

Rail Infrastructure Development Company (Karnataka) Limited

K-RIDE

(A Joint Venture of Ministry of Railways and Govt. of Karnataka)

Regd. Office : MSIL House, 7th Floor, # 36, Cunningham Road, Bangalore - 560 052

Tel : (91-80-22370581, Fax : 91-80-22370582

CIN : U60100KA2000PLC028171 Email Id : ceo.kride@gmail.com

KRIDE/ADMN/09/Office interiors /2019

30th December 2019

TO WHOMSOEVER IT MAY CONCERN

Dear Sir/Madam,

Sub: Tender for "Office Interiors for KRIDE Office at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore"

M/s.Rail Infrastructure Development Company (Karnataka) Ltd., invites tenders from competent contractors to execute the work of "Office Interiors for KRIDE Office at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore-560 010".

Interested and eligible firms/companies may apply in prescribed format to M/s.Rail Infrastructure Development Company (Karnataka) Ltd., MSIL House, 7th Floor, No.36, Cunningham Road, Bangalore 560052.

The tender documents and the formats can be downloaded from the website: www.kride.in or www.hmrdc.com. You are requested to go through the information and send your tender Quotation in the format prescribed.

Submission of last date for Tender is 23rd January 2020 at 3.00 PM.

Any corrigendum to this Tender will be only issued in the Website stated above and no paper advertisement will be issued separately.

Thanking you,

Yours faithfully,

For Rail Infrastructure Development Company (Karnataka) Limited



(S.N. SRINIVASA)
Authorised Signatory

Encl: a/a.

KRIDE

RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED

Regd. Office: MSIL House, 7th Floor, #36, Cunningham Road, Bangalore – 560 052
Tel: +91-80-2237 0581, Fax: +91-80-2237 0582, website : www.kride.in and www.hmrdc.com
CIN No. U60100KA2000PLC028171, E-mail: mdkride@gmail.com

TENDER DOCUMENT FOR OFFICE INTERIORS FOR KRIDE OFFICE AT 1ST FLOOR, SAMPARKA SOUDHA, OPP ORION MALL, RAJAJINAGAR, BANGALORE

Tender Document No. KRIDE/ADMN/09/Office Interiors /2019 Dated:30.12.2019

**Last date of Submission of Tender is 23rd January, 2020
@ 3.00 pm**

ISSUED BY

Rail Infrastructure Development Company (Karnataka) Limited

Regd. Office : MSIL House, 7th Floor, #36, Cunningham Road,
Bangalore – 560 052

Tel : +91-80-2237 0581, Fax : +91-80-2237 0582,

website : www.kride.in and www.hmrdc.com

CIN No.U60100KA2000PLC028171

E-mail: mdkride@gmail.com

Note: This document contains a total of 92 pages. No change in the document by the tenderer is permissible



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SECTION-1

TENDER INFORMATION SHEET

Document Description	Tender Document for Office Interiors for KRIDE Office at 1 st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore
Estimated cost work	Rs. 3,29,35,459.30
Tender No.& Date	KRIDE/ADMN/09/Office Interiors/2019 Dated:30.12.2019
Last date & Time of Submission of Response to Tender Document	23.01.2020 at 15:00 hours.
Tender Opening Date	23.01.2020 at 15:15 hours
Validity of Tender	45 (Forty Five) days from the date of opening of tender.
Earnest Money Deposit	2% of the estimated cost (Rs.6,58,709/-) in the form of Demand Draft/Payorder favouring M/s. Rail Infrastructure Development Company (Karnataka) Limited payable at Bangalore.
Address for submission of Response to Tender Document	Rail Infrastructure Development Company (Karnataka) Limited MSIL House, 7 th Floor, #36, Cunningham Road, Bangalore – 560 052

Important Note:

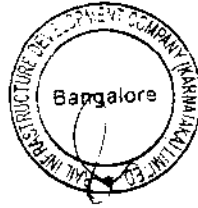
Prospective Tenderers are requested to remain updated for any notices/amendments/clarifications etc. to the Tender Document through the websites www.kride.in and www.hmrhc.com. No separate notifications will be issued for such notices/amendments/clarifications etc. in the print media or individually.



SECTION-2

INTRODUCTION

Rail Infrastructure Development Company (Karnataka)., was incorporated as a Public Limited Company on 22.11.2000 for carrying on the business of acting as a nodal agency for implementation of infrastructure projects and facilities in Karnataka. The company entered into MoU with Ministry of Railways to expedite development and implementation of railway projects in Karnataka. The Company has obtained on lease the office premises at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore and intends to call for tenders to execute the office interior works as stated in this tender Notifications.



SECTION-3

TENDER INSTRUCTIONS TO TENDERERS

3.1 Obtaining Tender Document:

The Tender document can be downloaded free of cost from the website of the company, www.kride.in and www.hmrdc.com.

- a) The Tender shall be submitted in the prescribed form attached to this notice.
- b) Prospective tenderers interested to participate in the tender process are required to submit their competitive quotes in response to this Tender Document.

3.2 Tender Submission date and Opening date

The Tenderers shall submit their competitive quotation in a sealed envelope in the format enclosed with this Tender Document. The last date for submission of tender is as mentioned in the Tender information Sheet. No tender quotation shall be accepted after the date and time mentioned above. The tender quotations shall be opened on the same day as mentioned in the Tender Information Sheet.

3.3 Documents to be signed and submitted by Tenderers

The quotation shall be signed by the individual legally authorized to enter into commitments on behalf of the Tenderer. Only one quotation is permitted to be submitted by a person/firm/company.

The Tenderers are advised to examine the various conditions and submit necessary documents accordingly. In case of non-submission of any of the desired information, tenders may not be qualified for which KRIDE reserves its right to accept or reject.

3.4 Basic documents:

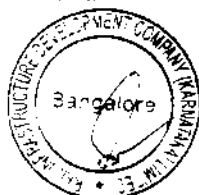
1. Letter of authorization in favour of the person to sign this tender and represent his/her company for this contract.
2. Duly signed Tender Format by the Authorized signatory.
3. 2% of the estimated cost of the tender towards EMD (Rs.6,58,709/-) in the form of Demand Draft/Pay order favouring M/s. Rail Infrastructure Development Company (Karnataka) Limited payable at Bangalore.

3.5 Documents in Support of Eligibility:

1. Copy of Certification of Incorporation, Memorandum and Articles of Association / Partnership Deed in case of Company/Partnership firm.
2. Copy of GST registration certificate and PAN.
3. Contact details of the registered office and Branch Office if any in Bangalore.

3.6 Validity of the Response to Tender Document

The Tenderer shall submit the response to Tender Document which shall remain valid up to 45 (Forty Five) days from the date of opening of tender. KRIDE reserves the right to reject any response to Tender Document which does not meet the above-mentioned validity requirement.



3.7 Selection of successful Bidder

After tender opening, the quotations submitted shall be evaluated by KRIDE on the basis of the total quote for the above tendered work. The evaluation of tender quotations shall be carried out as described in Section 5.

3.8 Earnest Money Deposit (EMD)

- i) The tenderer shall be required to submit an EMD value of 2% of the estimated cost of the tender (Rs.6,58,709/-) by way of DD/Pay order favouring M/s. Rail Infrastructure Development Company (Karnataka) Limited, Bangalore, for the due performance of stipulation for keeping the offer open till such date as specified in the tender. Tenders not accompanied with earnest money deposit as provided in the Tender Information Sheet shall be summarily rejected.
- ii) It shall be understood by the tenderer that the tenderer is permitted to quote his rate in considerations of the stipulation on his/her part, that after submitting his/her tender, he/she will not hold back from his offer or modify the terms and conditions thereof in a manner not acceptable to KRIDE.
- iii) Should the tenderer fail to observe or comply with the said stipulation, the EMD amount shall be liable to be forfeited.
- iv) The EMD of the successful tenderer will be returned after submission of Security Deposit upto 5% of contract amount or the EMD will be adjusted against the Security Deposit amount.
- v) The EMD of the unsuccessful tenderers shall be returned to them within one month of issue of LoA to the successful tenderer. But KRIDE will not be liable to pay any interest thereon.
- vi) In case it is found that, the tenderer/s has furnished misleading/wrong or fraudulent information / documents or information furnished by them is not found to be true, the Earnest Money of the tenderer/s will be forfeited. Such tenderers shall be barred from participating in future tenders of KRIDE for 5 years.

3.9 Security Deposit (SD):

Selected tenderer will have to submit Security Deposit equivalent to 5% (Five percent) of total cost of whole work (Rs.16,46,773/-) as per the LoA in the form of Fixed Deposit Receipt or Bank Guarantee within 15 days of issue of letter for acceptance. The selected tenderer can also confirm in writing authorising the KRIDE to deduct the amount of security deposit from the 1st bill of the successful tenderer. Failure to submit Security Deposit or authorisation to deduct SD from the 1st Bill as stated above will result in termination of award of work/contract. Further, Security Deposit shall be valid till the date of completion of the contract. The Security Deposit will be refunded within 60 days after satisfactory completion of the contract. The Security Deposit shall be interest-free and the successful tenderer is not entitled to any interest thereon. The Security Deposit shall be released only after the successful completion of the contract. Security Deposit shall be forfeited by KRIDE in the event of Successful Tenderer's failure to complete its obligations under the Contract or breach of contract conditions. This may be in addition to the application of Penalties which KRIDE may recover.

3.10 Tender selection process:

The tenderers shall submit their sealed tender quotations in a separate sealed envelope. The tenders not accompanied with EMD will be summarily rejected.



3.11 Financial Quote

The prices quoted in the tender should be without any conditions.

- i) The quotation shall be in format prescribed and price quote must be filled in completely, without any error, erasures or alterations as per the specified format given in section 9 Format 1 & 2.
- ii) The Financial quote shall be on a fixed price basis inclusive of all taxes and duties. No price variation should be asked on account of any reasons.
- iii) Price quotation accompanied by vague and conditional expression will be treated as invalid and shall be liable for rejection.
- iv) The envelope containing the tender quotation shall be **superscribed as "Tender Document for Office Interiors for KRIDE Office"** and handed over at KRIDE office on or before the last date and time mentioned above. In addition to the above, the envelope shall also contain the name and address of the tenderer.
- v) Prices quoted will be firm for the entire period of Contract.
- vi) It is the responsibility of the Tenderers to clearly identify all costs associated with any item or series of items in this Tender Document and submit the total cost in the tender quotation inclusive of all taxes and duties.
- vii) The tenderer shall ensure that there is no discrepancy in the rates mentioned in figures and words. In case of any discrepancy, the unit rate mentioned in the words shall be taken as final and binding.
- viii) In the event of arithmetic calculation mistake, the individual price in words shall be considered for calculation.
- ix) The tenderer must fill and submit the rates as per instructions given above. If the tenderer does not quote a price/rate for any item in the quotation, his tender may be summarily rejected. The tenderer shall not make any addition or alteration in the tender quotation formats. The requisite details should be filled in by the tenderer wherever required in the tender quotation documents. Incomplete tender or tender not submitted as per instructions is liable to be rejected.

3.12 Non-Transferable

Neither the contract nor any rights granted under the contract may be sold, leased/sublet, assigned, or otherwise transferred, in whole or in part, by the successful tenderer, and any such attempted sale, lease, assignment or otherwise transfer shall be void and of no effect. The successful tenderer shall not subcontract or permit anyone other than its personnel to perform any of the work, service or other performance required to be done by the successful tenderer under the contract.

3.13 Deviations

The tenderer should clearly read and understand all the terms and conditions, specifications, etc. mentioned in the original tender notice. No deviations of any kind will be entertained in the tender quotation.

3.14 Deadline for submission of Tender

The tender duly filled must be received by KRIDE at the address specified not later than the date and time mentioned in the "Tender Information Sheet". Tender received later than the deadline prescribed for submission of tender by KRIDE will be rejected. Tenders can also be accepted by post if received before expiry of time of receipt of tender document. However, KRIDE will not own any responsibility for delay in postal transit. **Any tender received in person/By post after last date and time notified will not be opened and such tenders will not be considered for evaluation purpose. If**



the opening date happens to be a holiday, the tenders will be received and opened on the next working day at the same time. However, there will not be any change in last date of issue of tender document on this account.

3.15 Withdrawal of Tender

No Tender can be withdrawn after submission and during tender validity period. Submission of a tender by a tenderer implies that he had read all the tender documents including amendments if any, has made himself aware of the scope and specifications of the Tender Document for Office Interiors for KRIDE Office and other factors having any bearing on the execution thereof.

3.16 Opening of Tender

Tenders will be opened at the address mentioned in "Tender Information Sheet" in presence of tenderers or authorized representatives of tenderers who wish to attend the opening of tenders.

Tenderers or their authorized representatives who are present shall sign register in evidence of their attendance.

Tenderer's name, presence or absence of requisite documents, total cost of project quoted or any other details as KRIDE may consider appropriate will be announced and recorded at the time of tender opening.

3.17 Clarification of the Tender Quotation

To assist the examination, evaluation and comparison of the tenders, KRIDE may at its discretion ask the tenderers for any clarifications as considered essential. All such correspondence shall be in writing and no change in price or substance of the tender shall be sought or permitted. The above clarification for submission of the details shall form part of the tender and shall be binding on the tenderer.

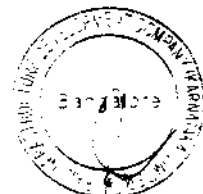
3.18 Examination of the Tenders

KRIDE shall determine whether each tender is of acceptable quality, is generally complete and is substantially responsive to the tender documents. For purposes of this determination, a substantially responsive tender is one that conforms to all the terms, conditions and specifications of the tender documents without material deviations, objections, conditionally or reservation. If a tender is not substantially responsive, it shall be rejected by the KRIDE. In case of tenders containing any conditions or deviations or reservations about contents of tender document, KRIDE may ask for withdrawal of such conditions/deviations/reservations. If the tenderer does not withdraw such conditions/deviations/ reservations, the tender shall be treated as nonresponsive.

KRIDE's decision regarding responsiveness or non-responsiveness of a tender shall be final and binding.

3.19 Canvassing

No tenderer is permitted to canvass to KRIDE on any matter relating to this tender. Any tenderer found doing so may be disqualified and his tender may be rejected.



3.20 Award of Contract

KRIDE shall issue LoA (Letter of Award) in token of acceptance of the tender quotation to the successful tenderer in writing by a Registered Letter/Courier/Speed Post or per bearer. This shall constitute a legal and binding contract between KRIDE and the successful tenderer.

Successful tenderer shall execute a signed and stamped Contract Agreement on stamp paper of requisite value in favour of KRIDE within 7 days from the receipt of letter of Award and shall commence the work. **The entire work shall be completed within 3 months from the date of entering into contract agreement.**

3.21 Method of Submission

The response to Tender Document is to be in the following manner: -

- i) **Covering letter:** - The covering letter shall be in the format 1 as prescribed and placed in the sealed envelope superscribed as "Tender Document for Office Interiors for KRIDE Office" along with a DD/Pay order towards EMD;

It should be addressed to KRIDE and shall contain:

A. Covering Letter as per Format - 1

B. DD/Pay order towards the EMD

- ii) **"Financial Quotation"** – The Financial quotation as per **Format - 2** shall be enclosed to the covering letter as stated above.
- iii) Schedule of quantities as per Format 3 and
- iv) Certificate of familiarisation as per Format – 4

Important note: The tenderers shall not deviate from the naming and the numbering formats mentioned above, in any manner.

3.22 Clarifications/Enquires/ Amendments

- (i) Clarifications if any, on Tender Document may be sought at the address mentioned in the Tender Information Sheet.
- (ii) Amendment/s if any will be uploaded in the website of KRIDE for information of all concerned i.e. www.kride.in and www.hmrhc.com. All are requested to remain updated with the website. No separate reply/intimation will be given for the above, elsewhere.

3.23 Right of KRIDE to reject a Tender

KRIDE reserves the right to reject any or all of the responses to Tender Document or cancel the Tender Document without assigning any reasons whatsoever and without any liability.

3.24 Cancellation of Contract

- i) The KRIDE reserves the right to cancel the contract of the successful tenderer and recover expenditure incurred by the KRIDE on the following circumstances:
- ii) The successful tenderer commits a breach of any of the terms and conditions of the contract.
- iii) The successful tenderer goes into liquidation voluntarily or otherwise.



- iv) The progress regarding execution of the contract, made by the successful tenderer is found to be unsatisfactory.
- v) After the award of the contract, if the successful tenderer does not perform satisfactorily or delays execution of the contract, the KRIDE reserves the right to get the balance contract executed by another party of its choice by giving 7 days notice for the same. In this event, the successful tenderer is bound to make good the additional expenditure, which the KRIDE may have to incur to carry out contract process for the execution of the balance of the contract. This clause is applicable, if for any reason, the contract is cancelled.
- vi) KRIDE reserves the right to recover any dues payable by the successful tenderer from any amount outstanding to the credit of the successful tenderer, under this contract or any other contract/order.
- vii) The Security Deposit will be returned to the successful tenderer without any interest on performance and completion of the contract and on fulfilment of warranty obligations for the complete terms and period of the contract.

3.25 Important notes and instructions to Tenderers

- a. Wherever information has been sought in specified formats, the Tenderers shall fill in the details as per the prescribed formats and shall refrain from any deviations and referring to any other document for providing any information required in the prescribed format.
- b. If the Tenderer conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in its response to Tender Document, in any manner whatsoever, KRIDE reserves the right to reject such response to Tender Document and/or cancel the Letter of Award, if issued and the EMD/SD/PG provided upto that stage shall be en-cashed. Tenderer shall be solely responsible for disqualification based on their declaration in the submission of response to Tender Document.
- c. Response submitted by the Tenderer shall become the property of the KRIDE and the KRIDE shall have no obligation to return the same to the Tenderer. However, the EMDs submitted by unsuccessful tenderers shall be returned as specified in Clause 3.8.
- d. All pages of the response to Tender Document submitted must be signed and stamped by the authorized person on behalf of the Tenderer.
- e. Tenderer may carefully note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. The decision of KRIDE in this respect shall be final and binding.
- f. The Tenderer must obtain for itself on its own responsibility and its own cost all the information including risks, contingencies & other circumstances in execution of the contract. It shall also carefully read and understand all its obligations & liabilities given in tender documents.
- g. KRIDE may at its discretion extend the deadline for submission of the tenders at any time before the time of submission of the tenders.
- h. Tenderers shall mention the name of the contact person and complete address of the tenderer in the covering letter.
- i. Response to Tender Document that are incomplete, which do not substantially meet the requirements prescribed in this Tender Document, will be liable for rejection by KRIDE.
- j. Tenderers delaying in submission of additional information or clarifications sought will be liable for rejection.
- k. Non submission and/or submission of incomplete data/ information required under the provisions of Tender Document shall not be construed as waiver on the part of KRIDE of the obligation of the Tenderer to furnish the said data/information unless the waiver is in writing.



- l. Only Bangalore Courts shall have exclusive jurisdiction in all matters pertaining to this Tender.
- m. KRIDE reserves the right to delete items from the schedule of requirements specified in the tender. KRIDE also reserves the right to alter the quantity and vary specifications.
- n. KRIDE reserves the right to make any changes in the terms and conditions of the tender.
- o. KRIDE shall be under no obligation to accept the lowest or any other offer, including those received late or incomplete offers, without assigning any reason whatsoever.
- p. KRIDE will not be obliged to meet and have discussions with any tenderer, and or to listen to any representations.
- q. **Care in Submission of Tenders:** Before submitting a tender, the Tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the Tender Forms are adequate and all inclusive to accord with the provisions contained in the tender for the completion of works to the entire satisfaction of KRIDE.
- r. The Tenderer shall quote item rates/lump sum rates and must tender for all the items shown in the schedule of approximate quantities attached. The quantities shown in the attached schedule are given as a guide and are approximate only and are subject to variation according to the needs of the KRIDE. The KRIDE does not also guarantee work under each item of the schedule.



SECTION-4

General Conditions of Contract (GCC)

4.1 Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

4.2 Language of Tender & other documents

- 1) The tender prepared by the tenderer shall be in the format prescribed and shall be in English language. The tender shall accompany any supporting documents as may be required. The contract shall be written in English language, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
- 2) The Contractor is expected to mobilize within 7 days of award of contract and start the work physically at site.
- 3) Contractor should be in a position to deploy sufficient number of working teams at a time. The deployment of working teams and their weekly progress should be adequate to complete the work within the stipulated time-frame.
- 4) A weekly progress report certified by authorized KRIDE's representative in the format specified shall be sent to KRIDE's Office positively, by every Monday by fax/courier for the work done during preceding week, with a copy of the same shall be given to the KRIDE's Representative. The responsibility of fax communication will be entirely of the Contractor. In addition the Contractor shall convey daily progress in the format and mode approved by the KRIDE.
- 5) Contract Price adjustment is not applicable in this Contract. KRIDE reserves the right for making payment for any item on reduced rate if in the opinion of KRIDE, item has not been executed fully as per specifications. The reduced rate shall be determined by Engineer-in- Charge and shall be binding on the Contractor.
- 6) The contractor will not be allowed to further sub contract any part of the work allotted to him, except under approval of KRIDE for which the contractor shall submit a detailed request.
- 7) KRIDE reserves the right to reject any or all tenders without assigning any reason.
- 8) All works shall be done to the desired accuracy and standard as per governing specifications and sound professional expertise for engineering surveys.
- 9) Unsatisfactory performance of the contractor or failure to adhere to any of the conditions stipulated in the tender/contract document shall attract forfeiture of the security deposit. In addition, KRIDE reserves the right to terminate the entire contract or part of it and get work executed through other agencies.



4.3 Payment

- 4.3.1 The Successful Tenderer's request(s) for payment shall be made to KRIDE in writing, accompanied by an invoice describing, as appropriate, and upon fulfilment of other obligations stipulated in the contract.
- 4.3.2 Payment will be based on the rates quoted by the Successful Tenderer in his quotation & accepted by KRIDE.
- 4.3.3 Payments shall be made promptly by KRIDE to the Successful Tenderer subject to verification & approval by KRIDE upon completion of entire work or in parts thereof at the discretion of KRIDE.
- 4.3.4 Payment shall be made in Indian Rupees.
- 4.3.5 In the event of excess release of funds to Successful Tenderer, KRIDE shall demand and recover from Successful Tenderer such excess disbursements and Successful Tenderer would be liable to refund the excess disbursements.
- 4.3.6 Taxes, if any, as applicable shall be deducted at source from all the payments made to the Successful Tenderer.

4.4 Prices

Price mentioned in the Notification of Award shall be firm and not subject to escalations till the execution of the complete order and its subsequent amendments accepted by the Successful Tenderer.

4.5 Contract Amendments

No variation in or modification of the terms of the Contract shall be accepted except by amendment issued by KRIDE.

4.6 Assignment

The Successful Tenderer shall not assign, in whole or in part, its obligations to perform under the Contract, except with KRIDE's prior written consent.

4.7 Default in Contracts obligation

- 4.7.1 In case of any default or delay in performing any of the contract obligation, KRIDE reserves the right to recover the actual damages/loss from the successful Tenderer.
- 4.7.2 In addition to the above, KRIDE may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Successful Tenderer, terminate the Contract in whole or part under the following circumstances:
 - i) If the Successful Tenderer fails to deliver any or all of the Work as required by KRIDE.
 - ii) If the Successful Tenderer fails to perform any other obligation(s)/duties under the Contract.
 - iii) If the Successful Tenderer, in the judgment of KRIDE has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.



4.8 Force Majeure

- 4.8.1 Notwithstanding the provisions of tender, the Successful Tenderer shall not be liable for Penalties or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 4.8.2 For purpose of this clause, "Force majeure" means an event beyond the control of the Successful Tenderer and not involving the Successful Tenderer's fault or negligence and not foreseeable, either in its sovereign or contractual capacity. Such events may include but are not restricted to Acts of God, wars or revolutions, fires, floods, epidemics, quarantine restrictions etc. Whether a "Force majeure" situation exists or not, shall be decided by KRIDE and its decision shall be final and binding on the Successful Tenderer and all other concerned.
- 4.8.3 In the event that the Successful Tenderer is not able to perform his obligations under this contract on account of force majeure, he will be relieved of his obligations during the force majeure period. In the event that such force majeure extends beyond six months, KRIDE has the right to terminate the contract.
- 4.8.4 If a force majeure situation arises, the Successful Tenderer shall notify KRIDE in writing promptly, not later than 14 days from the date such situation arises. The Successful Tenderer shall notify KRIDE not later than 3 days of cessation of force majeure conditions. After examining the cases, KRIDE shall decide and grant suitable additional time for the completion of the Work, if required.

4.9 Termination for Insolvency

KRIDE may at any time terminate the Contract by giving written notice to the Successful Tenderer, if the Successful Tenderer becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Successful Tenderer, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to KRIDE.

4.10 Termination for Convenience

KRIDE, by written notice sent to the Successful Tenderer, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for KRIDE's convenience, the extent to which performance of the Successful Tenderer under the Contract is terminated, and the date upon which such termination becomes effective.

4.11 Award Criteria

KRIDE will award the Contract on turnkey basis to the Successful Tenderer whose rate has been determined to be substantially responsive and has been determined as the lowest evaluated price.

4.12 Notification of Award/Letter of Award

Prior to the expiration of the period of Tender validity, KRIDE will issue Notification of Award of Contract to the Successful Tenderer in writing by letter or by fax/Email, to be confirmed in writing by letter, that its Tender has been accepted.

The Notification of award will constitute the formation of the Contract.



4.13 Successful Tenderer Integrity

The Successful Tenderer is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

4.14 Successful Tenderer's Obligations

- 4.14.1 The Successful Tenderer is obliged to work closely with KRIDE's staff, act within its own authority and abide by directives issued by KRIDE. The Successful Tenderer will abide by the statutory norms/Govt. rules prevalent in India and will free KRIDE from all demands or responsibilities the cause of which is the Successful Tenderer's negligence. The Successful Tenderer will pay all indemnities arising from such incidents and will not hold KRIDE responsible or obligated.
- 4.14.2 The Successful Tenderer will treat as confidential all data and information about KRIDE, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of KRIDE.

4.15 Settlement of Disputes

- 4.15.1 If any dispute of any kind whatsoever shall arise between KRIDE and Successful Tenderer in connection with or arising out of the contract including without prejudice to the generality of the foregoing, any question regarding the existence, validity or termination, the parties shall seek to resolve any such dispute or difference by mutual consultation.
- If the same is not resolved through mutual consultation, the same shall be referred to the Sole Arbitrator, appointed by KRIDE. The arbitration shall be conducted in accordance with the provision of the Indian Arbitration and Conciliation Act, 1996.
- 4.15.2 The Arbitrator may from time to time, with the consent of all parties extend the time in making the award.
- 4.15.3 The cost incidental to the arbitration shall be at the discretion of the Arbitrator. The arbitration shall be conducted at Bangalore.
- 4.15.4 Notwithstanding any dispute between the parties Successful Tenderer shall not be entitled to withhold, delay or defer his obligation under the contract and same shall be carried out strictly in accordance with the terms & conditions of the contract.
- 4.15.5 The arbitrator shall give his speaking or reasoned award with respect to the disputes referred to him by either of the parties.
- 4.15.6 If for any reason an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate in accordance with the provisions of applicable laws and a substitute shall be appointed in the same manner as the original arbitrator.
- 4.15.7 Arbitration proceedings shall be conducted with The Arbitration and Conciliation Act, 1996. The venue or arbitration shall be Bangalore.
- 4.15.8 Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the agreement unless otherwise agreed mutually.



