भारतीय प्रबंध संस्थान बेंगलूर
INDIAN INSTITUTE OF MANAGEMENT
BANGALORE

EXPRESSION OF INTEREST

NIT NO: NIIMB/UG/EPCMII/2025-26/001

NAME OF THE WORK: -
CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS ON EPC MODE II AT SURVEY NO.47, MAHANTHALINGAPURA VILLAGE, JIGANI HOBLI, ANEKAL TALUK, BENGALURU URBAN DISTRICT

Architects
M/s. DDF Consultants
501, B-9, ITL Tower,
Netaji Subhash Place, Pitampura,
New Delhi - 110 034

PMC Consultants
M/s. RITES Limited,
5th Floor Industry House
45 Fairfield Layout
Race-Course Road
Bengaluru-560001

NAME OF THE WORK: -
CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS ON EPC MODE II AT SURVEY NO.47, MAHANTHALINGAPURA VILLAGE, JIGANI HOBLI, ANEKAL TALUK, BENGALURU URBAN DISTRICT

INDEX

EXPRESSION OF INTEREST FOR PRE-QUALIFICATION OF CONTRACTORS FOR CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS ON EPC MODE II AT SURVEY NO.47, MAHANTHALINGAPURA VILLAGE, JIGANI HOBLI, ANEKAL TALUK, BENGALURU URBAN DISTRICT

1. INDIAN INSTITUTE OF MANAGEMENT BENGALURU (IIMB) on behalf of **CHIEF ADMINISTRATIVE OFFICER**, **Bannerghatta Road, Bengaluru-560076** invites **Prequalification** application for **CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS on EPC MODE – II** at Survey No.47, Mahanthalingapura Village, Jigani Hobli, Anekal Taluk, Bengaluru Urban District**.** The work is estimated to cost 400.00 Cr. (Inclusive of GST). **This estimate, however, is given merely as a rough guide.**

Interested agencies / contractors should apply with prescribed documents (which can be downloaded from Central Public Procurement Portal website (URL: https://eprocure.gov.in/eprocure/app) by eprocure.gov.in / IIMB Website (URL: https://www.iimb.ac.in/tender_notices)

MODE OF TENDER PROCESSING FOR SELECTION OF CONTRACTOR TO EXECUTE WORK IN EPC MODE - II

- EPC Tender processing will be in Cover system as stated below:
  Cover – I: Uploading of bid document fee, EMD details (online transfer or BG as per format enclosed at Annexure-O, from a Nationalized Bank) and documents as per Prequalification tender document.

  Only pre-qualified contractors upon verification of details furnished in PQ as per Cover- I will be issued / allowed to download the technical and financial documents.

  Note 1: All the above details/documents to be uploaded in CPP portal

Sl. No.	Particulars	Details
1	Name of the Work	CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS on EPC MODE – II
2	Work location	Survey No.47, Mahanthaligapura Village, Jigani Hobli, Anekal Taluk, Bengaluru Urban District**.**
3	Pre-Qualification bid Document fees	Rs. 5,000/- Plus 18% GST = Rs. 5900/- (non-refundable) **Bank Details:** Name of Bank: HDFC Bank Ltd. Bank Street Address: J.P. Nagar Branch, Bengaluru Branch Code: 0133

		IFSC Code: HDFC0000133 Customer HDFC Bank A/c Name: Indian Institute of Management, Bengaluru Customer HDFC Bank A/c Number: 01331450000019 **Note:** Receipt of payment should be uploaded along with documents in CPP portal.

4	a) Estimated cost b) Construction Period	Rs. 400.00 Crore (Rupees Four hundred crores only) Incl. GST 30 Months Including Monsoon period
5	Earnest Money Deposit (EMD)	Rs. 8.00 Crore (Rupees Eight Crores only) The bank details for RTGS/NEFT are as under: Name of Bank: HDFC Bank Ltd. Bank Street Address: J.P. Nagar Branch, Bengaluru Branch Code: 0133 IFSC Code: HDFC0000133 Customer HDFC Bank A/c Name: Indian Institute of Management, Bengaluru Customer HDFC Bank A/c Number: 01331450000019 Bank Guarantee from nationalized banks will be considered against confirmation by issuing bank **(Attached at Annexure - O)** (EPC Firms to Share UTR number and details) The EMD will be refunded within 45 days to the unsuccessful bidders after upon completion of verification of the pre-qualification documents uploaded, by the Tender Evaluation Committee.
6	Date and time when and where pre-qualification documents are available	**31.10.2025 at 17:00** Hrs onwards in CPP and IIMB website.
7	Pre-bid meeting	**Date: 10.11.2025, Time: 15:00 Hrs** **Venue: Q105 IIMB Existing Campus, Bannerghatta road, Bengaluru**
8	Deadline for submission of bid documents in CPP portal	**25.11.2025 at 12:00 Hrs**
9	Tentative date for uploading of result	**Will be intimated later.**

2. OBJECTIVE AND SCOPE OF CONSTRUCTION:

- **The Indian Institute of Management Bangalore (IIMB)** is one of the most prestigious business schools in India and is internationally recognized for its excellence in management education, research, and innovation. Established in 1973, IIMB is part of the IIM network, which includes some of the leading management institutes in India. IIMB offers a range of postgraduate, doctoral, and executive education programs aimed at developing world-class leaders.

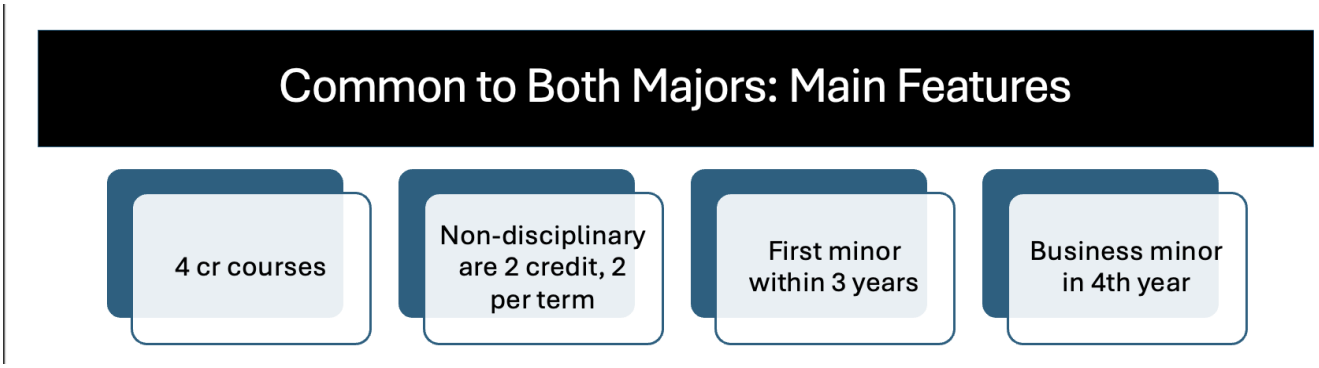
- The Indian Institute of Management Bangalore is a leading business school in Asia with around 100 full-time faculty members, more than 1200 students across various long duration programs and nearly 5000 annual Executive Education participants. The current campus spread over 100 acres was designed by the celebrated architect B V Doshi. Completed in 1983, the current campus of IIM Bangalore won the 17th spot among the '25 Most Significant Works of Post-War Architecture', according to The New York Times Style Magazine. The campus is a destination and a pilgrimage for students of architecture and practicing architects.

ABOUT UNDER GRADUATE CAMPUS @ NEW CAMPUS

- IIMB plans to develop a new campus for its soon to be launched Undergraduate programme in a 110-acre plot located approximately 25 km away from the existing campus. at Mahanthalingapura Village, Anekal Taluk, Bengaluru urban district.

Undergrad Curriculum Proposal

- Foundation courses (6 courses, 4 cr each) are common to Data Science and Economics Majors
- Core courses (16 courses, 4 cr each) are specific to Data Science and Econ majors
- Non-disciplinary courses are skill and personality development courses (16 courses, 2 cr each)
- Non-disciplinary courses are chosen based on UGC guidelines, and alignment with core objectives



- All students majoring in Data Science/Economics
    - Will receive a Data Science/Econ Hons degree (after 4 yrs) and a Data Science/Econ degree (after 3 yrs)
    - Will get two minors: one in Economics (for Data Sc) and in Data Sc (for Econ) and both in Business
- Minor in Business will business disciplines most relevant to Data Science majors/Econ (6 courses, 4 cr each)
- Minor in Economics (Data Sc) will economics (Data Sc) courses most relevant to Data Science (Econ) majors (6 courses, 4 cr each)
- Students are likely to go on summer internships after each year. Intent is to make them competitive in the job market after 3 yrs, 4 yrs.

Students will have the option to go abroad for a term (Semester 5)

Data Sciences Undergraduate Degree-Minor in Economics and Business

Data Science Hons. With Business and Econ Minors

- Proposed Curriculum

Data Science Hons with Business Minor

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI	Semester VII	Semester VIII
Programming 1	Statistical Inference	Stochastic Processes	Machine Learning	Time Series and Forecasting	Foundations of AI	Reinforcement Learning, Deep Learning	Sampling Design and Design of Experiments /Capstone
Probability	Programming 2	Data Structures Numerical Methods and Algorithms	Data Dashboards and Storytelling	Corporate Finance	Elective	Gen AI and Agentic AI	Nonlinear and Dynamic Programming / Capstone
Linear Algebra	Linear and Integer Programming	Data Mining and Decision Trees	Econometrics 2	Operations Management	Behavioural Economics	Building the New Venture	Valuation
Calculus	Differential and Difference Equations	Econometrics 1	Microeconomics 1	Elective	Game Theory	Managerial Decision Making	Investments
Professional Comm 1	Technical Wrtg 1	Professional Comm 2	Technical Wrtg 2	Environmental Science	Macroeconomics 1	Digital Literacy, DM Dev	Elective
Sports/Yoga	Critical Thinkg, Logic	Fdn Mgt 1	Undsg India &Economy	Hum Beh & Psych	Indian Constitution Law	Personal Finance	International Reln
					Fdn Mgt 2		Ethics and Value

