Project
Engineering
Management

## **Bharat Heavy Electricals Limited**



Date: 02.09.2023

(A Govt. Of India Undertaking)

Ref: Enq. No. PE-LPE/617 dtd. 25/08/2023

### **CORRIGENDA / ADDENDUM-01**

SUBJECT: Architectural and Engineering consultancy services in Karkhiyaon, Varanasi.

Ref: Enq. No. PE-LPE/617 dtd. 25/08/2023

Dear Ma'am/Sir,

With reference to subject tender enquiry please note following:-

- a) The resolution releated to pre bid queries is being attached as Annexure-A along with this corrigendum.
- b) The due date of bid submission is extended to 11.09.2023, 11:00 Hours. Part1 opening will be done on same day at 14:00 Hours

All other terms and conditions shall remain same as per RFP.

Thanking You,

With Regards,

For & on behalf of BHEL

Akash Verma

[Dy. Mgr./ CMM]

### Annexure-A

	Pre Bid Meeting Queries							
S.NO.	Page No.	Section No.	Clause No.	Subject	Suggestion / Query	BHEL REPLY		
1	Tender Details		Details	Details available at https://eprocurebhel.co.in/nicgep/app it is noted that the EMD Exemption is allowed	telephonic enquiry that the firms registered	·		
2	Page No. 48 of Tendernotice_7	Annexure – B (Pre – Qualification Requirements)	Evaluation -	Financial Turnover during the last Three	Sheet for the Financial Year 2022 - 23 may please be considered for Evaluation of			
3	Page No. 52 of Tendernotice_7		(ii)	Financial Accounts for last three year (i.e.	Sheet for the Financial Year 2022 – 23 may please be considered for Evaluation of Financial Criteria pertaining to Average Annual			
4	Page No. 25 of Tendernotice_7	Annexure – 1 (Checklist)	S.N. 13	Annexure C6	Not available with the tender document	Annxure C6 is typographical error. Same may be read as C5		

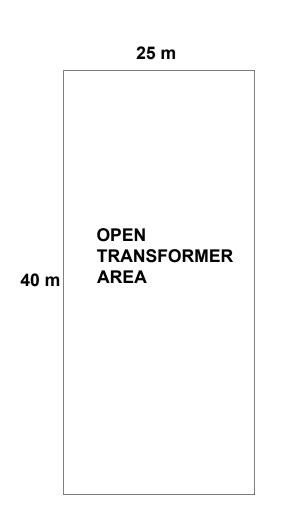
	Pre Bid Meeting Queries								
S.NO.	Page No.	Section No.	Clause No.	Subject	Suggestion / Query	BHEL REPLY			
5	45	Annexure – 12		Certification regarding local content / Make in India Certificate	provide Architectural & Engineering	Make in India circular dated 16.09.2020 is applicable for all goods and services. Consultancy is also a			
					It is felt that the certification desired at Annexure – 12 is not applicable to the Architectural & Engineering Consultant, as the same pertains to the Contractor.				
					Kindly delete the requirement of certification				
6	Page No. 4 of Tendernotice_7	Invitation for Bid	Sr. No. 8	Due date for submission	· •	Date is extended till 11.09.2023, 11:00 Hours. P1 openig shall be done on same day i.e 11.09.2023, 14:00 hours			
					It is needless to mention here that hardly 1 (one) working i.e. 02.09.2023 is kept between the Pre-bid meeting and the submission due date.				
					Kindly extend the date for submission of bids by atleast 7 – 10 days. In order to enable the bidder to submit its proposal.				