4.16 Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India.

4.17 Notices

4.17.1 Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by email and confirmed in writing to the other Party's address specified in Tender quotation.

4.17.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

4.18 Taxes and Duties

Except as otherwise specifically provided in the Contract, the Successful Tenderer shall bear & pay all taxes, duties, levies and charges including GST if applicable in connection with the completion of the contract. Any taxes & duties shall be to the Successful Tenderer's account and no separate claim in this regard will be entertained by KRIDE.

4.19 Successors and Assigns

In case KRIDE or Successful Tenderer undergoes any merger or amalgamation or a scheme of arrangement or similar re-organization by an order / decree of court & this contract is assigned to any entity (ies) partly or wholly, the contract shall be binding mutatis mutandis upon the successor entities & shall continue to remain valid with respect to obligation of the successor entities.

4.19 (a) Severability:

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this contract shall be deemed severable & in the event of the unenforceability of any paragraph, clause, sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule, annexure & rest of the contract shall continue to be in full force & effect.

4.20 Counterparts:

This contract may be executed in one or more counterparts, each of which shall be deemed an original & all of which collectively shall be deemed one of the same instruments.

4.21 Rights & remedies under the contract only for the parties:

This contract is not intended & shall not be construed to confer on any person other than KRIDE & Successful Tenderer hereto, any rights and / or remedies herein.

4.22 Statutory Acts

4.22.1 All legal formalities are to be obtained prior to and or during the commencement of work by the Successful Tenderer for the successful execution of the said work.

4.22.2 The Successful Tenderer shall comply with all the Acts & rules and regulations, laws and by-laws framed by State/ Central Government/Organization. KRIDE shall have no liabilities in this regard.



4.23 Tenderer to Inform himself

The tenderer shall be deemed to have satisfied himself about the detailed job content, the conditions and circumstances affecting the contract prices and the possibility of executing the works as shown and described in the tender.

4.24 Compliance of Govt. Regulations

The Successful Tenderer should execute and deliver such documents as may be needed by KRIDE in evidence of compliance of all laws, rules and regulations required for reference. Any liability arising out of contravention of any of the laws on executing this order shall be the sole responsibility of the Successful Tenderer and KRIDE shall not be responsible in any manner whatsoever.

4.25 Successful Tenderer Liability

Successful Tenderer hereby accepts full responsibility and indemnifies KRIDE and shall hold KRIDE harmless from all acts of omissions and commissions on the part of the Successful Tenderer, his agents, his sub contractors and employees in execution of the work. The Successful Tenderer also agrees to defend and hereby undertakes to indemnify KRIDE and also hold him harmless from any and all claims arising out of or in connection with the performance of the work under the Notification of Award.

4.26 Indemnity Damages and Insurance

The tenderer shall indemnify and make harmless the owner or the Officer, their agents or employees from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him or the owner by reason or any act or commission of the said tenderer, his agents or employees in the execution of the work.

4.27 IPR & OWNERSHIP RIGHTS.

The entire design and documentation developed under this contract shall be property of KRIDE and it will not under any circumstance be commercially distributed or exploited by the Successful Tenderer in direct or modified form.

All the data, material, information and documents collected / generated during development /implementation of this project and the other materials/data developed/sketch/map/surveys etc., developed under this project by the successful tenderer under this contract shall be exclusive "Intellectual Property" of KRIDE and shall be vested in KRIDE. All rights are reserved to KRIDE.

The successful Tenderer shall handover all data, material, information and documents (including survey maps/documents, design documents, database design / diagrams, sketches, reports etc.,) collected / generated during development/implementation of the project to KRIDE immediately after development / implementation of project.

The Successful tenderer shall sign the Non- Disclosure Agreement with KRIDE.

- 4.28** The Tenderer shall duly comply with all Acts, laws including Contract Labour (Regulation & Abolition) Act, 1970 or other statutory rules, regulations, bye-laws as applicable or which might be applicable.

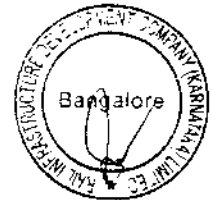


In case, while on duty and during the course of engagement in the works in the premises of the KRIDE under this Agreement, if any of the Contractor's workforce meet(s) with any injury indisposition due to accident or other natural calamities, the Tenderer shall ensure that immediate and adequate medical aid viz. First-aid and subsequent treatment facilities are provided to the persons(s) concerned at the cost of tenderer without fail. In addition, the tenderer shall also be liable for meeting with statutory liabilities under the ESI/PF or Workmen's Compensation Act.

The Tenderer shall indemnify and compensate the KRIDE, if the KRIDE as Principal Employer under the Contract Labour (Regulation and Abolition) Act, 1970 or Workmen's Compensation Act or under any other acts becomes liable to assume any liability towards the workforce engaged by the Tenderer. In that event, the provisions relating to recovery as provided in the relevant clauses of the said Act shall be applicable to the tenderer.

The tenderer shall perform the work assignments to the best satisfaction of the KRIDE. In case of unsatisfactory performance, intimation will be given in writing with a period of one week time to the tenderer to rectify the matter, and the KRIDE reserves the right to cancel the Contract forthwith. In that event the legal payments made to the workforce of the tenderer shall be fully recoverable from the Tenderer.

- 4.29** The Contractor shall obtain a valid license under the Contract Labour (R&A) Act, 1970, and the Contract Labour (regulation and Abolition) Central Rules, 1971 & Karnataka State Rules as applicable from time to time before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also adhere by the provisions of the Child Labour (Prohibition and regulation) Act, 1986 as amended upto date.
- 4.30** The successful tenderer shall also comply with the payment of wages Act, Minimum Wages Act and EPF Act and rules as amended upto date and shall render all documents in support of compliance with all labour legislations. The successful tenderer shall also pay contractor share of EPF and employees share of EPF to the EPF authorities in respect of the labour employed by him directly or indirectly for all the payments made/incurred during the execution of this contract and shall a render a copy of such compliances made to KRIDE. Failure to comply with the above labour laws by the successful tenderer, the KRIDE will withhold the payments until compliances are made and recover the same from the bills of the tenderer.



SECTION - 5
TENDER EVALUATION

The tenders, which are determined as substantially responsive, shall be evaluated by the KRIDE for technical compliance and then price aspects. The tenderer must submit all necessary authentic data with necessary supporting certificates, if any, failing which his tender is liable to be rejected.

Representative of qualified tenderers desirous of attending the tender opening may visit on the tender opening date at the office of KRIDE.

The complete financial proposal as per the format shall be submitted.

Evaluation of the tender will be done on the basis of total price inclusive of all taxes & duties quoted for Office Interiors for KRIDE Office as per the format prescribed in the tender document. Contract will be awarded to the tenderer, whose commercial offer (TOTAL) as per the quotation has been determined to be lowest. The tenderer shall quote the rates (inclusive of all taxes and duties) as per the tender format prescribed.



SECTION - 6

SPECIAL CONDITIONS OF CONTRACT (SCC)

6.1 Purpose and Scope of the project

The scope of the project is Office Interiors for KRIDE Office as described in this tender notice. Some of the important guidelines should meet are:

Name of work: Office Interiors for KRIDE Office

- I. Approximate value : **Rs.3,29,35,459.30**
- II. Security Deposit : **Rs. 16,46,773/-**
 - a) EMD will be adjusted towards Security Deposit and the balance of amount will be recovered at the rate of 10% of the bill amount of the running bills till the full Security Deposit is recovered.
 - b) The successful bidder should give a performance Guarantee within 30 days of issue of Letter of Acceptance in the form of an irrevocable Bank Guarantee amounting to 5% of the contract value.
- III. Earnest Money Deposit : **Rs.6,58,709/-**
- IV. Completion period : **3 months**
- V. Maintenance period : **NIL**
- VI. Validity of Tender : **45 days**

6.2 Eligibility Criteria

Tenderers should satisfy the following Eligibility Criteria.

1	Should have physically completed within qualifying period i.e. the last three financial years and in the current financial year.	Atleast one similar nature of work for a minimum value of 35% of the Advertised tender value. The experience certificate is to be attached to the tender document as pre proforma enclosed.
2	Total contract amount received during the last 3 financial years and in the current financial year	Should be a minimum of 150% of the advertised tender value. The certificate (attested) from the employer/client, audited balance sheet duly certified by the CA etc., is to be enclosed along with the tender documents.
3	Similar work:	Interior and furnishing work including electrical and air conditioning for a value of atleast 35% of the tender value.



NOTES:

- 1) For evaluating tenderer's eligibility with regard to work experience, he shall furnish relevant certificates and details of the physically completed work. The total value of similar nature of works completed during the qualifying period, in terms of the Final bill amount, and not the payments received within qualifying period alone, will be considered. In case, final bill of similar nature of work has not been passed and final measurements have not been recorded, the paid amount including statutory deductions (i.e., last CC bill amount) will be considered. However, if the final measurements have been recorded and work has been completed but variation has not been sanctioned, original agreement value or last sanctioned agreement value or the last CC bill amount, whichever is lower, will be considered for judging eligibility.
- 2) In support of eligibility condition No. 6.2 and note(1) above, the tenderer shall submit attested copy of certificate from the employer/client or audited balance sheet certified by the Chartered Accountant or attested copy of ITCC. The contractual amount shown in the ITCC certificates for the years prior to three years apart from current year will not be taken into account while calculating total contract amounts received by the tenderer.
- 3) The certificate to satisfy similar work covered in para 6.2 and note(2) above should be signed by an officer not lower than Jr. Administrative grade or equivalent grade in the Govt. of India/State Government/ PSUs/Government Universities. Tenderer shall enclose attested certificate copies along with the tender.

6.3 Variation in Quantities

- 6.3.1 The drawings referred to in the list of plans, if any, are intended only to give a rough and general idea of the location and rough details of work to be done. No claim whatsoever will be admissible in respect of any alteration/addition/deletion/change in the type of works/change in locations.
- 6.3.2 The quantities of various items given in the Schedule for the works to be executed are only approximate and are only for the guidance of the tenderer/contractor. As far as possible, they have been assessed correctly but are likely to vary during the execution of the work.
- 6.3.3 Individual NS items in contracts shall be operated with variation of plus or minus 25% and payment will be made as per agreement rates.
- 6.3.4 When the quantity of any item of the work to be executed including foundation items is likely to increase in excess of 25% of the original agreement quantity, the contractor should notify the KRIDE at least **FIVE DAYS** before such necessity arises.
- 6.3.5 In the event of any reduction in the quantities to be executed for any reason whatsoever, the contractor shall not be entitled for any compensation but shall be paid only for the actual quantity of work done, at the agreemental rates.

6.4 Variation beyond 25%

- 6.4.1 Individual NS items in contracts shall be operated with variation of plus or minus 25% and payment would be made as per the agreement rate.
- 6.4.2
 - a) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, the same shall be got executed by floating a fresh tender. If floating a fresh tender for operating that item is considered not practicable, quantity of that item may be operated in excess of 125% of the agreement quantity and payment will be made at the following rate:
 - i) Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded to that item in that particular tender;
 - ii) Quantities operated in excess of 140% but upto 150% of the agreement quantity



of the concerned item shall be paid at 96% of the rate awarded to that item in that particular tender:

- iii) Variation in quantities of individual items beyond 150% would be permitted only in unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
 - b. The variation in quantities as per the above formula will apply only to the individual items of the contract and not on the overall contract value.
 - c. Execution of quantities beyond +50% of overall value shall not be generally permitted. The rates for quantities in excess of 50% of the items shall be decided between KRIDE and the contractor in advance of execution of the quantities involved, if in the opinion of the KRIDE such quantities are also to be executed by the same contractor. In the event of mutually agreed rate not being arrived at, the KRIDE shall be entitled to execute the excess work by other means and the contractor shall have no claims on this account.
- 6.4.3 The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1% of the total original agreement value.
- 6.4.4 No such quantity variation limit shall apply for foundation items.
- 6.4.5 As far as SOR items are concerned, the limit of 25% would apply to the value of SOR schedule as a whole and not on individual SOR items. However, in case of NS items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

6.5 Vitiating Clause:

KRIDE will exercise control over the aspect of vitiation of tender with respect to variation in quantities and take action as under:

In the event of vitiation occurring due to increase or decrease in quantities among the first, second and third lowest valid tenderers, the vitiation shall be to Contractors account. The total value of the work done shall be calculated at the rate offered by those tenderers and the amount payable shall be limited to the lowest aggregate value as worked out.

Vitiating amount shall be worked out for each and every on-account bill when the value of the work executed reaches 50% of the agreement value and the vitiating amount shall be adjusted at every stage.

6.6 Performance Guarantee (P.G):

- a) The successful tenderer shall have to submit a Performance Guarantee (PG) within 30 days from the date of issue of Letter Of Acceptance (LOA). However, a penal interest of 15% per annum shall be charged for the delay beyond 30 days i.e., from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting the EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.
- b) The successful tenderer shall submit the Performance Guarantee (PG) amounting to 5% of the contract value in Format – 5.
 - (i) A deposit of Cash,
 - (ii) Irrevocable Bank Guarantee,
 - (iii) Government Securities including State Loan Bonds at 5 percent below the market value.
 - (iv) Deposit Receipts, Pay Orders, Demand Drafts and Guarantee Bonds. These forms of Performance Guarantee could be either of the State Bank of India or of any of the Nationalized Banks.



- (v) Guarantee Bonds executed or Deposits Receipts tendered by all Scheduled Banks.
- (vi) A Deposit in the Post Office Saving Bank.
- (vii) A Deposit in the National Savings Certificates.
- (viii) Twelve years National Defence Certificates.
- (ix) Ten years Defence Deposits.
- (x) National Defence Bonds and
- (xi) Unit Trust Certificates at 5 percent below market value or at the face value whichever is less

Also, FDR in favour of KRIDE (free from any encumbrance) may be accepted.

- c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets extended, the contractor shall get that validity of P.G. extended to cover such extended time for completion of work plus 60 days.
- d) The value of PG to be submitted by the contractor will not change for variation upto 25% (either increase or decrease). In case during the course of execution, value of the contract increased by more than 25% of the original contract value, an additional Performance Guarantee amounting to 5% (five percent) for the excess value over the original contract value shall be deposited by the contractor.
- e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the contractor has completed the work in all respects satisfactorily. The Security Deposit shall, however, be released only after expiry of the maintenance period and after passing the final bill based on 'No Claim Certificate' from the contractor.
- f) Whenever the contract is rescinded, the Security Deposit shall be forfeited and the Performance Guarantee shall be en-cashed. The balance work shall be got done independently without risk & cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a Partnership firm, then every member / partner of such a firm shall be debarred from participating in the tender for the balance work in his / her individual capacity or as a partner of any other JV / partnership firm.
- g) KRIDE shall not make a claim under the Performance Guarantee except for amounts to which the KRIDE is entitled under the contract (not withstanding and / or without prejudice to any other provisions in the contract agreement) in the event of :
 - i. Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which even the Engineer may Claim the full amount of the Performance Guarantee.
 - ii. Failure by the contractor to pay KRIDE any amount due, either as agreed by the contractor or determined under any of the Clauses / Conditions of the Agreement, within 30 days of the service of Notice to this effect by Engineer.
 - iii. The Contract being determined or rescinded under provisions of the



GCC, the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of the President of India.

6.7 Inspection and Maintenance of Site

- 6.7.1 The Contractor before tendering shall inspect the site of work, examine the nature of soil to be excavated, nature of work to be executed, check up the availability of working space and other constraints if any and also acquaint himself of the available access to the site of work and make due provision in the rate for all such contingencies.
- 6.7.2 The contractor shall make his own arrangement for site clearance, clearance of debris, jungle, bushes etc., without any extra payment. Contractor is also responsible to clear all construction debris, labour camps, surplus materials from site of work without any extra payment as and when these are not required for the progress of the work.

6.8 Service Roads

KRIDE does not undertake to provide any service roads for the movement of the contractor's vehicles. The contractor can however make use of the service roads, where they exist free of charge. However, KRIDE shall not undertake to maintain them and the contractor shall maintain them at his own cost. In other places, the contractor should make his own arrangements for the movement of the vehicles and no extra rate shall be paid for this. KRIDE reserves the right to make use of the roads formed and maintained by the contractor, as and when necessary, without any payment to the contractor. In the event of the contractor forming the service roads where Railway land is not available or cannot be given by the Railway for this purpose, it shall be clearly noted that the contractor shall make his own arrangements for obtaining the required land and KRIDE shall not take any responsibility in this respect and shall not compensate the contractor in any way.

6.9 Water and Electricity for works

- 6.9.1 Water: The Contractor shall make his own arrangements within his quoted rates for necessary water required for the performance of the contract. If available, water shall be provided free of cost to the contractor.
- 6.9.2 Electricity: The Contractor shall make his own arrangements at his cost, for the supply of electricity for the works. He shall arrange for source, transformer protection and approval from the concerned authorities at his cost. If available, electricity shall be provided to the contractor which shall be paid by the contractor at rates fixed by KRIDE. The meters for measurement of electricity consumed shall be fixed by contractor at his cost.

6.10 Programme of Work

- 6.10.1 A tentative programme chart and / or a list of mile stones prepared by KRIDE for the contract to be achieved based on the KRIDE's needs will be attached along with Acceptance Letter. The contractor shall accept and return a copy of the programme chart to KRIDE within fifteen days of issue of LOA. The contractor may modify the programme to suit his resources, however, without any change in milestones and submit a modified programme to the KRIDE duly signed by him within fifteen days of issue of LOA. This is however subject to a condition that such shifting or change shall not affect the completion period of the contract in any manner whatsoever. The modified programme of the contractor shall not be conditional and will not affect the terms and conditions of the contract and if made conditional by the contractor, KRIDE reserves the right to reject the same and to treat such conditions as breach of contract as agreed to in the contractor's offer and in the LOA issued by the KRIDE. KRIDE reserves the right to accept or not the modified programme of the contractor. Contractor shall not have any claim whatsoever in this regard. Further programmes, as per the latest progress of work, will be prepared on similar basis from time to time.



- 6.10.2 If the confirmation of acceptance of programme as above is not received within fifteen days of issue of LOA, the contractor is liable to pay towards penalty upto Rs.50,000/- for delay in submission of the programme.
- 6.10.3 Non-acceptance of KRIDE Programme or submission of Modified Programme by the contractor which is not acceptable to the KRIDE, shall also tantamount to breach of contract by the contractor and the KRIDE shall be entitled to terminate the contract on account of the contractor's default for this lapse alone.
- 6.10.4 The KRIDE reserves the right of determining the contract at any stage of review of the progress under 6.10.1 to 6.10.3 above, if the above agreed programme(s) are not adhered to within the margin of 10% of the provision in the programme in terms of shifting of individual milestones or the quantum of progress at any stage, as envisaged and the Performance Guarantee will be forfeited without prejudice to other remedies as contemplated under the Conditions of the Contract.

6.11 Fixing Milestones

KRIDE will fix appropriate milestone and monitor the progress from time to time.

- 6.11.1 IMPOSITION OF FINE, PENALTY AND COST OF DAMAGES FOR DELAY OF WORKS
- 6.11.2 In the event of the contractor not adhering to the agreed programme of work and / or not achieving the milestones or quality of work etc., specified, even if no physical or actual damages have occurred to KRIDE and even if the currency of the work is not affected, KRIDE reserves the rights of, with a view to improve, expedite and the make the contractor realise the effects of delays, levying fine or any value as deemed fit on the contractor by KRIDE based on the merit of the case. The amount of fine will be solely decided by KRIDE at its discretion and will be based on its assessment of disturbances, difficulties or losses caused by the delay or poor quality of work, etc., including that of the reputation of the KRIDE. The contractor shall have no claims what-so-ever in this regard. Subsequent to the imposition of the fine, if contractor makes good, the progress / quality and achieves the milestones to the satisfaction of KRIDE, part or full amount of the fine imposed may be waived and the amount so worked out will be released to the contractor at the sole discretion of KRIDE duly recording necessary certification to the effect that no damages have occurred. However, in case of actual or anticipated damages occurred or occurring to KRIDE, the recovery of agreed / liquidated damages will also be imposed and recovered from contractors dues as per provisions in GCC in addition to the above fine.

6.12 Engagement Of Technical Staff By The Contractor

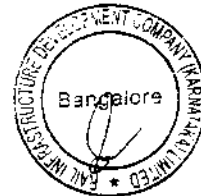
- 6.12.1 The contractor shall employ proper managerial and technical personnel during the execution of this work and the personnel deployed shall have adequate experience and thorough knowledge of the works executed including the specifications and proceedings involved. The list of managerial and technical personnel proposed to be engaged by the contractor shall be submitted to KRIDE along with the programme chart and approval of KRIDE to be obtained for engaging them for work.

6.13 Scale of personnel: Minimum scale of personnel to be engaged by the Contractor shall be as under:-

- 6.13.1 For each contract of value Rs.5 Crore or above, the contractor shall provide a Manager with qualification in Civil Engineering and a minimum of 5 years' experience in Civil Engineering works for the full currency period of the contract. For higher value contracts of Rs.15 Crores or above, the contractor shall engage one senior Manager and one Asst.Manager with 15 years and 5 years' experience respectively.
- 6.13.2 For each contract, the contractor shall provide technical personnel for the full currency period of contract as under:
- For proportionate monthly value of contract (contract value/currency of contract), upto



- Rs.25 Lakhs, one Diploma Civil Engineer.
- For proportionate monthly value upto Rs.50 Lakhs, one Graduate Civil Engineer.
 - For proportionate monthly value of Rs.25 Lakhs/Rs.50 lakhs additionally one additional Diploma/Graduate Civil Engineer respectively.
- 6.13.3 Even if the value of agreement changes due to variations or even if the currency of contract is changed, the scale of personnel will remain same as per the original agreement value.
- 6.13.4 Two Diploma Civil Engineer can be engaged in lieu of one Graduate Civil Engineer. However, for contracts of value 1 Crore or more, atleast one Graduate Civil Engineer is essential.
- 6.13.5 The contractor shall provide the technical personnel continuously on the project and the initially approved personnel should not be changed in the mid-course of the contract, except in exceptional situations and only with the approval of the KRIDE. Continuous engagement of technical personnel is defined as under:
- Record of engagement of technical personnel shall be maintained by the contractor at each site where his Engineers are deployed. This record will be verified by KRIDE. In case of non- availability on any single occasion at site, it will be treated as absence for a week.
- 6.13.6 The availability of personnel of the Contractor shall be ensured continuously and regularly by the Contractor. However, whenever the rate of work comes down for any reason at any time for significant duration the scale of personnel can be reduced by the Contractor with the approval of KRIDE.
- 6.13.7 For failure to provide technical personnel by the contractor, he is liable for recoveries from his dues to an extent of Rs.30,000/- per month per Diploma Civil Engineer and Rs.40,000/- per month per Asst.Manager/Graduate Civil Engineer and Rs.50,000/- per month per Sr.Manager at the discretion of KRIDE.
- 6.13.8 The decision of KRIDE regarding scale of Engineers/period to be engaged/recoveries to be made etc shall be final and binding on the contractor



6.14 Safety Precautions and measures to be observed during execution of Engineering Works

- 6.14.1 The contractor shall be fully responsible for ensuring safety at all times and shall bear the cost of all damages in cases of accidents/unusual occurrences resulting in damages to Company property and other persons. Any breach of the safety conditions for precautions and measures as specified hereunder and/or elsewhere in the tender document by the contractor and/or his agents/representatives affecting the safety of men and material in the premises shall constitute a breach of contract by the contractor leading to termination of contract for default on the part of the contractor including recovery of damages.
- 6.14.2 All equipment's like cranes, lifting jack etc shall be tested, duly calibrated and certified prior to use at construction site. They shall also have specific indications conforming that the operators handling them are trained in the safety precautions near track.
- 6.14.3 Construction workers at site shall be provided with personal safety gear like reflective vest, helmet, leather shoes, gloves, eye-wear etc as approved as per construction industry standards. For persons working at pier top/girder level, temporary supports, hand railing etc, protection with help of ropes, slings and temporary railings shall be provided.
- 6.14.4 All locations, where construction activity is in progress, should be cordoned off with proper barricades. Barricades consisting of bamboo/casuarina poles and supported horizontally by similar bamboo/casuarina poles should be provided. These barricades should be provided at a distance of approximately 3.5m from the work area or as directed by the Engineer-in-charge. All the barricades are to be painted or struck on with red luminous paint/strips at suitable intervals on the barricades. Barricade should be available at every stage of work as directed by the Engineer-in-charge and shall be maintained in perfect condition all the time.
- 6.14.5 Road vehicles employed by the contractor should have the certificate for its road worthiness and each vehicle numbered and the license particulars maintained. Contractors should ensure that the drivers permitted by them to work on such road vehicles are identified, counselled, certified and are provided with photo identity cards. The driver of the vehicle shall always face the track when reversing the vehicle and whenever he cannot face the track, for whatever reason, he shall be invariably assisted by a helper with a whistle who should guide him and ensure safety.
- 6.14.6 The contractor shall execute a Bond undertaking to ply the road vehicles in a safe and satisfactory manner and strictly in accordance with the stipulations and other conditions specified by the Engineer and to engage and retain only the permit holder to be the contractor's agent in charge of the vehicle while driving or at rest. The person in charge of the vehicles and the attendants shall, at all times, be vigilant and on the look out for signals from the lookout men, flagmen or other personnel available at site with a view to stop or regulate the road movement so as to ensure adequate margin of safety for the timely passage of an approaching train or a Railway engine, without any delay or detention. The contractor shall also be bound by the provisions of this agreement to ply the road vehicles only with adequate margin of safety, well clear of the fixed structure profile of infringements, as stipulated in the rules made under the Indian Railways Act and to seek and be guided by the signals and other directions of any lookout men or other personnel retained for the purpose of ensuring safety and to ensure extra care and vigilance while turning, reversing or moving the road vehicles in any other manner at an inclination to the running railway track or the siding as the case may be. The contractor shall employ necessary look out men also at his own cost, irrespective of any other arrangement that railway may make in this regard.
- 6.14.7 All work sites shall be supervised by the contractor's representative and also a representative of KRIDE. Whenever work of plying road vehicle within 6m zone is actually in progress, Look-out men should invariably be available. Lookout men will have to be provided by the contractor, from out of the list of persons who are authorised to carry out these duties. Authorisation will be issued to the individuals, by the representative of KRIDE. KRIDE's supervisor will monitor the availability and alertness of the lookout men. In case of non- availability of lookout men, the KRIDE's supervisor shall stop further activities of plying of road vehicles.
- 6.14.8 Work can be done in the night only with the written permission of KRIDE. Where night working is permitted, lighting of the work site as required should be done.



- 6.15** The contractor will be supplied with necessary plans, specification, details of Special Conditions etc. for execution of work as required by KRIDE. However, Contractor shall make his own detailed plans, working arrangements, etc., to make smoother and faster construction and get the same approved by KRIDE at his own cost. For this purpose, he can contact the KRIDE's office.



