Members Present

1.	Prof. Rajiv Prakash, Director IIT Bhilai	Chairman
2.	Shri Salil Rai Shrivastava, Engineer-in-Chief, NRANVP	Member
3.	Prof. C S P Ojha, Dept of Civil Engg, IIT Roorkee Membe	r (over VC)
4.	Prof. Rajesh Kumar, Dept of Civil Engineering, IIT BHU Member	r (over VC)
5.	Wg Cdr Dr. Jayesh C S Pai (Retd), Registrar, IIT Bhilai Member	Secretary
6.	Shri Subhash Pandey, Administrative Advisor, IIT Bhilai	Invitee
7.	Shri Manem Srinivas, Assistant Executive Engineer, IIT Bhilai	Invitee
8.	Shri Manish Sahu, Assistant Executive Engineer, IIT Bhilai	Invitee
9.	Shri Shwetabh Pradhan, Assistant Executive Engineer, IIT Bhilai	Invitee
10.	Shri Rajesh Mangwani, Junior Superintendent (Tech), IIT Bhilai	Invitee
11.	Shri Naveen Rai, Assistant (Technical), IIT Bhilai	Invitee
12.	Shri Kamlesh Patel, Assistant (Technical), IIT Bhilai	Invitee
13.	Shri Minketan Pradhan, Junior Assistant, IIT Bhilai	Invitee
14.	Dr. Vijay S Duryodhan, Assistant Professor, IIT Bhilai	Invitee
15.	Dr. Rishi Ranjan Singh, Assistant Professor, IIT Bhilai	Invitee
16.	Dr. Shailendra Kumar, Assistant Professor, IIT Bhilai	Invitee
17.	Shri Mukesh Kaushal, Executive Engineer (Civil), CPWD	Invitee
18.	Shri Rohit Maheshwari, Engineer (Civil), CPWD	Invitee
19.	Shri Mohan Lal, Assistant Executive Engineer (Elec), CPWD	Invitee
20.	Shri Sanjay Kanvinde from DP1 Consultant	Invitee
21.	Ms. Tanuja B K from DP1 Consultant	Invitee
22.	Shri Sandeep Khushi, from DP2 Consultant	Invitee
23.	Shri Akshaya Jain from DP3 Consultant	Invitee

Item 1 - Welcome and opening remarks by the Chairman.

At the commencement, Chairman welcomed the members and invitees present physically and also who were online.

विंग कमाण्डर डॉ. जोका क्रम्य एस.पै(सेवानिवृत्त) Wing Cdr. Dr. Jayest Chandra S. Pai (Retd.) कुलमा नव/Registrar भारतीय प्रोयोगिकी संस्थान गिलाई Indian actitude of Technology Philai

Item 2- Confirmation of minutes of the 24th meeting of the Building and Works Committee (BWC) held on 19th March 2024.

The minutes of the 24th BWC meeting had been circulated to all the members. The secretary invited comments from the members on the floor, and with the concurrence of all present, the BWC passed the following resolution:

"The minutes of the 24th board meeting of IIT Bhilai held on 19th March 2024 are confirmed."

Item 3 - Action taken report on the previous meetings of the Building and Works Committee (BWC).

The BWC was apprised of the actions taken on the resolutions arising from the previous meeting. The BWC passed the following resolution:

"Board noted the actions taken on the 24^{th} board meeting of IIT Bhilai held on 19^{th} March 2024."

Item 4 – a) Apprisal of Progress of Permanent campus construction by CPWD.

- b) Apprisal on tendering and work status of Campus Networking (active and passive), UPS, Audio-Visual, Furniture, and Campus Signage and Horticulture works.
- c) Final Costing of IIT Bhilai Phase I Stage A of the project. (including Extra work and Savings)
- d) Apprisal on the works executed under clause 12(ii) of GCC and agreement (by CPWD)
- CPWD has presented the status of various works as below:

S. No.	Brief Name of Work	AA & ES Date	Revised AA & ES	Amount	Stipulated Date of Start/ Completion	Expected Expenditure	Present Status
1.	Main Civil and Electrical work. (OFC &CAT 6A and UPS)	808.62 Cr dt 7-3- 2020	864.22 Cr dated 27-07- 2023	Rs. 719.20 Cr	07-07- 2020/06-07- 2022	840.00 Cr	Completed and Handed over. Final bill under process.

