



**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
OFFICE OF THE EXECUTIVE ENGINEER (E)
Vijayawada.- 520007
Email: eevja@gmail.com**

* * *

Notice inviting e-tender

NIT NO: - 25/EE (E)(Vijayawada)/e-tender/2026-27

**Name of Work: - Construction of Office Building (Basement + G + 5 storied)
for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing
Mechanical ventilation at Basement Area.**

NIT Amount: Rs.20,34,226/-

INDEX

Name of work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

<i>Sl.no</i>	<i>Content</i>	<i>Page No.</i>
1)	Index	2
2)	Notice Inviting e-Tenders	3
3)	Information and instructions for contractor/agencies for e-tendering	4-6
4)	CPWD-6 for e-tendering	7-11
5)	C.P.W.D -7	12-14
6)	Schedules A to F	15-20
7)	Form D Earnest Money Deposit (EMD)	21
8)	The minimum eligibility criteria for electrical works wherever applicable (Form-G, H, I)	22-27
9)	Form for Bank Guarantee for Earnest Money Deposit/Performance Guarantee / Security Deposit / Mobilization Advance / for release of amount withheld for Milestones	28-29
10)	General Terms and Conditions Applicable for All Components	30-39
11)	Technical specification of Mechanical Ventilation System	40-43
12)	List of preferred makes	44
13)	Schedule of work	45-51
14)	Abstract of Cost	52

Certified that this draft N.I.T contains 1 to 52 pages only.

NIT approved for **Rs.20,34,226/-** (Rupees Twenty lakhs Thirty Four Thousand Two Hundred and Twenty Six only) vide NIT No.25/EE(E)(Vijayawada)/e-tender/2026-27

Executive Engineer (E)(Vijayawada)

NOTICE INVITING E-TENDER

The Executive Engineer (E)(Vijayawada), CPWD, Vijayawada invites on behalf of President of India online percentage rate bids from approved and eligible contractors of CPWD (Buildings & Roads category) in single bid system for the work of **"Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area"**

NIT No. 25/EE(E)/Vijayawada/e-tender/2026-27

Estimated Cost Put to Tender: Rs.20,34,226/-

Earnest Money: Rs.40,685/-

Period of completion: 02 (two) months;

Last time and date of submission of bid: Up to 15:00 Hours on 30-09-2026.

The bid forms and other details can be obtained from the website <https://etender.cpwd.gov.in/>.



कार्यपालक अभियंता (विद्युत),
केंद्रीय लोक निर्माण विभाग,
प्लॉट सं. बी-2, 6th तल,
सी.जी.ओ कॉम्प्लेक्स,
औद्योगिक एस्टेट, ऑटो नगर,
विजयवाड़ा- 520007



भारत सरकार
Government of India



Office of the EE (E) (Vijayawada),
Central Public Works Department,
Plot No. B-2, 6th Floor, C. G. O. Complex,
Industrial Estate, Auto Nagar,
Vijayawada, Krishna, A.P. – 520007.
e-mail Id e-mail: eeevja-cpwd@gov.in

स69(1)/2026/का.अ(वि)/V/A/

दिनांक: /09/2026

Copy To: -

- 1) The Chief Engineer (Vijayawada), CPWD, Vijayawada.
- 2) The Executive Engineer, CPWD, Tirupati.
- 3) The Assistant Engineer (E), CPWD, Tirupati .
- 4) Notice Board
- 5) Website

**Executive Engineer (E) (Vijayawada),
CPWD, Vijayawada**

AE(E)(P)

EE(E)

INFORMATION & INSTRUCTIONS FOR BIDDERS FOR e-BIDDING

FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

(Applicable for inviting open bids)

The Executive Engineer (E)(Vijayawada), CPWD, Vijayawada invites on behalf of President of India online percentage rate bids from approved and eligible contractors of CPWD (Buildings & Roads category) in single bid system for the work of: -

NIT No	NIT No.25/EE(E)(Vijayawada)/e-tender/2026-27
Name of Work:	Construction of Office Building for GST at Tirupati. SH: Additional works like IEL, LAN system & Façade lighting.
Location	GST Building, Tirupati
Estimated cost put to tender	Rs.20,34,226/-
Period of Completion	02 (two) Months
EMD shall be drawn in the name of Executive Engineer (C), CPWD, Vijayawada.	Rs.40,685/-
Last time & date of online submission of bid and other documents as specified in the press notice	Up to 15:00 Hours on 30-09-2026
Time and date of online opening of Financial Bids	15:30 Hours on 30-09-2026
Last date & time of submission of hard copies of Experience Certificates if any, copy of receipt of deposition of original EMD, Registration Certificates, Affidavit if any, Undertaking and other Documents as specified in the press notice to Division Office by the Lowest Tenderer Only	To be submitted during office hours within a week from the date of opening of Financial Bid. (only L1 bidder). In case the last day happens to be closed holiday, these documents shall be submitted on the next working day.

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost. Applicants are advised to keep visiting the above mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the

AE(E)(P) EE(E)

applicant of his liabilities to submit the applications complete in all respects including updates thereof, if any. An incomplete application may be liable for rejection.

4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting the bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Account Payee Demand Draft/ Fixed Deposit Receipt/ Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks towards EMD drawn in favour of **Executive Engineer, VJCD, CPWD, Vijayawada**, receipt for deposition of original EMD to division office of any Executive Engineer, (including NIT issuing EE/AE)CPWD and other documents as specified.

A part of earnest money is acceptable in the form of Bank Guarantee also. In such cases 50% of earnest money or Rs.20 lakh whichever is less, will have to be deposited in shape prescribed above and balance can be accepted in form of Bank Guarantee issued by a Commercial Bank.

5. Those contractors not registered on the website mentioned above, are required to get registered before hand. If needed they can be imparted training on online bidding process as per details available on the website.
6. The intending bidder must have valid class-III digital signature to submit the bid.
7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. Contractor can upload documents in the form of **JPG** format and **PDF** format.
9. a) The column meant for quoting percentage rate in figures appears in pink colour and the moment percentage is entered, it turns sky blue.
 b) Tenderer shall quote the percentage rate above or below upto two places of decimals only.
 c) If a tenderer does not quote any percentage above/below on the total amount of the tender or any section/sub-head in percentage rate tender, the tender shall be treated as invalid and will not be pertained as lowest tenderer.
 d) It is mandatory to upload scanned copies of all the documents including GST registration. If documents are not uploaded, then bid will become invalid and shall summarily be rejected.
 e) Please read Para-9 of CPWD-6 for further details.

10. List of Mandatory Documents to be scanned and uploaded within the period of bid submission:

- i. Insurance Surety / Account payee Demand Draft / Fixed Deposit Receipt (FDR)/Banker's cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank against EMD, as specified in Para 6 of CPWD - 6 for e-Tendering.
- ii. Copy of receipt for deposition of original EMD to division office of any EE, CPWD. (Form-D)
- iii. Enlistment order of the contractor
- iv. Compulsory ERP training Certificate.
- v. Electrical License issued by State of Andhra Pradesh. If the bidder has not obtained Electrical License issued by State of Andhra Pradesh, then in such a case the bidder shall scan and upload following undertaking along with other bid documents "If work is awarded to me I shall associate any electrical contractor having valid electrical license issued by State of Andhra Pradesh or I myself shall obtain Electrical license of State of Andhra Pradesh within 7 days from date of issue of letter of acceptance."
- vi. GST registration Certificate of Andhra Pradesh, if already obtained by the bidder.

If the bidder has not obtained GST registration in the State, then in such a case the bidder shall scan and upload following undertaking along with other bid documents." If work is awarded to me, I/We shall obtain GST registration Certificate of the State, in which work is to be taken up within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on a/c of the work executed and/or for any action taken by CPWD or GST department in this regard."

