



## CENTRAL UNIVERSITY OF SOUTH BIHAR

SH-7, Gaya- Panchanpur Road, Village- Karhara, Post- Fatehpur,  
P.S- Tekari, District- Gaya (Bihar) PIN- 824 236

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### Tender Document

The Central University of South Bihar invites e-tenders for the Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar. The detailed tender document is available on the University website [www.cusb.ac.in](http://www.cusb.ac.in) and <https://mhrd.euniwizarde.com>. The last date and time of submission of tender document is **19/02/2020 by 4:00 PM** through online only on **<https://mhrd.euniwizarde.com>** and hard copy send to the below mentioned address by registered post / speed post/ in drop box (Tender Box).

To,  
The Registrar  
(Tender Document)  
Central University of South Bihar  
SH-7, Gaya- Panchanpur Road,  
Village- Karhara, Post- Fatehpur  
P.S- Tekari, District- Gaya (Bihar), PIN- 824 236  
Email- [registrar@cub.ac.in](mailto:registrar@cub.ac.in)  
Website- [www.cusb.ac.in](http://www.cusb.ac.in)  
Contact – 0631-2229519

Tender document and other details can be obtained from <https://mhrd.euniwizarde.com> and [www.cusb.ac.in](http://www.cusb.ac.in) CPP Portal web site: [www.eprocure.gov.in/epublish/app/epublish/app](http://www.eprocure.gov.in/epublish/app/epublish/app)

Registration with M/s ITI Ltd: - Intending bidders are requested to register themselves with M/s ITI Ltd (if not registered earlier) through <https://mhrd.euniwizarde.com> for obtaining user-id, by paying a registration fee (As given in the e-portal), and online tender processing fee etc. Bidders are also required to obtain Digital Signature for participating in the e-tender. E-Tender Processing Fee (As given in the e-portal), pay to "ITI LTD. Through e-payment gateway.

For participating in the e-Tendering process of Central University of South Bihar the contractor shall have to get them registered on the site <https://mhrd.euniwizarde.com> by making required payment through only online payment mode so that they will get user ID and Password. This will enable them to access the website, <https://mhrd.euniwizarde.com> with the help of Digital Signature by which they can participate in e-Tender of Central University of South Bihar GAYA. For this intending bidder may contact following e-Wizard Helpdesk numbers.

1. E-Wizard Helpdesk  
1st floor, M-23, Road No. - 25,  
Near SBI Sri Krishna Nagar, Patna-800001.  
Phone No.: 0612-2520545 or 8448288984, 8448288985, 8448288986
2. E-Wizard Helpdesk  
A-41 Himalaya House 23, K G Marg New Delhi -110001, Phone No. 011-49606060



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Name of Work: - Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16Mtr. High Lighting Mast with Luminaries at Central University of South Bihar.

Notice Inviting Tender	
Central University of South Bihar, Gaya invites e-Tender for <b>Construction of 30.5 Mtr. (100 feet) High National Flag Mast &amp; 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar</b> from Contractors of CPWD, MES, Indian Railways, BRO, State PWD or Public sector undertakings set up by the central or state government or in reputed private firm.	
<b>NIT No:</b>	<b>CUSB/PSD/ADMIN/T/19/2019-20, Dated 29/01/2020</b>
<b>EMD Amount :</b>	Rs. 55,000/-
<b>Tender Fee</b>	Rs. 500/-
<b>Period of Contract:</b>	90 days
<b>Pre-bid meeting</b>	05/02/2020 till 11:00 AM
<b>Start of bid submission date and time</b>	27/01/2020
<b>Last date of submission of bid</b>	19/02/2020 till 4:00 PM
<b>Opening of technical bid</b>	20/02/2020 at 12:00 NOON
<b>Registrar</b>	

### Tender Eligibility:

#### Financial:

The firms should have an average annual financial turnover of at least of Rs. 50 Lakhs during the preceding last 3 (three) consecutive financial year from 2018-19.

#### Physical:

03 (three) similar works in Central Government / State Government/ PSU/ Central or State Universities/ CPWD/ MES/ Railways or reputed Private Firms costing not less than 12.0 Lakhs or 2 (two) similar works not less than 16 lakhs or 1 (one) similar works not less than 22 lakhs. "Similar work" is defined as High Mast / National Flag Mast with luminaries not less than 20 mtrs. in above mentioned departments.

#### Note:

- Successful bidder should not split / sublet any portion of work to other contractors/agencies prior to approval to the Principal Employer.
- No split of work is applicable. Single tender for all work (National Flag Mast and Lighting Mast) shall be considered for award of the work.



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### INSTRUCTIONS TO CONTRACTORS FOR SUBMISSION OF TENDER

#### TENDERER TO ENSURE THAT:-

1. Tender to be witnessed on CPWD of tender documents.
2. The contractor shall quote his rates keeping in mind the specifications, terms and conditions, additional / particular and special conditions etc. and nothing shall be payable extra whatsoever, unless otherwise specified.
3. The contractor whose tender is accepted shall also furnish performance guarantee of 10% of the tendered amount in addition to the other deposits mentioned elsewhere in the contract for proper performance of the agreement. The performance guarantee shall be in the shape of FDR or bank guarantee as per proforma given in General condition of contract.

#### Documents to be accompanied along with Technical Bid

1. Attested copy of Registration certificate or registered partnership deed of firm if firm is in partnership.
2. EMD of Rs. 55,000/- through DD favouring Central University of South Bihar, payable at Gaya.
3. Tender fee of Rs.500/- in form of DD, favouring Central University of South Bihar, payable at Gaya and e-Tender Processing Fee – Rs (As given in the e-portal ) pay to "ITI LTD. Through e-payment gateway
4. Self-attested list of present clients alongwith their contact numbers and the copies of evidence in respect of the works executed of similar nature.
5. Experience Certificates of satisfactorily completion of at least three similar nature work in last five years. However the contracts going to expired within next 6 months of the last date of submission of tender may be included in the list.
6. Enlistment Certificate/ Order of the CPWD/ Bihar PWD or similar Government Departments.
7. All pages of tender document duly signed & sealed by the tenderer on each page as a acceptance of tender clauses.
8. Blank **(Without Rate)** Copy of scheduled of quantity cum financial bid should be submitted along with technical bid. Filled in Financial Bid shall be submitted in separate envelope as indicated below.