Economics Undergraduate Degree-Minor in Data Science and Busine

Potential Electives (Data Sciences)

ss

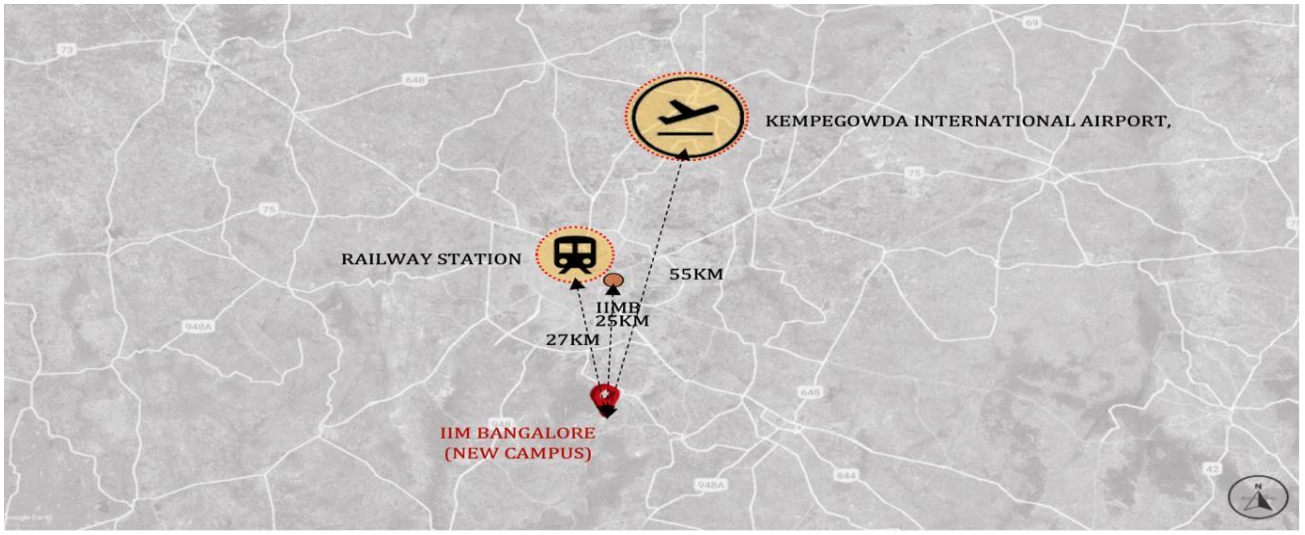
Proposed Program For Economics Major

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI	Semester VII	Semester VIII
Programming 1	Statistical Inference	Stochastic Processes	Machine Learning	Time Series and Forecasting	Foundations of AI	Advanced Mathematical Economics	Advanced Microeconomics /Capstone
Probability	Programming 2	Data Structures Numerical Methods and Algorithms	Money and Banking	Corporate Finance	International Economics	Advanced Econometrics	Advanced Macroeconomics /Capstone
Linear Algebra	Microeconomic Theory	Data Mining and Decision Trees	Econometrics 2	Operations Management	Behavioral Economics	Building the New Venture	Valuation
Calculus	Macroeconomic Theory	Econometrics 1	Game Theory	Elective	Elective	Managerial Decision Making	Investments
Professional Comm 1	**Technical Wrtg 1**	**Professional Comm 2**	**Technical Wrtg 2**	**Environmental Science**	Industrial Organization	**Digital Literacy, DM Dev**	Elective
Sports/Yoga	**Critical thinking Logic**	**Foundations of Management 1**	**Undsg India &Economy**	**Hum Beh & Psych**	**Indian Constitution Law**	**Personal Finance**	**International Reln**
					Foundations of Management 2		**Ethics and Value**

Potential Electives (Economics)

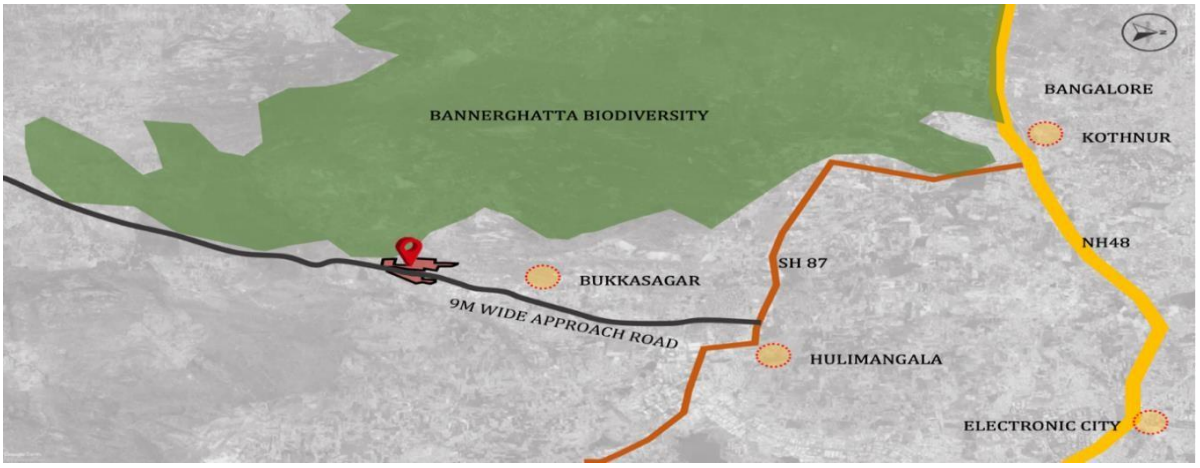
REGIONAL CONNECTIVITY TO NEW CAMPUS

- The new IIM Bengaluru campus is well-connected to key transportation hubs, enhancing its accessibility. Bengaluru City Railway Station (SBC), located approximately 25 km from the campus, serves as a major hub for both long-distance and regional trains, connecting the city to other parts of India. Additionally, Kempegowda International Airport (BLR), situated about 55 km away, is Bengaluru's primary international airport and a key transportation hub, offering extensive connectivity to domestic and international destinations. The campus's proximity to the airport further strengthens its accessibility for international students, faculty, and visitors, making it an ideal location for a globally connected educational institution.



SITE LOCATION

- The new proposed campus of IIM Bengaluru is strategically located with excellent local connectivity, enhancing its accessibility and potential for growth. The campus is approached via a 9-meter-wide road that connects directly to State Highway 87. This state highway serves as an important local arterial route, linking the campus to key parts of the surrounding region. State Highway 87 further connects seamlessly to National Highway 48 (NH48), one of the major national highways that links Bengaluru to various cities, including Mumbai, Pune, and Chennai. This direct linkage to NH48 ensures that the new campus is well-integrated into the broader road network, facilitating easy access for students, faculty, and visitors from across the region.



NEW CAMPUS SITE DETAILS

- The new IIM Bengaluru campus is spread across two distinct plots of land, with one part encompassing 73 acres and the other 41 acres. These two plots are separated by an existing 9-meter-wide road, which serves as a natural bifurcation between the two sections of the campus.

3. INSTRUCTION TO BIDDERS (ITB)

- Construction Period: **30 months including monsoon period**
- The Tender is in **EPC Mode – II**, where is the following Engineering, Procurement & Construction works are Included in the scope of the contractor.

Note: The approved Architectural, preliminary structural elements, interior space planning & other services requirements will be furnished by the architects for the project.

Sr. No.	Building Name	Approx. Built-up Area (in Sqm)
1	Educational Block (Floors G+6)	14,933.16
2	Library + Performing Arts Complex (G+5)	8,274.00
3	Hostel Block incl. Mess block (G+10)	23,417.17
4	Sports Complex (G+1)	5,948.00
5	Gate Complex (G)	375.00
6	Service Block (G)	1,000.00
Total built up area		**53,947.40**

SCOPE OF WORK:

- All the Civil, Electrical, Plumbing, Interior work and services should be executed satisfactory as per NBC, relevant BIS & CPWD specification.
- IT related Network & ERP.
- Finishes, furniture's & partitions for all class rooms, Admin area, Hostel Rooms, Security Block, Library, performing arts education block, mess block, sports complex with equipment's, Gate complex, service block
- Acoustics'
- Specialized Electrical & Mechanical works
- Diesel Generator sets
- EPABX / LAN Networking
- UPS Systems
- Door / Window Hardware
- Sanitary and water supply fixtures
- Electrical Fixtures
- HVAC with VRV/VRF system
- Sump tank
- Over Head tank
- Audio & Video works for classrooms
- Solar system water heating & lighting

- CCTV surveillance system
- Sewage treatment plant
- Signages
- Hydro pneumatic system for water supply
- Advanced AV for 8 smart classrooms
- Contractors should strictly follow sustainability factors during construction by reducing dust, noise control, etc,.
- External development works and under pass works as per BOQ
- RCC retaining walls / white topped road works
- Yard lighting works
- Subsurface drainage works
- Existing Nala improvement works
- General site cleaning, shrubs, removal, loose rocks, etc.,
- Establishing QC lab at site for material testing
- Posting of qualified safety Engineers on works
- The construction concept should be cost effective speed in construction, quality & safety in construction
- Supply, Installation, Testing and Commissioning (SITC) of Electrical cables, indoor and outdoor.
- SITC of architectural cladding materials / finishes as per drawing including Internal and External color, texture finishes of scheme as per architect's instructions.
- Upon completion of work EPC contractor should hand over the borewell with pump to IIMB, without any cost
- Supply, Installation, Testing and Commissioning of required HT / LT / Electrical Panels
- Supply, Installation, Testing and Commissioning of required electrical Generator set
- Supply, Installation, Testing and Commissioning of required submersible pump and others (Fire, etc.,)
- Supply, Installation, Testing and Commissioning of kitchen equipment's for 800 persons as per approved layout and equipment's
- Supply, Installation, Testing and Commissioning of solid waste management unit
- Supply, Installation, Testing and Commissioning of Gas lines in the kitchen
- Land scape works as per drawing
- Hard scape works as per drawing
- False ceiling with approval quality and make of material in classrooms, admin and other areas as per drawing
- Wall paneling works as per architect drawing.

4. QUALIFYING CRITERIA FOR PRE-QUALIFICATION

A. EXPERIENCE: The bidder should be a well-established and reputed establishment (for a minimum period of 15 years as on 30.09.2025, engaged in Civil Constructions of Building works for Government Institutions/ Organizations / undertakings (PSU) with CPWD / KPWD / MED / registration. Proof of the same shall be submitted for evaluation of the tender.