Wing Cdr. Dr. Jayesh Chandra S. Pei izetd. युक्तचरिव/Regisize

2	Horticulture Academic Zone and Crescent road.	Rs 3.37 Crore 06-02- 2023		Rs. 2.06 Cr	06-04-23/5- 10-23	3.0 Cr	Development work Completed. Maintenance in progress.
3.	Wayfinding Signage	Rs 1.91 Crore 21-10-2022		Rs. 1.39 Cr	12-03-23/ 11-08-23	1.40 Cr	98% completed, The last lot is under installation.
4.	Class room Furniture and Faculty Tables	Rs 8.95 Crore 19-05-22	8.95 Cr	Rs. 6.69 Cr	09-10-22/ 08-03-23	7.00 Cr	Completed Handed over Final Bill under process.
5.	SITC of Audio Visual	Rs 9.40 Crore 03/03/202 2	9.40 Cr	Rs. 6.07 Cr	26-07-22/ 25-02-23	6.80 Cr	Completed, Handed over and Final bill Paid
6.	SITC of Campus Managemen t and Data Networking	Rs 28.58 Crrore 03-03- 2022	28.58 Cr	Rs. 18.87 Cr	14-06-22/ 13-03-23	20.0 CI	Completed Handed Over, Final Bill under process. Maintenance work started.
			911.15 Cr			878.20 Cr	

- Engineer-In-charge, CPWD apprised the committee that the expected expenditure of work is Rs 878.20 Cr and CPWD will return approximately Rs. 7 to 8 Cr. as savings from the project to IIT Bhilai. BWC asked CPWD to provide the complete expenditure details, including savings, extra items, etc., within 15 days to IIT Bhilai. CPWD agreed on this.
- During the discussion, BWC asked CPWD for the details of the interest amount to be received against the 54 Cr advance fund deposited by IIT Bhilai. Also, BWC asked CPWD about the interest amount deducted by CPWD from the construction agency against the mobility advance disbursed. CPWD informed the committee that the final bills are being processed and that the requisite details will be submitted within 15 days.
- BWC was briefed that the funds returned by CPWD belong to the infrastructure and furniture head, and therefore BWC suggested that IIT Bhilai should utilize it in the development/execution of pending campus infrastructure/works. The chairman agreed to this.

विंग कमाण्डर डॉ. जयेश चन्द्र एक्क्रीस्थानहरू Wing Cdr. Dr. Jayesh Chand S. Fai (Redd.) कुलर्स वर्ग / Registrar भारतीय जाटोणिकी संस्थान निलाई

BWC members strongly took up with CPWD to submit the Final Cost of Phase I Stage A of the project by the month's end, reply to the interest amounts pending, and clarify the delay in completing the billing process.

Item No 5 - Apprisal on LD levied by CPWD on various works. (by CPWD)

- CPWD informed the committee about the final extension of time (EOT) given to
 the construction agency. CPWD apprised that, after scrutiny of various factors,
 it has concluded that the final date of completion of the IIT Bhilai project is 31st
 Aug 2023, with 7 months of unjustified delay from the L&T side. CPWD is
 calculating the final handover date as 31 Mar 2024.
- Due to the delay, CPWD has imposed a penalty of Rs. 3,83,14,987/- on the construction agency, which is 0.53% of the tendered amount of work as liquidity damages (LD). (Refer Annexure 1)
- The said LD amount has been levied on the contractor by CPWD for seven (7) months from 01-09-2023 to 31-03-2024, considering 31-08-2023 as the stipulated completion date.
- The BWC members asked CPWD on what basis the project's completion date was changed to 31 Aug 2023 when the Ministry of Education had only approved the completion date as 30 June 2023. Due to this, the LD calculations on L&T were missing for the months of July and August 2023. So far, CPWD has not produced any communication allowing them to defer the completion date to 31 Aug 2023 without proper Ministry of Education approval though emails have been written to them.
- Chairman BWC expressed displeasure over the nominal LD amount imposed on the construction agency by CPWD. The chairman informed the committee that, unfortunately, various losses occurred due to delays in the completion of the IIT Bhilai project, and some of them cannot even be calculated in monetary terms. The following prominent activities have been affected due to delay:
 - a. Nonavailability of various Research labs for students, faculties, and researchers.
 - b. Library facilities were not available to users.
 - c. Noncompletion of Boy Hostel-2, which caused immense discomfort to students.
- These shortfalls have affected the individuals and the image of IIT Bhilai, an institute of national importance.