SECTION-7

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION FOR WOOD WORKS

1.00 SCOPE

This specification covers the general requirements for woodworks.

2.00 GENERAL REQUIREMENTS

- 2.01 The contractor shall furnish all materials, labour, operations, equipment, tools and plants, scaffolding and incidental necessary and required for the completion of all carpentry and joinery work as called for in the drawings and Bills of Quantities.
- 2.02 The Contractor shall strictly follow, at all stages of work, the stipulations contained in the Indian Standard Safety Code and the provisions of the Safety Rules as specified in the General Conditions of the Contract for ensuring safety of men and materials.
- 2.03 The Carpentry and joinery work shall include the provision of fixing of fastening devices and hardware in accordance with the drawings and attached hardware schedule. Hardware and other materials will be supplied by the contractor after obtaining prior approval of the Architect of samples for each item of hardware.
- 2.04 Any approval, instructions, permission, checking, review etc. whatsoever by the Architect shall not relieve the Contractor of his responsibility and obligation regarding adequacy, correctness, completeness, safety, strength, workmanship etc.

3.00 CODES AND STANDARDS

- 3.01 All standards, specifications, acts, and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions.
- 3.02 List of certain important Indian Standards, Acts and Codes applicable to this work is given below. However, the applicable standards and codes shall be as per but not limited to the list given below:
- IS : 205 Non-ferrous metal butt hinges
 - IS : 281 Mild steel sliding door bolts for use with pad locks
 - IS : 287 Permissible moisture content for timber used for different purposes
 - IS : 303 Plywood for general purposes
 - IS : 848 Synthetic resin adhesives for plywood.
 - IS : 883 Code of practice for design of structural timber in building
 - IS : 1003 Timber paneled and glazed shutters
 - IS : 1141 Seasoning of timber - Code of practice
 - IS : 1328 Veneered decorative plywood.
 - IS : 1659 Block boards.
 - IS : 2202 Wooden flush door shutters
 - IS : 2835 Flat transparent sheet glass.
 - IS : 3087 Wooden particle boards (medium density) for general purposes



- IS : 3097 Veneered particle boards.
 IS : 3809 Fire resistant test for structures
 IS : 4021 Timber door, window and ventilator frames

4.00 **SAMPLES AND SHOP DRAWINGS**

The contractor shall, before proceeding with the work, submit to the Architect for his approval complete samples of the various materials including hardware and fastening devices and shop drawings and large scale details covering all joinery works.

5.00 **MATERIALS**

5.01 **Timber**

Timber used shall be of type as stated in the Schedule and of best quality and FSC certified wood. All timber shall be of natural growth and uniform in texture and shall be well and properly seasoned. It shall be free from large, loose, dead, or cluster of knots, waves, injurious open shakes, borer holes, rot, decay, knots, discolouration, soft or spongy spots, hollow pockets with or centre heart and all other defects and blemishes. Timber shall conform to IS 883.

The seasoning of timber shall be as laid down in IS : 1141.

5.02 **Teak wood**

Teak should be of FSC certified wood. It shall have uniform colour reasonably straight grains and shall be free from large loose dead knots cracks, shakes, warp, twists, bends bore holes, sap wood. For first class no individual hard and sound knot shall be more than 1 Sq.cm and the aggregate area of all knots shall not exceed 1/2% the area of piece and for second class 1.5 Sq.cm and 2% respectively. It shall be close grained and there shall not be less than 2 growth rings per cm width.

The wood shall be well seasoned. It shall be considered well seasoned if its moisture content does not exceed the limits as per IS 287. The moisture content shall be determined as per IS 287. Unless otherwise specified tolerance for door and window frames and shutters should not exceed provisions in IS 4021 & IS 1003 (part I & II).

a)	Frames	14%
b)	Planking, shutters etc.	12%

5.03 **FSC certified Steam beech, White ash**

Imported Wood is not classified as teak wood, honey wood, nandi and mathi wood. It shall have uniform colour, reasonably straight grains and shall be generally free from large loose deadknots, cracks, shakes, warp, twists, bends, bore holes, sap wood. No individual hard and sound knot shall be more than 1.5 Sq.cm and the aggregate area of all knots shall not exceed 2% of the area of piece. It shall be close grained and there shall not be less than 2 rings per cm width.

The wood shall be well seasoned. It shall be considered well seasoned if its moisture content does not exceed the limits as per IS 287. The moisture content shall be determined as per IS 287. Unless otherwise specified tolerance for door and window frames and shutters should not exceed provisions in IS 4021 & 1003 - Part I & II.



5.04 Glass

All glass shall be of superior quality from approved manufacturers like Assahi, Saint Gobain, Guardian, Pilkington or approved equivalent, having uniform refractive index and free from flaws, specks and bubbles. Sheet glass for glazing and framing purposes shall conform to IS : 2835 latest edition. The glass shall be brought to site in the original packing from the manufacturer and cut to size at site. The cut edges shall be straight and free from chips, spalls or any other damages. Wherever clear sheet glass is specified, it shall be flat drawn sheet glass and shall be at least 4 mm thick or as specified. Where wire glass is mentioned, it shall be thick rolled glass with centrally embedded wire mesh or Georgian type. Where obscure glass is mentioned it shall have a cast surface on one side. The Contractor shall submit samples of glass for prior approval of the Architect.

5.05 Putty

In general, the putty shall conform to IS : 420 latest edition. The putty shall be of best quality from approved manufacturer like birla, Asian etc. It shall be brought to site in the manufacturer's original packing. Quick setting putty shall be used for windows and sashes except when glare reducing glass is used where it shall be of non-setting type.

6.00 DOORS, WINDOWS AND VENTILATORS

- 6.01 Doors, windows and ventilators etc. shall be in accordance with the drawing in every detail and all joiner's work shall be accurately set out, framed and finished in a proper workman like manner. Frames of doors, windows and ventilators, shutter styles and rails shall be of best solid wood of quality specified in the schedule of quantities. The scantlings shall be accurately planed smooth. Rebates, roundings and mouldings shall be made as shown on the drawings. Patching or plugging of any kind shall not be allowed.

Joints shall be simple, neat and strong. Framed joints shall be coated with suitable adhesive like glue or synthetic resin before the frames are put together. All mortice and tenon joints shall fit in fully and accurately without wedging or filling. The joints shall be pinned with hard wood or bamboo pins of 10 mm to 12 mm dia. or rust resisting star shaped metal pins of 8 mm diameter. All portions of timber abutting against or embedded in masonry or concrete shall be treated against termites by giving a coat of an approved wood preservative, for which no extra cost will be paid. Putty shall not be used to cover any defects. Unless otherwise specified, all door frames shall have six holdfasts. Holdfasts shall be provided to the ventilators if directed. Size of holdfasts shall be 400 mm x 40 mm x 5 mm M.S. flat bent to shape with fish tail and shall be fixed to frame with sufficient number of screws as directed. When door/window frames are to be fixed to RCC column or RCC wall, holdfasts shall be substituted by suitable arrangements such as coach screws, rawl bolts/grip bolts etc. to secure frames to RCC column or RCC wall as directed by the Architect. The frame shall be fixed only after getting the approval of the Architect.

6.02 Fire Resistance Door

The fire resistance door one hour fire rated or as specified shall be provided. The fire rating to doors shall conform to PS 47648 and IS 3809 and as approved by the Architect.



6.03 Toilet Doors

a) External Doors

Laminate shall be provided on inner face and outer face of door shutters unless otherwise specified in the Bill of Quantities and all as per manufacturer specifications including necessary finishing and fittings etc.

b) Internal doors

Laminate shall be provided on inner face and on outer face of door shutters unless otherwise specified in the Bill of Quantities and all as per manufacturer specifications including necessary finishing and fittings etc.

6.04 Frames

These shall be cut and planed from FSC certified timber/GI metal frame of respective kind and of sizes as stated in the Schedule of Quantities or as detailed on the drawings, in the case of main frames as well as sub-frames.

6.05 Architraves

Architraves shall be cut and planed from best quality seasoned FSC certified timber to sizes as shown in the drawings and fixed to the door or window frames with wood screws. Screw heads shall be sunk into frames. The side abutting the frame shall be finished with a coat of wood primer.

6.06 Interior door shutters

a) Flush shutters

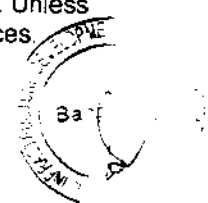
Interior wood door shutters, unless otherwise noted or specified, shall of thickness as in drawings and made of phenol formal-dehyde synthetic resin thermo pressed flush shutters, teak veneered/laminate face on both faces. The shutters shall conform to IS:2202 (Part-I) green BWR grade. Shutter make shall be approved by the Architect.

The solid core shall be wood laminate prepared from battens of well seasoned and treated good quality wood having straight grains. The battens shall be of uniform size of about 2.5 cm width. These shall be properly glued and machine pressed together, with grains of each piece reversed from that of adjoining one. The Longitudinal joints of the battens shall be staggered and no piece shall be less than 50 cm. in length. Alternatively, the core shall be of solid teak particle board. Edges of the core shall be lipped internally with first class teak wood battens of 4 cm. minimum depth, glued and machine pressed along with the core.

The core surface shall then have two or three veneers firmly glued on each face. The first veneer (called cross band) shall be laid with its grains at right angles to those of the core and the second and the third veneers with their grains parallel to those of the core. The under veneers shall be of good quality, durable and well seasoned wood. The face veneers shall be of minimum 1 mm thickness and of well matched and seasoned first class teak, laid along with grains of the core battens. The combined thickness of all the veneers on each face shall not be less than 4 mm. Thermosetting synthetic resin conforming to I.S. 303 or moisture-proof plywood grade

M.P.F.I. shall be used in manufacture. All doors shall have external lipping around 6 to 10 mm thick in addition to internal lipping.

Block boards and ply for various items of work called for shall be of approved make. Unless otherwise shown all block boards and ply shall be teak veneered faced on both faces



Samples of flush doors, block boards, etc., shall be submitted to the Architect for his approval and all shutters, etc., to be used in the work shall conform to the approved sample in all respects.

(b) Panelled Shutters

- i) The thickness of the panels shall be 15 mm for 25 mm shutters and 20 mm for shutters of larger thickness. The edges of the panels shall be tapered symmetrically on all the sides for insertion into the styles and rails. The depth of rebate in frames for housing the shutters shall in all cases be 1.25 cm and the rebate in shutters, for closing, in double leaf shutter doors, and windows shall not be less than 2 cm. The edges of styles and rails all round the panels shall be moulded, rounded or chamfered on both faces of the shutter as directed by the Architect.
- ii) Factory made, kiln seasoned and chemically treated panelled shutters - The thickness and quality of wood of the shutters shall be as indicated in the item. Styles and rails of teak wood and panels made of 12 mm thick teak veneered particle board or similar material bonded with phenol formaldehyde synthetic resin adhesive conforming to IS : 3097 shall be used.

6.07 Steel Doors:

Hollow metal fire door fully flush type of 46 mm thick Pressed Galvanized steel Double leaf of specified size & shape (General (GD) series) conforming to IS 3614 / equivalent BS consists of frame, shutter, infill and finish as detailed below and conforming to IS 277 or equivalent BS.

Door frame shall be single rebate profile of size 100 x 57 mm with bending radius of 1.00 mm having 1.25mm thick galvanized steel sheet (18 gauge) with steel door shutter of 46 mm thick fully flush, double skin door shall manufactured from 0.80 mm thick galvanized steel sheet (22 gauge). The infill material shall be resin bonded honey comb paper with thermal insulation. Door frames and shutter shall be finished with etched primer coating, stoved zinc phosphate primer and thermosetting polyurethane aliphatic grade paint (35 micron DFT) of approved colour. The following allied works shall be part of steel door specifications:

- a. Grouting the frame with cement slurry including providing necessary Hilti / equivalent make Elastic fire stop Sealant - code no CP 601 & 601S at the Joints between Wall & Frame to the required thickness and to be applied by using Dispenser tool CS 201 P1.as per manufacture's specification etc complete and as directed.
- b. Base plates of 3mm thick for all joints of frames with provision of anchor bolt fixing to wall / RC surface, reinforcement pad for fixing of door closers, factory finish pre-punched cut outs to receive hardwares and iron mongery.
- c. All necessary door hardware provisions such as hinges, lock, handle etc. shall be considered and door shall be manufactured accordingly.

7.00 PANELLING FOR WALL LINING AND PARTITION

The boarding for wall lining shall be of commercial plywood, black board, green BWR plywood with teak veneer, laminate or any other materials as directed; fixed on to the Aluminium/GI frame. The boarding shall be of sizes shown in the drawing or as directed. In case of partitions, the facing materials like plywood with approved teak veneers, or formica, or any other material as directed shall be fixed.



8.00 INSTALLATION

All timber for joinery work or wrought form work shall be of specified quality, carefully selected free from sap and subject to inspection and approved before delivery. All FSC certified teakwood to be used in this work shall be seasoned in an approved manner.

All workmanship pertaining to wood work shall be of best standard and all joinery work shall fit freely and without wedging or filling and of the kind directed by the Architect. Wood work in frames shall be wrought and all frames joints shall be put together with white lead and pinned with hard wood pins. All exposed faces of joinery shall be thoroughly planed. Jointing shall be by means of mortice and tenon, dovetailed joints or as directed by the Architect.

The joinery work shall be framed and put together immediately but not to be wedged up until required for fixing. The approval of the Architect shall be obtained before any primer coat is applied.

The whole of joinery to be finished to the dimensions and sizes indicated in the drawings are subject to a tolerance to 1.50 mm of each planed face, but no allowance shall be given to flush doors, shutters, ply and other manufactured board etc.

All block boards etc. shall correspond to respective IS specifications. Flush doors shall correspond to relevant IS specifications. Samples of all black board, plywood, flush doors, etc. Shall be got approved by the Architect before placing order. All such items shall be of standard manufacture of reputed quality. Unless otherwise specified, all flush shutters shall be teak veneered/laminated on both sides. All flush shutters shall be of solid core and shall be provided with teakwood external lipping.

If after execution any shrinkage or bad workmanship is found, the Contractor shall forthwith replace or refix the same at his own cost, all as directed by the Architect. Rate quoted shall include for all framing, usual waste and cuttings and no extra rates or claims will be entertained on this account.

The rate for wood work shall include the cost of all sawing, planning, jointing, framing, labour and materials for raising and fixing and all workmanship and fixing and supplying of all strips, bolts, nails, trenails, spikes, keys, wedges, pins, screws etc. necessary for the framing as per specification and drawings. Edges of the beams, joists, posts, frames etc. shall be rounded, moulded or chamfered as directed without extra charges.

The Contractors shall be responsible to deliver all items at site of work. The Contractor will submit a programme of work in such a way that requirements for each floor commencing from ground floor is completed before the requirement of the next floor and arrange to have them fixed in position as the General Builders work progresses.

Timber in contact with masonry or concrete shall be treated with solignum paint or any approved anti-termite treatment before fixing.

The Contractor will be making necessary holes in concrete and masonry for fixing in position and grouting. The Contractor will be responsible for the proper fixing of partitions true to plumb and alignment until completion and grouting pockets with cement concrete and make good affected portions without claim to any extra.



The iron monger fittings shall be of heavy type cast brass oxidised and of approved manufacture. Samples of all ironmongery items shall be got approved by the Architect prior to procurement.

9.00 HARDWARE FITTINGS

All hardware fittings and fixtures shall be made with structural properties to sustain safety and withstand strains and stresses to which they are normally subjected to such as opening and closing, wind pressure etc. The fittings shall generally conform to relevant specifications.

They shall be made true, clean, straight, with sharply defined profiles and unless otherwise shown or specified, with true smooth surfaces and edges, free from defects, screw holes shall be counter sunk to suit the head of wood screws.

The metal shall be treated with finish as specified in the Bill of Quantities.

9.01 Mortice Lock for Euro Profile Cylinder, S S Ball Bearing Hinges :

These shall be treated with finish as specified in the Bill of Quantities.

S.S Butt hinges shall be manufactured from S.S sheets of approved gauges. Hinges shall be finished as specified in the respective items. The size of butt hinges shall be taken as length of the hinge.

9.02 Sliding bolts/Latches

These shall be of Stainless Steel or as specified and shall be capable of smooth sliding action. These shall be finished as specified. The size of latch shall be taken as the length of the bolt catch.

9.03 SS Lever Handles.

These shall be as described in the Bill of Quantities and finished as specified.

10.00 PRESERVATIVE TREATMENT

All wood work in contact with masonry shall be painted with approved asphalt or bitumen paint before placing. Care shall be taken to keep exposed faces clear from tar, etc. Tarfelt shall be used to isolate wood from masonry wherever practically possible. All concealed wood members in ceiling, partitions, cabinet work, etc., shall be treated fully and liberally with solignum before placing in position.

11.00 MODE OF MEASUREMENT

The method of measurement for various items in the tender shall be generally in accordance with the IS : 1200 subject to the following:

- 1) All work shall be measured net as fixed. No extra measurement will be given for shape, joints, splayed, meeting stiles of doors and windows and shall be measured in unit of square metre. Door frames shall be in cubic metre, if measured separately.
- 2) Area over one face inclusive of exposed frame thickness (excluding width of cover mould) shall be measured in case of doors, windows and ventilators when frames are included in the item. Portions embedded in masonry or flooring shall not be measured.

12.0 PRE-LAMINATED PARTICLE BOARD (PLPB)

Particle Board is a panel product. It is manufactured by phenol formulated gluing particles of wood. Particles are flakes, shavings and splinters produced by cutting or breaking. Made from recycled agricultural fibre, it is coloured with non-toxic, water based dyes. The texture you see or feel comes from the fibre content, not found in



other similar products. For the production of particle boards a well planned manufacturing process and quality inspection is needed.

Pre-laminated melamine faced 3-layered particle board. The plain particle boards are made from plantation hardwood timber agro waste. The same are laminated with melamine impregnated high grammage imported paper on either side. Green lamiboard is an eco-friendly alternative to conventional timber, plywood and block board. Apart from IS:12823 Grade II. It also conforms to internal standards.

Technical Specifications :

SL. No.	Properties	Unit	Specified Values as per IS:12823-1990	Conforms
1	Density	Kg/M ³	500 – 900	✓
2	Moisture Content	%	>5, <15	✓
3	Water Absorption			
	a) 2 hrs.	%	15 (Max.)	✓
	b) 24 hrs.	%	30 (Max.)	✓
4	Thickness swelling in two hours	%	8 (Max.)	✓
5	Modulus of Rupture	N/mm ²	11 (Min.)	✓
6	Tensile Strength perpendicular to surface	N/mm ²	0.3 (min.)	✓
7	Screw withdrawal strength			
	a) Face	N	1250 (Min.)	✓
	b) Edge	N	750 (Min.)	✓
8	Resistance to steam		Should pass test	✓
9	Resistance to Cracking		Should pass test	✓
10	Resistance to cigarette burns		Should pass test	✓
11	Resistance to stain		Should pass test	✓
12	Abrasion resistance	Rev	450 (Min.)	✓

13.00 : Prelaminated Medium Density Fibre Board (MDFB)

MDF is a type of fibreboard made from wood or lignocellulosic material refined into fibres and reconstituted with a resin binder (by phenol formulated glue) carrying elevated temperatures. MDF has a homogenous structure with uniform texture and properties throughout. It is easier to machine than natural wood and can be laminated and shaped very evenly and smoothly.

Pre laminated MDF Boards is melamine faced medium density fibre board having a dense, compact and homogenous construction. Imported base papers impregnated in Melamine Resin are laminated on either side of the medium density fibre board. The product conforms to IS: 12406-1989

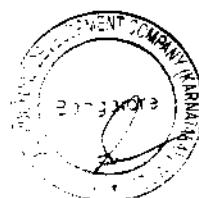


TECHNICAL SPECIFICATION :

SL. No.	Properties	Unit	Specified Values as per IS:12406-1989	Conforms
1	Density	Kg/M ³	500 – 900	✓
2	Moisture Content	%	>5, <15	✓
3	Water Absorption			
	c) 2 hrs.	%	9 (Max.)	✓
	d) 24 hrs.	%	18 (Max.)	✓
4	Thickness swelling in two hours	%	7 (Max.)	✓
5	Modulus of Rupture	N/mm ²	28 (Min.)	✓
6	Tensile Strength perpendicular to surface	N/mm ²	0.7 (min.)	✓
7	Screw withdrawal strength			
	c) Face	N	1500 (Min.)	✓
	d) Edge	N	1250 (Min.)	✓
8	Resistance to steam		Should pass test	✓
9	Resistance to Cracking		Should pass test	✓
10	Resistance to cigarette burns		Should pass test	✓
11	Resistance to stain		Should pass test	✓
12	Abrasion resistance	Rev	450 (Min.)	✓

TECHNICAL SPECIFICATION FOR PAINTING WORKS**Table of Contents**

- 1.0 Scope
- 2.0 General Requirements
- 3.0 Codes and Standards
- 4.0 Materials
- 5.0 Storage
- 6.0 Preparation of Surface
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- 8.0 Protection
- 9.0 Cleaning up
- 10.0 Acceptance Criteria
- 11.0 Mode of Measurements



1.00 SCOPE

This specification covers the general requirements for painting, white washing, etc. of both interior and exterior surfaces of masonry, concrete, plaster and all carpentry works, structural and miscellaneous steel works. This also includes furnishing of all materials, labour, scaffolding, tools and appliances etc.

2.00 GENERAL REQUIREMENTS

- 2.01 Before commencing painting, the Contractor shall obtain the approval of KRIDE in writing regarding the scheduling of work to minimize damage, disfiguration or staining by other trades. He shall also undertake necessary precautions to prevent damage, disfiguration or staining of other trades or other installations.
- 2.02 Contractor shall protect not only his own work at all times but also all the adjacent work and materials by suitable covering, protection or other methods acceptable to the Architect during progress of painting. It is the responsibility of the contractor upon completion of painting work to remove all paint and varnish spots from floors, walls, glass panes and other surfaces and restore them to the original conditions. The work generally to be touched up shall be attended to after all other workmen have left. All accumulated material, rubbish etc. have to be cleared and the premises left in clean, orderly and acceptable conditions.
- 2.03 Contractor shall provide scaffolding wherever necessary erected on double supports tied together by horizontals, no ballies, bamboos or planks shall rest on or touch the surface which is being painted. Contractor is deemed to have considered the following while tendering and no extra claim on account of these will be entertained.
- a) Supplying the paint and other materials required of approved colour and brand.
 - b) Preparing the surface to be painted
 - c) Providing and erecting scaffolding and removing the same after completion of the work.
 - d) Lifting of materials to any height and painting at all levels.
 - e) Application of paint as per the specification and to Manufacturer's instructions.
 - f) Curing, protecting the painted surface, adjacent work and thoroughly cleaning of the premises.
- 2.04 The Contractor shall furnish all skilled and unskilled labour, plant, equipment, scaffolding, all materials etc. required for complete execution of the work in accordance with the drawings and as described herein and / or as directed by the Architect.
- 2.05 The Contractor shall strictly follow, at all stages of work, the stipulations contained in the Indian Standard Safety Code and the provisions of the Safety Rules as specified in the General Conditions of the Contract for ensuring safety of men and materials.
- 2.06 Any approval, instructions, permission, checking, review etc. whatsoever by the Architect shall not relieve the Contractor of his responsibility and obligation regarding adequacy, correctness, completeness, safety, strength, workmanship etc.



3.00 CODES AND STANDARDS

3.01 All standards, specifications, acts, and codes of practice referred to herein shall be the latest editions including all applicable official amendments and revisions.

3.02 List of certain important Indian Standards, Acts and Codes applicable to this work is given below. However, the applicable standards and codes shall be as per but not limited to the list given below:

IS : 157	:	Chemical resistant paint. IS
: 161	:	Oil resistant paint
IS : 162	:	Ready mixed paint, brushing, fire resisting, silicate type for use on wood, colour as required
IS : 348	:	French Polish
IS : 423	:	Plastic wood for joiners filter
IS : 427	:	Distemper, dry, colour as required
IS : 428	:	Distemper, oil emulsion, colour as required
IS : 712	:	Building limes
IS : 1200	:	Method of measurement of building and civil Engineering works.
IS : 1477	:	Code of practice for painting of ferrous metals and buildings.
IS : 2074	:	Ready mixed paint, air drying, red oxide- zinc chrome priming.
IS : 2922	:	Specification for wooden tent mallets
IS : 2932	:	Enamel, synthetic, exterior (a) undercoating, (b) finishing
IS : 2933	:	Enamel exterior (a) undercoating, (b) finishing
IS : 5410	:	Cement paint

4.00 MATERIALS

4.01 General

Paint shall be ready mixed and of first quality of the approved brand and manufacturer. The paint shall generally conform to the chemical composition and other characteristics laid down in the relevant Indian standard specification. Mixing of paint by the Contractor at site will not be allowed. However, in the case of selection of special shades and colours (not available standard shades) the Contractor shall mix different shades of ready mixed paints as per Manufacturer's instructions and as directed by the Architect.

Materials shall be the highest grade products of well known approved manufacturers and shall be delivered to the site in original sealed containers, bearing brand name, manufacturer's name and colour shade, with labels intact and seals unbroken. All materials shall be subject to inspection and approval by the Architect. It is desired that materials of one manufacturer only shall be used as far as possible and paint of one shade be obtained from the same manufacturing batch. All paints shall be subjected to analysis from random samples taken at site from the painter's bucket, if so desired by the Architect.

All unspecified materials shall be of the highest quality available and shall conform to the latest IS standards. All such materials shall be made by reputable recognized manufacturers and shall be approved by the Architect.

Any materials found not conforming to the relevant specification shall have to be removed by the Contractor from the site at his own expenses.

All colours shall be as per the painting schedule and tinting and matching shall be done to the satisfaction of the Architect. In such cases, where samples are required,



they shall be executed in advance with the specified materials for the approval of the Architect.

All primer coats shall be compatible to the material of the surface to be finished as well as to the finishing coats to be applied.

4.02 Dry Distemper

Dry distemper of required colour conforming to IS:427 and of approved brand and manufacturer shall be used. The primer where used shall be cement primer or distemper primer. These shall be of same manufacturer as that of distemper.

4.03 Acrylic Emulsion Paint

Shall be water based (Low VOC) acrylic copolymer emulsion (certificate to be submitted along with supply of material) with rutile titanium dioxide and other selected pigment and fungicide. It shall exhibit excellent adhesion to plaster and cement surface and shall resist deterioration by alkali salts. The paint film shall allow the moisture in wall to escape without pelling or blistering the paint. After it is dried, the paint should be able to withstand washing with mild soap and water without any deterioration in colour or without showing flaking, blistering or peeling.

4.04 SOFT SHEEN ENAMEL PAINT

Soft sheen enamel paint - Satin Finish to walls of approved colour over a coat of primer (cement Primer 34-200) including preparation of surface by thorough cleaning and free from grime, dust, grease, loose or flaking particles, hair cracks shall be filled, smoothen out the surface by using suitable emery paper of 320 grade followed by a coat of water based cement primer - (32-168) fully to give an even shade before painting.

5.00 STORAGE

The Contractor shall arrange for safe and proper storage of all materials and tools. Paints shall be kept covered at all times and mixing shall be done in suitable containers. All necessary precautions shall be taken by the Contractor to prevent fire.