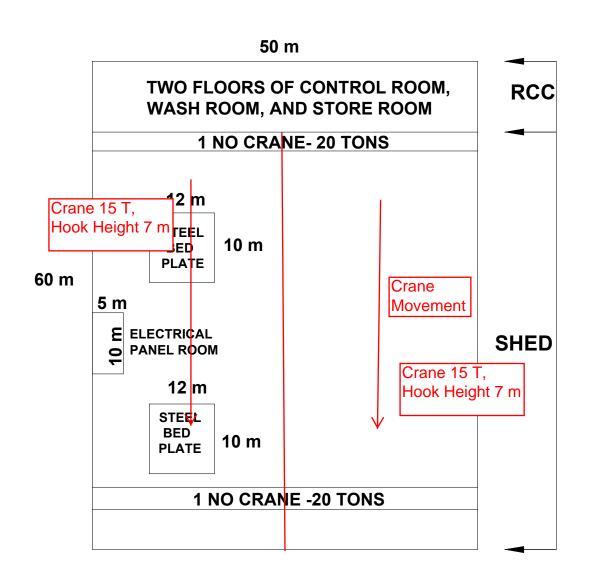
	Pre Bid Meeting Queries								
S.NO.	Page No.	Section No.	Clause No.	Subject	Suggestion / Query	BHEL REPLY			
7	Page-15	Tender Notice_7		the guarantee shall be final, conclusive and binding. However, vendor's maximum liability	Decision of Purchaser with regard to Seller/ Contractor's liability and the amount involved, if any, payable by Seller/ Contractor under the guarantee shall be final, conclusive and binding. However, vendor's maximum liability	Decision of Purchaser with regard to Seller/Contractor's liability and the amount involved, if any, payable by Seller/Contractor under the guarantee shall be final, conclusive and binding. However, vendor's maximum liability under the Contract will be limited to the total contract value including taxes, duties and freight. Neither Party shall be liable to the other for any indirect or consequential damages.			
8	Page-22	Tender notice-7		5.27.2: The EMD may be accepted only in	EMD in form of Bank Guarantee issued from any Scheduled / Nationalized Bank.  Also, please share BG Format.	No change in RFP. Kindly follow the tender terms and conditions.			
9	Page-49		Part 1 – Quality score (Ts)	Max. Marks = 5  • 5 marks for project/s successfully completed with 5-star GRIHA / Platinum LEED/IGBC Platinum rating.  • 3 marks for project/s successfully	We request to please amend the marking distribution of the clause as below: • 5 marks for project/s successfully completed with 4-star GRIHA / Platinum LEED/IGBC Platinum rating. • 3 marks for project/s successfully completed with 3-star GRIHA / Gold LEED/ IGBC Gold rating	No change in RFP. Kindly follow the tender terms and conditions.			

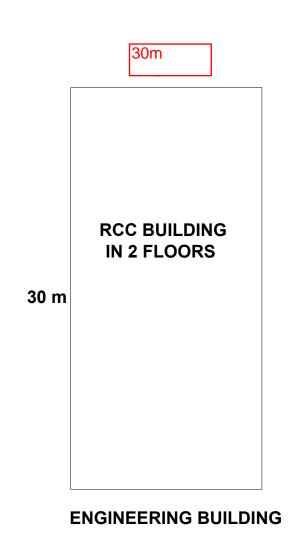
	Pre Bid Meeting Queries								
S.NO.	Page No.	Section No.	Clause No.	Subject	Suggestion / Query	BHEL REPLY			
10	Page-52	Tender notice-7, Annexure-C	score (Ts)	Average annual financial turnover in previous	audit. Thus, we request to please allow submission of turnover details of last 3	It is clarified the last 3 consecutive year's audited annual accounts are to be submitted. In case audited account of 2022-23 are not available, accounts of 2019-20, 2020-21 and 2021-22 shall be considered for evaluation.			
11	Page-52	Tender notice-7, Annexure-C	score (Ts)	Average Profit before Tax in previous 03	Due to Covid 19, our business in the field of professional consultancy services has been badly impacted upon and consequently annual financial turnover from consultancy services has dropped drastically during covid and noncovid years. In view of the above scenario, we request you to consider/amend the clause as below:  Financial Criteria Profit before tax in any one of 03 (three) consecutive financial years i.e. FY 2022-21, FY 2021-20, and FY 2020-19 as on tender opening date: Max Marks = 5 • 5 marks for Above INR 1.0 Cr • 4 marks for INR 0.50 Cr to 1.0 Cr • 3 marks for INR 0.25 Cr to 0.50 Cr • 2 marks for upto INR 0.25 Cr				
12	Page-53	Tender notice-7, Annexure-C		Quality score and Cost score with weightage	We request to amend the clause as below: On the basis of the combined score for Quality score and Cost score with weightage of 80:20, the bidders shall be ranked in terms of the total score obtained.				
13		Pg 16 of 45 RFP		The applicable TDS under GST/ Goods and Services (Compensation to States) Act will be deducted from the payments.	as per standard terms for most Indian government projects.	No change in RFP. Kindly follow the tender terms and conditions.			
14		General		Payment Schedule	We request you to provide Payment Schedule	Payment schedule is already available in RFP.			