Joint venture companies will not be considered

B. SIMILAR WORK ELGIBILITY: -

Experience of having successfully completed similar works during last 7 years from the last stipulated date for submission of this Tender. **The completion certificate should be furnished duly signed by Executive Engineer rank and above.**

Sr. No	WORK ELIGIBILITY CRITERIA
1	**One similar completed work costing not less than the amount equal to 80% of the estimated cost i.e. at least ₹ 320.00 Crores of each work.** **Or** **Two similar completed work costing not less than the amount equal to 60% of the estimated cost i.e. at least ₹ 240.00 Crores of each work** **Or** **Three similar completed work costing not less than the amount equal to 40% of the estimated cost i.e. at least ₹ 160.00 Crores of each work** **SIMILAR WORK MEANS:** • Construction of state/central Government Educational Institutional buildings with all services as below, RCC framed structure having minimum one building of six and above stories, comprising of all required Civil and E&M services including internal water supply & sanitary installations, Internal and External Electrical Installations, Lifts, Firefighting, HVAC, IT Infra, Road work carried out in a single contract.
2	**Should have completed one building work in EPC I/II mode costing not less that Rs. 320 Crores (80% of Estimated Cost) within 7 years as on Date 30-09-2025**
3	**Contractor should have completed one-building work in hilly area with level difference of 15 meters and above. Supporting document to be provided.**
4	**Should have implemented or is being implemented BIM minimum LOD 350 in any one completed project or any one ongoing project.**

NOTE:

- Contractor should facilitate the inspection of works done by him.
- Godowns /Warehouses/factory sheds/industrial building shall not be considered as eligible similar works. Mumty and machine room shall not to be considered in story.
- Each stilt constructed in the building shall be considered as a story.
- For the purpose of similar works, works executed in India only shall be considered.
- Tender Evaluation Committee may inspect the works done by the contractor, if found unsatisfactory, contractor will be disqualified in the pre-qualification.
- **A weightage of 7% (compounded annually from the date of completion of the work to the last stipulated date for submission of the Bids) shall be given for equating the value of works to the last stipulated date for submission of the Bids.**
- Works shall be considered as “Completed Works” where physical completion of entire work is over.
- In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
- Value completed work done by a member in an earlier JV shall be reckoned only to the extent of the concerned member’s share in that JV for the purpose of satisfying his/her compliance to the above-

mentioned criteria in the tender under consideration.

- The Bidder should submit the details of such similar completed works as per **Annexure-D.**
- Works carried out by another Contractor on behalf of the bidder on a back-to-back basis will not be considered for satisfaction of Qualification Criterion by the Bidder.

C. Construction Experience in Key Activities

The bidder should have, in the last 7 (Seven) years prior to the **Date 30-09-2025**, executed the following key activities carried out in India.

I. **BIM Experience:** The Bidder should have executed or executing similar work with BIM Modelling using software application. BIM Modelling in line with completed design work to a LOD 350 level utilized in construction phase (Architectural & MEP). BIM related experience certificate issued by client is required to be submitted as proof of the firm dealing with BIM.

II. **Experience in Green Building Project:** The Bidder should have completed at least one Government Institutional and Academic buildings Project with minimum GRIHA 3-star rating / IGBC Platinum rating.

III. HVAC work costing not less than Rs. 10 Crores.

IV. Fire Protection system costing not less than Rs. 8 Crores.

V. Internal Electrical work costing not less than Rs. 25 Crores. Bidder should have valid Electrical Licenses.

VI. ELV works such as IP Based EPABX System, LAN, Networking system, Wi-Fi and CCTV System, AV System etc. Costing not less than Rs. 10 Crores

VII. Lift work costing not less than Rs. 4 Crores

VIII. 11kV/0.433 kV substation work including 33kV Receiving Substation and 4020 kVA DG set work cost not less than Rs. 5 Crores.

IX. Plumbing work costing not less than Rs. 7 Crores.

X. Should have executed Acoustic works in any of the Building Project.

XI. Should have executed outdoor playfield work in any of the Project.

NOTE:

A weightage of 7% (compounded annually from the date of completion of the work to the last stipulated date for submission of the Bids) shall be given for equating the value of works to the last stipulated date for submission of the Bids.

D. Key Technical Personnel & Resources: The Bidder should submit the details of key personnel along with CVs as listed in Annexure **G.**

E. Plant, Machinery & Equipment - List of minimum resources owned that will be used for the project not limited to the following. Details to be attached as per **Annexure H.**

Sl. No.	Name of the Equipment	Minimum Quantity
1.	Excavator cum loader	2
2.	DG set of minimum capacity 65 to 250 KVA.	1

3.	Batching plant with concrete pump (35 cum./hr.)	1
4.	System form work shuttering	31000 Sq.mt
5.	System scaffolding and staging materials (In Elevation area)	5000 Sq. mtr
6.	Tower crane	2

Note:

1. The above list is only indicative and not exhaustive. The bidder may be required to deploy more T&P as per requirement or work.
2. All the above plants & equipment's are to be deployed as and when required or directed by the Engineer-in-charge.

F. ANNUALTURNOVER: Should not be less than **₹ 400.00** Crores Annually for the previous three financial years as per the audited standalone statement of profit and loss

- Supporting documents to be submitted (2024-25, 2023-24 and 2022-23). P&L Statement and balance sheet with UDIN.
- **Provisional audited/ certified statement will not be accepted.**

G. PROFIT/LOSS: Bidder should be a Profit-making firm during any of the three financial years out of last five financial years.

- Supporting documents to be submitted (2024-25, 2023-24, 2022-23, 2021-22, and 2020-21). P&L Statement and balance sheet with UDIN.
- **Provisional audited/ certified statement will not be accepted.**

H. Net worth: Should have a minimum net worth of **Rs.200.00 crores** certified by Registered Chartered Accountant for the Financial year ending 31st March 2025.

I. BIDDING CAPACITY:

The bidding capacity of the agency should be equal to or more than the estimated cost of the work put to bid. The bidding capacity shall be worked out by the following formula:

Bidding Capacity = {[A x N x 1.5] – B} Where,

A = Maximum turnover in construction works executed in any one year during the last seven years taking into account the completed as well as works in progress. The value of completed works shall be brought to the current costing level by enhancing at a simple rate of 7% per annum.

N = Number of years prescribed for completion of work for which bids have been invited.

B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have be invited.

J. Disqualification:

Even if an applicant meets the eligibility criteria in pre-qualification, he shall be subject to disqualification if he or any of the constituent partners is found to have:

1. made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/ or.

2. Records of poor performance during the last five years, as on the date of application, such as abandoning the work, rescission of the contract for reasons which are attributable to non-performance of the contractor, inordinate delays in completion, consistent history of litigation resulting in awards against the contractor or any of the constituents, or financial failure due to bankruptcy, and so on.
3. On account of currency of debarment by any Government agency.
4. Canvassing whether directly or indirectly, in connection with bids is strictly prohibited and the bids submitted by the bidders who resort to canvassing will be liable to rejection.

An undertaking of the above may be submitted in stamp paper of Rs. 100, duly notarized.

Only those bidders who satisfies the eligibility criteria as per Clause 4 – A to J above, will be considered for satisfactory qualification to next stage of tendering, subject to Verification of documents.

5. GENERAL INSTRUCTIONS:

A. NO JOINT VENTURE OR CONSORTIUM or SPECIAL PURPOSE VEHICLE FIRMS SHALL BE ALLOWED.

B. NO SUBLETTING OF THE CONTRACT SHALL BE ALLOWED

C. IIMB reserves the right to verify the authenticity of the documents submitted by the contractors. IIMB also reserves the right to reject any or all applications, split the work and cancel the process without assigning any reason whatsoever.

D. Pre-qualification documents are available on **Central Public Procurement Portal**. Interested agencies/contractors may download the documents from the website and submit their Pre-qualification applications by the stipulated date and time. The format duly filled in along with all documents.

E. Time allowed for completion of work is **30 months** from the date of start or from the first date of handing over of the site, whichever is later.

F. The proposed work is of very prestigious nature and is required to be completed strictly within the prescribed time limit with the highest standards of quality and workmanship.

G. The details furnished in the pre-qualification document will be valid for a period of 90 days from the last date of uploading PQ documents.

H. Process of selecting contractor in EPC Mode – II as follows:

Two stages (Hybrid Mode).

Stage – I: Pre-Qualification Comprising of following

Cover – 1:

a) Transfer details of tender documents fee of Rs. 5,000/- + 18% GST = Rs 5,900/-

b) Transfer details of EMD of Rs. 8.00 Crores (Rupees Eight Crores only) or Bank Guarantee from a nationalized bank as per format enclosed vide **Annexure-O**. The Above details are to be uploaded by the Contractor in CPP portal.
c) Bid submission as per Pre-Qualification document.

The pre-qualified contractors will be allowed to download the Technical and Financial Bid documents.

Stage – II: Will be processed in QCBS in a weightage of 20% towards the Technical Bid and 80% towards the Financial Bid

The Technical documents comprise of the following:

Work qualification, evaluation criteria with marks awarded by TEC, technical specifications, presentation on the contractor's approach to completion of the above said work, plant and machinery, inhouse technical staff and other infrastructure etc., available with the EPC contractor.

Only the contractor who qualifies in the Technical Bid with 70% marks and above will be considered for opening their Financial Bid.

Financial Bid will comprise of the following: -

Part A -The contractor should quote rates in square meters for the different block for all the works and specifications stated in the Technical Bid.

Part B -Contractor should quote for BOQ towards external development and subway works.

The combined evaluation as per QCBS will arrive as per norms and the contractor with highest rank will be considered for awarding the work.

6. List of Document (Annexures) to be scanned and uploaded within the period of bid submission as applicable:

CHECKLIST OF BID SUBMISSION

Sl.No.	Item	Yes/No	Document submission
1	Instrument towards Cost of Tender Document		To be uploaded on e-procurement portal. Supporting documents to be uploaded
2	Instrument towards Cost of Earnest Money deposit (Format of Bank Guarantee towards EMD enclosed at Annexure-O)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
3	Letter of Transmittal (Annexure- 1)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
4	Application Form (Annexure-A)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
5	Financial Information (Annexure-B)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
6	Net worth Certificate (Annexure-C)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
7	Details of 'SIMILAR' WORKS Completed during the last seven years ending by 30.09.2025 (Annexure- D)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
8	Details of Building PROJECTS ON HAND – under execution or awarded (Annexure-E)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
9	Details of Construction Experience in Key Activities (Annexure-F)		To be uploaded on e-procurement portal. Supporting documents to be uploaded

10	Details Of Key Technical Personnel Employed in the Organization (Annexure-G)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
11	Details of Plant & Machinery, Manufacturing Units, Tools and Equipment's Likely to be used in carrying out the work. (Annexure-H)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
12	Details of work executed in EPC Mode (Annexure- I)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
13	Details of work executed in Hilly area (Annexure- J)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
14	Details of work experience in BIM Modelling (Annexure- K)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
15	Details of Experience of GRIHA Certification (Annexure- L)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
16	Format for Power of Attorney (Annexure – M)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
17	Declaration about Site Inspection (Annexure- N)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
18	Format – Bank Guarantee for Earnest Money deposit (Annexure- O)		For reference
19	Bidding Capacity (As per Clause 4 I)		To be uploaded on e-procurement portal. Supporting documents to be uploaded
20	Self-declaration in Rs. 100 stamp paper duly notarized		To be uploaded on e-procurement portal.

	(As per Clause 4 J)		Supporting documents to be uploaded

NOTE:

A. TENDER SUBMISSION

- After evaluation of applications for pre-qualification, based on the evaluation criteria, list of qualified/shortlisted contractors will be prepared. Thereafter, pre-qualified contractors only would be invited to submit tenders for the work.
- **The Authority (IIMB) reserves the right to: -**
  a. Amend the scope and value of contract to the bidder.
  b. Accept or Reject any or all of the applications without assigning any reasons whatsoever.