6.00 PREPARATION OF SURFACE

6.01 Wood Work

Pretruding timber fibre shall be removed and all holes shall be filled with teakwood batten. the nail marks shall be covered with putty. The work shall then be sanded first with G/80 sand paper followed by G/120 or G/150 sand paper. Sanding should be taken up only when it can be followed immediately by painting.

6.02 Steel work

The surface shall be thoroughly cleaned sand prepared and / or rubbed with emery cloth if necessary to remove grease, mortar or any other foreign materials. In case of rusted surface, it shall be first cleaned with steel wire brushes till the corroded crust is removed. The cleaned surface shall be shiny and free from brush marks, patches, blisters and other irregularities. The surface thus finished shall be got approved before painting.



6.03 Masonry, concrete and plastered surface

Concrete / masonry surface and cement plastered surfaces shall be thoroughly cleaned of mortar droppings and other stickings. All loose scales and flakes shall be removed by rubbing with hessian cloth or sand papering. All holes shall be filled and the surface rubbed smooth to get evenness of the existing surface. The surface shall be free from all oil, grease, efflorescence, mildew, loose paint or other foreign and loose materials. Masonry cracks shall be cleaned out and patch filled with mortar similar to the original surface and uniformly textured. Where this type of resurfacing may lead to the finishing paint being different in shade from the original surfaces, the resurfaced area shall be treated with a minimum of one coat of cement primer and should be continued to the surrounding area for a distance of atleast 100mm. Surfaces with mildew or efflorescence shall be treated as below:

(a) Mildew

All mildewed surfaces shall be treated with an approved fungicide such as ammonia wash consisting of 7 gm. of copper carbonate dissolved in 80 ml liquor and diluted to 1 liter with water or 2.5 percent magnesium silica fluoride solution and allowed to dry thoroughly before paint is applied.

(b) Efflorescence

All efflorescence shall be removed by scrubbing the affected surface with a solution of mariatic acid and in water (1:6 to 1:8) and then washed fully with clear water and allowed to dry thoroughly.

Area to be distempered shall be applied with one coat of white chalk solution mixed with required quantity of glue or plaster of paris and shall be sand papered before distempering. The area to be cement painted shall be wetted by sprinkling of water with fine spray. The surface shall be sprayed several times with a few minutes intervals between each spraying to allow the moisture to seek into the surface.

6.04 Iron and Steel Surface

Surface of steel work to be painted shall be thoroughly cleaned of all grease, oil dirt, rust, foreign matter like cement splashings, etc. by suitable solvent and mild rubbing with abrasive paper / hand scrapping to the full satisfaction of the Architect. Clearing with solvents / scraping shall be limited to the affected areas only. All galvanized iron surfaces shall be pretreated with a compatible primer according to the manufacturer's direction. Any abrasion in shop coat shall be touched up with the same quality of paint as the original coat.

6.05 Before starting the work, the Contractor shall obtain the approval of the Architect regarding the soundness and readiness of the surface to be painted on.

7.00 APPLICATION

7.01 General

Before the commencement of the work the Contractor shall provide sample panels of painting at his own cost for the approval of the Architect to enable him to keep an accurate check on the materials supplied and final shade to be painted. It is however the express responsibility of the Contractor to provide any deviations and defects shall have to be rectified by the Contractor at his own cost.



The method of application shall be as recommended by the manufacturer. In case of selection of a special shade and colour (not available in standard shades) the Contractor shall prepare test panels in different shades of minimum size 1 metre square as instructed by the Architect and obtain his approval prior to applications of the finishing paints.

Proper tools and implements shall be used. Scaffolding if used shall be independent of the surface to be painted to avoid shade differences of the freshly repaired anchor holes. Painting shall be done by skilled labour in a workman like manner. All materials shall be evenly applied, so as to be free of sags, runs, crawls or other defects. All coats shall be of proper consistency. In case of application by brush, no brush marks shall be visible. The brushes shall be clean and in good condition before application of the paint.

All priming undercoats for painting shall be applied by brush only. Roller and spray equipment, etc., shall not be used.

The cleaned surface shall be dusted and a primer shall be applied.

One shop coat of red oxide or zinc chromate primer or as specified shall be given to all iron surfaces. Painting work on steel and iron surface shall conform to IS : 1477 (Part I and II).

All primer coats shall be compatible to the material of the surface to be finished as well as to the finishing coat to be applied.

No work shall be done under conditions that are unsuitable for the production of good results. No painting shall be done when plastering is in progress or is drying. Paint which seals the surfaces to moisture shall be applied only after the moisture on and below the surface has dried out.

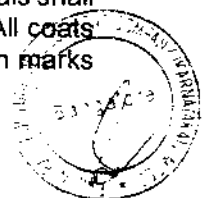
All coats shall be thoroughly dry before being sand papered or before the succeeding coat is applied. Coats of painting as specified are intended to cover surfaces perfectly. In case the surface is not covered properly by applying the specified number of coats, further coats shall be applied by the Contractor when so directed by the Architect at no extra cost.

All primers and under coats shall be tinted to approximate the colour of the finishing coats. Finished coats shall be of exact colour and shade as approved samples and all finish shall be uniform in colour and texture. All parts of mouldings and ornaments shall be left clean and true to finish.

Stopping and filling carpentry work should be done when the primer is just dry. For deep scratches, holes etc. stopping shall be done with putty of plastic wood (IS 423). Putty can be white lead with linseed oil base or synthetic metal putty.

For all minor scratches and rough surfaces, like flush door's faces filling made out of one part of white lead, two parts of whiting (powdered chalk) mixed and kneaded in double boiled linseed oil shall be evenly applied and rubbed down with G/220 or G/240 sand paper after allowing it to dry overnight.

Painting shall be done by skilled labourers in a workmanlike manner. All materials shall be evenly applied so as to be free from sags, runs, crawls, or other defects. All coats shall be of proper consistency and shall be well brushed out, so that no brush marks are visible, except varnish and enamels which shall be uniformly flowed on.



The brushes shall be clean and in good condition before application of paint. No work shall be done under conditions that are unsuitable for production of good results.

The undercoating should be nearest to the specified colour of the finishing coat. Ready mixed synthetic enamel paint or fill paint may be used for the undercoat. The undercoat shall be uniform and free of all brush marks.

Undercoats should be completely dry before finishing coat is taken up. For synthetic enamels overnight and for oil paints, a whole day shall be left between undercoat and finishing coat. The undercoat shall then be rubbed with G/240 sand paper and dusted clean. The finishing coat of approved paint shall then be applied. If the surface is not satisfactory additional finish coats shall be applied at no extra cost. The paints shall be applied with bristle brushes and not horse hair ones.

7.02 Oil / Enamel / Aluminium Paint

Ready mixed oil paint (Low VOC certificate to be submitted along with supply of material), synthetic enamel paint, Aluminium paint, etc. shall be brought in original containers and in sealed tins. If for any reason thinner is necessary the brand and quantity of thinner recommended by the manufacturer or as instructed by the Architect shall be used.

After allowing 24 hours for drying of primer coat specified quality paint shall be applied evenly and smoothly. If required a filler putty coating may be given to give smooth finish. A filler putty coating has to be given after primer coat in the case of wooden surfaces. The putty shall be made from pure whiting mixed to the proper consistency with new linseed oil. A little white lead being mixed to help hardening of putty. On no account putty is to be used before primary coat. Each coat shall be allowed to dry out thoroughly and then lightly rubbed down with sand paper and cleaned of dust before the next coat is applied. Number of coats shall be as specified in the item and if however the finish of the surface is not uniform additional coats as required shall be applied to get good and uniform finish at no extra cost. After completion no hair marks from the brush or clogging of paint puddles in the corners of panel angles of mouldings shall be left on the work. The glass panes floor etc., shall be cleaned of stains.

When the final coat is applied, if directed, the surface shall be rolled with a roller or if directed it shall be stippled with a stippling brush.

7.03 Cement Paint

The number of coats shall be indicated in the bill of quantities. The surface to be cement painted shall be prepared as described above.

The cement paint shall be prepared in exact conformity and workable consistency as per specifications of the manufacturer. Approval of the Architect shall be obtained in regard to the exact shade and colour before applying the cement paint. Cement paint shall be applied with good quality flat brush horizontally or vertically to ensure perfect covering. The first coat should be well brushed into the surface to form a good film appearance. The second or subsequent coats shall be applied carefully to give a good final satisfactory finish and may be applied by brushing or spraying. Each cement paint application should be wetted at the end of the day with a fine water spray. Twenty four hours after the first coat has been applied, saturate the surface with water and second or subsequent coats can be applied when the surface is damp to touch.



Rewater the surface with ample water after 24 hours to ensure perfect setting of the paint film.

7.04 Dry Distemper

New plastered surface shall be allowed to dry for atleast two months. New lime or lime plastered surface shall be washed with a solution of 1 part of vinegar to 12 parts water or 1:50 sulphuric acid solution and left for 24 hours after which the wall shall be thoroughly washed with clean water. For cement plastered surface, the surface shall be washed with a solution of 100 gms of zinc sulphate to 1 litre of water and then allowed to dry.

Dry distemping shall be done as per manufacturer's instruction. In applying the distempers, the brush should first be applied horizontally and immediately crossed off perpendicularly. Brushing shall not be continued too long as otherwise brush marks may result.

7.05 White washing walls and ceilings

White wash shall be prepared from fat lime or shell lime slaked onsite mixed with just enough water to make a thick paste and allowed to remain for atleast 7 days before use. At the time of using, the paste shall be diluted with just sufficient water and stirred through clean and coarse cloth. Four kgs. of gum dissolved in hot water shall be added to each cu. metre of the lime used. Ultra marine blue shall be added to give required whiteness. The number of coats shall be specified in the bill of quantities and shall be applied by using flat brushes or spray pumps, on surface prepared. The wash shall be applied with brush with alternate coats of horizontals and verticals. When a coat is being given it shall be ensured that the previous one has dried up completely. Two or more coats of wash (as specified in the schedule of quantities) shall be applied to give uniform finished surface without any patches or cracks and brush marks. It should not come off when rubbed hard with hand. One coat of white wash shall consist of one stroke from top downwards, another from bottom upward over the first stroke, and another from left to right before the previous one dries up. The final coat shall be perfectly uniform in appearance and free from brush marks.

7.06 Colour Wash

Colour wash shall be prepared by adding mineral colours or approved pigments not affected by lime or light to the lime solution prepared for white wash. Colour wash shall be applied as specified under "white wash". Approval of the Architect shall be obtained in regard to exact shade before applying colour wash.

7.07 Acrylic Emulsion Paint

Acrylic emulsion paint, shall be brought in original containers and in sealed tins.

After allowing 24 hours for drying of primer coat specified approved quality paint shall be applied evenly and smoothly. If required a filler putty coating may be given to give smooth finish. Each coat shall be allowed to dry out thoroughly and then lightly rubbed down with sand paper and cleaned of dust before the next coat is applied. Number of coats shall be as specified in the item and if however the finish of the surface is not uniform additional coats as required shall be applied to get good and uniform finish at no extra cost. After completion no hair marks from the brush or clogging of paint puddles in the corners of panel angles of mouldings shall be left on the work.



When the final coat is applied, if directed, the surface shall be rolled with a roller or if directed it shall be stippled with a stippling brush.

Lime gauged cement plastered surfaces shall not be painted for at least one month after plastering. All sample patch shall be painted to check alkali reaction if so desired by the Architect. Painting shall be strictly as per manufacturer's specification.

7.08 Oil Bound Distemper

Any unevenness in surface shall be made good by applying putty. The patched surface shall be allowed to dry thoroughly before the coat of distemper is applied. One coat of distemper properly diluted with thinner as specified by the manufacturer shall be applied by brush in horizontal strokes followed immediately by vertical ones which together will constitute one coat. Two or more coats of distemper as found necessary shall be applied to obtain even shade.

7.09 Chemical Resistant, Fire Resistant and Oil Resistant Paints

In general, method of application of these paints shall be strictly as per manufacturer's specification.

7.10 Polishing and Varnishing

a) Colourless Lacquer Polish

Polish

Nitro cellulose lacquer polish of approved brand manufacture and finish shall be used.

PREPARATION OF SURFACE

The surface shall be cleaned and all unevenness shall be rubbed down smooth with suitable grade sand paper and well dusted. Knots if visible shall be made good as per the direction of the architects. Holes and indentation on the surface shall be stopped with glaziers putty. The surface then shall be given a coat of ready made ragging wood filler and allowed to dry for maximum 4 hours. The surface again shall be rubbed down perfectly smooth with suitable emery paper and wiped clean. There after a finishing touch up with ragging wood filler is to be given and allowed to dry. To receive the polishing the surface is again rubbed down smooth.

Application :

Nitro cellulose sealer coat of approved manufacturer shall be applied strictly as per the manufacturers specification. The polish shall be applied with a sprayer at suitable pressure and viscosity as recommended by the manufacturer, and allowed to dry for 4 to 6 hours and rubbed down with suitable grade emery. The surface shall be again sprayed with 3 coats of NC lacquer (3 wet on wet coat). Finally the surface shall be given wax polishing by using rubbing compound.

b) Melamine Polish

Glossy / Matt

Apcolite Natural Wood finish clear glossy / matt is a premium quality melaminised coating specially formulated as a protective and decorative finishing clear coating for wood.



Method of application : Brushing at 25-30 seconds by Ford Cup B4 at 30 degree C.
Spraying at 20-25 seconds by Ford Cup at 30 degree C

matt Flash point : Above 14 degree C (57° F)

Sand the surface along the grains with Emery Paper No.180 or with a suitable grade sand paper. Brush the surface free of loose dust. Fill the wood using Apcolite Wood Filler. Remove excess filler immediately after applications. Allow 2-3 hours of drying, before sanding with Emery Paper No.240 or 280. If desired, apply Apcolite Natural Wood Finish upto 20% by volume and apply by spraying after Sealer Coat. In application by ragging allow a drying time of 5-10 minutes in between coats and 30-60 minutes before over coating with finish coats. Apply a coat of Apcolite Natural Wood Finish Clear Sealer. After overnight drying, smooth sand with Emery Paper No.320 and wipe the surface free of loose dust. Apply Apcolite Natural Wood Finish Clear Glossy / Matt as follows. Ensure that the surface to be coated is free from loose matter. Apcolite Natural Wood Finish Clear Glossy / Matt is a two component system consisting of base and hardener. These should be mixed in the recommended ratio. The two components should be mixed in a glass, plastic or enamelled container. Allow the mixture to stand for 30 minutes and then apply by brushing or spraying using the recommended thinner for consistency adjustment. The mixture of base and hardener should be used within 8 hours.

French spirit polish shall be an approved make conforming to IS 348. If it has to be prepared on site, the polish shall be made by dissolving 0.7 Kg of best shellac in 4.5 litres of methylated spirit without heating. To obtain required shade, pigment may be added and mixed.

Surface shall be cleaned. All unevenness shall be rubbed down smooth with sand paper and well dusted. Knots if visible shall be covered with a preparation of red lead and blue. Resinous or loose knots and gaps filled with seasoned timber pieces made level with reset of the surface. Holes and indentations on surface shall be filled with putty made of whiting and linsed oil. Surface shall be given a coat of filler made of 2.25 kg. of whiting in 1.5 litre of methylated spirit. When it dries surface shall again be rubbed down perfectly smooth with sand paper and wiped clean.

Piece of clean fine cotton cloth and cotton wool made into shape of pad shall be used to apply polish. The pad shall be moistures with polish and rubbed hard on the surface applying the polish sparingly but uniformly and completely over the entire



surface. It shall be allowed to dry and another coat applied in the same way. To give finishing coat, the pad shall be covered with a fresh piece of clean fine cotton cloth, slightly dampened with methylated spirit and rubbed lightly and quickly with a circular motion, till the finished surface attains uniform texture and high gloss.

d) Wax Polishing

Wax polish shall either be prepared on site or obtained ready made from market. Polish made on the site shall be prepared from a mixture of pure bees wax, linseed oil, turpentine oil and varnish in the ratio of 2: 1 1/2 : 1 1/2 by weight. The bees wax and the boiled linseed oil shall be heated over a slow fire when the wax is completely dissolved the mixture shall be cooled till it is just warm, and turpentine oil and varnish added to it in the required proportions and the entire mixture is well stirred.

Surface shall be prepared as described under French Spirit Polish except that the final rubbing shall be done with sand paper which has been slightly moistened with linseed oil.

Mixture of polish shall be applied evenly with a clean cloth pad in such a way that no blank patches are left and rubbed continuously for half an hour. When the surface is quite dry a second coat shall be applied in the same manner and rubbed continuously for half an hour or until the surface is dry. Final coat shall then be applied and rubbed for 2 hours or more if necessary, until the surface has assumed an uniform Gloss and is quite dry showing no sign of stickiness when touched. Gloss of the polish depends on the amount of rubbing, therefore rubbing must be continuous and with uniform pressure and frequent change in direction.

e) Varnishing

Surface shall be prepared as described above. After preparation of surface, two coats of clean boiled linseed oil shall be applied at sufficient interval of time. After the linseed oil has dried two coats of varnish obtained from approved manufacturer shall be applied at sufficient interval of time. If the surface fails to produce the required gloss an additional coat shall be applied without any extra cost.

8.00 PROTECTION

Contractor shall provide and use sufficient number of drop clothes, covers, tarpaulins and other screens to protect adjacent surfaces and shall remove all splatter and stains from such surfaces. The contractor shall also protect his own work.

Furniture and other movable objects, equipment, fittings and accessories shall be moved, protected and replaced upon completion of the painting work. All stationary items of equipment shall be well covered so that no paint can fall on them. Work finished by other agencies shall be well protected. All protection shall be as per instruction of the Architect.

9.00 CLEANING UP

The Contractor shall upon completion of painting etc. remove all marks and make good surfaces, where paint has spilled, splashed or splattered, including all equipment, fixtures, glass furniture, fittings, etc. to the satisfaction of the Architect.

10.00 ACCEPTANCE CRITERIA

10.01 All painted surfaces shall be uniform and pleasing the appearance.



10.02 The colour, texture etc. shall match exactly with approved samples.

10.03 All stains, splashes and splatters of paint shall be removed from surrounding surfaces.

11.00 MODE OF MEASUREMENT

Unless noted otherwise in the bills of quantities, the method of measurement for various items shall be generally in accordance with IS 1200 subject to the following:

The following multiplying factors for obtaining equivalent areas shall be adopted.

S. No	Description of Work (1)	How Measured (2)	Multiplying Factor (3)
1.	Panelled, or framed and braced or ledged and battened and braced joinery	Measured flat (not girthed), including CHOWKAT or frame Edges, chocks, cleats, etc., shall be deemed to be included in the item	1.30 (for each side)
2.	Flush joinery	Measured flat (not girthed), including CHOWKAT or frame Edges, chocks, cleats, etc., shall be deemed to be included in the item	1.20 (for each side)
3.	Fully glazed or gauzed joinery	Measured flat (not girthed), including CHOWKAT or frame Edges, chocks, cleats, etc., shall be deemed to be included in the item	0.80 (for each side)
4.	Partly Panelled and Partly glazed or gauzed joinery	Measured flat (not girthed), including CHOWKAT or frame Edges, chocks, cleats, etc., shall be deemed to be included in the item	1.00 (for each side)
5.	Fully Venetian or louvered joinery or gauzed joinery	Measured flat (not girthed), including CHOWKAT or frame Edges, chocks, cleats, etc., shall be deemed to be included in the item	1.80 (for each side)
6.	Weather boarding	Measured flat (not girthed), supporting framework shall not be measured separately	1.20 (for each side)



7.	Wood shingle roofing	Measured flat (not girthed)	1.10 (for each side)
8.	Boarding with cover fillets and match boarding.	Measured flat (not girthed)	1.05 (for each side)
9.	Tile and slate battening.	Measured flat (not all) no deduction shall be made for open spaces.	0.80 (for painting all over)
10.	Trellis (or JAFRI work) one-way or two-way	Measured flat over all; no deduction shall be made for open spaces; supporting members shall not be measured separately	2.00 (for painting all over)
11.	Guard bars, balustrades, gates, gratings, grills expanded metal and railings.	Measured flat over all; no deduction shall be made for open spaces; supporting members shall not be measured separately	1.00 (for painting all over)
12.	Gates, and open palisade fencing, including standards, braces, rails, stays, etc.	Measured flat over all; no deduction shall be made for open spaces; supporting members shall not be measured separately	1.00 (for painting all over)
13.	Carved or enriched	Measured flat	2.00
14.	Steel roller shutters	Measured flat (size of opening) Overall Jamb guides, bottom rails and locking arrangement, etc. shall be included in the item (top cover shall be measured separately).	1.10 (for each side)
15.	Plain sheet steel doors and windows.	Measured flat (not girthed) including frame, edges, etc.	1.10 (for each side)
16.	Fully glazed or gauzed steel doors and windows.	Measured flat (not girthed) including frame, edges, etc.	0.50 (for each side)
17.	Partly Panelled and Partly glazed or gauzed steel doors.	Measured flat (not girthed) including frame, edges, etc.	0.80 (for each side)
18.	Collapsible gate.	Measured Flat (size of opening)	1.50 (for painting all over)

NOTE :

The height shall be taken from the bottom of the lowest rail, if the palisades do not go below it (or from the lower end of palisades, if they project below the lowest rail) upto the top of palisades, but not upto the top of the standards, if they are higher than the palisades. Similarly for gates depth of roller shall not be considered while measuring the height.



TECHNICAL SPECIFICATION FOR FLOORING AND DADOING WORKS

1.00 SCOPE

- 1.01 This specification covers the general requirements for flooring and dadoing of various types of finishes including supplying, installation, finishing, curing, testing, protecting, maintaining until handing over.

2.00 GENERAL REQUIREMENTS

- 2.01 The Contractor shall furnish all skilled and unskilled labour, plant, equipment, scaffolding, materials etc., required for complete execution of the work in accordance with the drawings and as described herein and / or as directed by the Engineer.
- 2.02 The Contractor shall follow all safety requirements / rules during execution of the work.
- 2.03 The Contractor should have adequate experience in execution of such works. Alternatively, he should engage specialized agency for executing the work after obtaining approval from the Engineer.
- 2.04 All works shall be carried out as per relevant Indian Standard Specifications, as per the instructions of manufacturer and as directed by Engineer. The Contractor shall carryout all works including preparation of base, chipping extra concrete, roughening of surface and skin removing, cleaning, screeding, levelling, curing, protecting the slab / tile by using pop over plastic sheet etc.
- 2.05 The commencement, scheduling and sequence of the finishing works shall be planned in details and must be specifically approved by the Engineer, keeping in view the activities of other agencies working in the area. However, the Contractor shall remain fully responsible for all normal precautions and vigilance to prevent and damage whatsoever till handing over to the Owner.
- 2.06 Only approved make, colour, size of tiles / slabs to form any pattern in combination of any specified colour shall be used.

3.00 CODES AND STANDARDS

3.01 IS Codes

Some of the important applicable Indian Codes for this section are listed below. Latest editions of these codes shall be followed:

IS 1237	:	-	Cement concrete flooring tiles
IS 4457	:	-	Ceramic unglazed vitreous acid resisting tiles
IS 5491	:	-	Code of practice for laying of in-situ Granolithic concrete flooring topping



IS 13753	:	-	Dust pressed ceramic tiles with water absorption of E 10%.
IS 13755	:	-	Dust pressed ceramic tiles with water absorption 3% of E 6% (Group B II.a)

4.00 MATERIALS

4.01	Cement	:	Ordinary Portland cement of 43 Grade conforming to IS : 8112 and as under concrete work of Technical Specification
4.02	Coarse Aggregate	:	As specified under concrete works and conforming to IS : 383
4.03	Fine Aggregate	:	As specified under concrete works and conforming to IS : 383
4.04	Water	:	As specified under concrete works

4.05 Special Materials

Materials required for individual finishing items are specified under respective items. In general, all such materials shall be in accordance with the relevant IS Codes where applicable. In all cases these materials shall be of the best indigenous quality unless specified otherwise.

The materials for finishing items must be procured from well-reputed approved specialized manufactures and on the basis of approval of samples by the Engineer. The materials shall be ordered, procured and stored well in advance to avoid possible delays to the construction programme.

5.0 STORAGE OF MATERIALS

Storage of cement, aggregates and water shall be as specified under concrete works.

6.0 BASE CONCRETE

6.01 The base concrete may be deposited as per specification and as directed. Before placing the concrete the sub-base shall be properly wetted and well rammed. The concrete shall then be deposited between the forms where necessary, thoroughly compacted and the surface finished level with the top edges of the forms. The surface of base concrete shall be left rough to provide adequate bond for the topping. Two or three hours after the concrete has been laid in position, the surface shall be brushed with a hard brush to remove any scum or laitance and swept clean so that coarse aggregate is exposed.

7.00 WORKMANSHIP

7.01 Workers specially experienced in particular items of finishing work shall carry out the work. Where such workers are not readily available, experienced supervisors recommended by the manufacturer shall be engaged with the prior permission and based on approval of the Engineer. In particular cases, Engineer may desire the installation of finishing items by the manufacturer. This arrangement shall be made by the Contractor.



8.00 PREPARATION OF THE BASE SURFACE

- 8.01 For all types of flooring, skirting, dado, the base (base concrete / structural slab / masonry wall / concrete wall etc.) to receive the finish shall be adequately roughened, joints raked, thoroughly cleaned of all dirt, grease, loose particle, caked mortar droppings, and laitance, if any by scrubbing with coir or steel wire brush before the operation of laying the topping is started. Where the concrete is hardened so much that roughening the surface by wire brush is not possible, the entire surface shall be roughened by chipping or hacking and the skin removed. The surface shall be thoroughly cleaned and soaked with water, atleast for twelve hours and the surplus water shall be removed by mopping immediately before the topping is laid in position.

The prepared surface has to be approved by the Engineer before commencing the finishing work.

9.00 GRANOLITHIC FLOORING

9.01 General

The work shall be carried out in accordance with Indian Standard Specification 5491 latest.

The flooring shall be of specified thickness and shall consist of CC 1:1.5:3 granolithic flooring. Floor finish shall be divided into suitable panels so as to reduce and avoid the risk of cracking. The granolithic flooring shall be laid with the specified strips in panels not exceeding 20 Sqm in plan. The screed strips shall be fixed on the base concrete dividing it into suitable panels not exceeding 20 Sqm in plan. The intermediate panels shall be filled in after one or two days. If glass or aluminium or other metal strips are provided for effective separation of panels, the topping may be laid in all the panels simultaneously or as specified.

9.02 Laying

a. Before the operation of laying the topping is started, the surface of base concrete shall be prepared as described earlier, screed strips shall be fixed over the base as divided.

b. The flooring concrete shall be of using 6 to 10 mm graded crushed granite stone. The ingredients shall be thoroughly mixed with sufficient water to obtain the required plasticity. The free water on the surface of the base shall be removed and a coat of cement slurry of the consistency of thick cream shall be brushed on the surface.

c. The prepared concrete shall be laid immediately after mixing on the fresh grouted base. The concrete shall be spread evenly and levelled carefully and compacted. Then the surface shall be tested with the straight edge and mason's spirit level to detect any inequalities in the surface. Low places shall be filled, humps removed and the whole surface again levelled. The layer shall be thoroughly compacted to the finished thickness by ramming and power trowelled and allowed to set. Just sufficient trowelling shall be made to give a level surface. The surface should not be over trowelled as excessive trowelling will bring the cement to the surface which shall be strictly avoided. When the initial set takes place further compaction by power trowelling shall be done and final trowelling shall be done well before the topping becomes too hard.



d. The surface shall be trowelled three times at intervals so as to produce a uniform, hard and smooth surface. No mortar or cement will be allowed to be added in this process.