#### FINANCIAL BID:

**Schedule of Quantity (SoQ) cum Financial Bid Proforma 'A' 'B' & 'C' should be submitted in sealed envelope mentioning clearly as "Financial Bid".**

Envelop -A	EMD, Tender Fee and Technical bid with all requisite certified documents and credentials.
Envelop-B	SOQ-cum-Financial Bid (Proforma - A, B & C)



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### **CHECK LIST FOR CONTRACTORS FOR SUBMISSION OF TENDERS:**

1. The contractor(s) should read all the specifications, items & conditions, contract clauses, nomenclature of the items, specifications etc., contained in the bid document very carefully, before quoting the rates.
2. The contractor(s) should also read the General conditions of Contract for CPWD works 2014 & GFR-2017, which will be a part of the agreement with amendments upto the date of receipt of tenders including the special conditions and particular specifications etc.
3. Rates must be filled in words and figures. Amount should be worked out for all items.
4. The contractor(s) shall quote the rates keeping in mind the specifications, terms & conditions, additional and special conditions etc., and nothing extra shall be payable unless otherwise specified.
5. The Contractor(s) shall have to make his own arrangement for housing facilities for staff at his own cost. No labour huts will be allowed to be constructed in University campus. Any decision in this regard shall rest the Registrar, Central University of South Bihar.
6. The contractor(s) shall quote his rebate if required, mentioning specifically on what component it is applicable otherwise it shall be considered general rebate on total quoted rates.
7. The contractor(s) shall make arrangement for disposal of dismantle materials which are environmental friendly.



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**Tenders are invited from reputed contractor for issue of tender documents for the work of Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar, Gaya.**

1. To become eligible for issue of tender, the tenderer shall have to furnish an affidavit as under:-
  - i) "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 Central University of South Bihar, Gaya in future forever. Also, if such a violation comes to the notice of Department before date of work, the Principal Employer shall be free to forfeit the entire amount of Earnest Money Deposit /Performance Guarantee."
2. Agreement shall be drawn with the successful Tenderer on prescribed Form CPWD-7, which is available as a Govt. of India Publication (Edition 2014 with up to date correction slips issued up to the last date of issue of tender). Tenderer 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 90 (**Ninety days**) from the date of issuing of LOA/Agreement or from the first date of handing over the site, whichever is later, in accordance with the phasing , if any , indicated in the tender documents.
4. The site for the work is available in full.
5. Bid documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents can be seen in the office of the Registrar, Central University of South Bihar in office hours except on Saturday/ Sundays and Public Holidays. Bid documents, excluding standard form, will be issued from this office, during the office hours specified above, on payment of Rs. 500/- in cash/demand draft in favour of Central University of South Bihar as cost of bid payable at Gaya. The tender form can also be downloaded from the University website [www.cusb.ac.in](http://www.cusb.ac.in) (payment for download tender to be made through Demand Draft in favour of Central University of South Bihar payable at Gaya alongwith tender document at the time of submission of bid.)
6.
  - (i) Bid shall be accompanied with Earnest money of Rs. 55,000/- in demand draft of a scheduled bank issued in favour of Central University of South Bihar payable at Gaya.
  - (ii) Application supported by prescribed annexure, Earnest money, Copy of Enlistment Order, tender cost (if downloaded from the website) and tender shall be placed in separate sealed envelopes clearly written on each as "**Technical Bid/ Earnest Money**" and "**Financial Bid/Tender**" respectively with name of work written on each envelop.

Both envelopes shall be submitted together in another main sealed envelope with name of work written on cover. The bids will be received **up to 04.00 PM on 19/02/2019** at Central University of South Bihar. The Technical bid shall be opened first by the authorized representative of the Central University of South Bihar. The Financial Bid shall be opened only for those bidders who are found to be technically qualified.



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(iii) The description of the work is as follows:

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 bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Electricity will be provided by the University free of cost. 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.

(iv) The University does not bind itself to accept the lowest or any other tender 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 tenderer shall be summarily rejected.

(v) Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

(vi) The University reserves the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

(vii) The tender for the works shall remain open for acceptance for a period of thirty (30) days from the date of opening of the financial bid. If any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the University, then the University 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 re-tendering process of the work.

(viii) The bid document shall form a part of the contract document. The successful tenderer/ contractor, on acceptance of his bid by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

(ix) The bid documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of bid and acceptance thereof together with any correspondence leading thereto.

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Registrar  
Central University of South Bihar, Gaya



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### **Central University of South Bihar**

#### **Item Rate Tender & Contract for Works**

**Tender for the work of: Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar.**

- (i) To be submitted by 04:00 PM on 19/02/2020 at Central University of South Bihar.
- (ii) To be opened in presence of tenderers who may be present at 12.00 NOON on 20/02/2020 by the authorized representative of Central University of South Bihar, Gaya.





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### **UNDERTAKING BY THE TENDER**

I/We have read and examined the notice inviting tender, schedule A, 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 condition of contract and all other contents in the tender document for the work.

A sum of Rs. 55,000/- is hereby forwarded in demand draft in favour of Central University of South Bihar as earnest money. If I/We fail to furnish the prescribed performance guarantee of tender form within prescribed period. I/We agree that the University, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that University shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in clause 1.4 of additional specification.

Further I/We agree that in case of forfeiture of earnest money or both earnest money and 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 Central University of South Bihar in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Principal Employer shall be free to forfeit the entire amount of Earnest Money Deposit/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





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I/we am/are authorized to communicate the same or use the information in any manner  
prejudicial to the safety of the state.

Dated \_\_\_\_\_

Signature of Contractor

Postal Address\* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Telephone No.\* \_\_\_\_\_

Fax \_\_\_\_\_

E-Mail \_\_\_\_\_

Witness\*\*:\_ \_\_\_\_\_

Address\*\*:\_ \_\_\_\_\_

\_\_\_\_\_

Occupation\*\*:\_ \_\_\_\_\_

(\*) To be filled in by the Contractor.

(\*\*) To be filled in by the Witness.



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To,  
**The Registrar**  
Central University of South Bihar.  
Gaya.

Sub: Submission of Tender for the work of **“Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar.”**

I/We acknowledge that University is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by University. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, University shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)



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## SCHEDULE "A"

Reference to General Condition of the Contract CPWD 2014/ GFR – 2017 or latest amendments.