B. The IIMB reserves the right to verify the particulars furnished by the applicant independently. If any information furnished by the applicant is found incorrect at a later date, he/they shall be liable to be debarred from tendering/taking up of work in IIMB and the tender/work will be cancelled, whenever it is so noticed. The department will not pay any damages to the Company or firm or the person concerned. The Company or Firm or the person will be also debarred for further participation in any tender in the IIMB Further, any breach of this condition by the bidder would also render him liable to be removed from the approved list of contractors of IIMB

C. Prospective bidder may contact The Project Manager, IIMB, Bannerghatta Road, Bengaluru-560076. for any clarification / issue relevant to this notice. However, queries / clarifications (if any) may also be sent to ms.vishwanath@iimb.ac.in and madhusudan.r@iimb.ac.in **and Contact Number 080-26993741/3551/301**

Annexure 1

LETTER OF TRANSMITTAL
(Performa to be typed on the letter head of the Applicant)

The Chief Administrative Officer
Indian Institute of Management
Bannerghatta Road
Bengaluru-560076

Sub: Submission of Expression of Interest (EOI) for PRE-QUALIFICATION OF CONTRACTORS FOR CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS ON EPC MODE-II AT SURVEY NO.47, MAHANTHALINGAPURA VILLAGE, JIGANI HOBLI, ANEKAL TALUK, BENGALURU URBAN DISTRICT

Dear Sir,

1. I/We have read, understood & examined the Prequalification documents, along with other details / formats, the receipt of which is hereby duly acknowledged, including subsequent pre-Bid clarifications/ modifications / revisions, if any, furnished by the IIMB and we submit our application/offer for the pre-qualification of contractor for construction of Phase-I Sustainable Undergraduate Campus for IIMB New Campus on EPC Mode-II. The undersigned is authorized to sign the documents/papers, on behalf of the firm and the document delegating this authority is enclosed with this letter.

2. We certify that we have not made any changes in the contents of the pre- qualification document submitted by us, including its amendments/clarifications provided by IIMB. We shall abide by the terms & conditions spelt out in the IIMB / notice/ pre-qualification invitation.

3. It is further certified that the contents of our Bid are factually correct. We also accept that in the event of any information/ data / particulars proving to be incorrect, IIMB will have the right to disqualify us from any or all bidding process.

4. I/We also understand if any false information is detected at a later stage, including in any future contact made between ourselves and IIMB, on the basis of the information given by me/us will be treated as invalid by the IIMB.

5. We confirm that we have not induced or attempted to induce any other applicants to submit or not to submit an offer/application for restricting competition. Also, we undertake that we will not resort to canvassing with any official of the IIMB, connected directly or indirectly with the pre-qualification process to derive any undue advantage. We also understand that any violation in this regard, will result in disqualification of the applicant from further pre-qualification process.

6. We undertake that we will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Bank, connected directly or indirectly with the pre-qualification process, or to any person, organization or third party related to the contract in exchange for any advantage in the pre- qualification, Bidding, evaluation, contracting and implementation of the contract. We shall abide by all the laws/rules/regulations pertaining to prevention of corruption in force.

7. We understand that you are not bound to accept any particular or all the offers you may receive. You may reject all or any offer/proposal/application without assigning any reason or giving any explanation whatsoever. I/We agree that the decision of the IIMB in selection of the contractors will be final and binding on me/us.

8. We confirm that we do not have any litigation / cases excluding arbitration pending against us in any PSU / State or Central Govt departments. We also confirm that we have not been blacklisted by Any PSU / State or Central Govt Office/ departments for any reasons, except the undernoted (details should be mentioned along with period and reasons thereof).

9. I/We also agree that I/We have no objection if inquiries are made about the works listed by me/us in the accompanying sheets or any other inquiry on the information furnished herewith in the accompanying sheets or in respect of papers/documents submitted.

(Signature)
Stamp
Name:
Date:
In the capacity of (for and on behalf of):

Enclosed: 1. Duly completed application with all enclosed details
2. Letter of authority for delegation of signing power

ANNEXURE-A

APPLICATION FORM

1.	Name of the contractor Firm/ company:	
2.	Type of Organization (whether Sole Proprietorship, Partnership, private Limited or Co-op. body etc.)	
3.	Year of establishment of the Firm/company	
4.	Whether registered with the registrar of companies / registrar of firms (if so, mention number & date of registration and submit supporting documents)	
5.	Year since the firm/ company is in the line of business/ activity of construction	
6.	Official/ registered address of the firm/ company	
7.	Correspondence address of the firm/company	
8.	Email-ID of the firm/company	
9.	Landline number (with STD code) of the office/firm	
10.	Name, mobile number & email ID of contact person	
11.	Address of office in Bengaluru, if available.	
12.	Whether Firm has ISO Certification? Mention details	
13.	GST Registration number (Copy to be attached)	
14.	PAN No.	
15.	Registration for EPF/ RPFC	
16.	Registration for ESIC	
17.	Registration under the Contract Labour Act	
18.	Registration number under Labour Welfare Act	

19.	Details of Similar works of Project completed during the last 7 years, as per format given in annexure (Copies of work orders & completion certificates must be enclosed)	As per format Annexure D
20.	Details of ongoing building projects	As per format Annexure E
21.	Details of Construction Experience in Key activities	As per format Annexure F
22.	Financial Information as per format given at Annexure B (Enclose copies of audited balance sheet and profit & loss statements and CA Certificate)	As per format Annexure B & C
23.	Details of Key Personnels	As per format Annexure G
24.	Details of equipment available with the firm –	As per format Annexure H
25.	Mention if blacklisted and / or blacklisting proceedings pending with any client. Details of the same, with reasons, to be furnished.	
26.	Details of disputes / litigations, if any, during the period of last 07 years	
27.	Whether any penalty imposed by law enforcing agencies such as labour department, sale tax, GST, etc.	
28.	Details of penalty / liquidated damage imposed by any client for defective /delayed/non-completion of work or violation of terms of the contract, during the last 7 years, ended on 30.09.2025. If yes, please provide details thereof, with reasons.	
29.	Whether firm had been barred from participating in the bidding process or kept in cooling period/under suspension by any client, during the last 7 years, ended on 30.09.2025. If yes, please provide details thereof, with reasons.	
30.	Please indicate details of any bankruptcy / winding up of proceedings at any point in time in past	

Annexure B

FINANCIAL INFORMATION

I. Banker Details

Name of the Bank :
Branch with Address :
City :
Contact person in the Bank :
Contact Details :

II. Details of Chartered Accountant

Name :
Address :
Registration details of accountant :
Contact Number :
E-mail address :

III. Financial Analysis – Details to be furnished duly supported by figures in Balance Sheet/Profit and Loss Account for the last Five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income-Tax Department (Copies to be attached).

Sl. No.	Particulars	Financial Year				
		2020-21	2021-22	2022-23	2023-24	2024-25
1	**Gross Annual Turnover**					
2	**Turn-Over**					
3	**Profit/loss after Taxes (consolidated)**					
4	**Profit/loss after Taxes (standalone)**					

IV. Net Worth Certificate from Chartered Accountant in the prescribed **Annexure "C"**.

Signature of Charted Accountant with seal

Signature of bidder

Annexure C

FORM FOR CERTIFICATE OF NET WORTH FROM CHARTERED ACCOUNTANT

This is to certify that as per audited balance sheet and profit & loss account during the financial year…….. the Net Worth of M/S …… (Name & registered address of Individual/Firm/Company), as on.....the relevant date is Rs..... after considering all liabilities. It is further certified that Net Worth of the company has not eroded by more than 30 % in last three years ending on 31.03.2025.

S. No.	Financial Years	Net Worth (in Rs.)	Documents placed at	Remarks

Signature of Charted Accountant

Name of Charted Accountant

Membership of ICAI

Date and Seal

ANNEXURE D

DETAILS OF ALL 'SIMILAR' WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING BY 30.09.2025.

S. No.	Name of work/ project & location	Client	Date of Agreement with the client	Scope of work executed	Built up area of the project in sqm.	Cost of project work in Crores	Date of commencement as per contract & actual date of commencement	Stipulated Date of completion & Actual date of completion	Litigation / Arbitration pending/ In progress with details (if any)	Name and address with contact No. of client to whom reference shall be made	Remarks

Signature of bidder

Annexure E

BUILDING PROJECTS ON HAND - UNDER EXECUTION OR AWARDED

Sl. No.	Name of work/ project & location	Client / Owner	Type of Client / Owner (Mention Govt/ / Semi Govt / PSU / Autonomous)	Date of Agreement with the owner	Built up area of the project in sqm	Cost of project work in Crores	Date of commencement as per contract & actual date of commencement	Stipulated Date of completion	Upto date Percentage of progress of work completed (Financial)	Delay in progress (if any) and reasons thereof	Remarks (Indicate whether any show-cause notice issue or Arbitration initiated during (The progress work)

Signature of bidder

ANNEXURE F

CONSTRUCTION EXPERIENCE IN KEY ACTIVITIES

SL. No.	Key Activity/ Component	Quantity of Key Activity/ Component Executed	Amount of Key Activity/ Component Executed	Name of work	Name of Client	Certificate placed at	Remarks
1							
2							
3							

Annexure G

DETAILS OF KEY TECHNICAL PERSONNEL EMPLOYED IN THE ORGANIZATION

Sl No	Name of Key Person	Nos	Designation	Qualification	Minimum Experience (Years)	Specialized Expertise
1	Key Management Personnels	3 nos			25 years	
2	Project Manager	10 nos			15 years	
3	Site Engineer/Site In charge	50 nos			7 years	
4	MEP Expert	5 nos			5 years	
5	Planning Engineer	4 nos			3 years	
6	Safety Expert	4 nos			3 years	
7	Structural Engineer	3 nos			5 years	

Signature of bidder

Note:

1. The CVs of the above personnels may be enclosed as per clause 4- D above.

Annexure H

DETAILS OF PLANT & MACHINERY, MANUFACTURING UNITS, TOOLS AND EQUIPMENTS LIKELY TO BE USED IN CARRYING OUT THE WORK.

SL. No	Name of the Tools / Machinery / Equipment	Unit	Capacity or Type	Quantity	Ownership Status (Owned - Yes/No)	Remarks

Signature of Bidder

Annexure I

'FORMAT FOR DETAILS OF EPC WORK

Sl. No.	Name of work/ project & location	Client / Owner	Type of Client / Owner (Menti on Govt / Semi Govt / PSU / Autonomous)	Cost of project work in Crores	Date of commencement as per contract or actual date of commencement	Date of completion	Mode of EPC

Signature of Bidder

Annexure J

FORMAT FOR DETAILS OF WORK DONE IN HILLY AREA

Sl. No.	Name of work/ project & location	Client / Owner	Type of Client / Owner (Menti on Govt / Semi Govt / PSU / Autonomous)	Cost of project work in Crores	Date of commencement as per contract OR actual date of commencement	Date of completion	Details of the Project (Contour details, Location of the project etc)

Signature of Bidder

Note: Supporting documents to be attached.