The screed strips should be removed the next day after the concrete has been deposited in the panels and the edges of panels shall be examined for any honeycombing or undulation which, if found, shall be repaired straight and smooth by cement mortar; if the intermediate panels are not to be filled the next day, the screed strips shall then be cleared and put back against the edge of panels till the concrete in the alternate panels is to be deposited. When the concrete is being deposited in the alternate panels the screed strips shall be removed. When the concrete is being compacted in new panels, care shall be taken to avoid damage to the panels already laid. When desired by the Engineer, the surface while still 'green' shall be intended by pressing strings. The markings and forming a groove shall be of even size and depth, in straight lines and the panels shall be of uniform and symmetrical patterns.

9.03 Curing - As soon as the surface is hard enough, it shall be covered with sacking or sand and kept continuously wet for a period of atleast one week.

9.04 Protection - The surface shall be protected with a layer of pop to a required thickness over a plastic sheet.

10.0 CERAMIC TILES

10.01 Types of Ceramic Tile

a) Glazed Ceramic Tiles

Glazed ceramic tiles shall be highly pressed, single fired, red body, top glazed white or coloured, plain or with designs.

The body of glazed ceramic tiles should consist of high grade clay and minerals and well pressed in hydraulic presses and glaze should be a combination of different minerals. Varied combination of the body materials, glaze coating and the firing temperature will give tiles of varied strength, abrasion resistance, surface hardness, antiskid properties. The top surface shall be glazed with stable gloss / semi gloss / matt finish of uniform colour and texture and free from flaws, cracks, chips, craze, specks, crawling or other imperfections. These shall be sound, true to shape with true and straight edges, non-absorbing and non-fading. A fractured section shall appear fine grained in texture, dense and homogenous. The edges and the underside of the tiles shall be completely free from glaze so that these may adhere properly to the surface below.

The under side of tiles shall have ribs or indentations for better anchorage with the base mortar / adhesive specified

The group and quality of tiles specified in the bill of quantities and as shown on the drawings shall be used as directed by the Engineer, even though the group of tiles specified below:



i) Floor Tiles

These tiles should have high strength, good resistance to wear and tear, low water absorption and sufficient antiskid properties and shall conform to IS : 13755 and BLLA EN177 (European Standard). Based on the properties of the glaze and their hardness, floor tiles are categorized abrasion resistance wise as Group – II to V / V*. According to the intensity of foot traffic, the tile group shall be selected and used as given below.

Group II tiles shall be used for areas destined to medium foot traffic, to be trod on with leather or rubber footwear.

Group III tiles shall be used for areas destined to frequent foot traffic with medium abrasion.

Group IV tiles shall be used for areas destined to a strong passage and intensive foot traffic with heavy abrasion.

Group V – Floor tiles having very high Abrasive Resistance shall be used for areas destined to high intensive foot traffic with heavy abrasion.

ii) Wall tiles

Ceramic wall tiles shall be single fast fired tiles having medium water absorption and high strength characteristics. These tiles should have high glaze and better adhesion to wall and shall conform to IS : 13753 and EN 159 standards. Wall tiles shall be glossy / semi glossy / matt glaze finish, white or coloured, plain or printed, special printed and premium printed. These tiles shall be sound, uniform colour, true to shape with true and straight edges and non-fading.

b) Vitrified Tiles Polished

These tiles are of different shades having monolithic body which is pressed in very high tonnage press and fired to high temperature. The tiles shall be homogeneous and compact through out the entire body with very high strength, low porosity and extreme surface hardness, high resistance to abrasion resistant to chemicals etc. and shall conform to IS : 4457 and EN 98 standards. The tiles shall be sound, non- absorbing flat and true to shape with straight edges. The tiles shall be with smooth surface or textured anti-skid finish surface. The tiles should be free from any warping, deformation any chipping and any scratches. The tiles shall be in absolute level. The under side of tiles shall have ribs or indentations for better anchorage with the base mortar / adhesive as specified.

Polished vitrified ceramic floor tiles shall be homogeneous heavy and tough with highly reflective polished surface but non-slippery. The tiles shall be in different shades and shall have uniform colour, size and thickness.

10.02 Samples

Samples of each type / design / finish / print / size / colours of tiles shall be submitted well in advance to the Engineer for approval at Contractor cost.



Approved sample tiles will be retained by the Engineer. All tiles procured should be exactly as per approved samples. Tiles shall be procured from a single approved source / manufacturers who can provide products of consistent quality and physical properties. The manufacturer of tiles should be an approved company specializing in ceramic tiles.

Tiles of approved make, colour, design, finish, size etc. as stipulated in item description and /or as shown in the drawings only should be procured and used on the works.

10.03 Storage of Materials

The delivery of tiles shall be in original containers with seals unbroken. Adequate precaution shall be taken to prevent accidental damage to tiles while unloading and these shall be stored under cover in a manner approved by the Engineer. Adhesives shall be stored as per the manufacturers instructions.

10.04 Laying and Finishing of Floor tiles

Preparation of base shall be as specified under head "Preparation of Base Surface".

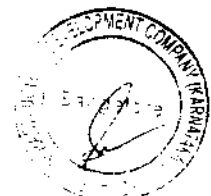
The under bed for flooring shall be of 9 mm thick Laticrete adhesive L 290 or 20 mm average thick cement mortar 1:4 (1 part cement and 4 parts sand) or as specified in item specification. The bedding shall be laid evenly over the surface, tamped and corrected to desired levels and allowed to harden enough to offer a fairly rigid cushion to tiles. Before fixing the tiles, the bed mortar shall be roughened by scratching diagonal lines at closed intervals and grey cement slurry of honey like consistency shall be applied over the bedding. Tiles shall be well soaked in water washed clean and fixed in cement grout one after the other, each tile being gently tapped in its position with a wooden mallet till it is properly bedded and in level with the adjoining tiles. The joints shall be kept as thin as possible and in straight lines or to suit the required pattern. Where the full tiles cannot be fixed these shall be cut (sawn) to the required size and their edges rubbed smooth to ensure straight and true joints. When grouting the granite slab / ceramic tiles special care shall be taken to prevent scratch. After the granite slab / ceramic tiles have been laid, surplus adhesives / unsanded cementitious grout shall be cleaned off. The joints shall be cleaned off with a wire brush to a depth of 5 mm and all dust and surplus adhesives removed. Joints shall then be flush pointed with adhesives / unsanded cementitious grout with colour pigments of Laticrete or approved equivalent, to match the Granite slab / Ceramic tiles as per Manufacturer's specification. The floor shall then be kept wet for 7 days. After curing, the surface shall be washed with clean water. The finished floor shall not sound hollow when tapped with a wooden mallet.

10.05 Laying and Finishing of Wall Tiles.

Preparation of wall surface shall be as specified under head "Preparation of Base Surface"

A 9mm thick adhesive of Laticrete or equivalent shall be applied for fixing the wall tiles. The tile joints shall be pointed with matching Latapoxy adhesive / unsanded cementitious grout.

As specified in the item, adhesive of approved make shall be used for setting the tiles in the bedding mortar.



The tiles shall be tamped and corrected to proper plan and lines. The tiles shall be set in the required pattern and jointed true to plumb. The joints shall be as fine as possible. Top of skirting or dado shall be truly horizontal and joints truly vertical except where otherwise indicated or as directed by Engineer.

Skirting / dado shall rest on the top of the flooring where full size tiles cannot be fixed these shall be cut (swan) to the required size and height as specified and their edges rubbed smooth.

The joints shall be cleaned off with wire brush and all dust and unsanded cementitious grout removed. Joints then shall be flush pointed with adhesive / unsanded cementitious grout of Laticerete or approved equivalent to match the colour of tiles as per manufacturer specification. The work shall then be kept wet for 7 days.

After curing, the surface shall be washed with clean water. The finished work shall not sound hollow when tapped with a wooden mallet.

- 10.06 The surface shall be protected with a layer of pop to a required thickness over a plastic sheet.

11.0 CEMENT BASED COLOUR AND PATTERNED TILES

- 11.01 Cement tile to be used for external and internal applications shall be manufactured using very high quality raw materials, high strength cement, colour pigments etc. to withstand all conditions of sever intensity in terms of temperature, vagaries of the nature, traffic, extreme heat and cold etc. and shall conform to IS 1237.

The tiles shall be heavy, dense, homogeneous in texture with high strength and surface hardness, high resistance to abrasion and low porosity. Thickness of floor tiles shall be 22 mm and wall tiles shall be 12 mm.

Tiles of approved make, colour, design, plain chequered or grooved pattern etc. as shown on the drawings, as specified in the Bill of Quantities shall be used in the works as directed by the Engineer. Laying of tiles in any pattern in combination of any colour tiles desired by the Engineer shall be carry out without any extra cost.

- 11.02 **Samples** - Samples of each type / design / finish / print / size / colours of tiles shall be submitted well in advance to the Engineer for approval at Contractor cost.

Approved sample tiles will be retained by the Engineer. All tiles procured should be exactly as per approved samples. Tiles shall be procured from a single approved source

Tiles of approved make, colour, design, finish, size etc. as stipulated in item description and / or as shown in the drawings only should be procured and used on the works.

- 11.03 **Storage** - Tiles shall be stacked and stored as per instructions of the manufacturer.

- 11.04 The surface shall be protected with a layer of pop to a required thickness over a plastic sheet.

12.0 SHAHABAD, TANDUR, KOTAH AND CUDDAPAH FLOORING:

The slabs shall be of selected quality, hard sound, dense, homogenous in texture, free from cracks, decay, weathering and flaws and of thickness as specified. The top exposed



faces should have been roughly polished before bringing it to site. Unless otherwise specified the slabs should be cut to the required shape and size, by machine cut as specified. All pieces should be of uniform colour.

A bed of cement mortar 1:4 shall be laid and properly levelled to an average thickness of 20 mm and the surface should be kept slightly rough to form a satisfactory key for the tiles. Neat cement paste of honey like consistency shall be spread over mortar bed over such an area so that the paste will not harden before laying tiles. Slabs shall be soaked in water for 15 minutes and allowed to dry. The slabs shall then be fixed as per approved pattern with thin coat of cement paste on back of each slab. They will be tapped with a wooden mallet till it is properly bedded in level with adjoining slabs. Joints shall be kept as thin as possible and in straight lines or to suit the required pattern. The surplus cement grout that may have come out of the joints has to be wiped off gently and joints cleaned. The joints shall be filled up with grey or white cement with an admixture of pigments to match the shade of the slab. The flooring shall be cured for 14 days.

Protection - The surface shall be protected with a layer of pop to a required thickness over a plastic sheet.

13.00 GRANITE FLOORING / DADOING

The slabs must be of uniform thickness as specified the variation in the thickness not exceeding 2 mm and must be from the same source. They shall be of uniform texture and colour free of any veins and streaks. All the edge shall be chiseled true to line, square and shape. The brushes in the joints are not more than specified thickness.

13.01 Rough Finish

The surface should be rough dressed/one line dressed/two lines dressed/three line dressed finish using palmane tools as specified.

a) Rough dressing

The stone surface to be chisel dressed to one plane by removing all bushings so that the maximum depression is not more than 6 mm.

b) One line dressing - This is done after the rough dressing is completed by point chiselling so that the variations are not more than 4 mm. Work includes rough dressing also.

c) Two line dressing

This is done after one line dressing is done by chiselling so that variations are not more than 2.5 mm. Work includes rough and one line dressing also.

d) Three lines dressing

This is done after two lines dressing is over by chiselling so that the variations are not more than 1.5 mm. Work includes rough, one line & two line dressing also.



d) Palmane dressing:

After the three line dressing is over the surface is smoothened by using a special palmane tool to further even out the 3 line dressed surface so that the maximum variation in surface evenness is not more than 1.0 mm. Work includes rough, one line, two line & three line dressing also unless otherwise stated.

13.02 Mirror Finish

The surface will be polished by grinding using manual or mechanical process to give a smooth, even, perfect plane surface or as may be directed. The polished surface should reflect light like a mirror free from scratches and depressions.

13.03 Protection

Granite slabs in flooring shall be protected with layer of pop to a required thickness over a plastic sheet. The pop and plastic sheet shall be removed and one coat of polishing to be carried out if required before handing over.

14.0 ANTI STATIC VINYL FLOORING

PVC based Synthetic Homogenous Vinyl Tiles and Rolls set with adhesive on to a concrete or masonry base shall conform to latest EN 649.

14.01 Materials

a) Tiles

The tiles should be calendered laminated solid resilient unbreakable and homogeneous flexible quartz reinforced PVC

Vinyl tiles composed of 100% vinyl from face to back with alkaline resisting colour pigments and other plastic compounds in different shades and designs and in different sizes and thickness and shall conform to ES428. Unless otherwise mentioned the tiles shall be squares of approved dimensions. Tiles shall have properties of a high wear resistance and resilience, designed to withstand high traffic and abrasion. The face of these tiles shall be free from porosity, blisters, cracks, embedded foreign matter, or other physical defects, which affect the appearance or impair the service ability of the tiles. All edges shall be cut true and square. The colour shall be non-fading and uniform in appearance, insoluble in water and resistant to alkalies cleaning agents and usual floor polishes.

Cove base shall be extruded PVC (100% putty) with moulded top set cove colour and the height of the base shall be as indicated on the drawings, scheduling and / or as approved by Engineer.

Samples of tile and cove base shall be submitted to the Engineer along with test certificate for approval.

b) Rolls

It should be calendered laminated solid resilient unbreakable and homogeneous quartz reinforced flexible PVC Vinyl Flooring in different shades and designs and in



different width and thickness with inherent characteristics of wear resistance, dimensional stability, elegance etc and shall conform to EN 649.

Each packet of tile or roll shall be legibly and indelibly marked with the manufacturer's trade mark, thickness, size batch number and date of manufacture.

Tiles shall be delivered securely packed and store in clean, dry, well ventilated places.

b) Adhesive

Synthetic rubber based adhesive to be used for fixing tiles shall be Dunlop S-758 or Fevicol SR-998 or equivalent or as recommended by the manufacturer. The adhesive shall have a short drying time and long life. Each container shall show the self life, date of manufacture and over age container shall be immediately removed from the site.

d) Sub-floor

The surface of sub-floor to receive this finish shall be firm, hard, smooth even textured, without undulations and other deficiencies.

The surface shall be thoroughly cleaned. All loose dust particles shall be removed. Oil grit and grease, if any shall be removed completely by the use of detergent and sub-floor should be carefully dried prior to laying.

e) Laying

The tiles shall be stored in the room to be tiled for at least 24 hours to bring them to the same temperature as the room. In air conditioning spaces, the air conditioning shall be fully operational before the tiling is laid.

The adhesive shall be applied uniformly at the rate recommended by the Manufacturer to the fully dry surface in the desired thickness. The adhesive shall also be applied to the backs and edges of the tiles and surface shall be allowed to "touch dry" before fixing. The tiles shall then be placed neatly on the surface exactly to the approved pattern and set firmly with a suitable tool. After it has adhered, vinyl tiles shall be rolled in two directions with a roller weighing 45 Kg. or more. If the edges tend to curl up, weights are to be applied to keep the edges down. Special care shall be taken to avoid the formation of air pockets under the tiles. The joints shall be very fine. Any adhesive squeezed out through the joints shall be removed and cleaned immediately.

Rolls are to be stacked on the sub-floor following the grain directions of the rolls.

Joint welding can be provided where ever the PVC Rolls are installed in order to avoid dust accumulation leakage of water and prevention from wear and tear in joints. In this, a PVC cord is put into the joint after making grooves with machine and is welded with hot thermo welding machine.

Adhesives and other materials used must have resistance against the corrosive chemicals. Any defective surface must be capable of easy replacement. Joints shall be finished smooth and will not be a source of accumulation of dust, pool of liquid etc.



Tile shall be fitted to and around all permanent fixtures. Borders shall be fitted accurately. Exposed edges or tile at door sills etc. shall be protected with metal moulding.

Cove base shall be firmly cemented to the walls and accurately scribed to trim and plinth.

f) Finishing

Any adhesive marks on the surface shall be removed by wiping with a soft cloth soaked in solvent. The surface shall be cleaned with soft soap, dried and then polished with approved type of acrylic base emulsion polish using a soft cloth. A time interval of atleast 60 minutes must be given between the applications of each coat of polish. After the polishing is done a duration of eight hours must be provided for the adhesive and polish to set before the area is put into regular use.

Protection – The surface shall be protected by covering with a plastic sheet over which, Gypsum powder / POP shall be provided. The same shall be removed before handing over the area for use of work.

15.00 ACCEPTANCE CRITERIA

The finish shall be checked specially for:

- a) Level, slope, plumb as the case may be (The surface of the finish shall be smooth and within ± 5 mm of the specified level or position. Local irregularities shall be within ± 3 mm when measured against a 3 metre straight edge. Abrupt changes of alignment shall not exceed 2 mm).
- b) Pattern and symmetry
- c) Alignment of joints, dividing strips, etc.
- d) Colour, texture
- e) Surface finish
- f) Thickness of joints
- g) Details of edges, junctions, etc.
- h) Performance
- i) Precautions specified for durability

16.00 MODE OF MEASUREMENT

The method of measurement for various items shall be generally in accordance with the IS : 1200 subject to the following:



i) Floor

Flooring shall be measured from skirting to skirting and where the wall surfaces are plastered or provided with dado it shall be measured from plaster to plaster or dado to dado. The measurements shall be in square metre.

ii) Skirting:

The measurement for skirting shall be in running metre. The height of skirting shall be specified in bill of quantities.

iii) Dado:

Dadoing shall be measured from finished floor level to specified height in the Bill of Materials. The measurements shall be in square metre.

TECHNICAL SPECIFICATIONS FOR FALSE CEILING

Properties	ACOUSTIC MINERAL FIBRE TILE GRI D CEILING	ALUMINIUM COIL COATED TILE GRID CEILING	PLAIN GYPSUM BOARD CEILING
Thickness	19mm	0.5 mm	12.5mm
Noise Reduction Coefficient	0.70 or better	0.60 with 'Soundtex' backer 0.10 with no infill	0.1
Ceiling Attenuation Class	35	NA	35
Relative Humidity	95%(min.)	NA	60%
Light Reflectance	83% (min.)	95%	NA
Light Transmission	NA	NA	NA
Fire Rating	Class A	Class A	Class A
Weight	4.5 Kg/ sqm(min.)	1.44 kg/sqm (min.)	10.5 kg/sqm (approx.)
Method of production	Cast	NA	NA

LIST OF APPROVED MAKE OF MATERIALS

1. Acoustic Mineral Tile Grid Ceiling – USG/ Armstrong
2. Aluminium Coil coated Metal Tile Grid Ceiling – Armstrong/USG
3. Seamless Gypsum board ceiling – Saingobian India Gypsum Limited
4. Calcium silicate board – Hilux / Aero .



MISCELLANEOUS SECTIONS

TECHNICAL SPECIFICATION FOR SPECIAL EFFECTS FILM SERIES 7725SE

Description

Special Effects Film Series 7725SE is intended for making prespaced, cut graphics on electronically controlled, friction-fed or flatbed cutters. A transparent liner prevents moisture absorption, and lays flat for easier assembly of multicolor special – 3 effect graphics, from dusted and frosted crystal to fluorescent. This film is perfect for creating window graphics and internally – illuminated displays applied to flat, clear surfaces.

Product Line

This information is subject to change.

Property	Description	
	Dusted Crystal	Frosted Crystal
Colors and product numbers	314 Dusted Crystal	323 Frosted Rose 324 Frosted crystal 326 Frosted Mint 327 Frosted Blue Mist 331 Frosted Gold
Thickness	2 mils (0.06mm) without adhesive 3-5 mils (0.08-0.12mm) with adhesive	
Opacity	Translucent	Translucent
Liner	Transparent synthetic	Transparent synthetic
Adhesive	Clear, pressure sensitive	Clear, pressure sensitive
Minimum application temperature	40°F (4°C)	
Removal	Permanent	
Application surfaces	Flat only	Flat only
Recommended substrates	Flat clear substrates such as glass, acrylic, or polycarbonate	



STEEL LOCKERS & SLOTTED ANGLES RACKS:

TECHNICAL SPECIFICATIONS

A) PERSONAL LOCKER UNIT(PLU):

Multi Bend Construction fastener free, Knock Down Construction. Aesthetic punched design door for Better Ventilation. Ergonomically Designed Plastic Handles. Label Holder for Easy Identification. Stands to Facilitate Cleaning of Work Area. Aesthetic Leveling Screws for alignment. 10 Lever cam lock. Anti Corrosion Treated Components and Oven Baked Powder Coating Process.

B) PLU :-

2 DOOR PLU:- DIMENSION OUTER – 1830 x 457 x 380 mm

a) Top, bottom, LH & RH sides, Door and back material thickness = **0.8mm (0.63FOR EXPORT)**

b) Door with 10 lever cam lock.(HAPSE OPTIONS ALSO AVAILBLE)

c) 1 Nos Hanging Rod

C) RAW MATERIAL (MILD STEEL)

1) Mild Steel: - Cold Rolled close Annealed Steel used for thickness 0.6 to 1.2 mm range as per IS-513 1994 (Reaffirmed In 1998). Grade 'D' or 'DD' Quality.

Chemical Composition, Tensile Properties, Bend Test, Surface, Flatness, Hardness as Per IS-513 1994.

2) Mild Steel:- Hot Rolled Steel used for Thickness 2.0 To 3.15 mm range. As per Is- 1079 .1994 'D' Quality Or IS-10748. 1995 Grade II. Chemical Composition, Tensile Properties, Bend Test, Surface, Flatness, Hardness as per IS-1079 1994.

Surface free from Lamination, Surface Flaws, Roll Mark, Dent, And Lines etc.

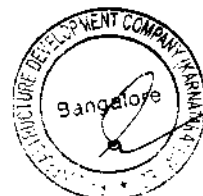
D) Assembly

a. Use of Co₂ Welding & Spot Welding to give Spatter less Welding. Assembly using Standard Fixtures to give Dimensional Accuracy. Assembly of Product using Cell Type Concepts. All Welding Process are Qualified as per Code for Welding Process.

E) Spray Phosphating

a) Eight Stage Spray Phosphating Line, followed by Drying In Oven. No Material Handling take place. Better Cleaning & Coating Uniformity by means of Direct Spray, Faster Treatment Speed. To Increase the Corrosion Resistance of the Powder Coated Products.

b) Iron Phosphate Deposit on Components Is 0.3 Gm / M² Minimum. As per IS- 3618 1966 Reaffirmed in 1991 And IS- 6005 1998.



F) Powder Coating

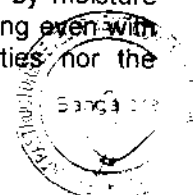
- 1) Epoxy-Polyester Powder are Specially Formulated to Provide Excellent Finish, Outstanding Hardness and High Resistance to Chemical, Thermal and Mechanical Stress.
- 2) To pass Following Test as per Standards.

Characteristic	Specification	Method Used	Standards References
DFT (DRY FILM THICKNESS	50-60 MICRON	ELCOMETER OR DFT METER	ASTM-D 1186-93, IS 13871:1993 , IS 101
GLOSS AT 60°	70 ±5 UNITS	GLOSS METER	ASTM-D 523-89 REAPPROVED (1994) ISO 2813 DIN-67530, IS 13871:1993 , IS 101
SCRATCH HARDNESS	3 Kgs	SCRATCH HARDNESS TESTER	BS-3900PART E2 1970 IS 101 (PART-5 /SEC-2)1988, IS 13871:1993
IMPACT RESISTANCE	275 Kg.cm	IMPACT TESTER	ASTM-D2794-93 BS-3900 PART E3 1979, IS 101 JISK 5400-1979., IS 13871:1993
CROSS CUT ADHESION	1x1 mm or GT=0	-----	DIN 53151 ISO 2409 ASTM 3002 ASTM 3359 JISK 5400 1979., IS 13871:1993
FLEXIBILITY	3.25 mm	CYLINDRICAL MANDREL BENDING TESTERS	DIN-53152, ISO1519 ASTM D522 BS 3900 PART E1, IS 101 (PART-5 SEC-2) 1988
ERICHSEN CUPPING	8 mm	ERICHSEN CUPPING TESTER	JISK-5400-1990 IS 101 (PART5 SEC2) 1988, IS 13871:1993
SALT SPRAY	1000 HOURS	SALT SPRAY CHAMBER	IS 101 (PART 6SEC1)1988 ASTM B117-95, IS 13871:1993

HPL BOARD

High pressure laminate is a flat panel based on thermosetting resins, homogenously reinforced with cellulose fibers and manufactured under high pressure and temperature. Using special techniques the panels have an integrated, decorative surface with melamine impregnated paper.

HPL surface extremely scratch and wear resistant and not adversely affected by moisture furnish with a high chemical resistance this panel material can withstand cleaning even with aggressive disinfectants. These cleaning agents impair neither the properties nor the



appearance of the panel. Approved color and make Stelatex-Singapore/ Trespa Athlon/ Maica laminates-Malaysia /.

FRONT FIXED PANEL

To be made of 12mm both side laminated HPL board with 316 grade stainless steel shoe of 100mm height, Top rail of "U" channel using 316 grade stainless steel section and necessary SS hardware.

DOORS

Doors to be of required sizes, using 12mm thick HPL both side laminated board with required hardware in SS Dorma make like Thumbturn TH 126 Tubular Handle with Roses & Escutcheons in SS packaged, Mortise Lockset 55mm backset, 20 SS forend, SS strike plate and Euro profile Cylinder. Hinges SS 551 ball bearing of hinges size 4"x3"-3nos (Art.no.0010311001019) and coat hook DCH0180SS of size 53mm/120mm. Door closer is for store room only.

DIVIDER PANEL

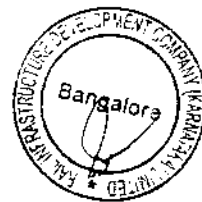
To be required size as per BOQ using 12mm thick HPL both side laminated board with SS 'C' channels for fixing to walls. The bottom portion shall have SS shoe identical to front fixed panels of height 100mm. The SS 'C' channel will be fixed to ceramic/glazed tiles on the walls using necessary SS screws etc. The gap between the SS 'C' channel/bottom SS shoe wall/floor shall be filled with Dow corning high performance clear translucent sealant maximum depth of 6mm.