Executive Engineer (E)
CPWD, Vijayawada

CPWD-6 for e-Tendering

Online percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD (Composite Category) for the work of-

"Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area."

The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

The work is Estimated to Cost **Rs.20,34,226/-**

This estimate, however, is given merely as a rough guide.

The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1. Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified elsewhere in the tender.
2. Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 7 (or other Standard Form as mentioned) which is available at Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **02 (two) months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website <https://etender.cpwd.gov.in> or www.cpwd.gov.in at free of cost.

The standard publications like General Conditions of Contract-2023, Delhi schedule of rates 2023/2025 (for civil and electrical), Specifications for Civil and Electrical works and Delhi analysis of rates 2023/2025 (for civil & electrical) with amendments / correction slips up to the last date of submission of tender can be seen free of cost from the website www.cpwd.gov.in.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. While submitting the revised bid, contractor can revise the consolidated percentage rate any number of times (he need not re-enter percentage rate of all the schedules or sub heads) but before last time and date of submission of bid as notified.
8. Earnest Money of **Rs.40,685/-** in the form of Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favour of Executive Engineer, VJCD, CPWD, Vijayawada) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any Commercial Bank having validity for six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders. The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

Copy of Enlistment order and other documents as specified in the NIT shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in NIT shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.

The eligibility bid submitted shall be opened at **15:30 Hours on 30-09-2026**

9. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:
 - a. The bidder is found ineligible.
 - b. The bidder does not deposit original EMD with division office of any Executive Engineer, CPWD.

- c. The bidder does not upload all the documents (including GST registration/GST undertaking) as stipulated in the bid document including the copy of receipt of deposition of original EMD
 - d. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - e. In case of any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid.
Further the tenderer shall not be allowed to participate in the retendering process of the work.
 - f. If a tenderer does not quote any percentage above/below on the total amount of the tender or any section/sub-head in percentage rate tender, the tender shall be treated as invalid and will not be entertained as lowest tenderer.
10. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.
11. Site of GST Building, Tirupati, Andhra Pradesh is available to execute the work.
12. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require

and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
16. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of

the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.

18. The bid for the work shall remain open for acceptance for a period of Thirty (30) days from the date of opening of bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
19. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 7 days from the stipulated date of start of the work, sign the contract consisting of: -
 - a. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance there of together with any correspondence leading thereto.
 - b. Standard C.P.W.D. Form- 7 or other Standard C.P.W.D. Form as applicable.
20. The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/uploading tender can be resolved through ERP help line no. 18001803286 or email Id cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issue till the last date of submission of bid in their own interest.

Executive Engineer (E) (Vijayawada)
CPWD, Vijayawada
(For & on behalf of President of India)

C.P.W.D - 7
GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

STATE : Andhra Pradesh
BRANCH : E&M

Zone :CE, Vijayawada
Division: EE (E)Vijayawada

PERCENTAGE RATE TENDER & CONTRACT FOR WORKS

Tender for the work of: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

To be uploaded on line **up to 15:00** hours on 30-09-2026 through website <https://etender.cpwd.gov.in>

To be opened in presence of tenderer who may be present at **15:30** hours on 30-09-2026 in the office of Executive Engineer (E)(Vijayawada) CPWD, Vijayawada.

Issued to **

(Contractor)

Signature of Officer issuing the documents **

Designation: **

Date of issue: _____ **

**Not applicable for e- tendering

T E N D E R

I / We have read and examined the notice inviting tender, schedule, A, B, & C, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/ We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for 30 days from the date of opening of bid.

If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy. If I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated _____

Signatures of Contractor

Postal Address

Witness:

Address:

Occupation:

AE(E)(P)

EE(E)

ACCEPTANCE

The above tender (as by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs.....

(Rupees)

The letters referred to below shall form part of this contract

Agreement: -

(a)

(b)

(c)

For & on behalf of President of India

Signatures:

.....

Dated: *

Designation:*

* To be filled by the Executive Engineer (E)(Vijayawada) CPWD, Vijayawada.

PROFORMA OF SCHEDULES A to F

SCHEDULE 'A'

Schedule of Quantities : **Enclosed**
 Estimated Cost Put to Tender : Rs.20,34,226/-

SCHEDULE 'D'

Extra schedule for specific requirements / documents for the work, if any-

- a. Special Conditions for all specialized
 / E&M Components : Attached

SCHEDULE 'E'

Reference to General Conditions of contract: **GCC 2023 for Construction Works** as amended/modified up to last date of submission of tender.

Name of Work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

Estimated Cost Put to Tender : Rs.20,34,226/-

- (i) Earnest money : **Rs.40,685/-** (To be returned after receiving Performance Guarantee).
- (ii) Performance Guarantee : The contractor whose bid is accepted, will be required to furnish **Performance Guarantee of 5% (Five Percent)** of the tendered amount/estimated amount whichever is higher within the period specified in schedule F + (plus) Where the tendered amount is less than eighty percent (80%) of the ECPT amount the Performance Guarantee, in addition to the requirement mentioned above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
- (iii) Security Deposits : 2.5% of tendered / accepted value.

SCHEDULE 'F'- General Rules & Directions:

Officer inviting tender: **Executive Engineer(E),
 CPWD, Vijayawada.**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3 : **See below under Clause 12.**

Definitions

- 2(v) Engineer-in-Charge : **Executive Engineer(E), CPWD, Vijayawada or his successor thereof.**
- 2(viii) Accepting Authority : **Chief Engineer, CPWD, Vijayawada, or his successor thereof.**
- 2(x) Percentage on cost of materials and labour to cover all overheads and profits. : **15% (7.5% for Profits + 7.5% for overheads)**
- 2(xi) Standard Schedule of Rates : **Delhi Schedule of Rates 2023 for Civil component, & for Electrical component: DSR 2025 and Market Rates**
- 2(xii) Department : **Central Public Works Department.**
- 9(ii) Standard CPWD contract Form GCC 2023, CPWD-7 as modified & corrected up to : **GCC 2023 for Construction works & CPWD - 7 as amended/ modified up to last date of submission of e-tender.**

Clause I

- (i) Time allowed for submission of performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance. : **7 days.**
- (ii) Maximum allowable extension with late fee at 0.1% per day of performance Guarantee amount beyond the period as provided in (i) above : **3 days.**

Clause 2

Authority for fixing compensation under clause-2. : **Chief Engineer, CPWD, Vijayawada or his successor thereof.**

Clause 2A

Whether clause 2A shall be applicable : **Not Applicable**

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start : **7days**

Milestones

S. No.	Description of Milestone (Physical)	Time allowed in percentage of days (from the date of start)	Amount to be withheld in case of non-achievement of milestone (% of tendered amount of respective E & M Component)
1	Submission of drawings for approval.	20 Days	1.0%
2	Supply of all materials	45 Days	2.0%
3	Installation, Testing, Commissioning and handing over of building.	60 Days	2.0%

Time Period allowed for execution of work: 02 (two) Months

Authority to decide:		
i)	Authority to convey the decision of shifting of milestone and extension of time	: Executive Engineer(E), CPWD, Vijayawada or his successor thereof with prior approval of the Chief Engineer, CPWD, Vijayawada.
ii)	Rescheduling of Mile stones and Extension of Time	: Chief Engineer, CPWD, Vijayawada or his successor thereof.
iii)	Shifting the date of start in case of delay in handing over of site	: Chief Engineer, CPWD, Vijayawada or his successor thereof.