Annexure K

FORMAT FOR WORK EXPERIENCE IN BIM MODELING

Sl. No.	Name of work/ project & location	Client / Owner	Type of Client / Owner (Menti on Govt / Semi Govt / PSU / Autonomous)	Cost of project work in Crores	Date of commencement as per contract o r actual date of commencement	Date of completion	Details of Experience in BIM Modeling

Signature of Bidder

NOTE: Experience Certificate issued by client to be attached.

Annexure L

FORMAT FOR WORK EXPERIENCE IN GRIHA CERTIFICATION

Sl. No.	Name of work/ project & location	Client / Owner	Type of Client / Owner (Menti on Govt / Semi Govt / PSU / Autonomous)	Cost of project work (in Crores)	Date of commencement as per contract or actual date of commencement	Date of completion	Details of Experience in GRIHA

Signature of Bidder

NOTE: Experience Certificate issued by client to be attached.

Annexure M

FORMAT FOR POWER OF ATTORNEY TO AUTHORISED SIGNATORY

(To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the firm/company who is issuing the Power of Attorney)

We, M/s ..... (name of the firm/company with address of the registered office) hereby constitute, appoint and authorize Mr./Ms.……. (Name and residential address) who is presently employed with us and holding the position of..... and whose signature is given below as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to our bid for the work ..... (name of work), including signing and submission of application/proposal, participating in the meetings, responding to queries, submission of information/documents and generally to represent us in all the dealings with IIMB or any other Government Agency or any person, in connection with the works until culmination of the process of bidding, till the Contract Agreement is entered into with IIMB and thereafter till the complete discharge of all contractual obligations.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid Attorney shall always be deemed to have been done by us.

……..

(Signature and name in block letters of *All the partners of the firm, *Authorized Signatory for the Company)

(*Strike out whichever is not applicable) Seal of firm/ Company

Witness 1:	Witness 2:
Name:	Name:
Address:	Address:
Occupation:	Occupation:

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

ANNEXURE N

DECLARATION ABOUT SITE INSEPCTION

To

The Chief Administrative Officer,

IIMB, Bannerghatta Road,

Bengaluru – 560076

NAME OF WORK: CONSTRUCTION OF PHASE-I SUSTAINABLE UNDERGRADUATE CAMPUS FOR IIMB NEW CAMPUS ON EPC MODE II AT SURVEY NO.47, MAHANTHALINGAPURA VILLAGE, JIGANI HOBLI, ANEKAL TALUK, BENGALURU URBAN DISTRICT

Dear Sir,

It is hereby declared that as per Tender Notice for e-BIDDING and as per terms and conditions of this tender document, I/We the bidder inspected and examined the subject site and its surrounding and satisfied/acquainted myself/ourselves with the nature of the site, ground and sub-soil characteristics, climatic conditions of the region, magnitude of difficulty in accessing the site, risks, challenges, methodology for housing the labor/stacking of material and all other contingencies required to executive the work before submitting the bid. I/We, the bidder shall have full knowledge of the site of work and nothing I/We shall not claim any extra on account of any difficulty and / or additional expenses to work and my quoted rates are inclusive of all such additional incidental cost. I/We bidder shall be responsible for arranging and maintaining at my/our own cost all materials, tools & plants, water, electricity, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by me/us implies that I/We have read the contract document properly and has made myself/ourselves aware of the scope and specifications of, local working conditions and other factors having a bearing on the execution of the work.

Yours faithfully,

(Duly authorized signatory of the bidder)

ANNEXURE O

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT (EMD)
(On Non-Judicial Stamp Paper of Appropriate Value)

To,
IIM Bangalore
Bannerghatta Road,
Bengaluru-560076

1. WHEREAS IIM Bangalore …….. (hereinafter called 'The Employer') (which expression shall unless repugnant to the subject or context include its successors and assigns) has invited bids by way of E-tender Number-…… dated …….. (hereinafter called 'the Tender') for …… (Construction of Phase-I Sustainable Undergraduate Campus for IIMB New Campus on EPC Mode II at Survey No.47, Mahanthalingapura Village, Jigani Hobli, Anekal Taluk, Bengaluru Urban District);

2. AND WHEREAS …… (name of the bidder) (hereinafter called 'the Bidder') has submitted a bid for the Tender to the Employer.

3. AND WHEREAS a Bank Guarantee for Rs…… (Rupees …….. only) (Amount of EMD) in favour of IIM Bangalore (hereinafter called the "Beneficiary") valid till …… (the date of validity of this Guarantee from the date of the submission of Tender's offer) is required to be submitted by the Bidder as EMD along with the Tender.

4. We ……. (Name of the bank) having our office at …….. (Address of the bank) (hereinafter called 'the Bank') hereby give this Bank Guarantee and hereby agree unequivocally and unconditionally to pay to IIM Bangalore immediately on demand and without demur to the extent of the said sum of Rs. …… (Rupees …… only) for which payment well and truly to be made to the said Beneficiary, the Bank binds itself, its successors and assigns by these presents on default of any of the conditions of the Tender as follows:

i. if the Bidder after bid opening, but before expiry of bid validity or issue of Letter of Acceptance, whichever is earlier,

1. withdraws his tender; or
2. makes any modification in the terms and conditions of the tender which are not acceptable to the Employer
3. impairs or derogates from the tender in any respect within the period of validity of the tender
4. If the bidder does not accept the correction of his price during evaluation

ii. in case any information/document which may result in the Bidder's disqualification is concealed by the Bidder or any statement/information/document furnished by the Bidder or issued by a Bank/Agency/Third Party and submitted by the Bidder, is subsequently found to be false or fraudulent or repudiated by the said Bank/Agency/Third Party.

ii. in the case of a successful Bidder, if the Bidder fails to furnish the Performance Guarantee within the period specified under Clause 1 of "Clauses of Contract".

5. We undertake to pay to the Beneficiary up to the above amount upon receipt of its first written demand, without the Beneficiary having to substantiate its demand, provided that in its demand the Beneficiary will note that the amount claimed by it is due to its owing to the occurrence of one or more of the conditions mentioned above, specifying the occurred condition or conditions.

6. This guarantee will remain in force up to …….. and any demand in respect thereof should reach the Bank not later than the above date.

7. NOTWITHSTANDING ANYTHING CONTAINED HEREIN:

I. Our liability under this Bank Guarantee shall not exceed Rs. …… (Rupees …… only)

II. This Bank Guarantee shall be valid up to ……..

III. It is a condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before …….. failing which our liability under the guarantee will automatically cease.

Seal:

Date:

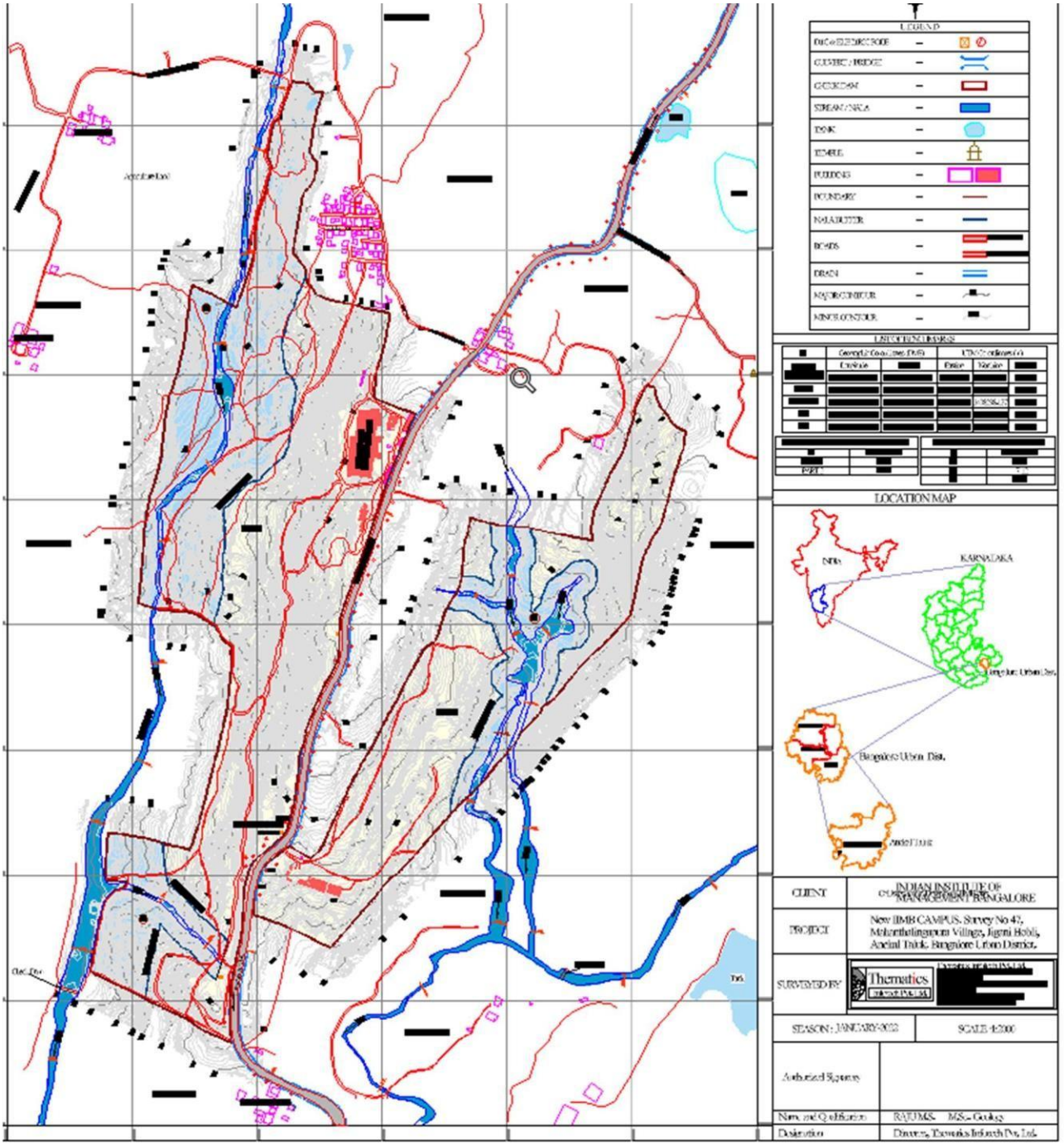
(Authorized Signatory of the Bank)

NOTE: Validity of Bank guarantee – For Six (6) Months from date of issue.