Name of Work : **Construction of 30.5 Mtr. (100 feet) High Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar.**

Performance Guarantee: : 10% of Contract Value

Officer Inviting Tender	Registrar, Central University of South Bihar, Gaya.
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### Definitions:

(i) Competent Authority of Principal Employer	Registrar, Central University of South Bihar, Gaya
(ii) Accepting Authority	Registrar, Central University of South Bihar, Gaya
(iii) Department	Central University of South Bihar, Gaya
(iv) Standard contract Form	As per standard contract form & additional terms condition as per requirements.
Time allowed for submission of performance i) guarantee from the date of issue of Letter acceptance.	<b>10 days</b>
ii) Maximum allowable extension beyond the period provided in (i) above.	<b>5 days</b>
<b>Clause 2</b>	
Authority for fixing compensation under clause 2.	<b>Registrar, Central University of South Bihar, Gaya.</b>
<b>Clause 2 (A).</b> Whether clause 2 (A) shall applicable	<b>No</b>
<b>Clause 5</b>	
Number of Days from the Date of issue of letter of acceptance for reckoning date of start.	<b>7 days</b>
<b>Time allowed for execution of work</b>	<b>Ninety days</b>



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<b>(i) Extension of time</b>	<b>Registrar, Central University of South Bihar, Gaya,</b>
<b>(ii) Rescheduling of mile stones</b>	<b>Registrar, Central University of South Bihar, Gaya,</b>
Specifications to be followed for execution of work	<b>CPWD specification 2009 Vol.-I to II with up to date correction slips issued, relevant IS codes or as directed by University authority.</b>

### **Dispute Redressal Committee:**

Constitution of Dispute Redressal committee (DRC): DRC shall constitute One Chairman and two members.

Competent Authority to Appoint DRC: Hon. Vice Chancellor, Central University of South Bihar, Gaya. All deviations / DRC / Contractual Terms deal with CPWD works manual & GFR updated version.



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### AFFIDAVIT

I/ We have submitted a bank guarantee for the work: **Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar, Gaya**

Agreement No. \_\_\_\_\_

date \_\_\_\_\_ from \_\_\_\_\_

(Name of the Bank with full address)

to the Registrar, Central University of South Bihar, Gaya with a view to seek exemption from payment of security deposit/performance guarantee in cash. This bank guarantee expires on \_\_\_\_\_. I/We undertake to keep the validity of

the bank guarantee intact by getting it extended from time to time at my/our initiative upto a period of \_\_\_\_\_ months after the recorded date of completion of the work or as directed by the University.

I/We also indemnify the Government against any losses arising out of non-encashment of the bank guarantee, if any.

Note: The affidavit is to be given by the executants before a first class Magistrate.

Dated :

(Signature of the contractor)



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### **ADDITIONAL CONDITIONS**

1. Electricity will be provided free of cost by the University.
2. Some restrictions may be imposed by the security staff etc. on the working and for movement for labour materials etc. The contractor shall be bound to follow all such restrictions / instructions and nothing extra shall be payable on this account.
3. The work will be carried out in the manner complying in all respects with the requirements of relevant bye laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Principal Employer and nothing extra will be paid on this account.
4. The contractor shall give a performance test of the entire installation (s) as per standing specification before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
5. Samples of various materials required for testing shall be provided free of charges by the contractor. Testing charges, if any, unless otherwise provided shall be borne by the department. All other expenditure required to be incurred for taking the samples, conveyance, packing etc. shall be borne by the contractor himself.
6. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.
7. For the purpose of recording measurements and preparing running account bills, the abbreviated nomenclature indicated in the publications abbreviated nomenclature of item of DSR 1981 (bilingual) shall be accepted. The abbreviated nomenclature shall be taken to cover all the materials and operations as per the complete nomenclature of the relevant items in the agreement and other relevant specifications.
8. In the case of items of which abbreviated nomenclature is not available in the above cited publication and also in case of extra and substituted items of works for which abbreviated nomenclature is not provided in the agreement, the full nomenclature of items shall be reproduced in the measurements books and bill forms for running account bill. The full nomenclature of the items shall be adopted in preparing abstract of final bill in the measurement book and also in the bill form for final bill.
9. The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Principal Employer. Nothing extra shall be paid on this account.



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10. No payment will be made to the contractor for damage caused by rains, or other natural calamities during the execution of the works and no such claim on this account will be entertained.
11. Wherever work is specified to be done or material procured through specialized agencies, their names shall be got approved well in advance from Principal Employer of the primary employer. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work, contractor should negotiate with concerned specialist agencies and send their names for approval to Principal Employer. Any material procured without prior approval of Principal Employer in writing is liable to be rejected. Principal Employer reserves right to get the materials tested in laboratories of his choice before final acceptance. Non-standard materials shall not be accepted.
12. The contractor shall maintain the time bound progress for the execution of work and get it approved by the Principal Employer. The contractor shall take instruction from the Principal Employer for stacking of materials at any place. No excavated earth or building material shall be stacked on areas where other buildings, roads, services or compound walls are to be constructed.
13. The contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case, he or his authorized representative is not present or does not associate himself, the results or such tests and consequences thereon shall be binding on the contractor.
14. The contractor shall get the water tested with regard to its suitability of use in the works and get written approval from the Principal Employer before he proceeds with the use of same of execution of works. If the tube well water is not suitable, the contractor shall arrange Municipal water or from any other sources at his own cost and nothing extra shall be paid to the contractor on this account. The water shall be got tested at frequency specified in latest CPWD specifications/BIS code.
15. In case of non-availability of material of the brands specified in the list of approved materials an equivalent brand may be used after getting written approval of T/S Authority giving details to indicate that the brand proposed to be used is equivalent to the brands mentioned in the agreement.
16. Getting permission/ approval from concerned authority regarding aviation's/ environmental clearance if applicable.





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## List of approved material

(Subject to satisfying the parameters specified in CPWD specification and ISI Code)

S.No	Material	Brand/Manufacturer
1	Glazed/ Ceramic Tiles	Kajaria/Somany/Johnson/Nitco/Orient
2	Paints & Distemper	Dulux /Berger/Asian Paints/Nerolac
3	G.I. Pipes	Jindal / Prakash / Tata
4	Cement	ACC, Ambuja, Birla, Vikram, J.K. J.P. Rewa, Ultratech
5	White Cement	Birla, J.K.
6	Aluminium Section	Hindalco, Jindal, Powder Coating as per approval of Principal Employer
7	Centrifugally cast spun iron S&S pipes fittings	NECO / SRIF, RIF
8	Factory Made Precast Kerb Stone/ Paver Block	KK Manhole, Nitco, UNISTONE
9	Water Proofing Compound	Cico, Fosroc, Pidilite, Impermo,
10	PPR pipes & fittings	Prince, fusion, Amitex, Victors
11	Wire gauged /glazed	Factory made from approved factory as approved by the Principal Employer
12	PTMT Fittings	Prayag, Polytuff
13	Reinforcement	Fe500 grade, Tata, Jindal, Shyam, SRMB etc. equivalent.
14	Stainless Steel	SS 304 (Jindal)
15	Luminaries	Bajaj / Crompton / Philips / Havells
16	Cable/Wire	Havells/ Finolex/ KEI/ RR Kabel/ Polycab
17	Socket	Schneider/ ABB/ Legrand/ Havells
18	Lightening Arrestor	ABB/ Altech/ JMV
19	Earthing(Chemical Earthing) Plate Earthing	JMV/ As per CPWD Norms
20	Octagonal Pole	Bajaj/ Crompton/ Philips
21	HDPE underground cable duct	Rex Polyextrusion/ Tripura/ Plasomatics/ Duraline
22	LT Panel/ M.V Cubicles Boards	L&T/ Siemens/ Scheneider
23	MCCB/MCB	Siemens/ ABB/ Schneider/ L&T
24	Steel Conduit/PVC Conduit	BEC/ AKG/ Precision/ Atul