Clause 5.2

Documentation of Hindrances	1. The contractor has to first register himself through a registration form, available on CPWD website under 'Contractors Login' tab. After registration, User ID and password will be automatically generated and sent on his registered mobile and email ID. Using this User ID and Password he can access the module and view all the works which are being carried out by him in CPWD and he can register the hindrance against any particular work. After recording the hindrance by the contractor, it will be visible to all concerned officers (JE and above) of that work. An alert through text message and email will be sent to EE. 2. Executive Engineer will first assign the work to the JEs/AEs who will give their comments on the hindrance within 2 days. After that Executive Engineer of the work will have to take appropriate action on the hindrance within 2 days. The comments of JEs/AEs will not be visible to contractor, only the decision of the Executive Engineer
-----------------------------	---

	on the hindrance will be visible to contractor under "Decision of the Engineer-in-charge."	
Clause 5.4 Recovery per day for delay in submission of revised programme		Rs. 1,000/- per each day
Clause 6: Computerized Measure Book (CMB) / Electronic Measurement Book (EMB) Mode of Measurement:		CMB
Clause 7 Gross work to be done together with net Payment/adjustment of advances for material collected, if any since the last such payment for being eligible to interim payment	:	5.00 lakhs or as decided by the Engineer-in-Charge
Clause 7A Whether clause 7A shall be applicable:	:	Yes.
Clause 7B Whether clause 7B shall be applicable:	:	Yes.
Clause 8A Authority to decide compensation on account if contractor fails to submit completion plans	:	Executive Engineer(E), CPWD, Vijayawada
Clause 10A List of testing equipment to be provided by the contractor at site lab.	:	Not Applicable
Clause 10 B(ii) Whether clause 10-B (ii) shall be applicable	:	Not Applicable
Clause 10C Component of Labour expressed as percent of value of work.	:	Applicable 15%
Clause 10CC	:	Not Applicable
Clause 11 Specifications to be followed for execution of work	:	CPWD Specifications 2024 up to date correction slips
Clause 12 Authority to decide deviation up to 1.25 times of tendered amount.	:	Chief Engineer, CPWD, Vijayawada. The Completion of Cost including extra items, deviations and admissible escalation shall, in no case, exceed 1.25 times the contract amount. Contractor has to devise a system to keep a watch on quantum of work taken up vis-à-vis balance items required to complete defined scope of work and will give the alerts to Engineer-In-Charge before taking up extra items, deviations so that completion cost including extra items, deviations and admissible escalation does not exceed 1.25 times the contract value.

		Work executed beyond above limit will neither be recorded nor be paid.
12.2& 12.3 Deviation limit beyond which clauses 12.2& 12.3 shall apply.	:	100% (Hundred percent)
12.5 i) Deviation limit beyond which clauses 12.2& 12.3 shall apply for all construction works	:	100% (Hundred percent)
Clause 16 Competent authority for deciding the reduced rates	:	Chief Engineer, CPWD, Vijayawada or his Successor thereof
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	T&P and machinery required as directed by the Engineer-in-charge.

- Clause -19C: -** Authority to decide penalty : Executive Engineer(E),
for each default CPWD, Vijayawada
- Clause -19D: -** Authority to decide penalty : Executive Engineer(E),
for each default CPWD, Vijayawada
- Clause -19G: -** Authority to decide penalty : Chief Engineer,
for each default CPWD, Vijayawada
- Clause -19K: -** Authority to decide penalty : i. Chief Engineer,
for each default CPWD, Vijayawada
:ii. Rs.1000/- per tradesman per day

Clause 25

i. Conciliator for settlement of Disputes	Additional Director General, Region Hyderabad, CPWD, Hyderabad or his successor thereof.
ii. Arbitrator Appointment Authority	Chief Engineer, CPWD, Vijayawada or his Successor thereof

Place of Conciliation: Hyderabad

Clause 32: Requirement of Technical Representative(s) and recovery rates

Sl. No.	Requirement of Technical Staff		Minimum experience (Years)	Designation of technical staff	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32
	Qualification	Number (Of Major/ Minor Component)			

1	Graduate Engineer Or Diploma Engineer	1	2 or 5 respectively	Project Manager cum Planning/ quality / site/billing Engineer	Rs.50,000/- per month per person.
----------	---	---	------------------------	---	--------------------------------------

Assistant Engineers retired from Government services those are holding Diploma will be treated at par with Graduate Engineers.

Diploma holders with minimum 10-year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

For works with estimated cost more than Rs. 10 crores and stipulated time period more than 6 months:

The contractor shall ensure that at least one deployed technical representative shall be trained in courses related to CPWD specifications, labour laws, safety rules etc. of duration not less than 5 working days either through National CPWD Academy (NCA) or National Institute of Construction Management and Research (NICMAR) or CIDC or any other similar reputed and recognized Institute managed or certified by State/Central Government. The training cost and other cost related to training shall be borne by the contractor. The Contractor shall ensure that at least one technical representative is trained within six months of start of work. The time period of six months can be relaxed by the Engineer-in-charge depending upon the frequency of training course organized by NCA. If the contractor fails to ensure that at least one technical representative is trained in the above mentioned course till completion of work or one year from start of work, whichever is earlier, then a non-refundable recovery of Rs. 50,000/- shall be made from the bill of the contractor. Decision of Engineer-in-charge in this regard shall be final and binding on the contractor.

Clause 38

- (i) (a) Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 printed by C.P.W.D. with correction slips up to the last date of submission of bids.
- (ii) Variations permissible on theoretical quantities.
 - (a) Cement for works with estimated cost put to tender more than 25 lakhs : Not Applicable
 - (b) Bitumen for all works : Not Applicable
 - (c) Steel Reinforcement and structural steel sections for each diameter, Section and category : Not Applicable
 - (d) All other materials : Nil

Executive Engineer(E)
CPWD, Vijayawada

(FORM-D)**Receipt of deposition of original EMD****(Receipt No. /date)**

Name of Work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

NIT No.:25/EE(E)/E-Tender(Vijayawada)/e-tender/2026-27

- | | | |
|------------------------------------|---|--------------------|
| 1. Estimated Cost | : | Rs.20,34,226/- |
| 2. Amount of Earnest Money Deposit | : | Rs.40,685/- |
| 3. Last date of submission of bid | : | 30-09-2026 |

(to be filled by Executive Engineer, CPWD)

- | | | |
|----|---------------------------------------|---|
| 1. | Name of Contractor | # |
| 2. | Form of EMD..... | # |
| 3. | Amount of Earnest Money Deposit | # |
| 4. | Date of submission of EMD | # |

Signature, Name and Designation of EMD

Receiving officer (EE/AAO)

Along with Office stamp

(#To be filled by EMD receiving EE or
NIT issuing EE, as the case may be)

THE MINIMUM ELIGIBILITY CRITERIA FOR ELECTRICAL WORKS WHEREVER APPLICABLE

1. The applicant shall either himself may carryout works or otherwise, he will have to associate an agency meeting the eligibility requirements as given in this tender document and submit the details as per **Form "G"** given in this tender document within 07 days of award of work OR before start of minor component of work whichever is earlier.

The applicant/ main contractor has to submit consent letters as per **Form "H"**, given in Part C of this tender document from at least one eligible associate agency of the respective component of E&M work for each of the component of E& M works by clearly indicating the component of work within 07 days of award of work OR before start of minor component of work whichever is earlier.

The main contractor will submit Affidavit of MOU signed with eligible associated contractor. The Affidavit of MOU in the enclosed Form "I" shall be signed by both contractors, Main contractor as 1st party and associated contractor as 2nd party, independently for **"Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area."**

If the main contractor fails to associate agency for execution of minor components of work within 15 days of award of work OR before start of minor component of work whichever is earlier or furnishes incomplete details or furnishes details of ineligible agencies even after the tenderer is given due opportunity, the entire scope of such component of work shall be withdrawn from the tender and the same shall be got executed by the Engineer-in-Charge at the risk and cost of the main contractor.