BWC took note of the above and requested CPWD to clarify on what basis they have calculated 31 Aug 2023 as the completion date when the Ministry of Education approval states 30 Jun 2023.

Wing Cdr. Dr. Jayesh Chandros Pai (Retd.) कुलसचिव/Registral भारतीय प्रौद्योगिकी संस्थान भिलाई

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Item No 6 - Apprisal on the applicability of DLP clauses on various items. (by CPWD)

• CPWD informed the committee that two engineers have been deputed by L&T to address the DLP issues that arise at the IIT Bhilai site. A letter was issued by CPWD to L&T about coverage of DLP items; in response, the L&T team has written that the DLP will be applicable on a case-to-case basis. The committee asked the CPWD to meet with the Estate/IWC team to formulate the DLP conditions, such as defining a clear process for assessing each case, including a timeline for response and resolution, communication protocols, etc. CPWD and IIT agreed on this.

BWC took note of the above and told CPWD to arrange a meeting as soon as possible with the L&T team to discuss the DLP clause issues.

Item No 7 - Status of submittals from CPWD and Consultants.

The status of various submittals to IIT Bhilai from CPWD and consultants were presented during the meeting, which is as below:

SN	Particular	CPWD	Are	TPQA		
			M/s KRC	M/s ADPL	M/s Akshay Jain	Consultant
1	As-Built Drawings	No	No	No	No	Not checked
2	BIM LOD 400 Models	No	-			Not checked
3	Shop Drawings	No				
4	SOP's	Partially				.
5	Operation and Maintenance Manual	Partially				
6	Warranty Certificates	Partially				

- CPWD informed the committee that they would submit all the As-built drawings and pending submittals within ten days, i.e., by 15-06-2024, highlighting the changes in GFC drawings to IIT Bhilai. BWC members informed the CPWD team to highlight the changes in the service drawings so the architects could track the changes in the GFC drawings and liaise with the architects.
- The chairman asked all the concerned teams to fix a meeting in 15 days and briefed CPWD to submit the documents in 2 hard copies with stamps and signatures for record and future reference purposes.

 विंग कमाण्डर डॉ. जयेश चन्द्र एस.पै

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BWC took note of the above and instructed CPWD to complete the drawings, manuals, SOPs, etc., without further delay.

Item No 8 - Apprisal on operation and maintenance of STP.

- The Secretary had apprised the committee that as per the agreement clauses of NIT, Operation & Maintenance of STP after commissioning falls under the scope of L&T for the first 24 months, i.e., from 1st April 2024 to 31st March 2026.
- L&T has to operate STP in 3 shifts and with a total of 9 numbers of manpower, including one operator and two helpers per day. But at present, L&T has only four men in charge of STP operations.
- The Secretary also apprised the committee that as per the agreement, the
 contractor must operate a fully functional lab with technicians. However, the lab
 is still nonfunctional, and no manpower is engaged. In addition to that, daily,
 weekly, and monthly tests are required to be performed in this lab as per the
 NIT agreement, which has not been in practice to date by L&T. Apart from that,
 periodic tests from external laboratories have not been conducted by L&T.
- IIT Bhilai informed the committee that as per the conditions mentioned in various statutory clearances obtained for the IIT Bhilai project, it is required to record these lab reports and submit and upload them on the website.
- The secretary informed the committee that a letter regarding the lab setup and submission of test reports had also been issued to CPWD, but CPWD has not responded.
- The committee expressed displeasure over these issues and asked CPWD to act immediately. CPWD agreed on this.
- The Chairman asked the Estate team to install CCTV systems in the STP and other sensitive ancillary buildings like MRSS, ESS-1, ESS-4, ESS-5, Plant Room, UGT, WTP, Meter Room, Telephone Exchange, etc., to keep watch on the operation of these services. These buildings require round-the-clock monitoring of engaged manpower and various equipment operations.