	Pre Bid Meeting Queries							
S.NO.	Page No.	Section No.	Clause No.	Subject	Suggestion / Query	BHEL REPLY		
15				for quality score (Ts) in Annexure C instead of successfully completed project ,it is our request to be replaced with successfully /substantially completed project		Require successful completion certification for the completed scope of work mentioned under clause A (iii) of Annexure-C. No other form of document like payment receipt etc shall be accepted.		
16				Bidder shall have successfully completed at least one (01) no. of architectural planning & designing of industrial /institutional/ office complex which is registered as Green building and obtained rating of minimum 4 star or equivalent as per GRIHA Star rating	Bidder shall have successfully completed at least one (01) no. of architectural planning & designing of industrial /institutional/ office complex which is registered as Green building and obtained rating of minimum 4 star or equivalent as per as per green building concept considering all parameters of GRIHA Star rating norms/ IGBC Gold rating / LEED Gold rating.			
17		Additional Point		PDF Readable Copy of Layout and inputs		Same shall be again uploaded.		
18		Clause No. 5.33		Liquidated damages		No change in RFP. Kindly follow the tender terms and conditions.		
19		Point no 05 of Annexure-1		Documents require for submission along with techno commercial offer		Point No. 05 0f Annexure-I stands deleted. The price schedule is to be enclosed in Part-2 only.		
20		Additional Point		Bank detail		Bank detail is as below:- Account Holder's Name: Bharat Heavy Electricals Limited Name of Bank: SBI Bank Account no:39922687394 Bank Address: 4th & 5th Floor Redfort Capital Parsvnath Towers, Bhai Veer Singh Marg, Gole Market New Delhi 1100014 IFSC Code:SBIN0017313		

Crane height 7m. Industrial shed of height 14.5m.