THE MINIMUM ELIGIBILITY CRITERIA FOR E&M COMPONENTS AND SPECIALIZED WORKS WHEREVER APPLICABLE

Sl. No	Component of E&M works	Estimated cost in Rs.	Eligibility
1.	Mechanical Ventilation System	Rs.20,34,226/-	In case, the main contractor does not possess the requisite eligibility and experience then, the main contractor shall associate with specialized agencies who fulfill the following requirements, if he himself does not fulfill the following requirement: - Should have satisfactorily completed the works as mentioned below during the last seven years ending previous month of last date of submission of bids. Three similar completed works each of value not less than Rs.7.79 Lakhs or Two similar completed works each of value not less than

			Rs.11.68 Lakhs or One similar completed work of value not less than Rs.15.58 Lakhs Similar work shall mean " SITC of Mechanical Ventilation System". However, the Main agency shall also be eligible to carry out himself without associating with any specialized agency provided He fulfills the prescribed eligibility criteria for this work.
--	--	--	--

Executive Engineer (E)(Vijayawada)

FORM -G**PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR ELECTRICAL WORK**

Name of work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

I/we hereby propose the following agencies as per mentioned against each for executing corresponding minor components of work. Their consent letters are also attached.

Sl.No	Name of Associated Contractor	Category and Class of registration	Enlistment copy/completion Certificates attached	Monetary Limit of work	Validity of registration	Consent letter attached (Yes/No)
C1: Mechanical Ventilation system						

Note: Self Attested photocopies of enlistment order, valid electrical contractor license, work experience certificates of each agency for each component of E&M work shall be submitted.

Signature of contractor

FORM -H**CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF
ELECTRICAL WORK**

Name of work: Construction of Office Building for GST at Tirupati. SH: Additional works like IEL, LAN system & Façade lighting.

I / We hereby give my consent to associate with ----- for executing the minor component work of **“Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.”**

1. I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer -in-Charge for the corresponding minor work till the completion of the work.
2. I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.
3. Also I / We will employ full time technically qualified Engineer / supervisor for the minor component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Major component

Signature with date of Associate/
Minor

Component

Contractor

Address

Witness with address

(From major component contractor side)
side)

Witness with address

(From minor component contractor

FORM-"I"AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)
(to be submitted for each and every E&M component)

1. M/s. (Name of the firm with full address)
Enlistment Status
Valid Up to:
(Henceforth called the main Contractor)
2. M/s. (Name of the firm with full address)
Enlistment Status
Valid Up to:
(Henceforth called Associated Contractor)

For the execution of E & M Work

Name of work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CPWD) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties can be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Chief Engineer, CPWD, Vijayawada. His decision shall be final and binding on both of us.

We have agreed as under:

1. The Associated Contractor will execute all civil works in the wholesome manner as per terms and conditions of the agreement.
2. The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
3. All the machinery and equipment, tools and tackles required for execution of the Civil works, as per agreement, shall be the responsibility of the Associated Contractor.
4. The site staff required for the Civil work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.

5. Site order book maintained for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and by Associated Contractor himself.
6. All the correspondence regarding execution of the Civil work shall be done by the department with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

SIGNATURE OF MAIN CONTRACTOR

Date:

Place:

SIGNATURE OF ASSOCIATED
CONTRACTOR

Date

Place:

1. Witness with address

(From major component contractor side)
contractor side)

2. Witness with address

(From minor component

NOTE: Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/-

On Non – Judicial stamp paper of minimum Rs. 100/-

Form for Bank Guarantee for Earnest Money Deposit/Performance Guarantee / Security Deposit / Mobilization Advance / for release of amount withheld for Milestones

1. Whereas the Executive Engineer (Name of Division) CPWD on behalf of the President of India (hereinafter called “The Government”) has invited bids under (NIT Number) dated for (Name of work)

The Government has further agreed to accept irrevocable Bank Guarantee for Rs. (Rupees Only) valid upto (date) *

..... As Earnest Money Deposit from (Name and Address of Contractor) (herein after called “the contractor”) for compliance of his obligations in accordance with the terms and conditions of the said NIT. ** or ** Whereas the Executive Engineer (Name of Division) CPWD on behalf of the President of India (hereinafter called “The Government”) as entered into an agreement bearing number With (name and address of the contractor) (Hereinafter called “the Contractor”) for execution of work (Name of work)

The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)

As Performance Guarantee / Security Deposit / Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement. 2. We, (Indicate the name of the bank) (hereinafter referred to as “the Bank”), hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees Only) on demand by the Government within 10 days of the demand.

We, (Indicate the name of the Bank), do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said amount due from the said Contractor. 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. (Rupees only).

4. We, (Indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment. 5. We, (indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent

and without affecting any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor 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 or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor 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. 6. We, (Indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor. 8. We, (Indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing. 9. This Bank Guarantee shall be valid up to Unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witness: 1. Signature

Authorized signatory

Name and address

Name Designation

Staff Code no.

3. Signature Bank Seal

Name and Address

Note:

1. *Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two / three bid system from the date of submission of tender.

2. ** In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or performance guarantee / security deposit / mobilization advance, as the case may be.

3. The Bank Guarantee shall be drawn on non-judicial stamp paper of minimum Rs.100.

GENERAL TERMS AND CONDITIONS APPLICABLE FOR ALL E&M COMPONENTS

Location: GST Building, Tirupati

1 GENERAL

1.1 The work shall be generally carried out in accordance with tender/bid specifications and the following specifications / rules with up-to-date amendments.

- a) CPWD General Specifications for Electrical Work Part I Internal – 2023, as amended up to date
- b) CPWD General Specifications for Electrical Work Part II External-2023, as amended up-to-date
- c) CPWD General Specifications Part-VII-2013 (D.G Sets) as amended up to date.
- d) CPWD General Specifications for Electrical Works Part V Wet Riser & Sprinkler Systems – 2020, as amended up-to-date
- e) Part VI Fire Detection and Alarm System – 2018
- f) Commercial and Additional conditions for this work.
- g) The Indian Electricity Act, 2003, as amended up to date.
- h) Indian Electricity Rules 1956 amended up to date.

The contractor shall execute the work as per specifications only and no deviation is allowed.

1.2 Order of Preference:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- a) Description of Schedule of quantities.
- b) Commercial and Additional conditions for this work.
- c) Drawings.
- d) CPWD General Specifications of that particular work.
- e) Relevant IS or any other International code in case IS code is not available.

Commercial and Additional conditions of that particular work are to be read in conjunction with above and in case of variations, specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with schedule of quantities for the work.

- 1.3 This specification covers manufacture, testing as may be necessary before dispatch, delivery at site, all preparatory work, assembly and installation, commissioning putting into operation of equipment of all E&M components of the tender.
- 1.4 The tenderer should in his own interest visit the site and get familiarize with the site conditions before tendering.
- 1.5 No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

2 COMMERCIAL CONDITIONS

Type of Contract: The work to be awarded by this tender shall be treated as indivisible works contract. Income tax, GST, labour cess & other statutory deductions etc. shall be made at source as per the prevalent laws. The deductions of Security Deposit, Income-Tax etc. shall be done as applicable on the gross payments and net payment shall be paid accordingly.

3 RATES

The rates quoted by the tenderer, shall be firm and inclusive of all taxes (including GST, labour cess etc.) and all charges for packing forwarding, insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary construction of storage, risks, overhead charges, general liabilities/obligations.

4. Payment Terms

- a) No advance payment shall be made.
- b) On account payments for part work (after stipulated and statutory deductions) as assessed by the Engineer – in-charge for the applicable items in the Contract shall be payable at part rates not exceeding the percentage indicated against the stages of work.