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## **ADDITIONAL SPECIFICATIONS**

### **1.0 GENERAL**

- 1.1 The work in general shall be executed as per the description of the item, specification attached, CPWD specifications 2009 Vol-I & II with upto date correction slips.
- 1.2 In case of any variation between different applicable specifications, the following order of precedence will be followed:
  - I. Nomenclature of item
  - II. Additional condition, Additional specification and Particular specifications attached with the tender document.
  - III. CPWD Specifications 2009 Vol-I to II
  - IV. Decision of Principal Employer.
- 1.3 The work shall be executed and measured as per metric units given in the schedule of quantities, drawings etc. (F.P.S. units wherever indicated are for guidance only).
- 1.4 Contract Value may increase or decrease upto 10% of the awarded value and individual items may increase or decrease upto 25% which shall be instructed by the University after submission of soft drawing by the tenderer.
- 1.5 Any items which is not included in SOQ & required for the completeness of work it may be executed prior approval to the Principal Employer.
- 1.6 Nothing extra shall be paid by the University beyond above variation.

### **SPECIAL CONDITIONS**

1. The Agency shall have to engage manpower who has sufficient experience.
2. The work shall be executed strictly accordingly to instruction of the Principal Employer and conditions of the contract.
3. The contractor shall deploy required number of Mason, Carpenter, Plumber and Sewer man, who will be present throughout the day. The attendance register will be signed JE / AE and representative of contractor on daily basis.
4. The contractor shall be responsible their good character; all damage done to the existing structure by the workers shall be made good by the contractor at his risk and cost. If the contractor fails to make good the damage then same shall be made good at risk and cost of the contractor by the Principal Employer.
5. All operations are be carried daily for the seven days of the week, if required (normal duty will be all working days except Sundays and Holidays).
6. Normal working hours shall be as per Central University of South Bihar, Gaya (Minimum 8 hour excluding lunch time).
7. Under no conditions shall the contractor sublet or appoint any agency. If it found at any stage the contract shall be rescinded after giving a notice of 48 hours and the work for the remaining period shall be got executed from other agency at risk and cost of the contractor.
8. The contractor if required shall be at his own cost take necessary insurance cover in respect of staff and other person to be in service to render to Central University of South Bihar, Gaya. He shall comply with all relevant labour laws as applicable to the existing or modified during the contract period. The staff employed will be on the



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- contractor roll. Complete liabilities will be on part of the contractor for their discipline and normal activities.
9. Any hindrance caused to the above operations will be cleared by the contractor at his own cost.
  10. All sort of sites, materials and personal insurance to be borne by the successful bidder.
  11. Successful bidder should deploy at least one Principal Employer having sufficient experience/ knowledge for this work and following University Authority decision time to time.
  12. Successful bidder shall obey all types of safety rules for his workers and other people.
  13. Principal Employer if noticed any discrepancy in use of man material then successful bidder shall be liable for that.
  14. The contractor will issue identity card to the workers as approved by Principal Employer.
  15. The contractor will issue uniform to all the workers as approved by Principal Employer and nothing extra shall be paid on this account.
  16. Any damage done by the contractor to any existing work during the course of execution of the work tendered for shall be made good by him at his own cost.
  17. The contractor shall maintain in good condition all works during the execution till completion of entire work allotted to him.
  18. The contractor shall take all precautions to avoid all accidents by exhibiting necessary precaution banners day night.
  19. The contractor shall clear the site thoroughly of rubbish scaffolding materials etc. before the completion of the work.
  20. Tendered rates are inclusive of all taxes and levies payable under the respective statutes.
  21. Rates quoted by the tenderer to be inclusive of the GST/Turnover tax as leviable by the State Governments on the transfer of property in goods involved in the execution of works contract and nothing extra will be payable on that account.
  22. **Payment Terms:**
    - a) 20% after completion of foundation works.
    - b) 40% after supply of all materials at site.
    - c) Balance 40% after successful supply, installation, testing and commissioning of the works.
  23. **Guarantee:**

The rates quoted by tenderer shall be inclusive of 18 months guarantee and cover maintenance and replacement of defective all items and parts of the high mast flag system. It also include replacement of National Flag as and when required excluding cost of flag, in guarantee period if any defect found then shall be replaced or rectified by the tenderer at this own cost to the satisfaction of the University Officer In-charge within one week after the date of notice, otherwise recovery as decided by Principal Employer shall be made from the security deposit amount.
  24. **Performance Bank Guarantee:**

10% of awarded value at the time of award of work in form of Demand Draft/ Fixed Deposit Receipt for 18 months plus 60 days from completion of work.
  25. **Liquidity damage clause:** 0.5% of awarded value per week and maximum 10% of awarded value.



## **TECHNICAL SPECIFICATIONS FOR FLAG MAST**

1. **SCOPE** : The scope of this specification covers the design, manufacture, transport, installation, testing and commissioning of the complete Flag system, using Raising and Lowering type of Flag mast towers, including the civil foundation works. The Central University of South Bihar, Gaya will only provide the feeder cable of required size upto the base compartment of the high mast.
2. **APPLICABLE STANDARDS:**  
The applicable codes followed for high mast designs are as follows:
  1. TR. No. - 7 : High Masts for Lighting and CCTV (2000 edition) of ILE, UK
  2. IS 875 Part – 3 : Wind Loading
  3. BS EN 10025:1993 : High Tensile Steel Sheets
  4. BS EN ISO 1461 : Galvanization
  5. SABS 0225:1991 : High Mast natural frequency calculation
  6. IS 2062 Mild Steel
  7. IS 3459 /2256 : Stainless Steel Wire Rope
  8. IS 325 : Motor

### **FLAG MAST:**

#### **A. POLE:**

##### **1. Structure details:**

The Flag Mast shall be continuously tapered, polygonal cross sections (twenty sided) with the pulley box arrangement at the top. The structure gives good visual appearance and is based on proven design confirming to TR-7, to give assured performance, reliability and service.

The Masts are constructed from steel conforming to IS 2062 or BSEN 10025 and cut and folded to form twenty sided section and is telescopically jointed and fillet welded. Mast section delivered to site shall not have any intermediate joint.