PREAMBLE:

1. The scope of work includes supply and installation of Toilet WC cubicles as per attached specifications and bill of quantities.
2. The tenderer has to inspect the site and ascertain the conditions before quoting. No extra claims will be paid for ignorance of the site conditions.
3. The tender drawings, specifications and Bill of quantities are to be read in conjunction with each other and the tenderer must quote taking into account all aspects of the same.
4. Tenderer will have to make all necessary storage and safe keeping arrangements after the materials are received and till they are installed and handed over.
5. All the specifications in the tender are to be adhered to and if any deviation is going to be done by the tenderer, the same must be highlighted during the submissions with proper reasons for the deviation, samples of the alternate material to be used along with technical specifications and catalogues.
6. All the hardware must be as per the specifications and samples of the same must be submitted along with the tender. Sample of stainless steel shoe, top rail and HPL boards must also be submitted along with the tender.



7. The successful tenderer must take site measurements before ordering for the materials to take care of minor deviations in dimensions due to construction.
8. Specifications of sealant to be used to arrest gaps between the SS Shoe, C Channel and the floor have to be submitted during the tender submission.
9. Capability of the manufacturers, details of projects executed so far, all technical literature, catalogues must accompany the tenders.
10. Catalogue showing available colors of HPL must be submitted for color selection
11. Manufacturers to give required warranty certificates for a period of one year from the date of installation.
12. Required test certificates for materials like HPL board etc. to be provided by manufacturer.
13. On placement of order, one toilet (either gents or ladies) shall be done as a mock-up toilet for approval by principal Architect and clients
14. Shop drawings must be submitted for approval after taking site Measurements, without which approval for full production will not be given.
15. Tenderers are to protect the cubical with necessary protective Film or plastic covers etc. till the installation is handed over, to Avoid any damage to the material.



PREAMBLE TO BILLS OF QUANTITIES

1. The various works described in the Bills of Quantities and in the drawings shall be executed in strict accordance with the specifications and drawings to the entire satisfaction of KRIDE. The quality of materials and workmanship shall be of high quality and shall conform to the relevant I.S. Specifications wherever applicable. The successful tenderers will be required to produce for approval samples of all materials and procurement shall be arranged only after specific approval. Samples of finished work shall also be shown for approval wherever directed and finished work shall conform strictly to the approved samples. The decision of KRIDE in this matter will be final.

2. In certain cases, the material selection by the client has already taken place and the approved samples are available with KRIDE. All tenderers are required to inspect the approved samples. While quoting, the tenderers shall ensure, that if selected, they will supply materials exactly matching the approved sample and no deviation shall be accepted. If any supply is found to be deviant, KRIDE reserves the right to reject such deviant materials and ask for full replacement at the total risk and cost of the bidder.

The successful tenderer is required to submit detailed method statement for each activity, with emphasis on QA / QC procedure. Once approved the method statement shall be followed strictly.

As previously stated the quality of material and workmanship shall be of the highest order. Any work falling below the standards are liable for rejection and KRIDE will reserve the right either to ask the successful tenderer to replace the rejected works with approved quality or even get such works are done by agencies independently selected by KRIDE on their own and have the work carried out at the risk and cost of the successful bidder. The successful bidder shall ensure that sourcing the material is done from the best source who is well equipped, and in good control on maintaining the supplies, the quality and delivery of material to the required standard. Any compromise attempted by the successful bidder in such procurement or in any aspect of execution is likely to be rejected at any stage of execution of work. KRIDE shall require mock-up of all finishing to be done for inspection and approval by KRIDE

Work shall be executed incorporating the comments made during such inspection of mock- up without any extra cost and time factor. The successful bidder shall only engage the best quality labour force for executing work. Utmost importance shall be given to uniformity of colour, grains, patterns, maintaining of levels, lines, slopes, proper joints, pointing etc., and any deficiency will be rejected. While laying floor and wall finishes, the Contractor shall obtain prior approval from KRIDE by way of shop drawings on the exact location of joints, pattern, size of finishing materials, starting point of laying, co-coordinating the joint patterns with wall/floor service outlets for achieving uniformity etc., Any rework due to not meeting the above requirements including co-ordination with the respective contractor's responsible service wall/floor outlets will require to be modified at the risk and cost of the successful bidder.

The tenderers shall include in their rate any requirement likely due to variation in levels and alignments of base surface which filling up / chopping may be required and such cost shall be included in the tender. Wherever tieback/anchors/clamps etc are required for vertical cladding, quoted rates shall include providing such accessories made out of Stainless steel grade 304 of appropriate thickness and size including anchors into the base wall/surface by



means of appropriate dia and length of anchors capable of sustaining the working loads and no extra is payable for such accessories.

All natural materials for finishes of walls and floors shall be carried out only after proper pre selection of materials to ensure uniformity of colour, patterns etc., Such pre selection shall be in the form of dry laying of final material on dry bed to enable rejection of unsuitable material and also reorganizing the materials to achieve the desired finishing by way of uniformity etc., Failure to ensure such uniformity is liable for rejection and relaying at the risk and cost of the successful bidder.

3. The tenderers shall ensure that the place of work is kept neat and tidy during the progress of work and also clean at the end of each day's work. The contractor shall also ensure that the site is cleared of all rubbish, and other unwanted materials and handed over in a neat and satisfactory conditions as may be directed by KRIDE.

4. The successful tenderer shall note that the work is to be executed in a building project engaging several other Contractors and Tradesmen. Hence proper co-ordination for executing the work so as not to affect or hold up or damage the works of other agencies shall rest with the successful Contractor out of this tender. The successful tenderer shall be required to plan and execute the work in a proper sequence as laid down by the Project Manager/ KRIDE and failure on the part of successful tenderer to co-ordinate cannot absolve him of risks in case of delays attributable to him. The successful tenderer shall be required to take proper site measurements before fabrication and installation. The successful tenderer shall submit shop drawings / put up mock ups or carry out such other activities so as to ensure that the design intent as per the tender documents and as per approved samples are proved to be truly reflected in the work actually being executed. Any deviation from the approved samples / approved mock up or approved shop drawings are liable to be rejected and the rejected works shall be reinstated by the Contractor at his own cost and risk, to the full satisfaction of the Project Manager/ KRIDE and the Architects.

During the course of execution, the Contractor shall be responsible for safeguarding his materials, tools & tackles, work in progress etc. Even after completing the work and until this is being taken over by KRIDE, the responsibility for safe keeping the finished product shall be under the entire responsibility of the successful Contractor. For this purpose, any protection layer, enclosure, coverage or any other form of protection shall be the responsibility of the Contractor within the quoted rates.

In the course of executing the work, the Contractor shall take proper steps to protect the work of other agencies, particularly the works either adjoining the area of work or immediately below and above the area of work. Damages to other's works by way of carelessness on the part of the Contractor shall not be tolerated. KRIDE is at liberty to take such suitable steps to reinstate the affected portion of other Contractor's works at the cost and risk of the Contractor found responsible for causing damage. The decision of the KRIDE shall be final and binding in all such cases. The successful tenderer shall exercise sufficient control over his workmen to ensure that no damage or pilferage occurs in respect of any part of the building / services within the compound of the KRIDE. The successful tenderer shall ensure high standards of safety, housekeeping, security, hygiene etc. Since the works will involve round the clock deployment of force, proper supervision by competent supervisors shall be organized not only to monitor the progress but also to monitor housekeeping, safety and security. The workmen shall not misuse any part of the building. Wash room facilities shall be used only at the designated place and any observed misuse will entail imposition of fines by the KRIDE, whose decision will be final and binding.



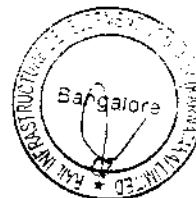
The Client is not in a position to make available any storage place within the campus. The successful Contractor shall be responsible for constructing his own storage space as may be required at his own cost for safe keeping the raw materials, tools & tackles etc.

5. The tenderers shall take maximum precaution in protecting persons, things and properties belonging to the KRIDE, Public and also their own during the progress of work. The tenderers will be solely responsible for any damage caused during the progress of work and the successful tenderer shall indemnify KRIDE by suitable guarantee / insurance cover from any claims on any account due to damages caused during their work.
6. Pre-measurements to be recorded for all the dismantling items before starting of work.
7. Site meetings will be held regularly once in a week, if necessary meeting will be held in between also. The contractor or their authorised representative would be present for the meeting to take instruction and carry out the same for execution.
8. The contractor should maintain measurement books in which he should record measurements of work done from time to time and checked by KRIDE. There should be no corrections or over writing in the measurements.
9. A register should be maintained at the site which should contain the instructions issued at site by KRIDE and the instructions are properly made and recorded.
10. The Contractor on starting the work shall herewith furnish to the a programme for carrying out the work stage by stage with in the stipulated time. A graph or chart on individual work shall be maintained showing the progress week by week. The Contractors shall submit to KRIDE a weekly progress report stating the number of skilled and unskilled labourers employed on the works, working hours done, quantity of cement used, place, type and quantity of work done during the period.
- 11a) The Contractor shall provide at his own cost for all necessary storage on the site in a specified area for all materials such as timber, cement, lime and other materials, which is likely to deteriorate by the action of sun, rain or other causes due to exposure, in such a manner that all such materials, tools, etc., shall be duly protected from damage by weather or any other cause. All such stores shall be cleared away and the ground left in good and proper order on completion of this contract unless otherwise expressly mentioned therein.
- b) The contractor shall provide at his own cost temporary works as per drawings/specifications approved by the. The contractors should obtain approval of local authorities. The Contractor shall be responsible for removal and disposal of the temporary works before handing over the completed works to the KRIDE.
- c) All formalities including permission required to be obtained from competent authorities for making the provisions in (a) and (b) above would be done by the contractors at his own cost.
- d) The Contractor shall erect a display board on site at his cost in accordance with the drawings issued by KRIDE for display of the names of the various agencies involved on the project including the KRIDE.
- e) Contractor should soon after the commencement of work makes prototype samples of items as require for the approval. KRIDE, have the liberty to modify the design in such



case the contractor should follow the approved samples very strictly as no extension in contract time will be granted by the KRIDE in respect of the modification of the design.

12. The Contractor shall engage an independent Housekeeping – debris removal agency on a day-to-day basis. Hence Contractor would be responsible for cleaning up the debris and waste materials accrued from his work and dispose the accumulated debris on a daily basis. If the Contractor fails to comply with this requirement, the Employer will be at liberty to direct the cleaning agency to do the regular cleaning responsibility.
13. The Contractor shall strictly follow and comply with the guidelines (which are applicable to them) given in KRIDE during execution.
14. Quality of polish of the Granite shall be of the highest order. There shall be no warping of surfaces, and blemishes and undulations. All exposed edges of granite shall be fully polished. Rates for granite shall include edge grinding, edge nosing, bevelling, as instructed.
15. The successful tenderer shall be required to engage quality conscious site engineer for overseeing the entire procurement, planning, execution and finishing of the works. The responsibility for the first level of supervision shall rest on the successful tendered.



LIST OF APPROVED MAKE / MANUFACTURER OF MATERIALS

MATERIAL	APPROVED MAKE
Water proof Plywood	Greenply / Uniply / Century/Archidply
Pre-laminated Boards	Bajaj / Tesa/ Associate
Prelaminated MDF Boards	Green/ TESA/Sheran
Veneer	Greenply/ Century/ Archid /Uniply
Laminates	Greenlam /Merino/ Century
Gypsum Board	Saingobian Indian Gypsum Ltd
Flush Door	Green ply / Uniply / Anchor
Steel Door	Sakthimet/ Schrodder/ Promat/ Godrej
Aluminium Sections	Jindal / Indal/ Century
Plain and Tinted Glass	Saint Gobain / Ashai / Modiguard
Mirror	Saint Gobain / Modiguard,
Hardware Fittings such as Hinges, Knob Handle / Chandle, Tower Bolts Castors etc	Dorma / Ebco / Hafele / Efficient Gadgets / Ingersoll-Rand
Cup board Locks	Ebco / Hafele / Efficient Gadgets / Ingersoll-Rand
Cylindrical Lock	Europa / Dorma / Ingersoll-Rand
Door Closers	Dorma / Ingersoll-Rand / Geze / HAFELE
Floor Spring	Dorma / Ingersoll-Rand / Geze / HAFELE
Panic Device	Dorma / Ingersoll-Rand
Mill work Hardware	Ebco / Hafele/ Hettich



MATERIAL	APPROVED MAKE
Wood Preservatives	Berger / Wood guard / Termisil.
Adhesive	Fevicol SH/ Araldite of Hindustan CIBA-Geigy Ltd/ Vamicol
Paints	IC- Dulux / Berger/Nippon
Melamine / French Polish	Asian / Berger / ICI
Fabric protection coating for upholstery.	Scotchgard of 3 M Ltd or equivalent
Foams in Chairs / Sofas	MM Foam
White board	White Mark, Altop,
Texture paint	Asian/ Orient / Sterling
Adhesive for Tiles / Natural stone floor/ dado	Laticrete / Bal Endura
Multipurpose lock	Efficient Gadgets / Dorma / Ingersoll- Rand
Antistatic Vinyl floor	Armstrong/ LG
Epoxy / PU flooring	Sika/ BASF / Fosroc
Vitrified Ceramics	Johnson / Asian / RAK / Kajaria
Ceramics for dado	Johnson / RAK / Kajaria / NITCO
Clear Glass	Saint Gobain / Asahi
Floor transition trims	Gradus / Dural
Wall protection trims (PVC) for office locations	Gradus / Dural
Wall / Plaster / Ceramic protection trims (PVC/ Aluminum)	Dural / Gradus
Vinyl privacy frosting films	3M/ Avery Dennison
Kick plates	Hager/Dorma
External mats	Gradus/3M
Intumescent sealant for Fire rated wooden doors and frames	Promat/ 3M



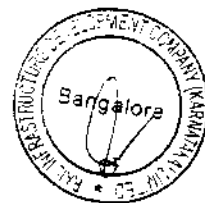
MATERIAL	APPROVED MAKE
GI channels for partition	Saint-gobian frames Gypsteel /Diamond
Spray paint	DUCO of Dulux
Fire rated Partitions	Aerocon / Hilux / Promat
Steel Lockers & Slotted angle racks	Godrej / Steelage
Queuing rail	Q- Manager, Address PD-82A, Pitumpura, Delhi – 110 088 Tel: +91 99103 98700
Toilet Modular Cubicles	Besco/ Green/Debo

Note:

1. All materials shall be of the 1st quality and ISI marked.
2. The contractor should specify one of the approved makes given above and the same should be used in the works.
3. Wherever the specific models for finishes / hardware are not mentioned, the Contractor shall produce necessary samples of the products for approval by KRIDE / PMC / Architects. Notwithstanding the final choice, the quoted prices shall remain firm.
4. Where Specific Specifications are not mentioned in the tender document, the manufacturer specifications hold good. Where the manufacturer specifications are not available the specifications as approved by Engineer-in-charge holds good. All approvals need to be taken by Engineer-in-Charge.



SL NO	SPECIFICATIONS OF MATERIALS	MAKE / BRAND
1	PLYWOOD--BWR	KITPLY , NATIONAL ,ARCHID ,CENTURY and GREEN
2	WOOD	SAL OR ANY OTHER SEASONED HARDWOOD
3	LAMINTE AND VEENEAR	KITPLY , NATIONAL ,ARCHID ,CENTURY and GREEN
4	ADHESIVES	FEVICOL OR ANY OTHER EQUIVALENT
5	HARDWARES	HAFFLE,BLUM,HETTICH,DORMA,KITCH,OZONE,GAZE
6	GYPSTUM BOARD/CHANNEL	SAINT GOBAIN MAKE
7	GRID CEILING	ARMSTRONG
8	GLASS	SAINT GOBAIN
9	PAINTING	ASAIN,NEROLAC,JHONSON.
10	MODULAR FURNITURE	FEATHERLITE OR ANY OTHER EQUIVALENT.



SPECIAL CONDITIONS OF CONTRACT FOR ELECTRICAL WORKS

1. General

These Special Conditions of Contract supplement the preamble and General Instructions, General Conditions of Contract, BOQ and basic rates and Technical Specifications and tender drawings enclosed thereto, and shall be considered as part of the Tender Papers. Where the provisions of these Special Conditions of Contract are at variance with the Preamble and General Conditions, General Conditions of Contract, Bill of Quantities and basic rates and Technical Specifications and Tender Drawings enclosed thereto, the provisions of these Special Conditions of Contract shall prevail.

2 Scope of work

Providing Internal Electrification works such as supply & fixing of PVC conduits, PVC insulated copper wires, distribution boards, light & fan fixtures, earthing obtaining power sanction from ESCOMS, Servicing of installation with permanent power supply complete as required.

3 Design/Drawings

The drawings given with the tender only indicate the general scheme of requirements. Contractors shall prepare all the detailed design and working drawings as detailed below and submit them to KRIDE for approval within 15 days from the date of award of contract.

- i Preparation of detailed drawings for conduits laying, wiring, cable laying, erection/fixing of various power panels, distribution boards, electrical equipments, fittings etc.
- ii Detailed design and preparation of drawings for all street light poles, feeder pillar boxes, chain link fencing for sub-station etc.
- iii Preparation of all relevant drawings as per requirement and shall be approved by KEB/Chief Electrical Inspectorate. The details of documents are to be according to latest instructions of the authorities concerned.

4 Details of Work

- i Conduits laying, wiring, cable laying, erection/fixing of various power panels, distribution boards, electrical equipments, fittings etc.
- ii Supply and erection of street light poles, feeder pillar boxes, chain link fencing for sub-station etc.
- iii Obtaining permission/sanction from the concerned authorities, arranging the road cutting/crossing, shifting of electrical/telephone lines wherever required for electrical works.
- iv. Arranging power supply from supply authorities.
- v. Commissioning of all equipments as per standards and regulations.



- vi. Preparation of 'AS BUILT' drawings on tracing cloth for complete installation/work done by the contractor and furnishing six sets of copies and original to KRIDE.

5 Execution of Work

- 5.1 The main contractor shall get the electrical work executed by a class I registered electrical contractor holding valid licence issued by the State Government if he himself does not possess valid licence to undertake electrical work. The tenderer shall furnish with his tender the particulars of the licence held by electrical contractor along with the credentials, certificates for having executed works of similar nature and magnitude.
- 5.2 If by any reasons the main contractor is compelled to terminate the work so entrusted to a proper agency as per clause 5.1 above, he shall appoint another equally suitable agency with prior intimation to the Site Engineer/KRIDE and the entire procedures adopted for engaging the previous agency have to be followed for the new agency's appointment also. This change of agency is to be processed in a smooth way so as not to affect the general progress of the work in any manner whatsoever.
- 5.3 All the work i.e., power panels, distribution boards, equipments layout, conduits layout, electrical wiring, street lighting, cable laying, earthing etc., have to be done as per approved drawings and directions given at site by the Engineer.
- 5.4 The Contractor shall co-ordinate with the other agencies such as civil work Contractors, Electricity Board etc. in the area and work in close liaison with them.
- 5.5 The Contractor shall prepare a programme for completion of various works with 'PERT CHART' within 15 days of awarding the contract in consultation with the Employer and submit the same to the Employer.

6 Quality of materials and works

- 6.1 All materials used in the execution of the contract shall be of the best quality and of the class most suited for the purpose specified. Components, assemblies and equipments to be procured shall be from proven reputed and authorised sources. The work shall also conform to relevant rules and regulations of statutory bodies, supply authorities like KEB, CEIG etc.
- 6.2 All erection work shall be of the best quality to the entire satisfaction of the KRIDE. The Contractor shall ensure that the equipments and services under the scope of this contract whether manufactured or performed within the Contractor's premises or at his subordinate's premises or at the work site or at any other place are strictly in accordance with the provisions of this contract. For this purpose, the Contractor shall adopt necessary quality assurance programme to control such activities at all stages.

7 Approval of materials/Inspection

- 7.1 The samples of materials to be used in the work are to be got approved by the Engineer before putting them into the work and the samples approved are to be available at site until the completion of the work. All electrical equipments/appliances to be procured and installed are to be inspected and certified by the Engineer or



by any other officials nominated by KRIDE before despatch from the respective manufacturer's/ agency's premises.

8 Consequence of Rejection

On the equipment/assemblies being rejected by the Inspecting Officer of KRIDE at destination the Contractor shall replace such rejected equipment/assemblies of the work forthwith but in any event not later than a period of 2 (two) weeks in the case of minor equipments and 4 (four) weeks in the case of major equipments from the date of rejection. The Contractor shall bear all the costs of replacement including freight, etc., but shall not be entitled to any extra time on this account. The decision as to whether the equipment is to be classified as Minor or Major for the purpose of this clause shall be that of the Engineer and it is not questionable.

The Contractor shall, if the equipment(s)/assemblies are rejected at the destination by the consignee be liable to reimburse to KRIDE the freight, in addition to his other liabilities including refund or price recoverable in respect of the equipment/assemblies so rejected.

9 Installation

- 9.1 All works connected with and inclusive of installation and erection under this contract shall be done in accordance with the standard and established methods of installation and erection of electrical equipments and shall comply with relevant Indian Electricity Rules, ISI Codes, Specifications and Standards. The work shall also be guided by the instructions/recommendations of the manufacturers. The equipments shall be leveled carefully before being fixed finally in position. All fragile and sensitive equipments shall be protected adequately and handled carefully during installation and erection.
- 9.2 All bolts, nuts and locknuts, screws, locking plates, split pins, etc., shall be cadmium plated / galvanized.
- 9.3 If the tenderer includes a number of manufacturers for any equipment or element, KRIDE reserves the right to choose only one of the makes so offered and the Contractor shall have to supply and install the particular make of equipment so chosen by KRIDE in the event of his offer being accepted.
- 9.4 The location for foundation, trenches, etc., shall be correctly set out in accordance with the approved layout drawings in the presence of the KRIDE Engineer.
- 9.5 All installations erection work shall be subject to inspection by KRIDE to ensure that the work is done in accordance with the approved specifications, designs and drawings.

10 Completion of work

Completion of work means completion of all the items specified in the contract and/or any additional works that are required to be executed as per contract in connection with the main work in all respects and final testing and commissioning of the entire installations as per statutory requirements and handing over of the entire installation in good working condition with all the relevant documents such as operation/instruction manuals, catalogues, spare part lists, test certificates for all switch gear items, guarantee cards for all special equipments, approval of statutory



bodies, 'AS BUILT' drawings, wiring diagrams, schematic diagrams etc., required for the proper maintenance of the installation.

11 Commissioning Tests

- 11.1 As soon as the installations are ready for commissioning/energisation, the Contractor shall arrange for all the tests/inspection as required by the relevant ISS and/or IE Rules and advise KRIDE and others concerned.

KRIDE. shall depute their Inspecting Officer for witnessing the tests and to carryout inspection independently and also jointly with other concerned agencies wherever necessary and only after the installation passes the required tests and inspection, it should be commissioned/energized. The contractor shall record all the necessary test results as per the form of completion report attached and any other test records as required by the supply/inspecting authorities and shall submit the same for verification of the site engineer and obtain specific approval before commissioning the installation.

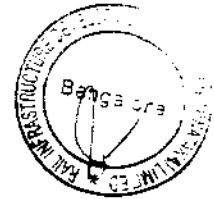
- 11.2 The Contractor shall take full responsibility for these tests. KRIDE., where possible, may permit the Contractor for the purpose of testing, the use of any instruments/apparatus and electric power which KRIDE. can conveniently spare for the tests at site. If, further tests are required due to the Contractor's work not complying with the specifications, KRIDE. at their discretion may ask the Contractor to pay the cost of providing the additional energy required. The Contractor shall provide all apparatus and energy which may be required for drying out the equipments in a manner approved by KRIDE. In the case, of the Contractor failing to comply with any of the provisions of this clause and the said tests are to be repeated, the Contractor shall pay all fees and expenses in connection therewith.
- 11.3 Visual Inspection shall include check for satisfactory workmanship, all connections, painting, plastering, cleanliness of all fittings etc., and compliance with Indian Electricity Rules.
- 11.4 The ammeters, volt meters and energy meters shall be checked for their calibration, scale, accuracy, etc., for compliance with the specified requirement.
- 11.5 The Contractor shall arrange for all protective relays to be tested and calibrated in a recognised testing laboratory at his own cost just prior to installation and shall submit six copies of the test certificates to KRIDE.
- i All relays shall be tested for compliance to IS:3231 in regard to:
 - a Type Tests,
 - b Routine Tests.
 - ii Manufacturer's test certificates shall be furnished as evidence that type tests have been made in accordance with IS:3231. Type test results together with appropriate drawings and records of any relevant alteration which may have been made to any relay subsequent to the Type Test, shall be made available.
 - iii Certificates of compliance to routine test shall also be furnished.
 - iv Routine tests shall be carried out at site prior to commissioning in compliance with IS:3231.



- v Certificates of all type tests together with a record of any alterations, whether considered important or not, which may have been made to the design of the equipment with which type tests were made, shall be furnished. Type Tests shall be made and certified by the manufacturer or by an agreed independent authority. If KRIDE, so required, the Type Tests shall be repeated.
- 11.6 All cables shall be tested at manufacturer's works in compliance to relevant standards. All cables and connections after erection shall be tested as required by KRIDE, for:
- i Pressure Test,
 - ii Insulation Test.
- 11.7 Earth resistance shall be measured and recorded separately for each earth electrode and when they are connected together and to the equipment.
- 12 Guarantee
- 12.1 The Contractor shall guarantee that all the equipments and the works executed under this contract shall be free from all defects and faults in materials, design, workmanship and manufacture and shall be of acceptable standards for the contracted work and in full conformity with the technical specifications, drawings and other contract stipulations.
- 12.2 This guarantee clause will not apply to defects arising from designs made, furnished or specified by the Employer and for which the Contractor has disclaimed responsibility in writing within one month from the date of the letter of acceptance of tender.
- 12.3 This guarantee shall survive inspection of, payment for an acceptance of the work but shall expire 12 (twelve) months from the date of acceptance of the completed work by KRIDE, except in respect of defects notified to the Contractor before the expiry of the guarantee period. Any approval or acceptance by KRIDE, at any stage of the work contracted shall not in any way absolve the Contractor's liability under this guarantee
- 12.4. The Contractor shall if required, replace, repair, execute and/or install the goods or such portion thereof as is rejected by KRIDE, free of cost at site or at the option of KRIDE, the Contractor shall pay to KRIDE, the value thereof and such other expenditure and damage as may arise by reason of the breach of the conditions herein specified.
- 12.4 If any defect is not remedied satisfactorily within the above mentioned 1 (one) month, KRIDE, may proceed to do the work at Contractor's risk and cost and also without prejudice to any other rights of the Contractor under this contract.
- 12.5 If the Contractor so desires, the replaced parts can be taken over by him or his Representative for disposal as he deems fit within a period of one month from the date of replacement of goods/parts. At the expiry of this period, no claim whatsoever shall lie on KRIDE.
- 12.6 KRIDE, may, at their discretion recover the ground rent for the goods/parts which have been rejected during the guarantee period for the specified period of one month, if the rejected materials are not taken over within that period of one month by the Contractor or his Representative.



- 13.0 Contractor shall be allowed payment to the extent of 75% of the quoted value of the materials such as transformers, structural items, electrical panels/distribution boards, UG cables, light fittings, fans, exhaust fans and street light poles brought to site for execution of work and provided that the materials are safeguarded against damages and losses due to improper storage, misuse and theft. Contractor's claim for such advances shall be supported by an indemnity bond, bills and/or physical verification of receipt of the materials at site by the Engineer and subject to:
- i. Such materials are not in excess of the requirements of the work.
 - ii. The materials are in accordance with the technical specifications of the work and brought with the prior approval of the Engineer-in-charge.
 - a. Ninety percent (90%) payment, item wise and building wise, shall be released at accepted rates after satisfactory completion of works and testing duly deducting 75% advance paid already on supply.
 - b. Balance 10% of the rates shall be released after final commissioning of the entire installation with permanent power supply to be arranged by the Contractor as per scope and terms of contract.