Stage of Work % of rates payable

S.No	Stage of work	Payment Percentage
A	After initial inspection (wherever specified) & delivery at site in good condition on pro-rata basis	70%
B	On completion of pro-rata installation	15%
C	On commissioning and completion of successful running in period & taking over of the equipment by the department.	10%
D	At the time of payment of final bill	5%

- i. The Sub-Standard work, if any, shall not be accepted & measured unless approved by the competent authority.

- c) The rates of any Extra/Deviated Items of work shall be derived by the Department as per the provisions in the agreement & manual guidelines issued from time to time or as decided by the Engineer-in-Charge, and the same shall be binding & acceptable to the contractor.
 - d) The Engineer-in-Charge reserves the right to recover any part/item not executed, due to site requirements etc. The rates of such items shall be derived by the Department as per the provisions in the agreement or decided by the Engineer-in-Charge, and shall be binding & acceptable to the contractor.
5. In case the same item appears more than once in the schedule of work under the same sub head or among the different subhead of works, the lowest rate quoted for that item elsewhere shall be considered for other items also during evaluation of tender.

6. Warranty

- 6.1 All equipment shall be guaranteed for a period of 12 months (except LED fittings which shall be guaranteed for minimum 5 years), from the date of taking over the installation by the department, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipment or components, or any part thereof, so found defective during guarantee period shall be repaired or replaced free of cost, to the satisfaction of the Engineer-in-Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.
- 6.2 The tender shall guarantee among other things, the following:
- a. Quality, strength and performance of the materials used as per manufacturers standards.
 - b. Safe mechanical and electrical stress on all parts under all specified conditions of operation. Satisfactory operation during the maintenance period.
- 6.3 In case of Specialized E&M original Works and other original E&M Works, wherever required, that the lowest tenderer should submit the following documents along with the performance guarantee after the acceptance of tender, an undertaking from the OEM for the particular minor component
- a) Authorization certificate.
 - b) The OEM is unconditionally support the lowest tenderer technically throughout the execution of contract as well as for Maintenance/Comprehensive Maintenance Contract for the useful life of the system, and
 - c) OEM provides all the spares required for healthy functioning of the equipment for at least seven years from the date of supply of equipment.

7. MAINTENANCE:

Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of one year from the handing over of the installation.

The maintenance, routine as well as preventive, for one year from the date of taking over the installation as per manufacturer's recommendation.

8. COMPLETENESS OF TENDER

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

9. STORAGE AND CUSTODY OF MATERIALS

The agency has to make his own arrangements. No storage accommodation shall be provided by the department. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the department/client.

10. CARE OF THE BUILDING:

Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

11. COMPLETION PERIOD

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc., arrangement of materials & equipment, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

12. POWER SUPPLY:

The contractor has to make its own arrangement for power supply required for execution of the work.

13. WATER SUPPLY:

The contractor has to make its own arrangement for water supply required for execution of the work.

14. ACCEPTABLE MAKES OF VARIOUS EQUIPMENTS:

The acceptable makes of various equipment/components/accessories have been indicated in "Acceptable Makes" appended with the tender documents. The tenderer shall work out the cost of the offer on this basis. Alternate makes are not acceptable.

15. DATA MANUAL AND DRAWINGS TO BE FURNISHED BY THE TENDERER:

After award of work

The successful tenderer would be required to submit the following drawings after award of work for approval as per mile stones of tender.

- a) General arrangement drawing, including detailed shop drawings of all E&M components, conduit size and cable route layout, Panel Drawing and layout plan and other drawings of all E&M components shall be prepared in AUTOCAD or equivalent software and submitted by the agency well in advance to get the approval from the JE(E)/AE(E)/EE (E) and care shall be taken not to avoid any delay in the slab casting for all individual E&M component.
- b) Details of foundations for the equipment and the weights of assembled equipment.
- c) Any other drawings necessary for the job.
- d) Reflected Ceiling Plan (RCP) for all floors by incorporating all equipment likely to come in ceiling/false ceiling shall be submitted for approval before casting of slabs by considering all E&M components.
- e) The successful tenderer should furnish well in advance of start of work, three copies of detailed instructions and manufacturer's manuals of all equipment regarding installation, operation and maintenance, preventive maintenance & trouble shooting with all the relevant data sheets, spare parts catalogue, etc.

16. EXTENT OF WORK

- 16.1 The work shall comprise of entire labour including supervision, all materials necessary to make a complete installation, tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipment covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not been mentioned in details in the tender document in connection with this contract as this is a turnkey job.
- 16.2 The cables and all other items shall be brought to site only after taking correct measurements as per actual requirement of work. Excess quantities shall not be accepted and paid. i.e., Quantity of item brought to site and used in work as per actual requirement shall only be measured and paid irrespective of quantities of

BOQ / work schedule. **The item brought at site and paid, if not used in the project have to be taken back by the contractor and deductions in the payment shall be adjusted in subsequent bills.** The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

- 16.3 In addition to supply, installation, testing and commissioning, of all E&M equipment, following works shall be deemed to be included within the scope of work to be executed by the tenderer.
- Minor building works necessary for installation of equipment, foundation, making of opening in walls or in floors and restoring them to their original condition finish and necessary grouting etc. as required.
 - All necessary supports may be arranged.
 - Testing of PTs/CTs for metering & protection purpose & relay calibration & setting.
 - Getting inspection done & obtaining approval from Central Electrical Authority and local fire authority for energizing the installation. However, necessary fees for inspection shall be borne by the Department.
 - All E&M equipment/materials shall be tested from the 3rd party laborites as per the guidelines of **Quality Assurance Policy & Check List of E & M Services**. The laborites shall be preferably of Government Labs/ Government autonomous bodies or as approved by the competent authority. However, necessary fees for inspection shall be borne by the Department.
- 17 Exclusion and work to be done by other agencies:
The following shall be excluded from the scope of the work:
- Major dismantling of any existing building work.

~~18. Inspection and Testing of DG sets of capacity equal to or less than 200 KVA~~

- ~~18.1 For DG sets of capacity equal to or less than 200 KVA, testing shall necessarily be carried out at site. However, initial inspection can be done at factory/manufacturer works before dispatch at site of work at the discretion of Engineer in Charge. All major items/ equipment i.e. engine & alternator in assembled condition, Electrical control panel etc. shall be offered for initial inspection at factory/ manufacturers works. The cost of the Engineer's visit to the factory will be borne by the Department. After initial inspection, DG Set and associated Electrical panel equipments shall be cleared for dispatch at site.~~
- ~~18.2 POL i.e., HSD oil and lub.oil for diesel engine for testing & commissioning for 12 hours including 1hr of 10% overloading at OEA/ OEM works shall be arranged by the contractor.~~
- ~~18.3 Copies of all documents of routine and type test certificates of the equipment, carried out at the manufacturers premises shall be furnished to the Engineer in charge and consignee.~~

~~18.4 After completion of the installation work in all respects, the contractor shall offer the DG Sets for testing. Testing shall be carried out exactly as per Clause 1.15.2.4 mentioned above.~~

~~18.5 The requirement of testing of DG Set at manufacturer's premises, in presence of representative of the Department, can be dispensed with/ waived off, keeping in view the exigency of works, with the prior approval of the Chief Engineer. However, test certificates of the particular DG Set on full load, as mentioned in Clause 1.15.2.4 above, shall be submitted at the time of delivery of DG Set at site.~~

19. COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS

19.1 All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification.

In particular, the equipment and installation will comply with the following:

- i) Factories Act.
- ii) Indian Electricity Rules.
- iii) B.I.S. & other standards as applicable.
- iv) Workmen's compensation Act.
- v) Statutory norms prescribed by local bodies like CEA, Power Supply Co., Fire authorities, etc.