TOTAL AREA REQUIREMENT-2 ACRES INCLUDING OPEN SPACES BETWEEN BUILDINGS

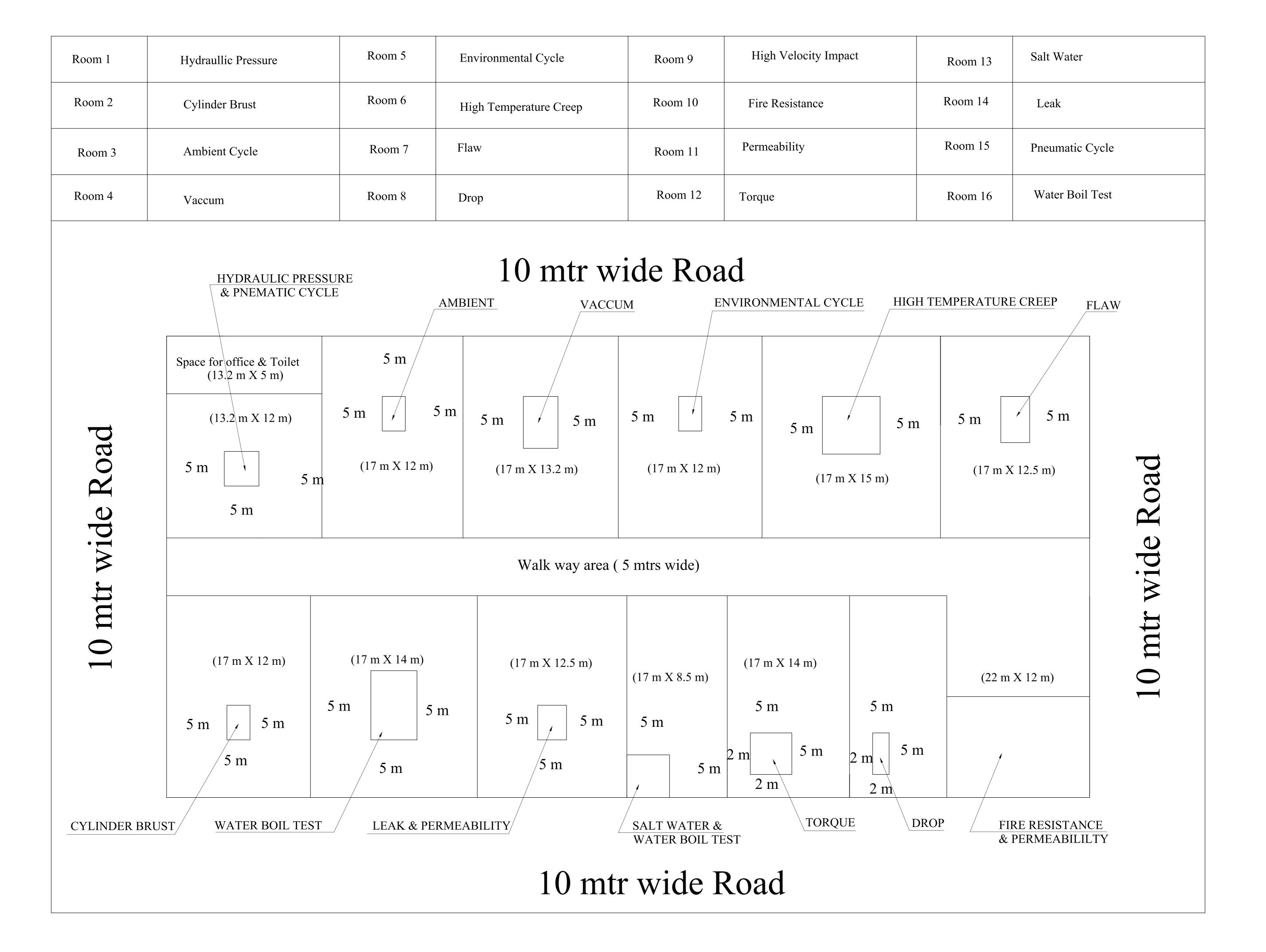
## **PROPOSED COE**



BHARAT HEAVY ELECTRICALS LTD Electronics Division

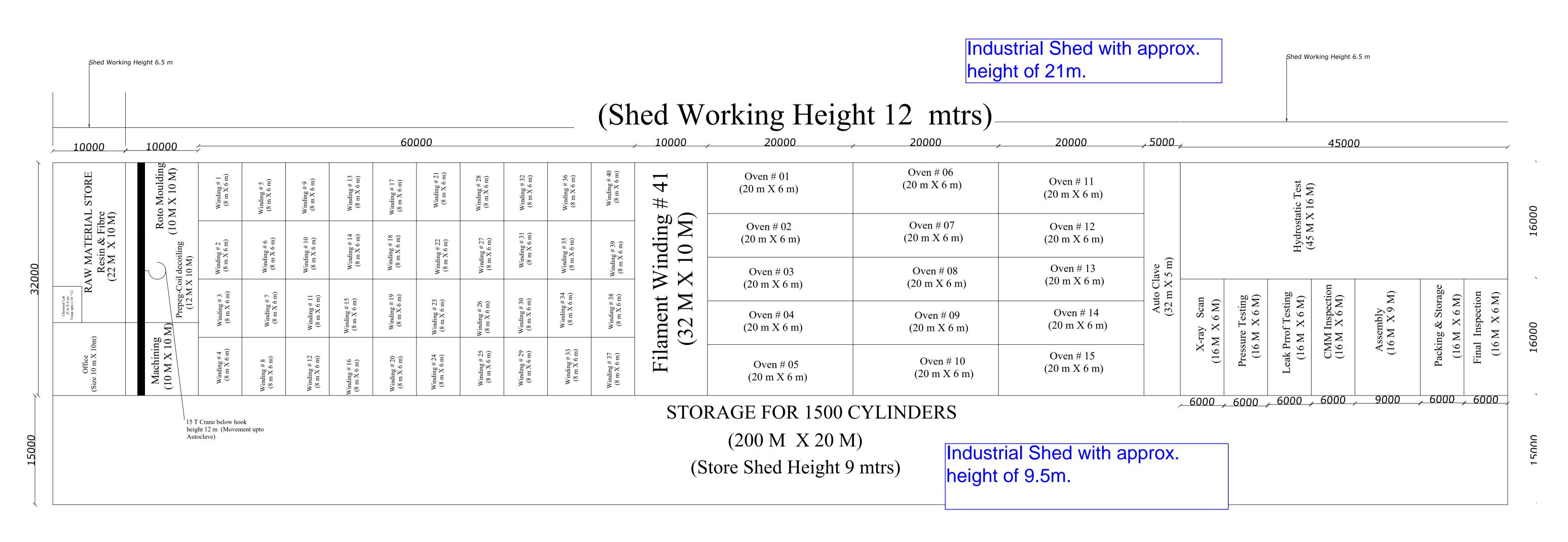
COE FOR PROPULSION SYSTEM(FROM EDN) as per mail received on 18-08-23