BWC took note of all the points above and instructed CPWD to rectify all of them within a week.

Item No 9 - Apprisal on the O&M tender to be taken over by IIT from CPWD.

- The Secretary apprised the committee that IIT Bhilai has taken over the O&M agency and signed the tripartite agreement between IIT Bhilai, CPWD, and M/s Unique Engineers. The agreement is valid from 11th May 2024 to 9th November 2024.
- The Secretary asked CPWD to provide the details of expenditures made towards the O&M agency. CPWD agreed to provide this detail within a week. Pai (Ret

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• The Chairman asked the IIT team to start the tender process for the engagement of a new O&M agency, and it should be finalized before the tenure of the present O&M agency. IIT agreed on this.

BWC took note of the above and asked the IIT Bhilai team to ensure that a proper SOP be framed for the O&M agency.

Item No 10 - Apprisal on the updated proposal of the Phase B project of IIT Bhilai.

Member Secretary apprised the committee that IIT Bhilai has recently submitted the proposed scope of work for the Phase B project of IIT Bhilai. Details of the same are tabulated below:

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SI	Name of the building on site	Approved area/ specification in the DPRs (sqm) for 2500 Students.	Phase A Actual built-up area -for 1200 students (Sqm)	Balance Phase B area allowed as per DPR 2017 (Sqm)	Proposed Areas as per the phase B buildings list
1	2	3	5	6 = 3-5	Actual proposal
I	Academic Zone Buildings	1,15,130	5 4, 680	60,450	50,481
Ш	Residential Zone Buildings				
Α	Hostels & Sport Facilities	77,500	45,280	32,220	40,000
В	Housing, Guest house and Campus Amenities	78,163	34,490	43,673	45,862
III	15000 sq.m (Industry Interaction and Incubation Centre, Research Park with buildings		15,000		
	Total	2,70,793	1,34,450	1,36,343	1,51,343

BWC took note of the above.

Item No 11 - Apprisal on drone survey of suggested land in Maroda (near Risali and विग कमाण्डर डॉ. जयश चन्द्र ऐसे.प्राची अपने प्राचित्र कमाण्डर डॉ. जयश चन्द्र ऐसे.प्राची

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- The secretary informed the committee that District Administration has proposed to allot 46 hec. land in villages Risali and Nevai village to IIT Bhilai for future development. BWC, in its last meeting, suggested a drone survey of the proposed land. A drone survey of that land parcel has been conducted by IIT.
- BWC saw the drone survey and underlined the encroachments in the proposed land. BWC advised IIT Bhilai to address this issue with the District Administration and resolve it before handing over the land to IIT Bhilai. The Chairman agreed on this.
- During a discussion regarding boundary wall work for the Naya Raipur land parcel, BWC suggested conducting a joint inspection by the IIT team with NRDA officials. IIT agreed on this.

BWC noted the same.

Item No 12. Apprisal on the land is to be allotted to CSPDCL for the substation.

- IIT Bhilai apprised the committee that, as per initial discussion, IIT has decided to allot 100mx100m of land to CSPDCL to construct a substation at the northern location (near the check dam) of the campus.
- The CSPDCL team surveyed the proposed land on 19th April 2024, and after that, due to the non-availability of an access road, they requested to change the location near gate no 4. (Annexure 2)
- After discussion over the matter, BWC suggested the following resolution:
 - a. For optimum land utilization, a land parcel equal to 100*100 sqm adjacent to the boundary wall may be explored and proposed to CSPDCL to construct a substation.