19.2 After completion of the installation, the same shall be offered for inspection by the representatives of the Central Electricity Authority if required and local fire authority. The contractor will extend all help including test facilities to the representatives of CEA/Local fire authority. The observations of CEA/Local fire authority will be attended to by the contractor. The installation will be commissioned only after getting clearance from CEA/Local fire authority. Contractor should get inspection done & obtain approval from Central Electrical Authority and local fire authority.

19.3 Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

20. INDEMNITY:

The successful tenderer shall at all times indemnify the department. Consequent on this works contract, the successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there during the period of erection, construction and putting into operation the equipment and ancillary equipment under the supervision of the successful tenderer to the extent the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be

necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

21. ERECTION TOOLS:

No tools and tackles either for unloading or for shifting the equipment for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

22. COOPERATION WITH OTHER AGENCIES:

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the construction of buildings, if any, and exchange freely all technical information so as to make the execution of this work/contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the tenderer himself.

The work will be carried out with least disturbance during shifting & shut down taken in consultation with the client department.

23. INSURANCE AND STORAGE:

All consignments are to be duly insured up to the destination from warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

24. VERIFICATION OF CORRECTNESS OF EQUIPMENT AT DESTINATION:

The contractor shall have to produce all the relevant records to certify that the genuine equipment from the manufacturers has been supplied and erected to the satisfaction of the Engineer-in-charge.

25 PAINTING:

This shall include cost of painting of the entire installation. The major equipment like HT panel, transformers, DG sets, L T panel, bus duct, cable trays, HVAC equipment, etc. shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However hangers, supports etc. of bus trunking & cable tray etc. shall be painted with required shade including painting with two coats of anticorrosive primer paint at site.

26. Approval of drawings, makes and models of equipment/materials for all E&M components: -

26.1. The agency shall submit drawings and details such as makes and models of the equipment/materials offered by him along with specifications for all

- E&M components to the Engineer-in-charge of the work, before ordering the equipment/materials for approval of the department.
- 26.2. The Engineer-in-charge shall scrutinize the proposal and approve the makes and models which are acceptable as per the schedule, specifications, conditions of the agreement and inform the agency for procurement.
 - 26.3. After approval of the equipment/materials by the department the agency shall procure the equipment/materials from the OEM/authorized distributor/dealer as the case may be.
 - 26.4. Adequate care shall be taken by the agency to ensure that only genuine materials of proper quality are used in work. The firm shall also ensure that:
 - i. Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
 - ii. As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, other main items etc., its copy shall be endorsed to the Engineer-in-charge of work.
 - iii. The contractor will submit makes & brands of electrical fittings wires & cables, conduits and switchgears, rising mains, poles, outdoor fittings etc. of preferred make list as per tender documents for approval of Engineer-In-Charge, whose decision will be final in the matter.
 - iv. The firm will be required to procure material directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor if required by the department.
 - v. Inspection at factory or at godown, as required, shall be arranged by the firm for a mutually agreed date.
 - vi. Delivery of material shall be taken up only with the consent of department, after clearance of the material.
 - vii. Department shall reserve the right to waive off inspection in lieu of suitable test certificate, at its discretion.
 - viii. All the materials to be supplied by the contractor shall be procured & brought to site as per requirement at site of work in consultation with department so that these materials are not damaged & their manufacturer's warrantee period do not start.

27 Safety Codes & Statutory Regulations:

- a. Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- b. Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the tenderer liable for penalty of Rs.1500/-

for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of tenderer and recover the cost thereof from him.

- 28 Manufacturer Authorization Form (MAF) for all items should be invariably submitted for obtaining approval of makes and models**
- 29 Delivery Challan of items shall invariably be submitted along with bills. If, required tax invoice of the items shall be submitted along with bills**

Executive Engineer (E)(Vijayawada)

Technical Specifications of Mechanical Ventilation system

Sound Engineering practice as approved by the Engineer-in-charge. Any additional item of work, if taken up subsequently, shall also confirm to the relevant specifications mentioned above.

All the equipment shall be delivered with (i) Manufacturer's test certificate, (ii) Manufacturer's technical catalogues and Installation / Instruction (O&M) manuals. The design layout plans / drawings / other documents pertaining to E & M services shall have to be submitted by the consultant engaged by the contractor for approval within the time period as specified in the table of mile stone.

Nomenclature of individual items mentioned in the BOQ of NIT to be executed on priority along with the following additional conditions.

2. JET VENT FAN UNIT

1) Composed

The fan should be furnished as factory assembled. Having characteristic as high performance of ventilation with small air volume. Each unit shall consist of inlet bell mouth with protective screen, silencer both inlet and outlet discharge nozzle, terminal box and mounting arm.

2) Fan

A unique high efficiency Aero foil section blade shall have smoothed hub and clam- plate for adjustable pitch angle flexibility. The impellers shall be of precision die-cast to offer thin Aero foil sections for low generation of noise levels. Every cast aluminium component shall be X-rayed using Real Time Radiography inspection prior to assembly. This feature shall provide evidence of casting quality against product liability legislation if specified.

Aero foil Fan impellers shall have a unique aerodynamic section blade to optimize the efficiency of performance and minimize the generation of noise.

The thin sections shall be obtained by precision die cast manufacturing techniques to have a lighter weight assembly.

Precision die cast aluminum hub and clamp-plate shall be equally spaced, fully adjustable, high pressure die cast Aero foil section blades.

1. CASINGS

Either a long-cased form complete with an externally mounted pre-wired electrical terminal box, or short cased for duct or plate installation.

Casings are spun from sheet steel with integral pre-drilled flanges, fully welded seams and hot-dipped galvanized after manufacture for excellent durability.

2. MOTORS

Squirrel cage type, insulated to class H, bearings lubricated with wide temperature grease, keyed shaft. To comply with BS5000 Pt 99 and IEC 34-A,

Weatherproof to IP55. (Overheat protection shall be provided on most single-phase motors).

2 Speed operation by Delta / Star reconnection should be available on three-phase motor up-to frame size F22. Two speeds can be obtained by reconnecting a single winding via six winding terminals to give two separate pole numbers
Integral pre-wired capacitor on most single-phase fans.

3. DUAL WOUND

This type of motor has two separate individual windings of the requisite poles to give the speeds required.

4. DISCHARGE NOZZLE

The nozzle shall be made of aluminum round shaped aerodynamically and finished with polishing coat.

5. SILENCER (INLET AND OUTLET)

Silencer casing is made of 1.0 mm thickness and 710 mm long (min) of cold mill steel. It is baked enamel coated on outside casing. Inside of casing shall be contained 25 mm thickness glass wool and finish with punched stainless-steel sheet.

6. INLET BELL MOUTH

The bell mouth is made of aluminum 3003 and transparent paint coated. It is Shaped to reduce air turbulence in the inlet of the fan.

7. PROTECTIVE BIRD SCREEN

The screen shall be circle screen, made of chrome coated.

8. TERMINAL BOX

The box shall be equipped with high temperature type indication lamp. The wire to the motor shall be enclosed with fiberglass tube for fire protection. It shall be sealed with fire rated sealant and all internal wiring and components tested by PSB to BS 7346 Part-2.

9. MOUNTING ARM

Mounting arm shall be permitted adjustment of the air stream, discharge of 180-degree angle horizontally and 90 degree of vertically.

10. ACOUSTIC DATA

The sound levels quoted shall be based on tests shall be carried out by the manufacturer in in-house certified laboratory by AMCA and British Standards by using the spectrum corrections stated on each performance chart, an un-weighted sound power spectrum shall be obtained for the fan.