The Mast is provided with full-penetrated flange, which is free from any lamination or

incursion. The welded connection of the base flange is fully developed to the strength of the entire section. The base flange is provided with supplementary gussets between the bolts to ensure elimination of helical stress concentration. For metal protection of the Mast, the entire fabricated Mast is hot dip galvanized internally and externally in single dip. The external surface of the mast is also applied with suitable Poly Urethane paint. A vandal resistant, weather proof, lockable door of suitable size is provided at the base of high mast to access comfortably the components at the base compartment for normal operation & for maintenance.

##### **2. Dynamic Loading of Mast:**

The mast structure shall be suitable to sustain an assumed maximum reaction arising from a wind speed as per IS 875 (3 second gust), and are measured at a height of 10 metres above ground level. The designed life of the mast should be 25 years.



**B. Raising and lowering mechanism:**

**1. Winch:**

The winch shall be high speed completely self sustaining without the need for brake shoe, springs or clutches. There is a permanent oil bath for self-lubrication. The drums are to be properly grooved to provide a perfect seat for wire ropes. The raising time of the flag shall not be more than 3 minutes. The winch is normally be operated by an electrical power tool however there should be provision for manual operation also by means of manual handle. The winches are type tested through reputed institutions like IIT as consultants and the type test reports are submitted along with offer. A test certificate is to be submitted along with supplies.

**2. Head Frame:**

The hot dip galvanized head frame is to be designed as a capping unit of the mast is of welded steel construction and provided with guides and separators between the ropes and cable. The LM6 Aluminum pulleys with bush bearing mounted through stainless steel shaft shall be suitable to accommodate wire ropes and multi core trailing cable. The head frame is provided with guides and stops with PVC buffer for the docking of luminaires carriage. The pulley assembly is covered by a hot dip galvanized canopy.

**3. Stainless Steel Wire Ropes:**

The stainless steel wire ropes are generally be of 6 mm dia, 7/19 construction with central core being stainless steel only. The grade of wire ropes are in accordance to AISI 316. The breaking load of each rope is not less than 2350 Kg giving a factor of safety of more than 5 for the system at full load as per the Technical Report No -7. The end construction of rope for the winch drum is fitted with copper talurit and for two continuous ropes, the end termination in luminaires carriage 3 are with stainless steel thimble and copper splicing and for others with stainless steel thimble and bull dog grips.

**4. Power Tool for Winch:**

Three phase, single speed, 6 pole high-powered motor of suitable rating are provided at the base of mast to facilitate raising & lowering operation of luminaires carriage. The motors are to be coupled with the winch shaft through chain & sprocket. A mechanical torque limiter is to be mounted on motor shaft to stop transmission of motion from motor to winch in case of excess load and thus prevent the damage to winch and breakage of rope.



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### **C. Other Accessories:**

#### **1. Lightening Finial**

One number of FRP ornamental finial (DOME) shall be provided for each FLAG mast on the head arrangement is to be provided.

#### **2. Aviation Obstruction Lights:**

LED aviation lights are mounted on the lantern carriage to comply to the aviation norms where applicable. The connection for these aviation obstruction lights shall be made using 3C X 2.5 sq mm copper un armored cables.

#### **3. Earthing Terminals:**

Earth terminal using 12 mm diameter hot dip galvanized bolts are provided on the door stiffener of the mast for lightning and electrical earthing of the mast.

#### **4. Feeder Pillar / Control Box**

Each Mast shall be provided with a panel box , housing 32A TPN MCB incomer along with 2 no. 9A contactors & switches for forward/ reverse operation of motor & to provide supply to the poles The box is constructed of 14 SWG CRCA sheet finished with two Coates of red oxide primer & grey enamel paint of shade 631 of IS 5.

### **D. POLES WITH FLOOD LIGHT FITTINGS:**

Two numbers of 6M or 7M Octagonal poles with flood light fittings shall be provided to illuminate the national flag.

### **E. HARDWARES:**

Hardwares play a very important role on the overall performance of high flag mast systems. Hardware materials are to be chosen carefully so that there is no compromise on safety or risk to the human lives. Appropriate grade & size of materials are absolutely necessary to ensure full safety. Single & double grooves clamps & W.G clamps are mandatory to ensure the proper operation of raising & lowering systems.

### **F : ELECTRICAL SYSTEM, CABLE AND CABLE CONNECTIONS:**

The power cable from base compartment to junction box at the top shall be 1.1 KV grade PVC insulated, PVC sheathed copper conductor of size minimum 3 core X1.5 sqmm wiring from junction box to aviation light is to be done using 3 core 1.5 sqmm PVC insulated, PVC sheathed, copper conductor flexible cable.



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### **G: Incoming Power Cable :**

The power cable of suitable size (approx. 5 C X 16 sqmm AE armored XLPE cable with HDPE pipe- approx.. 100 mtr upto the feeder pillar from supply point.

### **H: Luminaries :**

The flood light luminaries (BJEF 215) power coated die cast aluminum housing with frame, heat resistant clear toughened glass fixed to the frame with silicon gasket with electrochemically brightened, polished and anodized aluminum reflector with cast aluminum control gear box copper ballast 400 W MH T Lamp (IP-66). The warranty of Lamp should be minimum 3 years.

This flood light shall be installed on suitable pole on plinth with supply & laying of 3Cx2.5 sqmm copper cable for the individual wiring of the luminaire.

### **J: PU Painting :**

Flag mast shall be finished with polyurethane (PU) paint over galvanized surface after application of primer coat.

### **K: Flag :**

The national Flag of the size 20 feet x 30 feet in 100% knitted polyester (140 gsm) as per relevant IS code, with reinforced super strong nylon webbing on all 3 sides & rope / toggle sleeve.

### **L : High Mast system :**

Make : Bajaj/Philips/KESELEC SCHREDER of approved make

Height of Mast : 30.5 Mtr.

No. of sections : Three

Material construction : BS- EN10025 S 355 grade as per

Base dia. And top diameter (A/F) : Top: 150 mm, Bottom- 540 mm,

Plate thickness: –Top- 3mm, Middle-4mm, Bottom- 4mm

Cross section of Mast standard : 20 side polygon for of galvanization size of

Opening and door at base : As per BS EN ISO 1461(1400 X 250 mm)

Diameter of base plate : 730mm

Thickness of base plate : 30mm





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Max. Wind speed : As per IS: 875 (Part-III)  
Number of foundation bolts : 12 nos.  
Type/diameter/length of foundation bolts : 650mm  
: TS 600/30mm dia./850mm long  
Power cable for Aviation : Copper, 3 core, 2.5Sqmm Armored cable

### **Winch/Power tool**

Type/SWL of winch Method of operation : Double Drum, SWL 70 Kg  
(SGDD 30/6 PB) : Integral motor  
Motor capacity : 2HP  
No of speeds : 4 Pole single speed  
Torque limiter : With mechanical tripping facility