OR

b. IIT team must explore the feasibility of land available near gate no. 01 (Khasra No. 1184) and write to CSPDCL for their confirmation.

Item No 13 - Apprisal on construction of sports facility in IIT Bhilai campus.

- The Secretary apprised the committee that all the sports facility for the students is planned in Phase B of the IIT Bhilai project. At present, minimal sports facilities are available for the students at the campus. There is a need to develop a sports facility on the IIT Bhilai campus till the completion of Phase B construction. The sports and Yoga Section of IIT Bhilai requested the same, and after a thorough discussion with the user the following works are included in the scope of work-
 - 1. Levelling and compaction of 8.24-acre land as per the drawing attached. It will have a cricket ground, a football & athletic ground, two volleyball courts, and a basketball court, costing Rs. 8.6 lacs.
 - 2. Cricket pitch two nos. cost 0.56 lacs.

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- 3. Concreting for a basketball court (32m X 20m) cost Rs. 27.93 lacs
- 4. Pole grouting in the periphery of volleyball courts to tie net/mat around it. Cost Rs. 1.94 lacs.
- 5. 100mm soil for football and cricket field cost Rs. 11.70 lacs
- 6. Grassing in football and cricket field (22,704 sqm) costs Rs. 11.29 lacs
- 7. Maintenance of 3 months of the grass field. Cost Rs. 1.63 lacs.
- An estimate of Rs. 63,70,871.77 has been prepared based on CPWD Civil DSR 2023, CPWD DSR Horticulture and Landscaping 2020 and Market Survey for Non-Scheduled Items.
- The chairman asked the IIT team to prepare a detailed estimate for the associated electrical works and present it at the next BWC meeting.

BWC agreed to this arrangement and gave only the go-ahead for the civil works.

Item No 14 - Apprisal of works executed/ to be executed by IWC and Estate at the permanent campus of IIT Bhilai.

 As per users and functionality-based requirements, IWC and the Estate department have undertaken some planned works. Details of the works with estimated costs are as follows-

A. Works executed/being executed through Notice Inviting Quotation:

- 1. Provision of dedicated chemical earthing for various buildings of IIT Bhilai-Rs. 4,21,833.00
- 2. Providing and fixing signage posts and delineators in cycle track & pedestal at IIT Bhilai- Rs. 4,63,823.19
- 3. Laying of XLPE cables and installation of switchgear in the Academic zone buildings of IIT Bhilai- Rs. 4,94,663.00
- 4. Earthing works for the installation of equipment in the Central Prototyping Facility of IIT Bhilai- Rs. 3,20,183.55

B. List of Proposed Civil Work

SN	Name of work	Amount
1	Provision of sheds on skylight of LHC 135 & 60	₹ 5,00,000.00
2	Provision of sheds on skylight of ED 1, ED 2, SD1 and SD2	₹ 10,00,000.00
	Provision of rainwater protection work for lifts in residential apartment	
3	and shopping center	₹ 25,00,000.00
	and shopping center Provision of shed and rolling shutter in services lift of ED 1, ED 2, FSD7, Wing Co. Wing Co.	ण्डर डा. जयश चन्द्र एकाम्यापा
4	SD2, CPF and CIF	7,50,000:00