LIST OF APPROVED MAKE FOR ELECTRICAL WORKS

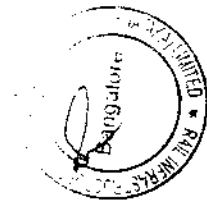
SN	Description	Approved Makes
1	FRLS Wires (PVC Insulated, Sheathed multi strand copper wire)	Polycab / Havells / Wincap/ Finolex / Anchor
2	Aluminium armoured XLPE Cable	Havells / Glostar / Universal / Nicco /Polycab / Gemscab
3	Modular switches, Sockets & Fan Regulators (ISI Marked)	Anchor / MK /ABB /Havells or Equivalent
4	Light Fixtures	Philips / Bajaj / Crompton Greaves / Havells
5	Data Cable / Data socket	D-Link
6	Pre-wired MCB DB / Miniature Circuit Breaker / MCBs / ELCB / RCCB/ Isolators	L&T/ABB/Havells/Indo Asian
7	Switch fuse units, Changeover switches	ABB /Havells / Standard / HPL /C & S / L & T
8	AC Ceiling Fan / Wall Mounting fan	Crompton Greaves / Usha / Havells / Bajaj or Equivalent
9	MCCB's / ACB's	ABB / Schneider / Legrand / C & S / L & T
10	Telephone Cable	Delton / Finolex / Kothari
11	Rigid PVC Conduit / Flexible / PVC Conduit	VIP / Universal / Avonplast / Sudhakar Pipes / Nandi
12	Buzzer / Bell	Bajaj / Anchor / Getco / Cona
13	Exhaust Fan	Almonard / Bajaj / Havells
14	G I Pipes	TATA / Jindal (Hissar) / RK
15	6 AMPs ceiling Rose, Holder, Adopter, Normal Piano type switches, sockets, Bell Push, Sockets, Pintops, Universal socket, DP Switches, Stepped Regulators, Bell	Lisha / Cona / ELEE / GM / Anchor



SECTION 8

DRAWINGS

Only for General Guidance of the Tenderer. Changes in the drawing shall occur at the time of execution as decided by the KRIDE



SECTION-9

FORMATS FOR TENDER SUBMISSION

The following formats are required to be submitted as part of the Tender Document. These formats are designed to demonstrate the Tenderer's compliance with the Qualification Requirements other submission requirements specified in the Tender Document.

- i. Format of Covering Letter (Format 1)
- ii. Format of Financial Quotation (Format 2)
- iii. Format for Schedule of Quantities and Rates (Format 3)
- iv. Format of Certificate of Familiarisation (Format 4)
- v. Proforma for Performance Guarantee (Format 5)
- vi. Format of Draft Contract Agreement (Format 6)

The Tenderer may use additional sheets to submit the information for his detailed response.



FORMAT-1

COVERING LETTER

(The covering letter should be on the Letter Head of the Tenderer)

Date: _____

Reference No: _____

From: _____ (Insert name and address of Tenderer)

Tel.#: Fax#:

E-mail address#

To

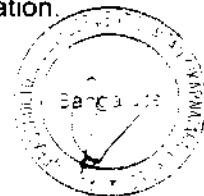
The Company Secretary/Authorised Officer,
KRIDE,
Bangalore.

**Sub: Response to Tender Document No. KRIDE/ADMN/09/Office Premises/2019
Dated: 20.12.2019 for "Office Interiors for KRIDE Office at 1st Floor, Samparka
Soudha, Opp Orion Mall, Rajajinagar, Bangalore."**

Dear Sir,

We, the undersigned [insert name of the Tenderer] having read, examined and understood in detail the Tender Document hereby submit our response to Tender Document. We confirm that in response to the aforesaid Tender Document, we have not submitted more than one response to Tender Document including this response to Tender Document.

1. We have submitted our response to Tender Document strictly as per Tender Document, without any deviations, conditions and without mentioning any assumptions or notes in the said Formats.
2. We hereby unconditionally and irrevocably agree and accept that the decision made by KRIDE in respect of any matter regarding or arising out of the Tender Document shall be binding on us. We hereby expressly waive and withdraw any deviations and all claims in respect of this process.
3. Familiarity with Relevant Indian Laws & Regulations: We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this response to Tender Document, in the event of our selection as Successful Tenderer.
4. We are enclosing herewith our response to the Tender Document with formats duly signed as desired by you in the Tender Document for your consideration.



5. It is confirmed that our response to the Tender Document is consistent with all the requirements of submission as stated in the Tender Document and subsequent communications from KRIDE.
6. The information submitted in our response to the Tender Document is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response to the Tender Document.
7. We confirm that all the terms and conditions of our Tender are valid for a period of forty five (45) days from the date of opening of tender.
8. We enclosed herewith the required Earnest Money Deposit. The full value of the Earnest Money shall stand forfeited without prejudice to any other right or remedies available to KRIDE in case my/our tender is accepted and if:
 - a. I/we do not execute the Contract Documents as per tender conditions after receipt of notice issued by KRIDE that such documents are ready; or
 - b. I/we do not commence the work within 7 days after receipt of orders to that effect.
9. Until a formal agreement is prepared and executed acceptance of this tender shall constitute a binding contract between us subject to modifications as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.
10. I/we also undertake to carry out the work in accordance with the said plans, specifications and conditions of contract, and to find and provide such of the materials for, and to do all such things which in the opinion of the KRIDE may be necessary for, or incidental to the construction, completion and maintenance thereof and to complete the whole of the said works in all respects, and hand them over to you or your representative(s) within the period specified, and to maintain the same for the period and in the manner provided in the conditions of contract.
11. We have neither made any statement nor provided any information in this Tender, which to the best of our knowledge is materially inaccurate or misleading. Further, all the confirmations, declarations and representations made in our Tender are true and accurate. In case this is found to be incorrect after our selection as Successful Tenderer, we agree that the same would be treated as a Seller's event of default.

Dated the _____ day of _____, 20...

Thanking you,

Yours faithfully,

(Name, Designation and Signature of Authorised Person)



FORMAT- 2

FINANCIAL QUOTATION

(On Tenderer's letter head)

[Date and Reference]

To,
The Company Secretary/Authorised Officer,
KRIDE,
Bangalore

**Sub: Response to Tender Document No. KRIDE/ADMN/09/Office Premises/2019
Dated: 20.12.2019 for "Office Interiors for KRIDE Office at 1st Floor, Samparka
Soudha, Opp Orion Mall, Rajajinagar, Bangalore."**

Dear Sir,

I/ We, _____ (Applicant's name) furnish below the Financial Quotation along with schedule of quantities and rates as per Format – 3 and certificate of familiarisation as per Format - 4 for selection of my / our company/firm/proprietor for the Office Interiors for KRIDE Office as a Tenderer.

I/ We agree that this offer shall remain valid for a period of forty five (45) days from the date of opening of tender or such further period as may be mutually agreed upon.

S.No.	Description	Amount in INR (in figure)	Amount in INR (in words)
1	Office Interiors for KRIDE Office at 1 st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore (cost inclusive of all taxes)		

Note:

- 1) In the event of arithmetic calculation mistake, the individual amount in words shall be considered for calculation.
- 2) The Financial Proposal is submitted strictly as per forms given in the Tender Document.

Name
Authorized Signatory
Designation
Name of the Company
Address



FORMAT- 3

SCHEDULE OF QUANTITIES AND RATES ENCLOSED

"Office Interiors for KRIDE Office at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore."

1. The quantities shown in the enclosed schedule are approximate and are as a guide to give the Tenderer(s) an idea of the quantum of work involved. The KRIDE reserves the right to increase/decrease and/or delete or include any of the quantities given above and no extra rate will be allowed on this account.
2. For schedule B and E, the tenderer has to quote one consolidated percentage (at par above or below) of the par value given in the schedule of the quantities for each of the schedules separately.
3. For schedule A,C & D, the tenderer has to quote individual rates for each items of work as mentioned in the schedule of quantities.

Place:

Date:

.....
Signature of the Tenderer(s)



SCHEDULES OF QUANTITIES AND RATES

Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha,Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010		
SN	SCHEDULES	ITEM DESCRIPTION
1	A	Civil Items
2	B	Electrical Works (KPWD Items)
3	C	Electrical Items
4	D	Airconditioning Items
5	E	Network & Communication Works (KPWD Items)
Total : Cost of Civil & Electrical works		



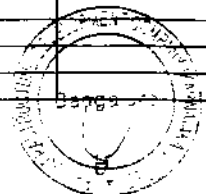
Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
Sl No	Description	Unit	Qty	Rate	Amount
1	Providing and laying Vitrified tiles in floor with 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, 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 complete as per directions of Engineer-in - charge.				
	Floor area	Sqm	440		
2	Providing and laying skirting, dadoing, rises of steps with double charge Vitrified tiles with 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, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, over existing rough plaster surface using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications. complete as per directions of Engineer-in - charge.	Sqm	600		
3	Kota stone slab flooring over 20.mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :complete as per directions of Engineer-in - charge.	sqm	125		
4	Providing and fixing for flooring 20mm thick sadarhalli grey granite in CM 1:4 proportion, cut to required shape, pattern with paper joints, finished with cement mortar using white cement and colour pigments to match the colour of slab making through jointing with sealant, groves in joints including cost of including cost of all materials, mortar, labour, curing etc., as per specification. complete as per directions of Engineer-in - charge.				
	do with minimum width of 1200mm (gang saw water cut)	Sqm	125		
5	Wooden floor tiles- Providing and laying in position laminated wooden floor tiles of 12mm thick as per approved colour. Rate to include surface preparation, levelling using POP if required and covering of the floor by plastic sheet security and re covering it as required Rate to include transition profiles as per manufacturer's standards fixed all along the edges. complete as per directions of Engineer-in - charge.	Sqm	250		
6	Providing & Fixing of Mineral Fibre Acoustical Suspended Ceiling System in module size of 600 x 600 x 16mm with Exposed Grid or similar and need to be installed with Suspension system of approved make. complete as per directions of Engineer-in - charge.	Sqm	630		
7	Providing and fixing in position 12mm thick plaster of paris (Gypsum anhydrous) for ceiling reinforced with hessian cloth flat surface with ceiling tiles up to a height of 5 m above floor level over aluminium strips 25mm x 6mm and rendered smooth with plaster of paris including cost of materials, labour, curing as per specifications. complete as per directions of Engineer-in - charge.	Sqm	315		



Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
Sl No	Description	Unit	Qty	Rate	Amount
8	Providing and fixing Veneer paneling, over the 50mm x 35mm sal wood frame work at spacing not exceeding 600mm c/c fixed to the wall and top covered out of 4mm thick approved quality Veneer, fixed over 12mm thick ply of approved brand, termite and water resistant, finished with melamine polish, complete including cost and conveyance of all materials, labour for all items of work HOM etc., as per specification. complete as per directions of Engineer-in - charge	Sqm	170		
9	providing and constructing load bearing wall with solid concrete blocks of size 400X100X200mm conforming to IS 2185(part1) :2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., as per specifications . complete as per directions of Engineer-in - charge	Sqm	420		
10	Providing stoneware gully trap of approved quality and make fixing in M-15 and plastering with CM 1:3 wherever necessary.(Rate includes cost of all materials, fixtures and lead). complete as per directions of Engineer-in - charge do- 10cms x 10cms	Nos	40		
11	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). complete as per directions of Engineer-in - charge	Nos	40		
12	Providing and fixing to wall, ceiling and floor, medium density polyethylene pipes 6.00 kgs/sq.cm working pressure of outside diameter with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor including cost of all materials, labour charges, HOM and testing complete as per specifications for internal water supply connection complete as per directions of Engineer-in - charge do- 75mm	m	200		
13	do- 110mm	m	200		
14	Providing and fixing chlorinated poly vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (internal work exposed on wall) complete as per directions of Engineer-in - charge a 40mm nominal OD pipes	m	200		
	b 50mm nominal OD pipes	m	200		
15	Providing and fixing chlorinated poly vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and making good walls) complete as per directions of Engineer-in - charge				
	15 mm nominal OD pipes	m	200		
16	20 mm nominal OD pipes	m	200		
17	25 mm nominal OD pipes	m	200		



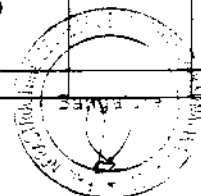
Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
18	32 mm nominal OD pipes	m	200		
19	Providing and fixing in position approved brand of bib cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications, complete as per directions of Engineer-in - charge				
	do - 20 mm dia nominal bore	No	40		
20	Providing and fixing in position approved brand of stop cock of approved quality nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications, complete as per directions of Engineer-in - charge				
	do - 20 mm dia nominal bore	Nos	40		
21	Providing & fixing approved brand of pillar cocks 20 mm dia of I class conforming to ISI specifications and fixing them in position as per directions including of cost of materials and fixtures and conveyance to spot, complete as per directions of Engineer-in - charge	Nos	40		
22	KSRB 15-3.3: Providing 12mm thick cement plaster in single coat with cement mortar 1:6 to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.	Sqm	704		
23	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm 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, complete as per directions of Engineer-in - charge	each	5		
24	Waterproofing of RCC Terrace / podium slab / toilet / utilities / water retaining structure by preparing the surface by chipping and cleaning and Grouting of Honey comb, voids, cracks / construction joints with cement slurry (1kg cement added in 10 ltr of water) added with 100gm of inorganic accelerator, followed by spraying of liquid biological modified alkaline earth silicates @ 0.40 ltr per sqm on whole surface to reduce the micro porosity and allowing it to dry, curing the surface for the silicates to penetrate deeper into the concrete and spraying waterproofing impregnate liquid containing silane and silanol linear copolymer @ 0.50 ltr per sqm and finally applying polymer slurry made out of cross linked acrylic / styrene / butadiene & cement in the ratio of 1:0.1, @ 0.50kg/sqm on the whole surface, including all labour charges tools and equipments, all complete as per the specification complete as per directions of Engineer-in - charge	Sqm	97		
25	Providing rough cement plastering 15mm thick in single coat with cement mortar 1:4 to brick masonry for base of dadoing works with sand of approved quality, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications, complete as per directions of Engineer-in - charge	Sqm	504		



Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
26	Extra for providing and mixing waterproofing compound in cement plaster work in masonry for cement portion 1:4 15mm thick at one kg per bag or in the proportion recommended by the manufacturers. complete as per directions of Engineer-in - charge	Sqm	504		
27	Providing applying two coats of wall putty to inside plastered walls and ceiling using white cement putty. Scrapping and levelling the surface using steel blade and preparing the surface even and smooth by using different grade sand papers, including cost of all materials, cost of labour and scaffolding etc., complete as per the specification. complete as per directions of Engineer-in - charge	Sqm	704		
28	Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade including primer after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. complete as per directions of Engineer-in - charge	Sqm	704		
29	Providing and fixing Double shutter glass door of 12mm thick frosted toughened glass of approved make. The door is fixed by using any approved make hardware fitting like patch fitting, pivot, floor machine, locking arrangements and suitable SS door rails with floral glass etching for 1/3 portion of door area etc complete. The rate includes cost of all materials, labour, hire of tools & machineries, as per the specification. complete as per directions of Engineer-in - charge	Sqm	9.60		
30	Providing and fixing Single shutter glass door of 12mm thick frosted toughened glass. The door is fixed by using any approved make hardware fitting like patch fitting, pivot, floor machine, locking arrangements and suitable SS door rails with floral glass etching for 1/3 portion of door area etc complete. The rate includes cost of all materials, labour, hire of tools & machineries, and as per specification. complete as per directions of Engineer-in - charge	Sqm	24		
31	Providing and fixing C.P. brass towel rail 740mm length, 20mm dia with C.P. brackets, fixed to wooden cleats with C.P. brass screws including cost of materials, labour complete as per specifications. complete as per directions of Engineer-in - charge	Sqm	14		
32	Providing and fixing stainless steel kitchen sink of size 400x915mm bowl depth 160mm, with drain board, M.S / C.I brackets, stainless steel plug 40 mm, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. complete as per directions of Engineer-in - charge	Sqm	1		
33	Providing and fixing bevelLead edge mirror of superior glass with 6mm hard board backing and fixed to wooden cleats with C.P screws, washers, including cost of materials, labour complete as per specifications. complete as per directions of Engineer-in - charge	Sqm	20		



Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
34	Providing Smoke Detection Control Panel - 28 Wireless Zone, 2 Hardwired Zone, Tamper Alert, passcode protected, RF Jamming recognition, diagnosis, diagnostic feature for RF signal strength between panel and each detector, event reporting using PSTN Telephone line, dialing upto 4 telephone numbers, event reporting as per users choice, remote control using telephone line, LCD Screen Display, Intuitive graphic and audible user interphase, Two Way voice interaction, Battery Backup stand by time upto 12 hrs. including cost of materials, labour, HOM complete as per specifications. complete	No	6		
35	Dual chamber ionization detectors provide a high degree of sensitivity and reliability. A unique inter-connectivity feature can be used to warn occupants in adjoining areas. An independent 9 volt power supply and a low battery warning system ensure that the smoke detectors are always in working condition. Type - Dual Chamber Ionisation, Connectivity - Wired, Alarm Sound Level - 85dB including cost of materials, labour, HOM complete as per specifications. complete	No	40		
36	Providing and fixing wood storage unit one side laminate with 18 mm PLY with edge bound for body, 18mm PLY with openable shutters and individual locking system for shutter, 9mm PLY with edge bound for rear portion with hafele fitting hinges, hafele locks, Minifix assembly, screw legs, handles and tower bolt. complete as per specification, drawings and as directed by Engineer in charge. complete as per directions of Engineer-in-charge	Sqm	200		
37	Supplying & fixing in position Greenlam Sturdo Classique Invincible Toilet Cubicle (of following standard dimension which includes 600mm door size width) made of heat, bacteria, water, chemical, scratch impact and anti bacterial resistant 12mm thick solid compact laminate panels tested by shriram Test House. Finish of the compact laminate should be suede/ "Raw silk, which includes doors, pilasters & intermediate panels finished with approved texture/shade as per the detail drawings & as per IS 2046 (Indian Standard) and as per fire retardant BS-476/97 standard. <i>The product should have Green Guard Certificate.</i> This also includes providing and fixing in position necessary hardware made out of Stainless steel (Grade 304) as per manufacturer's specifications & Architects instructions like (1) Door Knob, (2) Gravity Hinges, (3) Thumb turn lockset indicators, (4) Coat hooks, (5) U-Channels, (6) SS-Shoe Box Plate (7) MS-Base Plate, (8) Top rail with Corner connector (9) Rubber noise deafening tape (10) Screws & wall Plugs. The top fitting should consist of SS round top rail which will get fixed with pilasters, with SS panel tube holder, SS corner bend (connected with top rail) will be used on the corner of cubicle in absence of brick wall, SS wall fixing is used only on the wall which will hold the ss top rail. All screws will of 304 Grade in stainless steel with satin finish. All pilasters are supported by stainless steel Bottom Cladding. The base of the stainless steel bottom cladding will be anchored to the floor with a clearance height upto 110mm.				

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Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
	Toilet Cubicle with standard dimension of 2100mm Height x 1000mm Width x 1550mm Depth, which includes 600mm door size width). Toilet Cubicle I-Shape (Front Partition) with standard dimension of 1885mm Height x 1000mm Width which includes 600mm door size width). The divider height to 2100mm height All aspects specified by the manufactures. Greenlam Sturdo Classique Invincible Model or equivalent. complete as per directions of Engineer-in - charge	No	8		
38	Providing and fixing of tufted texture loop carpet tiles as per specifications with primary and secondary backing as directed by the Engineer-in-charge.	Sqm	314.5		
39	PLYWOOD CEILING FINISHED WITH APPROVED VENEER COMPLETE. Providing and fixing wooden ceiling with framework in 50mm x 35mm approved seasoned hardwood section @ 600mm c/c both ways suspended from RCC slab. Panels consisting of 12mm thick plywood finished with 4mm thick veneer of approved shade and sample as per drawings. The panels to be finished in approved melamine polish with grooves as shown in the drawings. Top of the panel to be treated with anti-termite treatment and finished with 1 coat of approved colour polish. Rate to be inclusive of all kinds of profiles and cut outs required for light fixtures, Speakers, Smoke detector, trap doors and AC grill in the ceiling. Trap doors as per detailed drawings in veneer and melamine polish to be included in the rate. Rate also to include applying one coat of fire retardant paint of approved make as per manufacturer's specifications on wooden framework. Plan area to be considered for measurement, verticals will not be paid separately. Cost of Veneer Rs. 1200/Sqm inclusive of all the taxes, inclusive of transportation. complete as per directions of Engineer-in - charge	Sqm	315		
40	Providing and fixing of plywood partition of 75mm thick with Aluminium box frame of 50x50x1.5mm finished with layers of 12mm th.plywood on either side with 4 mm thick approved veener, finished with melaminepolish .Contractor to make provision for all electrical/networking boxes and to provide dia cut-outs as required. Electrical/Network boxes /other services to be provided at desired height and location as indicated in the drawing. complete as per directions of Engineer-in - charge	Sqm	580		



87-5

Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha,Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
41	Supply and installation of fully straight glazed partition using 12mm thick toughened glass and proprietary anodized aluminium sections of approved make. The sections shall be matt natural anodized and shall be inclusive of all accessories like U channel, rubber gasket. Rate should include the chipping of the floor and accommodation of the channels as per details and finishing the same. the joints between the glass panels are filled with colourless silicon sealants, except bottom and top. rate to be inclusive of all material, labour transportation, storage scaffolding etc. complete Glazing will be 12 mm toughened glass laser cut glass the joints between glass panels are filled with colour less silicon/3M VHB/NortonVHB tape except bottom and top all material, labour, transportation, storage, scaffolding inclusive rate shall be inclusive of providing 100x50mm Teak Timber blocks at suitable locations, above false ceiling for holding the screws(i.e) to get sufficient rigidity for the glazed partition, provide an additional Salwood member of 50MMX50MMX100MM As spacer at the true ceiling level and sub frames for doors and glazed openings while fixing the frame work as per details complete as per directions of Engineer-in - charge	Sqm	580		
42	Providing and fixing of Gypsteel® Ultra stud partition formed of 48mm Gypsteel® Ultra studs (0.55mm thick having one flange of 34mm and another flange of 36mm made of GI Steel) placed at 610mm centre to centre in 50mm Gypsteel® Ultra floor and ceiling channel (0.55mm thick have equal flanges of 32mm made of GI steel) with joints staggered to avoid leakage through joints. A fixing channel of 99mm width (0.9mm thick having two flanges of 9.5mm each) has to be provided at the horizontal joints of the two boards. Provide an additional salwood member of 50mm x 50mm x 100mm as spacer at the true ceiling level and sub frames for doors and glazed openings while fixing the frame work as per details. The framework to be clad on both sides (till the false ceiling) with two layers of 12.5 mm thk tapered edge gypsum board (IS-2095/1982) in line and level screw fixed with 25mm & 35mm drywall screws @ 300mm c/c with staggered joints to avoid leakage through joints and finished with proprietary supplied jointing tape and compound as per manufacturer's specification. Joints to be sand papered to achieve a smooth and seamless finish. Care must be taken that the plasterboards are raised 3mm from the floor and in this gap, chalking compound is injected, for successive layers and similarly for the true ceiling channel. Gypsum partition to be installed as per India Gypsum specifications. Contractor to make provision for all electrical/networking boxes and to provide dia cut-outs as required. Electrical/Network boxes	Sqm	1163		
43	supplying , installation & commissioning of Automatic Hand Drier mounted to wall including power points, if required of approved brand. complete as per directions of Engineer-in - charge	unit	4		
44	Providing & fixing in position wall mounted White Vitreous European Water Closet of standard size including all necessary fixtures required of "JAQUAR MAKE" like cistern, seat cover, angle cock, connecting pipe, etc complete functional. complete as per directions of Engineer-in - charge	unit	22		



Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
45	Providing & fixing in position White Vitreous Wash Basin of standard size including all necessary fixtures required of "JAQUAR MAKE" like Pillar cock, angle cock, 1, connecting pipe, Grating, etc complete functional. complete as per directions of Engineer-in - charge	unit	20		
46	Providing & fixing in position URINALS of standard size as per drawing including all necessary fixtures required of "JAQUAR MAKE" like Outlet, angle cock, etc complete functional complete as per directions of Engineer-in - charge	unit	5		
47	Providing & fixing in position Health fucetof approved make (JAQUAR) 15mm Nominal Bore including the cost of material & labour etc complete complete as per directions of Engineer-in - charge	unit	22		
48	supplying , installation & commissioning in position concealed door closer fully hydarulic controlled With track arm complete as per directions of Engineer-in - charge	unit	54		
49	SINGLE LEAF LAMINATE with 35mm thk Block board, Finish : 1mm thk laminate on both sides - of approved shade, Frame: To have 100mm x 75mm beech wood frame and melamine polished to match the shutter finish, Hardware :Exposed Door closer : Dorma make,Hinges : 100mm long 3 No's of hinges - Dorma/GAZE/EQUIVALENT make, Lock : Dorma dead lock with SS key guards, & 1 No's floor mounted SS door stopper : complete as per directions of Engineer-in - charge	Sqm	19		
50	SINGLE LEAF LAMINATE DOOR WITH VISION PANEL with 35mm thk Block board, Finish : 1mm thk laminate on both sides - of approved shade, Frame: To have 100mm x 75mm beech wood frame and melamine polished to match the shutter finish, Vision panel : To have vision panel formed of 8mm thk glass with 10x10mm thk teak wooden beading all-around, polished to approved colour (Size: 200mm x 1200mm). Hardware :Exposed Door closer : Dorma make,Hinges : 100mm long 4 nos of hinges - Dorma/GAZE/EQUIVALENT make, Handle : 300mm long SS handles-(Satin finish) - KICH make , Lock : Dorma dead lock with SS key guards, Door Stopper : Wall mounted magnetic door catcher,complete as per directions of Engineer-in - charge	Sqm	42		



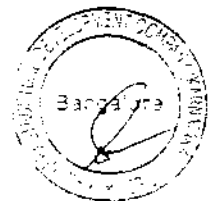
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Proposed office interiors for KRIDE office at 1st floor, Samparka Soudha,Opp Orion Mall, Rajajinagar, Bengaluru, Karnataka 560010