### **Wire rope for flag**

Grade/construction : Galvanized  
No of ropes : 100mm long X 1 Nos.  
Diameter (mm) : 6 mm

### **Wire rope for balance weights**

Grade/construction Number of ropes : Galvanized  
Diameter(mm) : 6mm  
Number of ropes : 100 mm long x 1 nos

### **Wire rope for balance weights**

Grade/ construction number of ropes : Galvanised , 32mm long x 3nos.  
Diameter(mm) : 6 mm  
Control panel : Custom built panel

**LED AOL** : Binay Make (Or) Equivalent



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### **TECHNICAL SPECIFICATIONS FOR 16 MTR HIGHMAST LIGHTING SYSTEMS**

#### **HIGHMAST TOWER**

Supply of 16 mtr High mast Tower of Polygonal Shape for Asymmetric loading of up to 12 luminaries for wind speed up to 180 km/hr. The mast shall be made from steel grade of BSEN 10025 and should be in two sections. Both the sections should be joined by telescopic slip joint. The mast should be supplied with components including head frame & pulley assembly, winch bracket, Lantern Carriage Ring for luminaries & C.G Box Mtg. Arms, Resting Bracket Guide Ring, Compensating Disc, Lightening arrestor, LED AOL, Wire Rope, Safety wire rope, D Suckle Clamps, nuts & bolts, internal cable, foundation accessories, winch assembly with two drums with SWL 750 kg & internal power tool of 2 hp with control panel.

#### **LIGHT FITTING**

All weather construction designed for simple cleaning and speedy servicing. High grade symmetrical reflector projects a highly efficient light beam. Wall, ceiling & surface mounting with wide ranges of adjustment offer versatile directionally for both down and up-lighting. Non corrosive, high pressure die cast aluminum housing with low copper content and black coated powder finish. Heat resistant powder coated mounting bracket with all external fixings in stainless steel. Heat resistant EPR/silicon rubber gasket bonded to the housing renders the luminaire dust proof and jet proof to IP-66

#### **TECHNICAL DATA SHEET FOR 16 MTR HIGH MAST**

Highmast	: 1 No
Light Fittings	: 12 Nos.

#### **HIGH MAST SYSTEM**

Height of Mast	: 16 Mtr
No of Sections	: Two
Material Construction	: S 355 grade as per BS-EN10025
Base dia. And top diameter(A/F)	: Top- 150 mm Bottom- 410 mm or more
Plate thickness & section Length	: Top-3mm, Length-5470/8375 mm Bottom- 4 mm, Length-10980/8375 mm
Cross section of Mast	: 20 side polygon.
Standard for of Galvanization	: As per BS EN ISO 1461
Size of opening and door at base	: 1200 X 250 mm
Diameter of base plate	: 570 mm or more
Thickness of base plate	: 25 mm
Lightning protection finial	: G.I Single Spike.
Max.wind speed	: As per IS:875(Part-iii)
Number of Foundation bolts	: 8 Nos
PCD of Foundation Bolts	: 490 mm
Type/diameter/Length of foundation bolts	: TS 600/ 30 mm dia/850 mm long



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### LUMINAIRES CARRIAGE

Material of construction	: 50 NB ERW Class B- M.S. Pipe
Construction	: 8 arm + 4 arm, welded 2 sections with different diameter.
Load carrying capacity	: As per the requirement

### TRAILING CABLE

Conductor	: Copper, 4 core, 4 sq mm
Insulation	: EPR insulated PVC Sheathed

### WINCH/POWER TOOL

Type/SWL of winch	: Double drum, SWL 750 <b>Kg</b>
Method of operation	: Integral Motor
Motor Capacity	: 2HP
No of Speeds	: 6 pole, Single speed

### STAINLESS STEEL WIRE ROPE

Grade/ Construction	: AISI 316, 7/19 Construction
Number of ropes	: Two continuous
Diameter (mm)	: 6 mm
Braking load capacity	: 2350 kg X 2



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### FORM – V See Rule 21(2)

#### FORM OF CERTIFICATE BY PRINCIPAL EMPLOYER

Certificate that I have engaged the applicant \_\_\_\_\_ as contractor in

my establishment. I undertake to be bound by all the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, in so far as the provisions are applicable to me in respect of the employment of contract labour by the applicant in my establishment.

**Name Of Work :- Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar”**

Registrar  
Central University of South Bihar, Gaya

Place;  
Date;



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**To be signed by the bidder and same signatory competent / authorized to sign  
the relevant contract on behalf of Central University of South Bihar, Gaya**

### **INTEGRITY AGREEMENT**

This Integrity Agreement is made at ..... on this .....day of .....20.....

#### **BETWEEN**

Central University of South Bihar, Gaya through Registrar, Central University of South Bihar, Gaya. (Hereinafter referred as the „Principal/Owner“, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

#### **AND**

.....  
(Name and Address of the Individual/firm/Company)  
through

.....  
(Details of duly authorized signatory)

Hereinafter referred to as the “Bidder/Contractor” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

#### **Preamble**

WHEREAS the Principal / Owner has floated the Tender (NIT No. **CUSB/PSD/ADMIN/T/..../2019-20, Dated ....../..../2019**) (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract for - **Construction of 30.5 Mtr. (100 feet) High National Flag Mast & 16 Mtr. High Lighting Mast with Luminaries at Central University of South Bihar, Gaya.** Hereinafter referred to the “Contract”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:



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### **Article 1: Commitment of the Principal/Owner**

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender , or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code(IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

### **Article 2: Commitment of the Bidder(s)/Contractor(s)**

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
  - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/ Owner"s employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.



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- b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
  - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:





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- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

### **Article 4: Previous Transgression**

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

### **Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors**

- 1) The Bidder(s) / Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.



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- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, alongwith the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

### **Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, CPWD.

### **Article 7- Other Provisions**

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head quarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

### **Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.



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IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....

(For and on behalf of Principal/Owner)

.....

(For and on behalf of Bidder/Contractor)

WITNESSES:

1. ....

(signature, name and address)

2. ....

