to standards:

- 22.1. All components shall conform to relevant Indian Standard Specifications wherever existing.

 Materials with ISI certification mark shall be preferred.
- 22.2 Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.

23.0 Interchangeability:

Similar parts of all switches lamp holders, distribution fuse boards, Switch gears, ceiling roses, brackets, pendants, fans and all other fittings of the same type shall be interchangeable in each installation.

24.0 Workmanship:

- 24.1. Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- 24.2. Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor of appropriate class suitable for execution of the electrical work. He shall engage suitably skilled/licensed workmen of various categories for execution of work supervised by supervisors / Engineer of appropriate qualification and experience to ensure proper execution of work. They

will carry out instruction of Engineer-in-charge and other senior officers of the Department during the progress of work.

- 24.3. Use of quality materials: Only quality materials of reputed make as specified in the tender will be used in work.
- 24.4. Fabrication in reputed workshop: Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, powder/epoxy paint plant, proper testing facilities, manned by qualified technical personnel. These shall be as per make / item approved.

25.0 Testing:

All testes prescribed in this General Specification, to be done before, during and after installation, shall be carried out, and the test results shall be submitted to the Engineer-incharge in prescribed Performa, forming part of the Completion Certificate.

26.6 Commissioning on completion:

After the work is completed, it shall be ensured that the installation is tested and commissioned.

- 27.0 Completion plan and completion certificate:
- 27.1. For all works completion certificate after completion of work as given in Appendix –E of CPWD Specification shall be submitted to the Engineer-in-charge.
- 27.2. Completion plan drawn to a suitable scale in tracing cloth with ink indicating the following, along with three blue print copies of the same shall also be submitted
 - (i) General layout of the building.
 - (ii) Locations of main switchboard and distribution boards, indicating the circuit numbers controlled by them.
 - (i) Position of all points and their controls.
 - (iv) Types of fittings, viz. fluorescent, pendants, brackets, bulk head, fans, exhaust fans etc.
 - (i) Name of work, job number, tender reference, actual date of completion, names of Division/ Sub-division and name of the firm who executed the work with their signature

28.0 Guarantee

The installation will be handed over to the department after necessary testing and commissioning. The installation will be guaranteed against any defective design/workmanship. Similarly, the materials supplied by the contractor will be guaranteed against any manufacturing defect, inferior quality. The guarantee period will be for a period of 12 months from the date of handing over to the department. Installation/ equipments or components thereof shall be rectified/ repaired to the satisfaction of the Engineer-in-charge.

INTERNAL AND EXTERNAL EI WORKS

Additional Conditions

- 1. All repairs & patch work shall be neatly carried out to match with the original finish & all damages caused to the building installation during the execution of work shall have to be made good by the contractor immediately at his own cost to the entire satisfaction of Engineer-incharge. In case contractor fails to comply with the instructions of the Engineer-in-charge. Engineer-in-charge shall be at liberty to get the work done by any other agency and recover such amount as paid to the other agency from the bill(s) of the contractor. Contractor shall have no claim, whatsoever, on the extent of such amount.
- 2. Wherever ceiling roses are not required to be provided in the light/fan/exhaust fan points, due to site conditions, the contractor shall use suitable three pin connectors for which nothing extra shall be paid. Wiring shall be carried out with FR wires.
- Contractor shall provide polythene/PVC plastic cover for all MDB's/SDB's/DB's to protect them
 from rust/damages, during execution of work till the work is actually completed and handed over
 to the department.
- 4. The loose wire boxes/cable end boxes (adaptor boxes) shall be provided on the various electrical boards to facilitate the termination of the wiring in the various mountings. The boxes shall be of the same make as the DB's as far as possible. Wherever the company made cable end boxes are not available they shall be neatly fabricated with 16 SWG CRCA sheet steel, duly powder ocated, dust & vermin proof and the front cover of MS sheet shall be with rubber gasket suitably screwed or with 3mm thick phenolic laminated sheet of Hylam/Formica instead of MS sheet, as desired by the Engineer-In-charge. The length of such boxes shall be same/or more as the width of the electrical switchboard. Such loose wire boxes are deemed included in the scope of the work and no extra payment shall be made for them.
- 5. All debris/malba resulting due to electrical work shall the removed on daily basis and completion of the work shall only be accepted after the site has been cleaned of all melba. In case, contractor fails to comply, the same shall be get removed by the other agency and the payment so made shall be recovered from the bill(s) of the contractor.
- 6. The contractor shall have to make arrangements, at his own risk and cost, for transportation of materials from the point of issue of stores to site of work, if any.
- 7. Makes of all items that are not covered in the schedule of work/additional specifications shall be got approved from the Engineer-in-charge and shall conform to relevant Indian Standard as applicable.
- 8. The contractor shall ensure that the staff employed by him for execution of the electrical work, possess the valid electrical license issued by competent authority. Consequences arising due to the default of the contractor in not complying with the above condition shall be the responsibility of the contractor.
- 9. Copper lugs shall be provided for terminating copper/aluminium/GI earth wire to all switchboards for which nothing extra shall be paid. All multistranded/ stranded wires shall be terminated through copper lugs.