BANK DETAILS

1	IFSC CODE	SBIN0040803
2	APPLICANT LEGGAL NAME	Indian Institute of Management Bangalore
3	BENEFICIARY NAME	Indian Institute of Management Bangalore
4	BENEFICIARY INCROPORATION DATE	27th March 1972
5	BENEFICIARY PAN NAME	AAAAI0405N
6	BENEFICIARY MAIL ID	cfo@iimb.ac.in

7. SITE SURVEY MAP



d) GEO TECHNICAL REPORT

INDEX

ABBREVIATIONS

DCPT	Dynamic Cone Penetration Test
DS	Disturbed Sample
IS	Indian Standards
LL	Liquid Limit
PI	Plasticity Index
PL	Plastic Limit
PL	Point load Index
REF	Refusal
SBC	Safe Bearing Capacity
SPG	Specific Gravity
SPT	Standard Penetration Test
LSF	Local Shear Failure
GSF	General Shear Failure

1.0 INTRODUCTION:

Indian Institute of Management, Bangalore has proposed Soil Investigation at Mahanthalingapura Village, Jigani Hobli Anekal taluka, bangluru. The purpose of the investigation was to determine the subsoil stratification, geotechnical information and safe bearing capacity to provide information that will assist the structural engineers in the design of the foundations and the relevant works. *The work was awarded to M/s Bhaskram Jyotish Anusandhan Kendra Private Limited LOA issued* vide Letter No. PM/IIMB/UG/GI/2023- 2024/02 Dated 08.09.2023 .

The objectives of the sub soil/rock exploration were-

- To determine the probable sub surface conditions such as stratification, denseness or hardness of the strata, position of ground water table etc.
- To give probable range of safe bearing capacity for the structure. To accomplish these purposes, the study was conducted in the following phases.
- Drilling boreholes in order to determine site stratification and to collect disturb & undisturbed soil samples and rock core samples for laboratory testing.
- Testing on selected soil/rock samples in the laboratory to determine physical and engineering properties of the soil/rock.
- Analysing all field and laboratory data in order to develop engineering recommendations for foundation design and construction.
- To know the resistance of the sub-surface layers.
- To study the sub-surface resistivity at various depths.

Field work of borehole and other tests are summarized below.

Table No.-1 (Boreholes)

Description	Termination depth(m)	Date of Field work	Water Table (BGL)(m)
BH-01	2.00	12-10-2023	NIL
BH-02	2.00	11-10-2023	NIL
BH-03	3.00	10-10-2023	NIL
BH-04	1.50	11-10-2023	NIL
BH-05	1.50	11-10-2023	NIL
BH-06	2.00	11-10-2023	NIL
BH-07	1.00	09-10-2023	NIL
BH-08	9.50	09-10-2023	NIL
BH-09	3.50	09-10-2023	NIL
BH-10	9.50	10-10-2023	NIL
BH-11	3.00	10-10-2023	NIL
BH-12	3.00	10-10-2023	NIL
BH-13	1.00	10-10-2023	NIL
BH-14	1.50	10-10-2023	NIL
BH-15	3.00	09-10-2023	NIL
BH-16	3.00	11-10-2023	NIL
BH-17	3.00	11-10-2023	NIL
BH-18	1.50	13-10-2023	NIL
BH-19	21.50	14-10-2023	5.80
BH-20	10.00	14-10-2023 to 15-10-2023	5.40
BH-21	18.00	16-10-2023 to 19-10-2023	5.50
BH-22	20.00	22-10-2023	9.50

BH-23	21.0 0	19-10-2023 to 22-10- 2023	7.60

Table No.-2 (DCPT)

Description	Date of Field work DD-MM-YYYY	Depth (m.)
DCPT 01	12/10/2023	0.90
DCPT 02	12/10/2023	1.20
DCPT 03	10/10/2023	1.20
DCPT 04	11/10/2023	1.20
DCPT 05	11/10/2023	0.90
DCPT 06	11/10/2023	1.20
DCPT 07	09/10/2023	1.20
DCPT 08	05/10/2023	1.50
DCPT 09	09/10/2023	1.80
DCPT 10	06/10/2023	1.20
DCPT 11	10/10/2023	1.20
DCPT 12	10/10/2023	1.20
DCPT 13	10/10/2023	0.90
DCPT 14	10/10/2023	0.90
DCPT 15	09/10/2023	1.80
DCPT 16	11/10/2023	1.20
DCPT 17	11/10/2023	1.20

The Job was carried out under the guidance and supervision of the officials of IIMB, Bangalore, (India) and authorized representative of M/s Bhaskram Jyotish Anusandhan Kendra Private Limited.

2.0 GEOLOGY OF MAHANTHALINGAPURA

2.1 Geography

Mahanthalingapura is a small village located in Anekal Taluka, part of the bustling Bangalore district in Karnataka, India. The landscape features a mix of flat plains and gentle rolling hills, typical of the Deccan Plateau. The area primarily supports agriculture, with fields of rice, sugarcane, and vegetables dotting the land. Water sources like small ponds and streams are not uncommon, providing vital irrigation. The climate is tropical, with hot summers and mild winters, receiving moderate rainfall during the monsoon season. The village is well- connected by local roads, making it accessible for trade and travel. Overall, Mahanthalingapura offers a blend of rural charm within proximity to urban Bangalore.

2.2 Geology

Mahanthalingapura in Anekal Taluka, Bangalore, sits on the Deccan Plateau, characterized by hard, crystalline rock formations. The dominant geological feature is granite, often overlaid with layers of red laterite soil, ideal for certain types of agriculture. The region also contains deposits of minerals like quartz and feldspar. The area's terrain is relatively flat but slightly undulating, adding some topographical variety. Groundwater availability is moderate, usually accessed through borewells. The geological stability of the region makes it less prone to natural disasters like earthquakes. Overall, the geology of Mahanthalingapura contributes to its agricultural potential and low susceptibility to geological risks.

2.3 Climate

Mahanthalingapura in Anekal Taluka, Bangalore, experiences a tropical savanna climate. Hot summers run from March to May, with temperatures soaring up to 35°C. Monsoon season follows from June to September, bringing moderate to heavy rainfall that replenishes local water sources. Winters are mild, lasting from November to February, with temperatures ranging between 10°C and 25°C. The area also sees occasional foggy mornings during winter months. The climate supports a range of flora and fauna, and is conducive to agriculture, especially crops like rice, sugarcane, and various vegetables. Overall, the climate in Mahanthalingapura is a mix of hot, wet, and

mild conditions throughout the year.

2.4 Seismicity

Mahanthalingapura, located in Anekal Taluka of Bangalore, is generally considered to be in a seismically stable zone. The area falls under Seismic Zone II, according to the Earthquake Zoning Map of India. This means it has a low susceptibility to earthquakes. The underlying rock formations, mainly granite, contribute to this stability. There's little historical record of significant seismic activity affecting this specific region. Building codes and construction practices in the area often follow standard guidelines but do not necessarily have to be designed for high seismic resistance. Overall, the risk of earthquake-related damage in Mahanthalingapura is considered to be low.

3.0 FIELD WORK

3.1 Boreholes:

A total of twenty-three boreholes were drilled. Boreholes BH-07 and 13 reached a depth of 1 meter, BH-04, 05, 14 and 18 depth up to 1.50 meters, BH-01, 02 and 06 depth up to 2.00
meters, for BH 03, 11, 12, 15, 16 and 17 depth up to 3.00 meters, BH 09 depth up to 3.50 meters, BH 08,10 depth up to 9.50 meters , BH 20 depth up to 10.0 meters, BH 21 depth up to
18.00 meters, BH 23 depth up to 21.00 meters, BH 19 depth up to 21.50 meters the existing ground level (EGL). The work was carried out in accordance with IS:1892–2021. The locations of the boreholes were identified through consultation with the concerned officials from the client's side.

3.2 Disturbed Samples:

Disturbed samples were systematically collected, meticulously logged, accurately labelled, and carefully placed in durable polythene bags, ensuring the preservation of their integrity for further analysis and study, while adhering to the best practices and guidelines for handling specimens.

3.3 Undisturbed Samples:

Undisturbed soil samples were meticulously collected using a 150 mm diameter thin- walled sampler, commonly known as a Shelby tube, from various depths within the borehole. This method ensured that the integrity of the soil samples was preserved, allowing for accurate analysis and evaluation of the geotechnical properties, while adhering to established best practices and guidelines for soil sampling and investigation procedures.

3.4 Standard Penetration Test:

The standard penetration test (SPT) is a field test used to determine the in-situ resistance of soil to penetration. The test is conducted in accordance with Indian Standard IS 2131-1981 (Reaffirmed Year: 2021).

The SPT is performed by driving a split-spoon sampler into the ground using a 63.5 kg hammer dropped from a height of 750 mm. The number of blows required to drive the sampler a depth of 300 mm is recorded. The SPT is typically performed at multiple depths to get a profile of the soil resistance with depth.

The SPT data is used to correlate with other soil properties, such as bearing capacity, density, and liquefaction potential. The SPT is also used to monitor the compaction of soil and to assess the quality of ground improvement programs.

3.5 Dynamic Cone Penetration Test (DCPT) as per IS 4968: Part 2: 1976

(Reaffirmed Year 2021)

The Dynamic Cone Penetration Test (DCPT) is a field test used to determine the in-situ resistance of soil to penetration. The test is conducted in accordance with IS 4968: Part 2: 1976 (Reaffirmed Year 2021).

The DCPT is performed by driving a 60-degree cone penetrometer into the ground using a 65 kg hammer dropped from a height of 750 mm. The number of blows required to drive the penetrometer a depth of 300 mm is recorded. The DCPT is typically performed at multiple depths to get a profile of the soil resistance with depth.

The DCPT data is used to correlate with other soil properties, such as bearing capacity, density, and liquefaction potential. The DCPT is also used to monitor the compaction of soil and to assess the quality of ground improvement programs.

4.0 LABORATORY TEST

The following laboratory tests were performed on undisturbed and disturbed soil samples as per relevant Indian Standards for identification, classification purposes and to obtain other relevant Engineering properties of the sub-surface formation.

Summary of IS code to be carried out for the Project		
Sr. No	**Type of Test**	**Standard Code followed for carrying out the test**
A	**Field Test**	
1	Standard Penetration Test	IS: 2131: 1981 (Reaffirmed Year: 2021)
2	Dynamic cone penetration test	IS 4968: Part 2: 1976 (Reaffirmed Year: 2021)
B	**Tests on Soil Samples (Laboratory Test)**	
1	Specific Gravity	IS 2720: Part III/Sec 2: 1973 (Reaffirmed Year: 2021)
2	Moisture content	IS 2720: Part II: 1973 (Reaffirmed Year: 2020)
3	Particle Size Distribution	IS 2720: Part IV: 1985 (Reaffirmed Year: 2020)
4	Atterberg Limits	IS 2720 Part V: 1985 (Reaffirmed Year: 2020)

All these tests are conducted as per relevant IS Code where such exists and the test results are tabulated in Tables attached with the report.