(signature, name and address)

Place:

Dated :



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Proforma 'A'

## NATIONAL FLAG MAST

### SCHEDULE OF QUANTITY CUM FINANCIAL BID

(to be kept in envelope – 'B')

**Name of Work: - Construction of 30.5 Mtr. (100 feet) High National Flag Mast at Central University of South Bihar, Gaya.**

Sl. No.	Description of Work	Qty.	Unit	Basic Rate	GST @	Total Amount Including GST
01.	Supply & Erection of 30.5M (100ft) high mast in three sections, hot dip galvanized and suitable for wind velocity as per IS 875, and erection of the flag mast with the help of suitable equipment's and assembly of operating system. Supply and erection of system for raising, lowering of flag. It shall have such as head frame double drum winch, stain less steel wire of 6 mm dia rope and integral power tool for the raising and lowering of flag. Suitable control panel shall be provided for reversing operation of power tool motor etc.	1.00	Job			
02.	Material and labour for PU painting on flag mast shaft over a coating of each primer coat.	1	Job			
03.	Supply & Installation of Indian National Flag of size 20ft x 30ft in 100% knitted polyester with reinforced super strong nylon webbing on all three sides & rope /toggle sleeve complete as per relevant IS code.	2	One Fixed & one Kept for spare			
04.	Supply and Fixing of foundation bolts manufactured from special steel along with nuts, washers, anchor plates and templates (for 30.3 m) nm.					
05.	Supply of system & Aviation obstruction light with 3Cx2.5 sqmm copper cable for Connection to each fitting.	01	Job			
06.	Provision of GI pipe earthing for High mast with 2.5 M long 40mm dia GI pipe including connection to High mast earth terminal with 25 x 3 mm GI flats with all the materials including labour (02 Nos. per mast required). Quantity- 2 nos. Including one lighting arrester of suitable size on top most of 30.5 mtr & connected with earthing with copper	02	Job			



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	strips and required nos. of Earth Pits.					
07.	Construction of suitable foundation with M 20 grade concrete for the highmast considering the safe soil bearing capacity (SBC) at site as 10T/sqmtr at 2 metre depth with all materials and labour. (Soil Bearing Capacity report is enclosed at Annexure - I	1	Job			
08.	Supply and installation of nonintegral flood light luminaries type BJEF 21 S with one no. 400 WMHT lamp(IP-66) and its control gear box. Supply and installation of 6 mtrs high Octagonal Poles along with its accessories including fittings & fitted on suitable plinth, supplying & laying of 3C X 2.5 sqmm copper cable for the individual pole and wiring of luminaire etc. (Quantity- 2 nos.)	1	Job			
09.	One Main Feeder Panel (All Standard MCCB) for necessary foundation & incoming length of 5CX16 sqmm. Aluminum armored XLPE cable (approx.. 100 mtr) laying with undergone in HDPE / pipe)	1	Job			
10.	Providing & Laying flamed finish Granite stone flooring in required design and pattern around 5-6 mtr circle/hexagonal/octagonal as per shape periphery step down as per approved drawing & design with 18 mm thick stone cement mortar(1:4) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade in all complete and providing S.S railing (SS-304) as per required location and direction of Enginner-incharge.	1	Job L.S.			

**Total Amount without GST: Rs .....** (in word .....

**Total Amount with GST: Rs. ....** (in word .....

**Tenderers seal with signature**

**Date:**

**Place:**



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Proforma 'B'

## 16 MTR HIGH LIGHTING MAST

### SCHEDULE OF QUANTITY CUM FINANCIAL BID

(To be kept in envelope – 'B')

**Name of Work :- Construction 16 Mtr High Lighting Mast with Luminaries at Central University of South Bihar, Gaya**

S.N	DESCRIPTION OF EQUIPMENTS /ACTIVITIES	QTY	UNIT	BASIC RATE	GST @	AMOUNT
1	Supply of 16M high mast shaft in two sections suitable for 47 m/sec wind speed along with head frame, luminaires carriage suitable for 12 luminaires in symmetrical arrangement and other accessories manufactured in factory.	1	NO			
2	Supply of raising lowering system comprising double drum winch, 6mm diameter SS wire rope, trailing cable, connector, integral power tool motor, manual handle, junction box, lightning finial. (Wiring material from JB to individual luminaire & MCB in base compartment are not included and are a part of installation).	1	Set			
3	Supply of foundation bolts manufactured from special steel along with nuts, washers, anchor plate and common template.	1	set			
4	Supply of LED floodlight type BJFL 240W LED.(IP-66)	12	Nos			
5	Supply of LED type single dome aviation obstruction light.	1	Nos			
6	Supply of outdoor stand mounted feeder pillar with 32A TPN MCB incomer, single dial time switch, 25A TP contactor for the automatic switching of luminaries, power tool control with 2 no 9A contactors and raise lower push button, Incoming 35 sq. mm and outgoing 16 & 2.5 sq. mm terminals.	1	Nos			
7	Supply of 35 SQ MM X 3.5 CORE AL ARM CABLE	100	mtr			



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	ERECTION PART					
8	Construction of shallow foundation with M20 grade concrete for the highmast considering the safe soil bearing capacity at site as 10 T/sqmtr at 2 metre depth with all materials and labour.	1	Job			
9	Erection of the high mast with the help of suitable tools and plants, wiring of luminaires with all wiring materials like PVC insulated PVC sheathed flexible cable of suitable copper conductor cores of 1.5 sq. mm, lugs, MCB and all labour.	1	Job			
10	Provision of GI pipe earthing for High mast with 2.5 M long 40 mm dia GI Pipe including connection to High mast earth terminal with 25 x 3 mm GI flats with all materials and labour. (2nos per mast required) & one for LA	3	Nos			
11	Installation of the mast feeder pillar by grouting the stand in concrete.	1	Nos			
12	Laying & Termination of 35 sq mm X 3.5 mm Core Aluminum Armored Cable with all material	100	Mtr			

**Total Amount without GST: Rs .....** (in word .....)\

**Total Amount with GST: Rs. ....** (in word .....)

**Tenderers seal with signature**

**Date:**

**Place:**





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### Proforma - C (To be kept in envelope – 'B')

Tender No.....

Name of the Work.....

Name of the Bidder.....

<b>A</b>	<b>Total Amount with GST/Taxes of National Flag mast as in proforma-A</b>	<b>Rs.</b>
<b>B</b>	<b>Total Amount with GST/Taxes of National Flag mast as in proforma-B</b>	<b>Rs.</b>
<b>C</b>	<b>Total of above proforma-A &amp; proforma-B</b>	<b>Rs.</b>

Rupees in words:-

.....  
.....

#### Terms & Condition

Single Lowest Bidder shall be decided on the basis of total value of proforma-A (**30 Mtr National Flag Mast**) & proforma-B (**16 Mtr Lighting mast**) as mentioned in above table in Column-C.

No over-writing or white-fluid is permitted. Failing of which, tender shall not be considered.