10 mtr wide Road



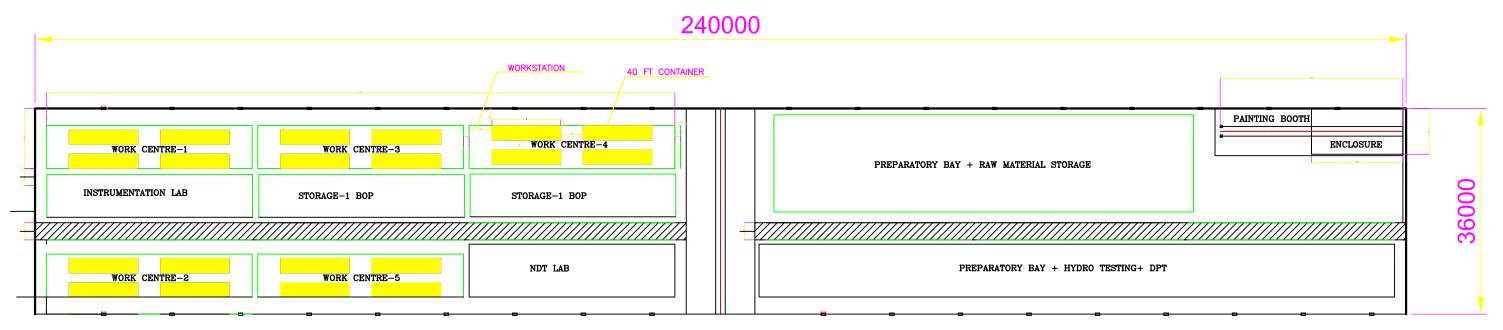
# National Test Facility Layout (80 M X 40 M)

	Details of Layout in National Test Facilty								
S.No	Name of Test	Apparatus Required	Machine Size (ft)	Room Size ( m)	Remark				
1	Hydraullic Pressure	Gas Pressure Testing Facility	8 X 8 X 6	13.2 X 12	Test 1 & 15 in Same room				
2	Cylinder Brust		8 X 4 X 6	17 X 12					
3	Ambient Cycle		8 X 6 X 10	17 X 12					
4	Vaccum	Centralized Vacuum System	14 X 10 X 12	17 X 13.2					
5	Environmental Cycle		8 X 6 X 10	17 X 12					
6	High Temperature Creep		16 X 12 X 8	17 X 15					
7	Flaw		No Space Required	No Space Required					
8	Drop	Drop Testing Machine	12 X 8 X 21	17 X 7					
9	High Velocity Impact	Bonfire & gunfire testing	60X 30 X 20	22 X 12	Test 9 & 10 in Same room				
10	Fire Resistance	Bonfire & gunfire testing	60X 30 X 20	22 X 12	Test 9 & 10 III Same 100III				
11	Permeabililty	Permeation Type Leak Testing Machine	10 X 8 X 12	17 X 12.5	Test 11 & 14 in Same room				
12	Torque	Computerized Gas Vessel Torque test facility	12 X 12 X 8	17 X 14					
13	Salt Water		12 X 12 X 8	17 X 8.5	Test 13 & 16 in same room				
14	Leak		10 X 8 X 12	17 X 12.5					
15	Pnematic Cycle		8 X 8 X 6	13.2 X 12					
16	Water Boil Test	Water Boil Test facility	20 X 12 X 8	17 X 8.5					



Composite Manufacturing Layout (200 M X 32 M)
Composite Storage Facility (200 M X 15 M)