5. SAMPLE CALCULATION OF SBC

Bearing Capacity (Based on RMR) of as per IS 13365 (P-1), 1998 at 3.00 m Depth on rock layer BH-08

Sr. No.	Description	Condition	Rating as Per IS:13365 (Part I) Annex B
1.	Strength of intact rock Material	Extremely Weak	2
2.	Rock Quality Designation	Very Poor	8
3.	Spacing of Discontinuities	Considering very close	5
4.	Condition of Discontinuity	Assuming 5mm thick gauge	10
5.	Ground Water Condition	Considering Wet	7
6.	Orientation of discontinuity	Considering Fair	-7
		RMR	25

As per IS: 12070-1987, Table 3,

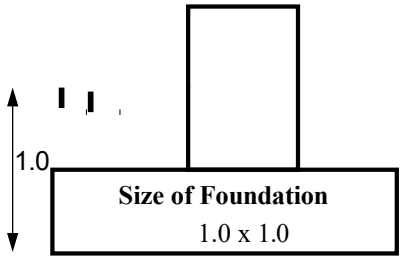
RMR: 21 qns = 58 t/m2

RMR: 30 qns = 90 t/m2

By interpolation for RMR value = 25 the net safe bearing capacity is obtained as **72.22** t/m2 without exceeding total settlement 12mm.

Sample Calculation for Allowable Bearing Capacity (Isolated)

Ref : BH 1 at Depth 1.00



*Dimensions in Meter

Width of Foundation (B)	: 1.0	m
Length of Foundation (L)	: 1.0	m
Depth of Foundation (D_f)	: 1.0	m
Shape of Foundation	: Square	
Ground WaterTable	: NIL	
(GWT)	: 8.95	%
Natural Moisture Content (NMC)	: 18.50	kN/m^3
Bulk Density of Soil (γ_b)		
Specific Gravity of Soil (G_s)	: 2.63	
Void Ratio	: 0.73	
Saturated Density of Soil (γ_{sat})	: 20.13	kN/m^3
Cohesion (c)	: 0.00	kN/m^3
phi (ϕ)	: 30.00	^{0}
Type of failure	: General shear failure	
Factors of safety	: 3	

Ultimate Net Bearing Capacity

Shear Criterion As per IS 6403 : 1981 (Reaffirmed Year : 2021)

For General Shear Failure

$Q_{nu} = c \times Nc \times Sc \times dc \times ic + q \times (Nq-1) \times sq \times dq \times iq + 0.5 \times B \times \gamma \times N\gamma \times S\gamma \times d\gamma \times I\gamma \times W'$

ϕ = 30.00 ^{0}

q = Total Surcharge Pressure at the Base Level of Foundatio

= $\gamma_{sub} \times D_f$

= 10.32 kN/m^2

Factors considered

N_c = 30.14	S_c = 1.3	D_c = 1.35	I_c = 1
N_q = 18.401	S_q = 1.2	D_q = 1.17	I_q = 1
N_γ = 22.402	S_γ = 0.8	D_γ = 1.17	I_γ = 1
W' = 1			

Qnu = 464.45 kN/m^2

Qns = 154.82 kN/m^2

= 15.48 t/m^2

Settlement Criteria As per IS 8009 : Part 1 : 1976 (Reaffirmed Year : 2018)

Corrected SPT = 50

Settlement compute from = 4 mm

SPT Correction factor = 1

Actual settlement = $\frac{Settlement\ compute\ from\ SPT}{correction\ factor\ (W')}$

= $\frac{4}{1}$

= 4 mm/(kg/cm^2)

= 6.25 kg/cm^2

= 62.50 t/m^3

= 100.00 t/m^3

For 25 mm settlement
For 40 mm settlement

6.0 CONCLUSION AND RECOMMENDATIONS:

6.1 "Conducting Geotechnical investigation for UG Campus Masterplan works @ Survey No 47, Mahanthalingapura Village, Jigani Hobli Anekal Taluk, Bengaluru" is found to consist of Brownish murrum with small pebbles followed by grayish completely to slightly weathered with very poor to Good quality of rock was found.

6.2 The ground water table was encountered in the borehole at the time of investigation and the same has been reported in relevant borehole details. However, water Table has been considered at GL for design calculation.

6.3 Considering rocky strata encountered during investigation at site, shallow foundation may be adopted for Sheds/Buildings. The SBC for different depth has been provided in Annexure C of the report.

6.4 Other Laboratory test results are given in later part of report.

6.5 Transient loads, including wind & earthquake, come & go with no effect on settlements, only the elastic deformations will occur under these short-term transient loads. Where wind or seismic load is more than 25 percent of that due to dead and live loads, foundations may be so proportioned that the pressure due to combination of load (that is dead + live + wind load) does not exceed the safe bearing capacity (Definition is considered as per IS: 6403:1901/clause 2.1.3) by more than 25 percent.

6.6 The depth of the foundation should be taken to a level such that 80 percent rock area is available. If loose pockets of talus deposit are found, they should be cleaned and backfilled with lean concrete. Very deep observation pits should also be backfilled with lean concrete up to the foundation level. Attention should be paid to problems of foundation on heterogeneous rocks, particularly foundations on rock slopes. Remedial measures should be taken as necessary.

Prepared by:

(Dr. SOUMYAPRAKASH SAHOO)
PhD. (Civil Engineering)
NIT, Rourkela.

(ANKIT KUMAR)
M. Tech. (Geotechnical Engineering) IIT, Roorkee.

(VATSAL MALVANIA)
M. Tech. (Geotechnical Engineering) IITRAM, Ahmedabad.

For BHASKRAM JYOTISH ANUSANDHAN KENDRA

Authorized Signatory

7.0 LIST OF ANNEXURES

Annexure A – Stratification

Annexure B – N - Table

Annexure C – Summary of Safe Bearing Capacity (Rock)

Annexure D–Summary of SafeBearing Capacity (Soil)

ANNEXURE A

Bore hole No.	Depth (m)	Stratification	Observed SPT value
BH - 01	0.00 - 2.00	Brownish murrum with small pebbles	91, REF
BH - 02	0.00 - 2.00	Brownish murrum with small pebbles	87, REF
BH - 03	0.00 - 3.00	Brownish murrum with small pebbles	79, REF
BH - 04	0.00 - 1.50	Brownish murrum with small pebbles	REF
BH - 05	0.00 - 1.50	Brownish murrum with small pebbles	REF
BH - 06	0.00 - 2.00	Brownish murrum with small pebbles	94, REF
BH - 07	0.00 - 1.00	Brownish murrum with small pebbles	REF
BH - 08	0.00 -2.50	Brownish murrum with small pebbles	32, REF
	2.50 - 9.50	Greyish highly to slightly weathered with very poor to fair quality rock having CR = 46-80% & RQD = 20- 60%	-
BH - 09	0.00 - 3.50	Brownish murrum with small pebbles	40, 69, REF
BH - 10	0.00 - 1.50	Brownish murrum with small pebbles	REF
	1.50 - 9.50	Greyish highly to moderately weathered with very poor to poor quality rock having CR = 20-60% & RQD = 0-33%	-
BH - 11	0.00 - 3.00	Brownish murrum with small pebbles	88, REF
BH - 12	0.00 - 3.00	Brownish murrum with small pebbles	73, REF
BH - 13	0.00 - 1.00	Brownish murrum with small pebbles	REF
BH - 14	0.00 - 1.50	Brownish murrum with small pebbles	REF
BH - 15	0.00 - 3.00	Brownish murrum with small pebbles	REF
BH - 16	0.00 - 3.00	Brownish murrum with small pebbles	81, REF
BH - 17	0.00 - 3.00	Brownish murrum with small pebbles	89, REF
BH - 18	0.00 - 1.50	Brownish murrum with small pebbles	REF
BH - 19	0.00 - 1.50	Brownish murrum with small pebbles	REF
	1.50 - 21.50	Greyish completely to slightly weathered with very poor to fair quality rock having CR = 4-79% & RQD = 0-70%	-
BH - 20	0.00 - 1.50	Brownish murrum with small pebbles	REF
	1.50 - 10.00	Greyish completely to slightly weathered with very poor to fair quality rock having CR = 6-71% & RQD = 0-52%	-
BH - 21	0.00 - 1.50	Brownish murrum with small pebbles	REF
	1.50 - 18.00	Greyish completely to highly weathered with very poor-quality rock having CR = 3-49% & RQD = 0- 25%	-
BH - 22	0.00 - 20.00	Greyish completely to slightly weathered with very poor to good quality rock having CR = 2-79% & RQD = 0-77%	-

BH - 23	0.00 - 1.50	Brownish murrum with small pebbles	REF
	1.50 - 21.00	Greyish completely to slightly weathered with very poor to fair quality rock having CR = 3-78% & RQD = 0-65%	-

Annexure B

Borehole No	Depth (m)	No. of blows to drive sampler for penetration of			N-Value (Observed)
		0-150 mm	150-300 mm	300-450 mm	
1	1.50	30	41	50	91
	2.00	100	-	-	REF
2	1.50	19	39	48	87
	2.00	100	-	-	REF
3	1.50	15	30	49	79
	2.00	100	-	-	REF
4	1.50	40	100	-	REF
5	1.50	49	100	-	REF
6	1.50	40	44	50	94
	2.00	50	-	-	REF
7	1.00	100	-	-	REF
8	1.50	10	14	18	16
	2.50	19	29	100	REF
9	1.50	14	18	22	40
	3.00	21	29	40	69
	3.50	100	-	-	REF

10	1.50	34	100	-	REF
11	1.50	30	41	47	88
	3.00	100	-	-	REF
12	1.50	15	31	42	73
	3.00	50	100	-	REF
13	1.00	100	-	-	REF
14	1.50	49	100	-	REF
15	1.50	19	42	55	97
	3.00	100	-	-	REF
16	1.50	17	40	44	84
	3.00	100	-	-	REF
17	1.50	21	42	47	89
	3.00	100	-	-	REF
18	1.50	19	39	100	139
19	1.50	11	50	100	150
20	1.50	17	29	100	129
21	1.50	40	100	-	100
23	1.50	33	100	-	100