11. NON-OVERLOADING

The fans shall have a non-overloading characteristic; the peak power input occurs within the range of normal operating pressures and is always exceeded by the motor rating for acoustic performance.

Note: The Jet fans are designed to run at 250 Deg.C for 2 Hour.

Sound level is measured at 1.5 - meter distance in reference value in parking areas

AXIAL FLOW FANS (DIRECT DRIVE)

Fans shall be oven-baked with polyester coating for minimum thickness of 60 microns or hot-dipped galvanized. To achieve the minimum and equal clearance between the blade tips and casing, tube casing shall maintain its roundness by means of using one piece of sheet metal with 90 edge flanging up.

Fan motor base support shall be properly secured (locked and sealed) to the fan housing and be of adjustable type to have precise control of motor shaft central position as well as running clearance between blade tips and casing. Motor (KW / HP) shall be able to be changed or upgraded at site without changing fan housing or ducting construction.

Fans supplied shall be complete with factory fabricated mounting bracket (ceiling or foot mounted) and suction / discharge matching flanges as accessories

All hubs shall be cast Aluminum alloy (Grade LM2) unless for Smoke Extractor Fans where high temperature (250C / 2Hrs) air is expected then Aluminum alloy or steel fan impeller blades are required. Otherwise impeller blade material with Polypropylene (PP), Glass-reinforced Polypropylene (PPG) and Glass-reinforced Polyamide (PAG), to provide self-balancing, anti-static, anti-sparking characteristic is preferable. Running clearance between blade tips and casing shall not exceed 1% of the impeller diameter, and 2% for smoke spill high temperature fan where mechanical expansion coefficient is different from normal ambient temperature.

Fan manufacturer shall provide the fan assembled with the same clearance between blade tips and casing of the tested prototype.

Note that the air performance and pressure loss are greatly affected by this clearance.

Impellers shall be secured to the drive shaft by a key and keyway. Axial location shall be provided by a collar or shoulder on the drive shaft together with a retaining washer and screw fitted into a tapped hole at the end of the shaft and locked in position. Blades shall be secured in place to the angle setting by setscrews, locking nuts or setting pins.

Fan motor shall be totally enclosed and external terminal box of at least IP55 shall be provided.

CO (Carbon Monoxide gas) Detection

The car park ventilation systems shall be controlled by an individual CO-Monitoring system for entire car park in basement to optimize efficiency. The contactors within the motor control panel shall be controlled by a Carbon Monoxide monitoring panel which shall contain DDCs (Direct Digital Controllers) where the pre-determined switching strategy and logic shall be loaded. The CO monitoring panel shall receive signals from CO sensors located throughout the levels at a spacing of no. more than 1 per 350 m2. The 24Vac power supply for the CO sensors shall be mounted in the same panel. The power supply shall be looped across the CO sensors. The proposed CO sensor shall

provide a 0-10 VDC signal for measuring the CO level in the car park area.

CO monitoring devices shall be mounted remotely throughout the car parks. The devices shall be mounted in accordance with the manufacturer's guidelines but no greater than 1.5 m above FFL.

The contractor should refer to the specific requirements of the sensor supplier for quantities of CO-detectors.

CO Sensor

The sensor shall be suitable for wall mount & capable of following features:

Digital display of the CO level: 0 to 00 ppm

Analog output: 4 to 20 mA / 0-10VDC

Low Voltage operation: 24 VAC / VDC

Wall Mount Configurations

Test Switch: Provides mode for system self test

Automatic Calibration (Field Calibration Kit)

Over-range indication

Start-up mode: steps display and output through test ranges

Solid-Stat sensor: Life expectancy of 7 to 10 years

Multiple sensors with one power supply Carbon monoxide sensor shall comprise of a carbon monoxide meter and a 4-20mA / 0-10 VDC transmitter an all-electronic system that utilizes a microprocessor to measure carbon monoxide (CO) levels, calculate various calibration factors and analog output. The sensor shall averages samples over a time period and updates the output every 2 ½ minutes. The sensor shall be intended to be used in enclosed parking garages, where it provides CO data to building automation computers or controllers. A UL knockout box shall house the sensor and provide an easy-to-mount, sturdy housing for the system.

Sensors shall be mounted on walls or columns about 1600 mm above the floor.

Sensors shall be evenly spaced and not put in corners, or directly in front of air inlets.

Each sensor must have a cable directly to the control panel.

In addition to above CO-sensor shall comply with following:

Power 24 VAC / VDC @ 150 mA

Measurement range 0 to 200 ppm of CO (4-20 mA)

Electrical class General Purpose, non-hazardous.

Operating temperature range 0 deg. To 125 deg.F (-18 deg. To 52 deg.C)

LIST OF PREFERRED MAKES FOR MECHANICAL VENTILATION SYSTEM

S. No	Description of Items	Makes
1.	CENTRIFUGAL / AXIAL / VANE AXIAL / IN-LINE FANS FOR VENTILATION, SMOKE EXHAUST, PRESSURIZATION	KRUGER / GREENHECK / NICOTRA/ AIRFLOW (AMCA CERTIFIED FANS FOR PERFORMANCE AND NOISE)
2.	CO Sensor	Honeywell / Danfoss / Johnson Control / Actis / System sensor / siemens / Kele
3.	Panel Board / Feeder Piller / Meter Board/MV panel	Manufacturers having Authorized Channel Partner of Switchgear OEM With in House Facility for 7 tank process, Powder coating, CNC machine and CPRI approved for relevant or above bus bar rating.
4.	MCCBs	Legrand (DPX ³)/ Schneider Electric (Compact NSX/Easy Pact CVS /LK (D- Sine)/ABB/(T-Max) / Siemens (3VL)/C&S
5.	MCB DBs / Industrial Sockets	Legrand / Schneider Electric /Havells (STADX)/ Hager / LK (L&T) / ABB/siemens/C&S
6.	MCBs / RCBO / Isolators	Legrand / Schneider Electric / Havells (STADX)/Hager / LK (L&T) / ABB/Siemens/C&S
7.	Ammeter / Voltmeter / MF Meter / Energy meter / Intelligent Meter	AE /IMP/ MECO / LK (L&T)/ Socomec (Diris) / Schneider / HPL / C&S / Conserv / Kaycee / Crompton Graves.
8.	CT's	KAPPA/AE/L&T
9	Contactors with OLR	Seimens/ABB/ LK (L&T) /C&S/Schneider
10.	VFD	Siemens / Schnieder / Danfoss / ABB / Fuji
11.	Extruded Aluminium Grills/ Diffuser / Damper / Actuator	Ruskin - Titus / Systemair/ Airmaster / Cosmos / Caryaire / Dynacraft / Greenheck/ Triston/ Kruger

12.	Indication Lamps (LED type), Push Buttons	Siemens/BCH/ LK (L&T)/Telemecanique/ Vishnav/Emco/Kaypee
13.	1.1 KV grade aluminum conductor, XLPE insulated armored UG cables	Havells/ KEI/ Gloster/ AKG/ Polycab
14.	GSS Sheets	SAIL / TATA / Jindal / Essar /Nippon

Note: -

- a) The department, reserves the right to add or delete any materials and Brands in the list of approved materials/brands subject to the recovery of financial implications.