## Industrial Shed with approx. height 22m.



### NOTES

- 1. IN THE ABSENCE OF TECHNOLOGY PARTNER AT PRESENT, ACTUAL ASSESSMENT OF THE FACILITY REQUIREMENT CANNOT BE MADE. HOWEVER, TO MOVE AHEAD, TEAMS OF DIFFERENT UNITS HAVE USED THEIR EXPERIENCE OF EXISTING PRODUCTS/SYSTEMS OF BHEL TO WORK OUT THE PROBABLE PLANT AND MACHINERIES REQUIRED FOR AN ELECTROLYSER SYSTEM ASSEMBLY AND TESTING PLANT.
- 2. BEFORE ANY FINANCIAL COMMITMENT, THE WORKED OUT DATA (PLANT/MACHINERY/TESTING EQPT./LAYOUT ETC.) NEEDS TO BE VETTED/VERIFIED BY THE COMPETENT CONSULTANT/TECHNOLOGY PARTNER.
- 3. EARLIER, MANUFACTURING PLANT FOR STACK MANUFACTURING WAS PROPOSED, BUT NOW IT HAS BEEN MODIFIED TO ELECTROLYZER SYSTEM ASSEMBLY AND TESTING PLANT. STACK MANUFACTURING IS NOT CONSIDERED IN THIS PLANT ACCORDINLGY THE LAYOUT IS SPECIFIC TO ASSEMBLY AND TESTING OF ELECTROLYSER STACK +BOP SYSTEM ONLY.
- 4. BASED ON THE INPUTS FROM PSBG-II (QAP FROM VENDOR) AND CORP R&D, PERFORMANCE TEST INVOLVING RUNNING OF COMPLETE ELECTROLYSER SYSTEM IS NOT REQUIRED (ONLY PNEUMATIC AND HELIUM LEAK TEST IS ENVISAGED FOR THE COMPLETE SYSTEM). FOR PREPARATORY BAY, HYDRO, DPT, RT(OUTSOURCED) IS ENVISAGED FOR THE PIPE WORK. ACCORDINGLY, TESTING AREA AND SAFETY PRECAUTIONS RELATED TO HYDROGEN GENERATION IS NOT ENVISAGED IN THE WORKING AREA.
- 5. FOR 100 MW CAPACITY PLANT, MACHINE LIST IS DERIVED FROM THE EARLIER LIST WHICH WAS COMPILED JOINTLY BY HEEP, CORP R&D, PE&SD, CORP. CAPEX ON 14-16TH JUNE. THE QUANTITIES HAVE ONLY BEEN SCALED DOWN BASED ON THE EMAIL DATED 01.08.2023 FROM CORP CAPEX AND SS&P GROUP.
- 8. 2 NOS. COLUMN MOUNTED JIB CRANE PER WORKSTATION ARE ENVISAGED IN ADDITION TO EOT CRANES IDENTIFIED EARLIER.

### ASSUMPTIONS

- 1. ANNUAL CAPACITY OF ASSEMBLY AND TESTING PLANT (CONTAINERIZED SOLUTION 2MW STACK SIZE): 100 MW AS INFORMED BY CORP CAPEX DTD 22.7.23
- 2. CAPACITY OF STACK: 2 MW STACK (BOI) ALONG WITH BOP AS INFORMED BY CORP CAPEX DTD 22.7.23
- 3. NO. OF ELECTROLYSER SYSTEMS TO BE MANUFACTURED PER YEAR: 50 NOS.
- 4. ASSEMBLY TIME (INCLUDING PREPARATORY WORK AND IN-PROCESS TESTING) CONSIDERED: 30 DAYS (3 SHIFT OPERATION)
- 5. CALCULATION FOR NUMBER OF WORKSTATIONS:
- CONSIDERING 300 WORKING DAYS, 300/30=10 UNITS CAN BE MANUFACTURED IN 1 WORKSTATION.
- TOTAL WORKSTATION REQUIRED= 50/10= 5 NOS.
- 6. CONTAINERS REQUIRED FOR 2 MW ELECTROLYSER SYSTEM: 4 NOS. CONTAINERS ( 3 NOS. 40 FT AND 1 NO. 20 FT.)