- 10. All concealed work and earthing shall be done in the presence of the Engineer-in-charge or his authorized representative.
- 11. The schematic diagram/dimensional drawings of the various electrical cubical panels shall be got approved from the Engineer-in-charge before fabrication and shall comply with CPWID specifications and Indian Electricity Rules. The panels shall conform to IS: 8623/1993. All panels shall be powder coated inside out, in shade approved by the Engineer-in-charge.
- 12. All floor-mounted panels shall be mounted on 75mmX75mmX6mm thick M.S. channel on all the sides. It shall have a continuous earth bus of the same size and material as the main phase running continuously along the length of the panel extending on either side for earth connection.
- 13. The doors of all cubicle panels shall be hinged type including those of bus bar chambers and cable alleys. The locking shall be with chrome plated metal key locks. All doors shall be earthed with copper conductor wire as approved by the Engineer-in-charge.
- 14. The work shall be carried out according to drawing approved by the Engineer-in-charge. The layout once approved can only be changed by the Engineer-in-charge as per requirement at site. It shall be the responsibility of the contractor to plan the layout and get the approval from the Engineer-in-charge before laying the conduits etc.
- 15. The MCB should be of the same make as that of MCB DB's and having a minimum breaking capacity of 10 KA. Contractor shall obtain approval of the Engineer-in charge before procurement of MCB DB's.
- 16. All model of modular accessories required for the work shall be got approved from the Engineer-in-charge from among the approved makes. The base plate shall be preferably in sheet steel or otherwise in unbreakable polycarbonate. The cover plates shall be acrew less type in shade approved by the Engineer-in-charge.
- 17 Contractor shall have to check the Site Order Book for any instructions of the Engineer-incharge or his authorized representative and sign the site order book. He shall be bound to ensure compliance with the instructions recorded therein.
- 18. The MCCB's shall be compatible for reliable protection and accurate measurement. The rated Service breaking capacity (kArms) shall be 100% of Ultimate breaking capacity (kArms). All MCCB's shall be current limiting type with features as per relevant IS codes and CPWD specification.
- 19. MCCB's shall be used with terminal spreaders and all terminals shall be shrouded to avoid direct contact.

- 20. Mechanical Castle key interlock shall be provided among the incomer MCCB's, wherever, as applicable, two different incomer sources are provided in the panel as per the directions of the Engineer in charge. The same is deemed included in the scope of work.
- 21. ** All measuring and indicating instruments shall be protected through fuses/ MCB's and isolating switches.
- 22. General arrangement drawing of the switchboard shall be got approved from the Engineer-in-Charge before commencement of manufacturing.
- 23. For the items like LT panels, feeder pillars and accessories, etc, the firm shall arrange for inspection in the factory and provide for all facilities for testing. The cost of the visit of Engineer-in-Charge or his representative shall be borne by department. However, firm will be responsible for arranging the inspections as required.
- 24. Conduit layout as per switching arrangement shall be prepared by contractor and got approved from the Engineer-in-Charge before slab casting.
- To facilitate drawing of wires 16/18 SWG G.I fish wire shall be provided alongwith laying of recessed conduit for which no extra payment shall be made to contractor.
- Conduit and termination to SDB and main board adapter box i/c connection wires to MCB,s interconnection between SDB and main board etc shall be included in the tendered rates and nothing extra shall be paid for the same.
- 27. The contractor shall provide junction boxes / Icoping boxes of required sizes and such boxes shall be measured as part of conduit / botton wiring without any extra payment.
- 28. Conly brass screws along with brass washers will be used for fixing Phenolic laminated sheet covers and at other places aluminum alloy/ brass / cadmium plated screws will be used.
- 29. M.S.dash fastner shall be used for installation of fittings and fixtures in ceiling and for providing suspenders for the angle support, conduiting, caple tray etc. for which nothing extra shall be paid.
- All Cl/metal boxes & junction boxes should be cleaned properly and painted from inside before wiring & fixing the accessories.
- 31. In wiring items like point wiring / wiring for light and power plug /circuit wiring / submain wiring, the item includes the cost of conduit also.

LIST OF APPROVED MAKE OF ELECTRICAL ITEMS

<u>S.No.</u>	<u>Item</u>	Name of Manufacturer's		
	•			
1.	Cable Management System with accessories	MK/Legrand		
2.	MCBDB/MCB	L&T(Hager)/Legrand/Siemens/Schneider		
3.	PVC insulated copper conductor single/ multi core stranded wires of 650/1100 V grade (ISI marked)	Finolex/BCH/L&T/Polycab		
4.	Thimbles	Dowells/Johnson		

EXECUTIVE ENGINEER CUM ESTATE OFFICER HISER, MOHALI

BOQ NAME OF WORK- CABLE MANAGEMENT SYSTEM FOR LECTURE HALL IISER, MOHALI

S.No.	DSR No.	Description	Unit	Qty.	Rate	Amount
		CABLE MANAGEMENT SYSTEM				
1.0	NS	Supplying and Fixing, PVC Trunking (Cable Management System) with base and lid i/c accessories like end cap, internal & external end cap complete etc as required.				
	a	180X60mm (List No. VP 180 WHI) make MK = Prestige 3D, main Carrier With respective covers	Mtrs.	45		
	b	100X50mm (CAT No. NCT 1050) with 50mm deep Cable Divider make MK =Premier System, Commercial Dado Trunking	Mtrs.	145		
	С	50X50mm (ISI Mark)	Mtrs.	50		
2.0	1.17.	Supplying and drawing following size of FR PVC copper conductor, single core cable in the existing surface/recessed steel/PVC conduit as required.				
	1.17.12	3 x 2.5 Sq-mm	Mtrs.	500		
3.0	2.5	Supply and fixing of following ways surface/recessed mounting vertical type 415 volt TPN MCB distribution board of sheet steel, dust protected, duly powder painted inclusive of 200 amp tinned copper bus bar, neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) as required.				
	2.5.6	12 way (4+36), Double door	Each	1		
4.0	2.10	Supplying and fixing 5 amp to 32 amp rating, 240/415 volts, "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.				
	2.10.1	Single Pole	Each	38		
5.0	2.13	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.13.1	40 Amps	Each	1		
		TOTAL				

(Contractor)

EXECUTIVE ENGINEER CUM ESTATE OFFICER IISER, MOHALI