Executive Engineer (E)(Vijayawada)

Schedule of work					
Name of Work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.					
Sl.No	Description	Qty	Rate	Unit	Amount
1	Supply, Installation, Testing and Commissioning of Ductless Ventilation System using Jet Fans as per the specifications and layouts, suitable for Normal Ventilation and Smoke Extraction Application in case of emergency i.e. 300 Deg C for 2 Hrs operation. The Dia of jet fans shall be 315 mm or as per OEM recommendation. Each fan shall be complete with motor and impeller and Silencer length should be Minimum of 2D (630 mm Long Each side) with reflector / bird screen &				
	Manufacturing Factory should be LEED certified Platinum Rated Green Building. Each Jet Fan assembly shall connect to a composite PLC Panel controlled by CO Sensors /Fire Alarm System for Smoke Extraction. The complete fan shall be certified as tested for 300 Deg C for 2 hours operation. Each fan shall be complete with dual speed motor and die cast aluminium impeller. Installation, testing and commissioning of above Jet Fans i/c fixing of Jet fans to ceiling with suitable MS supports, grouting bolts, connections etc., as required.				

	Casing shall be made of Hot dipped Galvanized steel. The Motor shall be run on the electrical power suitable for 415V/3Ph/ 50Hz, 3 phase AC supply (For Car Parking of Basement). The complete fan assembly with its casing, impeller and motor (not only motor or one of the item) shall be sourced from one manufacturer and certified and tested as per EN12101-3:-2015.				
1.1	i) Air volume : 4153/ 2059 CFM				
	ii) Speed : 2800 / 1420				
	iii) Temperature : 300° C / 2h				
	iv) Power : 1.17 / 0.6 kW				
	v).Dia : 355 mm	4	66822.31	Job	267289.00
1.2	i) Air volume : 2750/ 1412 CFM				
	ii) Speed : 2800 / 1400				
	iii) Temperature : 300° C / 2h				
	iv) Power : 0.8 / 0.16 kW				
	v).Dia : 315 mm	3	57406.00	Job	172218.00
2	Supply, installation, testing and commissioning of Direct drive Long Casing Tube/Vane Axial fans complete with Pre Galvanized(minimum 275 GSM Zinc coated)/MS Powder coated Casing with spun flanges (welding of flanges is not permitted to avoid corrosion and pitting of casing), adjustable pitch die cast aluminium impeller (Hub and Aero foil blades) and IE3 VFD Compatible motors. Long Casing position shall be as per the job requirement and shall be marked on the fan assembly.				

	The complete fan assembly with its casing, impeller and motor (not only motor or one of the item) shall be sourced from one manufacturer and certified and tested as per EN12101-3-2015 250 degree for 2 Hrs operation. Axial fan should be licensed to bear AMCA seal for air performance and sound performance , FEI Above 1 and must be demonstrated in AMCA accredited laboratory as per AMCA publication. Axial guide vane shall be have dedicated casing which can easily fix (bolted type)with axial fan casing to reduce the turbalance.				
	The complete assembly must have certificate of consistency of performance by BSI and must bear CE marking, CII Greenpro Ecolabeling & Manufacturing Factory should be LEED certified Platinum Rated Green Building Note (Note: Fan Diameter should not exceed 900 & speed should not exceed 1000 RPM)				
	Exhaust axial fans should have Mounting legs, Bird screen at Inlet ,Circular BDD at Outlet and also with suitable spring isolators & support arrangements				
	(Normal Mode + Emergency Mode Exhaust)-Capacity- 24000 cfm @ 20mm Wg Static Pressure Fan should be : 1000 dia /6 or 12 Blade / 5.5kw / 1000 RPM	2	208509.00	Job	417018.00
3	Supply, installation, testing and commissioning of CO Sensors without display (0 - 250 PPM detection Range with CE Marking)	3	18224.00	Each	54672.00

4	Supplying, installation, testing & commissioning of PLC control panel of cubicle construction, floor mounted type, fabricated out of 2.0 mm thick CRCA sheet, compartmentalized with hinged lockable doors, dust and vermin proof, powder coated of approved shade , cable alley, interconnection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respects suitable for operation on 415 V, 3 phase, 50 Hz, AC supply with enclosure protection class IP 42 as required.				
	A) INCOMING SECTION :				
	i) 100 Amps. FP MCCB -- 1 No.				
	ii) Digital Ammeter with selector switch and suitable ratio CTs - 1 Set.				
	ii) Digital Voltmeter with selector switch - 1 Set.				
	iv) LED type Phase indicating lamps -- 3 Nos.				
	Bus-Bars:				
	a) 4 Strip copper bus bars of 100 Amps capacity with bus bar support insulators of class F,heat shrinkable coloured sleeves and i/c DMC/SMC bus bars supports at required intervals (Bus-bars and main connections shall be marked by colour) - 1 Set.				
	B) OUTGOING SECTION				
	For Circulatory axial impulse jet fans				
	a) 10 Amps TP MCB, 10 Amps contactor with OLR for Low speed, ON, OFF, Trip, HIGH, LOW SPEED indication lamp, push buttons for ON and OFF, selector switches for each starter only - 8 sets. (For axial jet fans)				
	For Exhaust system vane axial type fans				

	b) 5.5 KW VFD for Normal Mode + Fire Mode Exhaust Air fans - 3 Nos (without bypass arrangement) 20 A TP MCB, 12A contactor with OLR for Low speed, ON, OFF, Trip, HIGH, LOW SPEED indication lamp, push buttons for on and off ,selector switches for each starter only - 3 sets.				
	c) PLC feeder consists of Logic Controller, Modic on TM200, Ethernet, Analog Input module ,ModiconTM3,8 inputs ,HMI 7 Inch PLC suitable for 3 Nos CO sensors required no of control relays, rectifier, SMPS lockable type automanual selector switch back up MCB, terminals wiring etc.				
	c) Fire damper actuators ON / OFF operation - 3 nos	1	670579.00	Job	670579.00
5	Supply of XLPE insulated and PVC sheathed armoured, 1.1 KV grade, U.G.Cable confirming to IS:7098, Part-I and up to date amendments				
5.1	a) 6 Core x 2.5 sq.mm Armoured copper cable for Jet fans	315	687.00	Metre	216405.00
6	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
6.1	a) Upto 35 sq. mm (clamped with 1mm thick saddle)	315	70.40	Metre	20160.00
7	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required	630	92.40	Metre	52920.00

8	Supplying, installation, balancing and commissioning of factory fabricated GSS sheet metal rectangular/ round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports, bends, transitions, reducers, end caps, collars etc as required complete in all respect in confirmation to IS : 655 and approved drawings and specifications of following sheet thickness complete as required.				
8.1	Thickness 0.80 mm sheet	45	1520.20	Sq.mtr	62190.00
9	Supplying, Fixing, testing and commissioning of fire dampers of minimum 90 minutes fire rated in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal and, in confirmation to IS and as per specifications complete etc. as required..				
9.1	Fire damper	7	12490.50	Sq.mtr	79485.00
9.2	Actuator	2	11709.50	Each	21290.00
			Total Rs.		2034226.00

Executive Engineer(E)

<u>ABSTRACT OF COST</u>					
NIT No: 25/EE(E)(Vijayawada)/E-tender/2026-27					
Name of the Work: Construction of Office Building (Basement + G + 5 storied) for GST Commissionerate at Tirupati, Andhra Pradesh. SH: Providing Mechanical ventilation at Basement Area.					
S.No	Name of Component	Estimated Cost	Percentage above or below the estimated cost	% in Figures	Total Cost
1	As per Schedule of Quantities	Rs.20,34,226/-			
	GRAND TOTAL	Rs.20,34,226/-			
Important Note: 1. The tenderer is to quote a single consolidated percentage only at par/above/below estimated cost to cover all the rates of all the items under the schedule of composite tender. This column should not be left blank, otherwise the tender shall be treated as INVALID. 2. If the percentage quoted is not clear, or if the rate is not quoted in percentage, the tender shall be treated as invalid and will not be entertained as lowest tenderer.					

Contractor

Executive Engineer (E)(Vijayawada)