Schedule A - Civil Items					
SI No	Description	Unit	Qty	Rate	Amount
51	Fabricating and fixing of reception table of size as per approved drawings details with worktop formed of 19mm ply finished with acrylic solid surface with edges as per details. To have transaction counter made of 19mm ply boxing finished with Acrylic Solid Surface of approved shade as per details. To have vertical supports formed of 19mm ply boxing finished with Acrylic Solid Surface as per details. Inside surface of the boxing to be finished with laminate. Table to have support stand finished with Acrylic Solid Surface of approved shade as per details. Front panel of the table to be finished with Acrylic surface as per details. Rate to include 1 pedestal units finished with laminate. Providing drawer pedestals with two drawers of 150mm ht and one drawer of 325 ht as per details. Drawers made of 19mm ply finished with 0.8mm laminate inside & 1mm laminate on the outer side of approved colour, mounted on drawer slides. Rate to include white corian top-6mm thick, as per details. Rate should include necessary hardware like castors, brass hinges, ball catcher, fully extendable drawer slides, locks, handles etc., of approved make. complete as per directions of Engineer-in - charge	lumpsum	1		
52	Providing & fixing Beech wood of size 110x15mm thick on partition wall at horizontal & vertical length including grooving on both side of partition wall along the beech wood complete as per directions of Engineer-in - charge	Sqm	700.00		
53	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregate @ 0.878 cum and fine aggregates @ 0.53 cum machine mixed concrete laid in layers not exceeding 15cms thick, well compacted, in foundation, plinth and cills including cost of all materials labour HQM of machinery curing complete as per specifications complete as per directions of Engineer-in - charge	cum	125		
54	Preparation of detailed drawings by a qualified architect duly approved by K-RIDE including interior designing, designs of furnitures, layouts,signages, fittings including electrical, HVAC drawings including 2D/3D views, including soft/hard copies and as approved by K-RIDE	lumpsum	1		
Total of Schedule A - Civil Items					

TENDERER HAS TO QUOTE RATES FOR INDIVIDUAL ITEMS OF SCHEDULE 'A' ABOVE

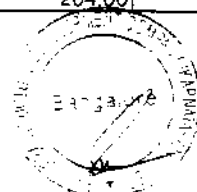
SIGNATURE OF THE TENDERER



INTERNAL ELECTRICAL WORKS

Schedule B - Electrical KPWD 2014 - 15 SR Items					
SI No	Description of the Item	Unit	Qty	Rate	Amount
1.0	Point wiring using Copper wire without switch.				
	Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using copper PVC insulated multi strand 2x1.5Sqmm copper wire without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet.				
1.1	Short point up to 3 Mtr from tapping point to out let via switch box	Each	30.00	144.00	4320.00
1.2	Medium point above 3 Mtr up to 6 Mtr from tapping point to out let via switch box	Each	90.00	215.00	19350.00
1.3	Long point above 6 Mtr up to 10 Mtr from tapping point to out let via switch box	Each	210.00	334.00	70140.00
1.4	Two outlet in a row, above 3 Mtr up to 6 Mtr from tapping point to out let via switches	Each	180.00	423.00	76140.00
1.5	Three outlet in a row, above 6 Mtr up to 10 Mtr from tapping point to out let via switches box	Each	60.00	593.00	35580.00
2.0	Supplying and fixing surface/flush mounting unbreakable PVC fixing modular box suitable for mounting modular switch plate with due groove cutting in Brick/C.C wall including necessary rawl plugs Machine/NF screws.				
2.1	1-3Way	Each	250.00	83.00	20750.00
2.2	4-5Way	Each	200.00	102.00	20400.00
2.3	6-8 Way	Each	300.00	133.00	39900.00
2.4	10-12Way	Each	60.00	152.00	9120.00
3.0	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/PVC box.				
3.1	1 to 3 Module	Each	250.00	109.00	27250.00
3.2	4 Module	Each	200.00	122.00	24400.00
3.3	6 Module	Each	150.00	173.00	25950.00
3.4	8 Module	Each	150.00	200.00	30000.00
3.5	12 Module	Each	60.00	267.00	16020.00
4.0	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate.				
	I. Using Group "A" materials				
4.1	6Amps one way.	Each	2000.00	63.00	126000.00
4.2	6Amps Three way Socket	Each	1200.00	95.00	114000.00
4.3	TV/Telephone socket	Each	250.00	82.00	20500.00
4.4	Stepped Fan Regulator.	Each	12.00	286.00	3432.00
4.5	32Amps DP switch	Each	300.00	164.00	49200.00
4.6	6/16Amps universal socket	Each	150.00	147.00	22050.00
4.7	RJ45/ I.O. outlet	Each	250.00	204.00	51000.00

37-K



5.0	Supply and fixing "S" Hook made out of 14mm M.S. rod	Each	12.00	36.00	432.00
Open Conduit System					
6.0	Supplying.....mm dia 2mm/2.5mm thick heavy gauge PVC conduit pipe with suitable size bends, metal/PVC junction boxes adhesive paste etc., and running before concreting the slab. The conduit should be tied to the reinforcement rods or to cable trays by using binding wires and unused ways of junction boxes and pipe ends should be covered using PVC end enclosures. run with 18SWG GI fish wire wherever necessary				
6.1	19/20mm dia 2mm thick	Mtr	600.00	54.00	32400.00
6.2	25mm dia 2mm thick	Mtr	7740.00	70.00	541800.00
6.3	32mm dia 2.5mm thick	Mtr	276.00	100.00	27600.00
Groove Cutting					
7.0	Groove cutting in the wall supplyingdia 2mm/2.5mm thick heavy gauge PVC Conduit Pipe with bends, metal junction boxes adhesive paste etc. and bracing U or J hooks and cement plastering up to the surface of the brick level and run with 18 SWG GI fish wire run through out the conduit wherever necessary.				
7.1	19/20mm dia 2mm thick	Mtr	300.00	56.00	16800.00
7.2	25mm dia 2mm thick	Mtr	1200.00	58.00	69600.00
7.3	32mm dia 2.5mm thick	Mtr	300.00	88.00	26400.00
8.0	Supplying and fixing of PVC casing and capping on the wall or ceiling using necessary materials like bends, screws at an interval of 300mm Etc as required.				
8.1	25mm	Mtr	198.00	26.00	5148.00
8.2	38mm	Mtr	180.00	39.00	7020.00
8.3	50mm	Mtr	180.00	43.00	7740.00
9.0	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multistrand Copper conductor single core cable in open or concealed system of wiring.				
I. Group A.					
9.1	1.5 sqmm	Mtr	19200.00	18.60	357120.00
9.2	2.5 sqmm	Mtr	11700.00	29.20	341640.00
9.3	4 sqmm	Mtr	9000.00	42.10	378900.00
9.4	6 sqmm	Mtr	3600.00	63.80	229680.00
9.5	10 sqmm	Mtr	1200.00	108.00	129600.00
9.6	16 sqmm	Mtr	1200.00	171.00	205200.00
DISTRIBUTION BOARDS					
10.0	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing suitable type capacity MCB's single phase / 3 phase / single door with powder coated painting etc., complete.				
Group - A - Double Door					
10.1	4way SP&N	Each	4.00	706.00	2824.00
10.2	4way TP&N	Each	2.00	2399.00	4798.00
10.3	12 way SP & N	Each	2.00	1622.00	3244.00
10.4	6 way TP&N	Each	6.00	2867.00	17202.00



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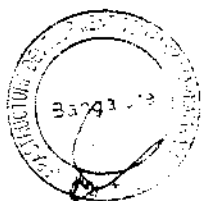
10.5	8way TP&N	Each	6.00	3585.00	21510.00
11.0	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required.				
	Group -A				
11.1	5-32A SP MCB	Each	384.00	418.00	160512.00
11.2	5-32A DP MCB	Each	6.00	849.00	5094.00
11.3	5-32A TPN MCB	Each	18.00	1547.00	27846.00
11.4	40-63A TPN MCB	Each	18.00	1936.00	34848.00
12.0	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker [ELMCB] 240/450V up to 300mA sensitivity on existing wood/panel board.				
12.1	32-40 Amps 2 pole	Each	6.00	2623.00	15738.00
12.2	32-40 Amps 4 pole	Each	6.00	2936.00	17616.00
12.3	63 Amps 4 pole	Each	6.00	3350.00	20100.00
13.0	Supplying and fixing PBBC bakelite straight or slant batten holder and wiring with 60 W / 230 V lamps	Each	20.00	88.00	1760.00
14.0	Supplying capacitor type ceiling fan complete with down rod blades, shackle, canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system and as per technical data approved.				
	48" Sweep (1200mm)				
14.1	a.Regular model (Khaitan, Crompton Greaves, Orient, Polar, Bajaj, Havells)	Each	12.00	2376.00	28512.00
15.0	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.				
15.1	12" Sweep (300mm)	Each	10.00	3654.00	36540.00
	FIXING CHARGES				
16.0	Fixing all types and all capacities of fluorescent/false ceiling/spot light/CFL fittings indoor on the wall / ceiling/ rafters / girders using 23/0.0076" twin twisted PVC insulated wires, required Nos of round blocks and clamps (if required)				
16.1	On wall/ceiling/Rafter/Girders	Each	540.00	98.00	52920.00
17.0	Fixing a ceiling/Wall mounting fan of all capacities and all types to the existing S hook with fan regulator to the existing board together with supplying and fixing a 5 amperes ceiling rose, necessary length of 23 / 0.0076 Inch PVC Insulated twin twisted copper wire and wiring completely.	Each	12.00	139.00	1668.00
18.0	Fixing one exhaust fan after making a suitable niche in the wall and finishing with cement mortar and colouring to match the existing wall or brackets with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame if required.	Each	10.00	412.00	4120.00
	TELEPHONE & LAN CABLING				
19.0	Supplying and drawing UTP-CAT 6E LAN cable.				
	Group A	Rmt	13000.00	23.00	299000.00
20.0	Supplying and drawing PVC flexible one pair telephone unarmoured tinned copper cable of approved make.				
20.1	2 Pair	Rmt	7200.00	13.00	93600.00
20.2	5Pair	Rmt	600.00	45.00	27000.00

87- M



	EARTHING				
21.0	Supplying fixing and wiring earth electrode for grounding of lifts, transformers, DG sets etc using 40mm dia 2.9mm thick 2.5 mtr long GI pipe with GI funnel with mesh and suitable size reducer fixed on the top of the earth electrode. The funnel should be enclosed in a CC chamber of 400x400x400mm with a cast iron cover. The earth electrode shall have staggered holes of 12mm dia and the electrode should be covered 150mm allround with alternate layers of salt and charcoal from the bottom of the CC chamber. The connection from the electrode is to be established through GI strip using GI bolts and nuts.	Each			
			6.00	4317.00	25902.00
22.0	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.				
22.1	GI strip				
	25 x 3 mm	Mtr	300.00	77.00	23100.00
22.2	Copper strip				
	25 x 3 mm	Mtr	60.00	523.00	31380.00
22.3	600 x 600 x 3 mm copper plate	Each	6.00	7148.00	42888.00
23.0	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc.				
	a) 8 SWG - copper wire	Mtr	360.00	107.70	38772.00
24.0	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2 C X 10 Sq.mm wire armoured) conforming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & conforming to GTP of GROUP-A.				
24.1	3.5 core 50 sqmm	Mtr	250.00	265.00	66250.00
24.2	4 core 16 sqmm	Mtr	150.00	140.40	21060.00
25.0	Labour charges for laying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall / on pole as required.				
	In Wall/structure.				
25.1	25 sqmm to 75 sqmm	Mtr	250.00	34.80	8700.00
25.2	6 sqmm to 16 sqmm	Mtr	150.00	31.00	4650.00
26.0	Supplying and fixing of heavy duty cable glands suitable for UG cable of 1.1 KV class (metal only)				
26.1	25 mm dia	Each	24.00	86.00	2064.00
26.2	45 mm dia	Each	12.00	200.00	2400.00
27.0	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.				
27.1	16 sqmm	Each	96.00	12.00	1152.00
27.2	50 sqmm	Each	108.00	64.00	6912.00
Total of Schedule B - Electrical KPWD 2014 - 15 SR Items (PAR VALUE)					4334264.00

TENDERER'S RATE (%age above Par Value or at Par Value or Below the Par Value)



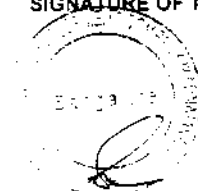
87-N

SIGNATURE OF THE TENDERER

Schedule C - Electrical works					
Sl No	Description of the Item	Unit	Qty	Rate	Amount
28.0	Sub MV Panel				
	Supply, installation, testing and commissioning of LT Sub MV Panel fabricated out of 16 SWG sheet steel metal floor mounting type with all normal practice like derusting, degreasing, phosphating, powder coated to the approved make as per specification, comprising of the following:-				
	Incomer				
	i. 400 A 3P MCCB 35 KA breaking capacity - 1No.				
	ii. 400 A AI Bus bar (RYBN)				
	iii. RYB phase indication lamps - 1set				
	iv. 0-500 V Voltmeter with selector switch - 1no				
	v. 0 - 400 A Ammeter With selector switch-1no				
	Outgoing				
	vi. 100 A 4Pole 16 KA MCB - 2 nos.				
	vii. 63 A 4Pole 16 KA MCB - 12 nos.				
	viii. 40 A 4Pole MCB - 4 nos.	Nos	1.00		
	LIGHT FIXTURES				
29.0	LED Indoor Supplying of 2' / 4' feet - LED PVC Square Batten .W with high quality diffuser with Life of 25000 burning hours & 70% lumen maintenance with CRI > 80. Power Input: 220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years Warranty against any manufacturing defect working under standard electrical condition				
29.1	LED light fighting 2' - 14 watts	Each	10.00		
29.2	LED light fighting 4' - 28 watts	Each	50.00		
30.0	Supply, installation, testing and commissioning of LED light fixtures of the following type				
30.1	18 W SkyGlow Downlighter Round / Square including Driver and necessary accessories suitable for operation on single phase 50 Hz AC Supply, with pressure diecast aluminium housing with suitable fixing arrangements in false ceiling	Each			
			100.00		
			0.00		
30.2	2'X2' Surface or recess mounted 40 W diffused LED luminaire (Coreline Panel) including suitable Driver and necessary accessories suitable for operation on single phase 50 Hz AC Supply with extruded aluminium housing complete as required	Each			
			150.00		
31.0	Supplying and fixing 2mm thick perforated cable tray with powder coated paint on existing MS angle support using necessary GI bolts/nuts and washer or welding as required.				
31.1	300X50 mm	Mtr	30.00		
31.2	450X50 mm	Mtr	40.00		
	SAFETY EQUIPMENTS				
32.0	Supplying and installing of Mechanical Foam -9 ltrs capacity Fire Extinguishers for multipurpose	Each.		2.00	
33.0	Supplying and installing of CO2 Fire Extinguishers for multipurpose 4.5 Kgs Capacity	Each.		3.00	
34.0	Supplying of Four Bucket stands along with Buckets.	Each.		1.00	
35.0	Supplying of HAND GLOVES.	Each.		2.00	
36.0	Supplying of First Aid BOX.	Each.		3.00	
37.0	Supplying of First Aid Chart with Lamination.	Each.		4.00	
38.0	Supplying and fixing of DANGER/NO ADMISSION/NO SMOKING board made out of MS sheet metal with two coats of non corrosive enameled paint.	Each.		2.00	
39.0	Supplying and installation of RUBBER MAT (1m X 2m X 10mm thick)	Each		4.00	
40.0	Supplying and laying of 110 mm x 50 mm x 1.6 mm thick aluminium section for floor race ways for laying of power, data, telephone, wires/ cables. The raceways shall be clamped with aluminium / GI patti and screwed to the floor.	Rmt			
			720.00		
41.0	Supplying & fixing of 145 mm x 145 mm x 60 mm GI floor junction box with 16 swg GI cover plate to be screwed to the four corners of junction box. The junction box shall be screwed fitted to the floor	Each.			
			180.00		
	Total of Schedule C - Electrical works				

TENDERER HAS TO QUOTE RATES FOR INDIVIDUAL ITEMS OF SCHEDULE 'C' ABOVE

SIGNATURE OF THE TENDERER

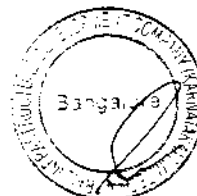


37-0

Schedule D - Air Conditioning Works					
Sl.No.	Description of the Item	Unit	Qty	rate	Amount
1	Supply, Installation, Testing and Commissioning of Split type (3 - Star) and Cassette type (2-Star) of Daikin Make or Equivalent with all necessary components and fixing / anchoring with proper fixtures and insulation as per site conditions				
	SPLIT (3 star) & CASSETTE (2 star)				
1.1	2.0TR Cassette Air Conditioner	Nos	2		
1.2	1.0TR Split Air Conditioner	Nos	9		
1.3	1.5TR Split Air Conditioner	Nos	13		
1.4	3.8TR Cassette Air Conditioner	Nos	4		
1.5	2.7TR Cassette Air Conditioner	Nos	11		
1.6	2.4TR Cassette Air Conditioner	Nos	2		
2	Ancillary works				
2.1	Installation, Testing & Commissioning of Split AC	Nos	22		
2.2	Installation, Testing & Commissioning of Cassette AC	Nos	19		
2.3	Copper Pipe	Mtr	250		
2.4	Insulation	Mtr	250		
2.5	Cable	Mtr	332		
2.6	Drain Pipe (CPVC)	Mtr	125		
2.7	MS Stand	Nos	41		
2.8	Stabilizer	Nos	22		
	Total Schedule D - Air conditioning Works				

TENDERER HAS TO QUOTE RATES FOR INDIVIDUAL ITEMS OF SCHEDULE 'D' ABOVE

SIGNATURE OF THE TENDERER



37-P

Schedule E - Networking & Communication for the Floor other than Conference Room.					
Sl.No.	Description of the Item	Unit	Qty	rate	Amount
	KPWD SR 2014-15 - Electrical Works				
	Network & Communication Works				
1	supply & Fixing of 24 Port CAT-6 Patch Panel for LAN Cabling	Each	6.00	3692.00	22152.00
2	Supplying & Fixing of 1mtrs CAT-6 patch cable	Each	400.00	211.00	84400.00
3	supply & installation of 2mtrs CAT-6 patch cable	Each	400.00	316.00	126400.00
4	Supplying & Fixing of network switch of the following type				
4.1	24 port 10/10	Each	6.00	3428.00	20568.00
4.2	8 port 10/10	Each	12.00	1107.00	13284.00
5	Supplying & Fixing of switch mounting rack with power manager & Cable manager.	Each	6.00	6593.00	39558.00
5.1	9U with 450mm depth				
6	Supplying & drawing PVC flexible one pair telephone unarmoured tinned copper cable.				
6.1	20 pair	Mtrs	300.00	140.00	42000.00
7	Supplying & Fixing of switch mounting rack with power manager & Cable manager with the following equipments				
7.1	42U with 800mm depth	Each	34656.00	2.00	69312.00
7.2	Supplying & Fixing of Power strip	Each	1055.00	10.00	10550.00
7.3	Supplying of shelf suitable for the above rack	Each	791.00	2.00	1582.00
7.4	Supplying & fixing of Castor wheels to the Shelf. (set of 4)	Each	1266.00	2.00	2532.00
7.5	Supplying & Fixing of Fan	Each	738.00	6.00	4428.00
7.6	Supplying fixing of Network Switches				0.00
7.7	48 Port Gigabyte (manageable)	Each	34815.00	8.00	278520.00
8	Supplying & fixing of I/O socket with back box				0.00
8.1	Single I/o	Each	369.00	150.00	55350.00
9	Supplying & Fixing of ...mtrs Cat6 Patch Cable of the following lengths				0.00
9.1	1mtr	Each	211.00	150.00	31650.00
9.2	2mtr	Each	316.00	150.00	47400.00
9.3	3mtr	Each	337.00	150.00	50550.00
10	Supplying & Fixing of Patch panel for LAN cabling				0.00
10.1	48 Port 10/100 patch panel	Each	13082.00	4.00	52328.00
11	Supplying, erecting, testing & commissioning of OFF-LINE UPS system suitable for operation on 230V, 50Hz, A/C supply, with all accessories complete and Excluding batteries and wiring complete.				
11.1	5 KVA OFF LINE UPS Two Hour back up Excluding 6x 150Ah batteries	Each	50293.00	4.00	201172.00
12	Supplying, installation, testing & commissioning of 12V DC, AH batteries in poly propylene container for U.P.S. Low maintenance Tubular batteries.				
12.1	12 V, 180 AH capacity. Acid Battery	Each	25200.00	40.00	1008000.00
13	Supplying & fixing of tag blocks with krone junction box				
13.1	50 pair	Each	2000.00	2.00	4000.00
Total of Schedule E - Network & Communication Works (SR Items) (PAR VALUE)					2165736.00

TENDERER'S RATE (%age above Par Value or at Par Value or Below the Par Value)

SIGNATURE OF THE TENDERER

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FORMAT- 4

CERTIFICATE OF FAMILIARISATION

I / We hereby solemnly declare that I / We visited the site of the above work have familiarized myself / ourselves of the working conditions there in all respects and in particular the following:-

- i) Topography of the area.
- ii) Soil conditions at the site of work.
- iii) Sources and availability of construction materials.
- iv) Rates for construction materials.
- v) Availability of local labour, both skilled and unskilled and the prevailing labour rates.
- vi) Availability of water and electricity.
- vii) The existing roads and access to the site of work.
- viii) Availability of space for putting labour camps, office, stores, godown, Engineering yard etc.
- ix) Any other matter that may have bearing on work.

Signature of the Tenderer



FORMAT- 5

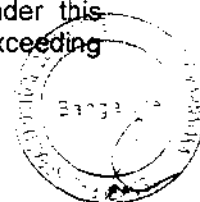
PROFORMA FOR PERFORMANCE GUARANTEE

BANK GUARANTEE NO. _____
AMOUNT RS. _____
VALIDITY from _____
Valid upto _____
Last date for lodgement of claim _____

PERFORMANCE GUARANTEE IN THE FORM OF BANK GUARANTEE

In consideration of KRIDE*(give full address of the Office)* (hereinafter referred to 'Company') having accepted tender vide letter No.....dated and the tender submitted by Mr.M/s.....
.....*(give full address of the contractor)* (hereinafter referred to as "the contractor(s), and agreed to grant a Contract for Office Interiors for KRIDE Office at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore (hereinafter called the 'Contract') and whereas one of the terms agreed by the said Contractor, is that he should give a Performance Guarantee in the form of an irrevocable bank guarantee amounting to 5% of the contract value, ie., Rs.16,46,773/- (Rupees.....only) *(indicate PBG amount)* valid upto *(Indicate date - Currency period + 60 days)*, by way of security for the due observance of the terms and conditions, performance and fulfillment of the said contract, we..... *(indicate the name and full address of the bank)* (hereinafter referred to as the 'the Bank') at the request of the Contractor do hereby irrevocably and unconditionally guarantee to the Company that the Contractor shall duly perform and discharge their obligations under the said contract to the full satisfaction of the Company and render all necessary and efficient services which may be required to be rendered by the Contractor in connection with and/or for the performance of the works as per the specifications stipulated in the tender no..... dated..... and Letter of Acceptance No..... dt..... within the time of..... *(Indicate date - Currency period + 60 days)* reckoned from the date as per the letter of acceptance, and further guarantees that the works which shall be done by the Contractor under the said Contract, shall be actually performed in accordance with terms and conditions of the Contract to the full satisfaction of Company.

2. We, the Bank, do hereby undertake to pay to the Company an amount not exceeding Rs..... against any loss and/or damage caused to or suffered or would be caused to or suffered by the Company by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Contract.
3. We, the Bank, do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss and/or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the Contractor (s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs.....



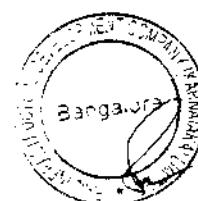
4. We, the Bank, do hereby undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court, Tribunal or Arbitrator(s) relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.
5. We, the Bank, do further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and as its claims satisfied or discharged or till the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges the Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the....., we shall be discharged from all liability under this Guarantee thereafter.
6. We, the Bank, do further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations, hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time – to – time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
8. We,.....*(indicate the name of the Bank)* lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Company in writing.

Dated the.....day of 2019

For.....

Seal and Signature(s) of the
authorized Official(s) with
designation

Note:- Words appearing between asterisk “*” marks are for guidance only and not to be typed in the final / fair document of Bank Guarantee



FORMAT- 6

DRAFT CONTRACT AGREEMENT

(To be executed on requisite value of stamp Papers)

1. Articles of agreement made this day of of 20.....between the "KRIDE", herein after called the "Company of the one part and hereinafter called the "Contractor" of the other part.
2. Whereas the Contractor has agreed with the Company for the performance of Office Interiors for KRIDE Office at 1st Floor, Samparka Soudha, Opp Orion Mall, Rajajinagar, Bangalore
 - a. And whereas the Contractor has agreed to carry out the works as detailed in the tender notification read with his quotation as accepted by the company and as may be entrusted to him from time to time during the said contract period and as will be set forth in the Work Orders (which Work Orders shall be deemed and taken to be part of this contract) that will be issued during the said period and as per the Contract Documents complete and whereas the performance of the said works is an act in which the public are interested.
3. And whereas the Contractor has deposited a lump sum of Rs...../- as Earnest Money to cover for tendering against any number of works on the KRIDE and has agreed to furnish the full Security Deposit as per rules in force and whereas the Security Deposit is at the instance of the Contractor recovered at 10 per cent of the value of the running bills till the amount of Security Deposit of Rs..... is fully recovered.
4. And whereas the Contractor has deposited a sum of Rs...../- towards the Earnest Money and whereas the balance in the Security Deposit after adjustment of Earnest Money of Rs..... originally paid by the Contractor is at the instance of the Contractor recovered at 10 per cent of the value of the running bills till the amount of Security Deposit of Rs..... is fully recovered.
5. The contract shall be in force for the period mentioned above. However, the KRIDE may at its option and without assigning any reasons for so doing, put an end to this contract at any time.
6. Now this indenture witnesseth that in consideration of the payments to be made by the KRIDE, the Contractor will duly perform the works set forth in the said Work Orders and will execute the same with great promptness, care and accuracy in a workmanlike manner to the satisfaction of the KRIDE and will complete the same on or before the respective dates specified therein in accordance with the said specifications and said drawings (if any) and the said Contract Documents complete, and will fulfill and keep all the conditions therein mentioned (which shall be deemed and taken to be part of this contract as if the same had been fully set forth therein), and the Company do hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the KRIDE will pay or cause to be paid to the Contractor for the said works on the completion thereof, the amount due in respect thereof, at the rates specified in the schedule(s) hereto annexed.



7. Entrustment of all or any of the works referred to as above to the Contractor shall be at the option of the KRIDE.
8. The cost of stamp duty on the agreement shall be borne by the Contractor.
9. The schedule of quantities and rates and the description of the works under this contract are as per the enclosures to this contract.
10. Jurisdiction of Court: The Courts at Bangalore shall have the exclusive jurisdiction to try all disputes arising out this agreement between the parties.

IN WITNESS WHEREOF the parties hereto have caused their respective Common Seals to be hereunto affixed / (or have hereunto set their respective hands and seals) the day and year first above written.

For and on behalf of the Company
Signature of the authorized official
Name of the official
Stamp/Seal of the Supplier

For and on behalf of the Contractor
Signature of the authorized official
Name of the official
Stamp/Seal of the Purchaser

SIGNED, SEALED AND DELIVERED

By the said _____
Name _____ on behalf of
the Company in the presence of:
Witness _____
Name _____
Address _____

By the said _____
Name _____ on behalf of
the Contractor in the presence of:
Witness _____
Name _____
Address _____