**Tenderers seal with signature**

**Date:**

**Place:**



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Annexure I

(Annexure - I)

SMEC (India)  
Project No.4101

$C_c = 0.065$ ,  $e_o = 0.52$ ,  $SBC = 15.0 \text{ T/m}^2$

Depth of foundation (m)	Strip thickness below foundation (m)	$p_o$ (T/m <sup>2</sup> )	$\Delta p$ (T/m <sup>2</sup> )	Settlement for width of foundation (mm)	Remarks
1.2	Foundation size 1.0 m X 1.0 m (isolated)				
	1	2.99	10.54	28	(i) $p_o$ and $\Delta p$ at mid height of each strip
	1	4.75	2.70	8.3	
	1	6.51	1.07	2.8	(ii) for boundary wall
		Total settlements			37.1 < 50 mm
		Hence 15 t/m <sup>2</sup> safe bearing capacity is OK			
1.2	Foundation size 1.5 m X 1.5 m (isolated foundation)				
	1	2.99	12.8	30.9	For boundary wall
	1	4.75	5.4	14.1	
	1	6.51	2.25	5.5	
	1	8.27	1.22	2.5	
		Total settlement			53 = 50 mm (say)
		Hence for 50 mm permissible settlement			
		SBC = 15.0 T/m <sup>2</sup> .			
1.50	Foundation size 1.0 m X 1.0 m (isolated)				
	1	3.52	10.54	25.7	

02/12/2018



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	1	5.28	2.70	7.6	
	1	7.04	1.07	2.6	
		Total settlement 35.9 < 50 mm			
		Hence 15 T/m <sup>2</sup> SBC is OK			
1.50 m	Foundation size 1.5 m X 1.5 m (isolated)				
	1	3.52	12.8	28.5	
	1	5.28	5.4	13.0	
	1	7.04	2.25	5.1	
	1	8.80	1.22	2.4	
		Total settlement 49 > 50 mm			
		For 50 mm settlement SBC = 15.0 T/m <sup>2</sup>			
1.5 m	Foundation size = 2.0 X 2.0 m (isolated)				
	1	3.52	13.8	29.6	
	1	5.28	7.32	16.1	
	1	7.04	3.64	7.7	
	1	8.80	2.06	3.9	
				57.3 > 50 mm	
Corresponding to 50 mm settlement SBC = 13.0 T/m <sup>2</sup> .					
1.5 m	Foundation size = 2.5 m X 2.5 m (isolated)				
	1	3.52	14.4	30.2	
	1	5.28	9.09	18.6	
	1	7.04	5.04	10.0	
	1	8.80	3.0	5.4	

02/12/2019



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	1	10.56	1.95	3.1	
				67.3 > 50 mm	
For 50 mm permissible settlement safe bearing pressure = 11.0 T/m <sup>2</sup>					
1.5 m	Foundation size = 20 X 15 m (raft)				
	1	3.52	14.9	30.7	
	2	6.16	14.7	45.3	
	2	9.68	13.89	33.0	
	2	13.2	12.5	24.7	
	2	16.72	10.86	18.5	
	2	20.24	9.24	14.0	
	2	23.76	7.71	10.4	
	2	27.28	6.5	7.9	
		Total settlement		184.5	

Applying rigidity (0.8) and depth factor correction (0.98) net settlement =  
 $184.5 \times 0.8 \times 0.98 = 144.6$  i.e. 145 mm. The influence zone below  
foundation is more than that of an isolated foundation. Also the density of  
the sub soil strata increases due to increase in over burden pressure.  
Hence assuming some plastic trend in the strata the maximum settlement  
may be taken as 100 mm.

For 100 mm permissible settlement safe bearing capacity is  
recommended as 10.0 T/m<sup>2</sup> for raft foundation.

*PK Singh*  
02/12/2019



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SMEC (India)  
Project No.4101

The safe bearing pressure values computed above are shown in the following table :

Depth of the foundation (m)	Size of foundation (m)	Type of foundation (m)	Safe bearing pressure (T/m <sup>2</sup> )	Remarks
1.2	1 X 1	Isolated	15.0	For boundary wall
	1.5 X 1.5	Isolated	15.0	
1.5	1 X 1	Isolated	15.0	For building foundation
	1.5 X 1.5	Isolated	15.0	For building foundation
1.5	2.0 X 2.0	Isolated	13.0	For building foundation
1.5	2.5 X 2.5	Isolated	11.0	For building foundation
1.5	20 X 15	Raft	10.0	for 100 mm permissible settlement

Value for typical size of raft foundation assumed by us.

## 11.0 Conclusions And Recommendations

1. Investigations in fifteen nos of bore holes up to 25.0 m depth below natural ground surface were carried out at the proposed site of Central University of Bihar, Panchanpur, Gaya (Bihar).
2. The sub soil strata at the site is homogeneous and cohesive in nature. The whole 25.0 m deep strata comprises of silty clay of medium (CI) to high plasticity (CH) .Boring on account of hard

21/12/2019



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SMEC (India)  
Project No.4101

- strata could not be possible using auger or some other handy instrument. The same was therefore carried out by drilling machine.
3. Ground water table was not met up to the depth of investigation in the month of May 2014. However from the local enquiry at village this came into our knowledge that the ground water table is at 30.0 m to 35.0 m depth below NGL.
  4. As indicated by standard penetration test results the strata up to 25.0 m depth is hard.
  5. For bearing capacity computation a foundation size of 1 m X 1m 1.5 m X 1.5 m, 2.0 m X 2.0 and 2.5 m X 2.5 m isolated foundation at 1.2 m and 1.5 m depth below natural ground surface have been adopted. Calculations for 20 X 15 m size raft foundation at 1.5 m depth have also been carried out.
  6. IS : 1904-1986 specifies a permissible settlement for raft on sand and hard clay as 75 mm and 50 mm for isolated column foundation. Corresponding to these permissible settlement values safe bearing pressure values for different size of isolated column foundation and raft foundation are recommended for design of foundation

*AK Singh*  
02/12/2015





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SMEC (India)  
Project No.4101

Depth of the foundation (m)	Size of foundation (m)	Type of foundation (m)	Safe bearing pressure (T/m <sup>2</sup> )	Remarks
1.2	1 X 1	Isolated	15.0	For boundary wall
	1.5 X 1.5	Isolated	15.0	
1.5	1 X 1	Isolated	15.0	For building foundation
	1.5 X 1.5	Isolated	15.0	For building foundation
1.5	2.0 X 2.0	Isolated	13.0	For building foundation
1.5	2.5 X 2.5	Isolated	11.0	For building foundation
1.5	20 X 15	Raft	10.0	

Values for a typical raft foundation for dimensions assumed by us corresponding to 100 mm permissible settlement of the foundation.

- As the strata below foundation is clay (Cl / CH) the presence of water entering below foundation may cause swelling properties which will be harmful for the structure. Therefore the strata around foundation should be properly protected from ingress of water.
- If during construction any unusual or abnormal features are noticed the same may be brought to the attention of geo-technical consultant for the advice.

Er. J.P.Shukla  
Asstt. Research Officer (Soils) retd.  
Irrigation Research Institute  
Roorkee

(Anshul Jain)  
For Shree Mahaveer Engineering Consultants