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5	Installation of porta cabins at Shabari Chowk and hostel	₹ 4,00,000.00
6	Soil testing of Naya Raipur land	₹ 3,00,000.00
7	Restoration of existing Borewells and its connection	₹ 4,00,000.00
8	Epoxy painting on the floor of physics department room no 106	₹ 75,000.00
9	Glass partition work for making seating space for Deans	₹ 8,00,000.00
10	Aluminium partition work in ED2 room no 308 and 504,	₹ 3,00,000.00
11	Partition in Hub rooms of ED 1, ED 2, SD1 and SD2	₹ 2,00,000.00
12	Brick partition work for the furnace in CPF building	₹ 10,00,000.00
13	Aluminium partition work in CPF building	₹ 4,00,000.00
14	Glass film work in labs	₹ 25,000.00
15	Synthetic coating in Badminton court	₹7,00,000.00
16	Car parking shed in LDC parking	₹ 8,00,000.00
17	Interior work of restaurant in shopping centre	₹ 30,00,000.00
18	Brickwork and gap closing along the boundary wall	₹5,00,000.00
19	Glass Railing and spigots work in Level 4 of the Chemistry Building	₹60,000.00
	Glass packing works at the Tertiary pump room terrace in ED 1, ED2, SD1	
20	and SD2	₹ 16,00,000.00

List of Proposed Electrical Work

SN	Name of work	Amount
1	Appointment of energy, water and contaminant auditing consultant	₹ 40,00,000.00
2	AC installation works	₹ 10,00,000.00
3	CPF earthing works	₹ 4,50,000.00
4	ED2 and CPF electrical connections	₹ 18,00,000.00
5	Sports lighting works	₹ 30,00,000.00
6	SD1 earthing works	₹ 5,00,000.00
7	Cable supply for UPS	₹ 5,00,000.00
8	AMC for Lifts	₹ 42,00,000.00
9	AMC for DGs	₹ 25,00,000.00
10	Electrical Consumables for 6 months	₹ 12,00,000.00
11	Electrical apparatus, measurement and safety tools	₹ 6,00,000.00
12	Firefighting cylinders purchase - replacing those expired	₹ 4,00,000.00
13	Flood lights across the campus for lights	₹ 10,00,000.00
14	Emergency funds for electrical works	₹ 10,00,000.00

• Chairman asked IWC and Estate teams to utilize the funds transferred from CPWD to IIT Bhilai under construction (OH-35) only and to liaise with DR Finance for the same.

"BWC took note of the above and gave in-principal approval for the above works within the budget available"

Item No 15 - Any other item with the permission of the chair.

A. Progress of 6MLD WTP works by PHED, Durg.

विंग कमाण्डर डॉ. जयेश चन्द्र एस.पे(सवार्म्स) Wing Cdr. Dr. Jayesh Chand कुल्स (Retd.) कुलसचिव/Regisfrar भारतीय प्रौद्योगिकी संस्थान जिलाई Indian Jastitute of Tachnology Bhilai

- The Secretary apprised the committee that due to the slow progress of WTP's construction works, IIT has complained about this issue to EnC and PHED.
- After the intervention of EnC and PHED, construction of WTP works took a fast pace. At present, work on WTP and intake structure are in progress.
- To lay a raw pipeline near a state highway, PHED has requested IIT to help them grant permission for road cutting from the concerned department. The Secretary has informed the committee that a letter has been written to the District Collector, and permission is awaited.

B. Observations related to Work done by CPWD/L&T.

- Various issues due to poor workmanship, like seepage, loose fitting of electrical equipment, and pathways/road uplifting/cracking cases, were observed inside the IIT Bhilai campus, and the same was presented before the committee.
- BWC asked CPWD to take corrective measures on a priority basis as such issues come under the DLP clause. CPWD agreed on this.

C. Observations related to Waste Management.

- IIT informed the committee that an Environment Management Cell has been constituted to look after the environment-related issues of the IIT Bhilai campus.
- The chairman asked Mr. Manish Sahu, one of the cell's members, to work out dedicated solutions for the disposal and management of various waste generated inside the campus. The chairman advised having a separate meeting with members of the Environment Management Cell in this regard.

The meeting ended with thanks to the chair and the BWC members.

विंग कमाण्डर डॉ. जयेश चन्द्र एस.पै(सेवानिव्स Wing Cdr. Dr. Javesh Chandra S. Roi (D. Silver)

Wing Cdr. Dr. Jayesh Chandra S. Pai (Retd.) कुलसचिव/Registrar भारतीय प्रौद्योगिकी संस्थान भिलाई Indian Institute of Technology Bhilai