Annexure C

Borehole Discription	Depth of Foundation (m)	Size of Foundation (m)	RMR	Net Safe Bearing Pressure q_{ns} (t/m^2)
BH-08	3.00	1.00 × 1.00	25	72.22
	4.00	1.00 × 1.00	25	72.22
	5.00	1.00 × 1.00	27	79.33
BH-10	3.00	1.00 × 1.00	25	72.22
	4.00	1.00 × 1.00	30	90.00
	5.00	1.00 × 1.00	45	178.16
BH-19	3.00	1.00 × 1.00	15	50.00
	4.00	1.00 × 1.00	15	50.00
	5.00	1.00 × 1.00	15	50.00
BH- 20	3.00	1.00 × 1.00	12	47.00
	4.00	1.00 × 1.00	25	72.22
	5.00	1.00 × 1.00	30	90.00
BH- 21	3.00	1.00 × 1.00	12	47.00
	4.00	1.00 × 1.00	15	50.00
	5.00	1.00 × 1.00	15	50.00
BH- 22	1.00	1.00 × 1.00	12	47.00
	2.00	1.00 × 1.00	15	50.00
	3.00	1.00 × 1.00	15	50.00
BH- 23	3.00	1.00 × 1.00	15	50.00
	4.00	1.00 × 1.00	15	50.00

	5.00	1.00 × 1.00	15	50.00

ANNEXURE - D

Summary of Allowable Bearing Capacity (t/m2)

Borehole Numbers	Depth of Foundation (m.)	Shape of Footing (m.)	Length of Footing (m.)	Breadth of Footing (m.)	Safe bearing capacity (t/m^2)		
					Shear Criterion (t/m^2)	Settlement Criteria	Settlement Criteria
					GSF	25mm	40mm
1	1.00	SQUARE	1.00	1.00	15.48	62.50	100.00
	1.00	SQUARE	2.00	2.00	20.98	54.07	86.51
	1.50	SQUARE	1.00	1.00	21.28	62.50	100.00
	1.50	SQUARE	2.00	2.00	25.91	54.07	86.51
	2.00	SQUARE	1.00	1.00	27.42	62.50	100.00
	2.00	SQUARE	2.00	2.00	30.94	54.07	86.51
2	1.00	SQUARE	1.00	1.00	14.92	62.50	100.00
	1.00	SQUARE	2.00	2.00	20.07	54.07	86.51
	1.50	SQUARE	1.00	1.00	20.40	62.50	100.00
	1.50	SQUARE	2.00	2.00	24.80	54.07	86.51
	2.00	SQUARE	1.00	1.00	26.06	62.50	100.00
	2.00	SQUARE	2.00	2.00	29.32	54.07	86.51
3	1.00	SQUARE	1.00	1.00	12.91	62.50	100.00
	1.00	SQUARE	2.00	2.00	17.33	54.07	86.51
	1.50	SQUARE	1.00	1.00	17.68	62.50	100.00
	1.50	SQUARE	2.00	2.00	21.45	54.07	86.51
	2.00	SQUARE	1.00	1.00	23.17	62.50	100.00
	2.00	SQUARE	2.00	2.00	26.04	54.07	86.51
4	1.00	SQUARE	1.00	1.00	15.01	62.50	100.00
	1.00	SQUARE	2.00	2.00	20.35	54.07	86.51
	1.50	SQUARE	1.00	1.00	20.75	62.50	100.00
	1.50	SQUARE	2.00	2.00	25.18	54.07	86.51
5	1.00	SQUARE	1.00	1.00	13.65	62.50	100.00
	1.00	SQUARE	2.00	2.00	18.28	54.07	86.51
	1.50	SQUARE	1.00	1.00	18.70	62.50	100.00

	1.50	SQUARE	2.00	2.00	22.65	54.07	86.51
6	1.00	SQUARE	1.00	1.00	14.69	62.50	100.00
	1.00	SQUARE	2.00	2.00	19.76	54.07	86.51
	1.50	SQUARE	1.00	1.00	20.09	62.50	100.00
	1.50	SQUARE	2.00	2.00	24.42	54.07	86.51
	2.00	SQUARE	1.00	1.00	26.19	62.50	100.00
	2.00	SQUARE	2.00	2.00	29.49	54.07	86.51
7	1.00	SQUARE	1.00	1.00	12.95	62.50	100.00
	1.00	SQUARE	2.00	2.00	17.31	54.07	86.51
	1.50	SQUARE	1.00	1.00	17.77	62.50	100.00
	1.50	SQUARE	2.00	2.00	21.48	54.07	86.51
8	1.00	SQUARE	1.00	1.00	13.24	17.58	28.13
	1.00	SQUARE	2.00	2.00	17.72	14.64	23.43
	1.50	SQUARE	1.00	1.00	18.16	17.58	28.13
	1.50	SQUARE	2.00	2.00	21.97	14.64	23.43
	2.00	SQUARE	1.00	1.00	23.60	37.88	60.61
	2.00	SQUARE	2.00	2.00	26.48	31.58	50.52
9	1.00	SQUARE	1.00	1.00	12.21	31.25	50.00
	1.00	SQUARE	2.00	2.00	16.30	25.87	41.39
	1.50	SQUARE	1.00	1.00	16.76	52.08	83.33
	1.50	SQUARE	2.00	2.00	20.23	43.85	70.16

ANNEXURE - D

Summary of Allowable Bearing Capacity (t/m2)

Borehole Numbers	Depth of Foundation (m.)	Shape of Footing (m.)	Length of Footing (m.)	Breadth of Footing (m.)	Safe bearing capacity (t/m^2)		
					Shear Criterion (t/m^2) GSF	Settlement Criteria 25mm	Settlement Criteria 40mm
	2.00	SQUARE	1.00	1.00	21.80	62.50	100.00
	2.00	SQUARE	2.00	2.00	24.42	54.07	86.51
10	1.00	SQUARE	1.00	1.00	13.71	67.57	108.11
	1.00	SQUARE	2.00	2.00	18.3	58.7	94.02

					8	6	
	1.50	SQUARE	1.00	1.00	18.78	67.57	108.11
	1.50	SQUARE	2.00	2.00	22.76	58.76	94.02
11	1.00	SQUARE	1.00	1.00	15.43	67.57	108.11
	1.00	SQUARE	2.00	2.00	20.74	58.76	94.02
	1.50	SQUARE	1.00	1.00	21.12	67.57	108.11
	1.50	SQUARE	2.00	2.00	25.65	58.76	94.02
	2.00	SQUARE	1.00	1.00	27.44	67.57	108.11
	2.00	SQUARE	2.00	2.00	30.87	58.76	94.02
12	1.00	SQUARE	1.00	1.00	16.98	67.57	108.11
	1.00	SQUARE	2.00	2.00	22.90	58.76	94.02
	1.50	SQUARE	1.00	1.00	23.20	67.57	108.11
	1.50	SQUARE	2.00	2.00	28.26	58.76	94.02
	2.00	SQUARE	1.00	1.00	30.11	67.57	108.11
	2.00	SQUARE	2.00	2.00	33.97	58.76	94.02
13	1.00	SQUARE	1.00	1.00	13.31	67.57	108.11
	1.00	SQUARE	2.00	2.00	17.81	58.76	94.02
14	1.00	SQUARE	1.00	1.00	13.31	67.57	108.11
	1.00	SQUARE	2.00	2.00	17.81	58.76	94.02
	1.50	SQUARE	1.00	1.00	18.25	67.57	108.11
	1.50	SQUARE	2.00	2.00	22.08	58.76	94.02
15	1.00	SQUARE	1.00	1.00	12.95	67.57	108.11
	1.00	SQUARE	2.00	2.00	20.22	58.76	94.02
	1.50	SQUARE	1.00	1.00	20.51	67.57	108.11
	1.50	SQUARE	2.00	2.00	24.97	58.76	94.02
	2.00	SQUARE	1.00	1.00	26.62	67.57	108.11
	2.00	SQUARE	2.00	2.00	30.02	58.76	94.02
16	1.00	SQUARE	1.00	1.00	12.80	67.57	108.11
	1.00	SQUARE	2.00	2.00	17.12	58.76	94.02
	1.50	SQUARE	1.00	1.00	17.57	67.57	108.11
	1.50	SQUARE	2.00	2.00	21.23	58.76	94.02

	2.00	SQUARE	1.00	1.00	22.84	67.57	108.11
	2.00	SQUARE	2.00	2.00	25.61	58.76	94.02
17	1.00	SQUARE	1.00	1.00	15.97	67.57	108.11
	1.00	SQUARE	2.00	2.00	21.46	58.76	94.02
	1.50	SQUARE	1.00	1.00	21.86	67.57	108.11
	1.50	SQUARE	2.00	2.00	26.54	58.76	94.02
18	1.00	SQUARE	1.00	1.00	15.63	67.57	108.11
	1.00	SQUARE	2.00	2.00	21.01	58.76	94.02
	1.50	SQUARE	1.00	1.00	21.39	67.57	108.11
	1.50	SQUARE	2.00	2.00	25.98	58.76	94.02
19	1.00	SQUARE	1.00	1.00	12.36	67.57	108.11
	1.00	SQUARE	2.00	2.00	16.51	58.76	94.02

ANNEXURE - D

Summary of Allowable Bearing Capacity (t/m2)

Borehole Numbers	Depth of Foundation (m.)	Shape of Footing (m.)	Length of Footing (m.)	Breadth of Footing (m.)	Safe bearing capacity (t/m^2)		
					Shear Criterion (t/m^2)	Settlement Criteria	Settlement Criteria
					GSF	25mm	40mm
	1.50	SQUARE	1.00	1.00	16.97	67.57	108.11
	1.50	SQUARE	2.00	2.00	20.49	58.76	94.02
20	1.00	SQUARE	1.00	1.00	13.24	67.57	108.11
	1.00	SQUARE	2.00	2.00	17.72	58.76	94.02
	1.50	SQUARE	1.00	1.00	18.16	67.57	108.11
	1.50	SQUARE	2.00	2.00	21.97	58.76	94.02
21	1.00	SQUARE	1.00	1.00	11.36	67.57	108.11
	1.00	SQUARE	2.00	2.00	15.10	58.76	94.02
	1.50	SQUARE	1.00	1.00	15.62	67.57	108.11
	1.50	SQUARE	2.00	2.00	18.79	58.76	94.02
22	1.00	SQUARE	1.00	1.00	13.89	67.57	108.11
	1.00	SQUARE	2.00	2.00	18.57	58.76	94.02
	1.50	SQUARE	1.00	1.00	19.0	67.5	108.1

					5	7	1
	1.50	SQUARE	2.00	2.00	23.03	58.76	94.02
23	1.00	SQUARE	1.00	1.00	12.15	67.57	108.11
	1.00	SQUARE	2.00	2.00	16.22	58.76	94.02
	1.50	SQUARE	1.00	1.00	16.69	67.57	108.11
	1.50	SQUARE	2.00	2.00	20.14	58.76	94.02

Note: SBC may be considered as per structure requirements.

8.0 PROPERTIES OF ROCK

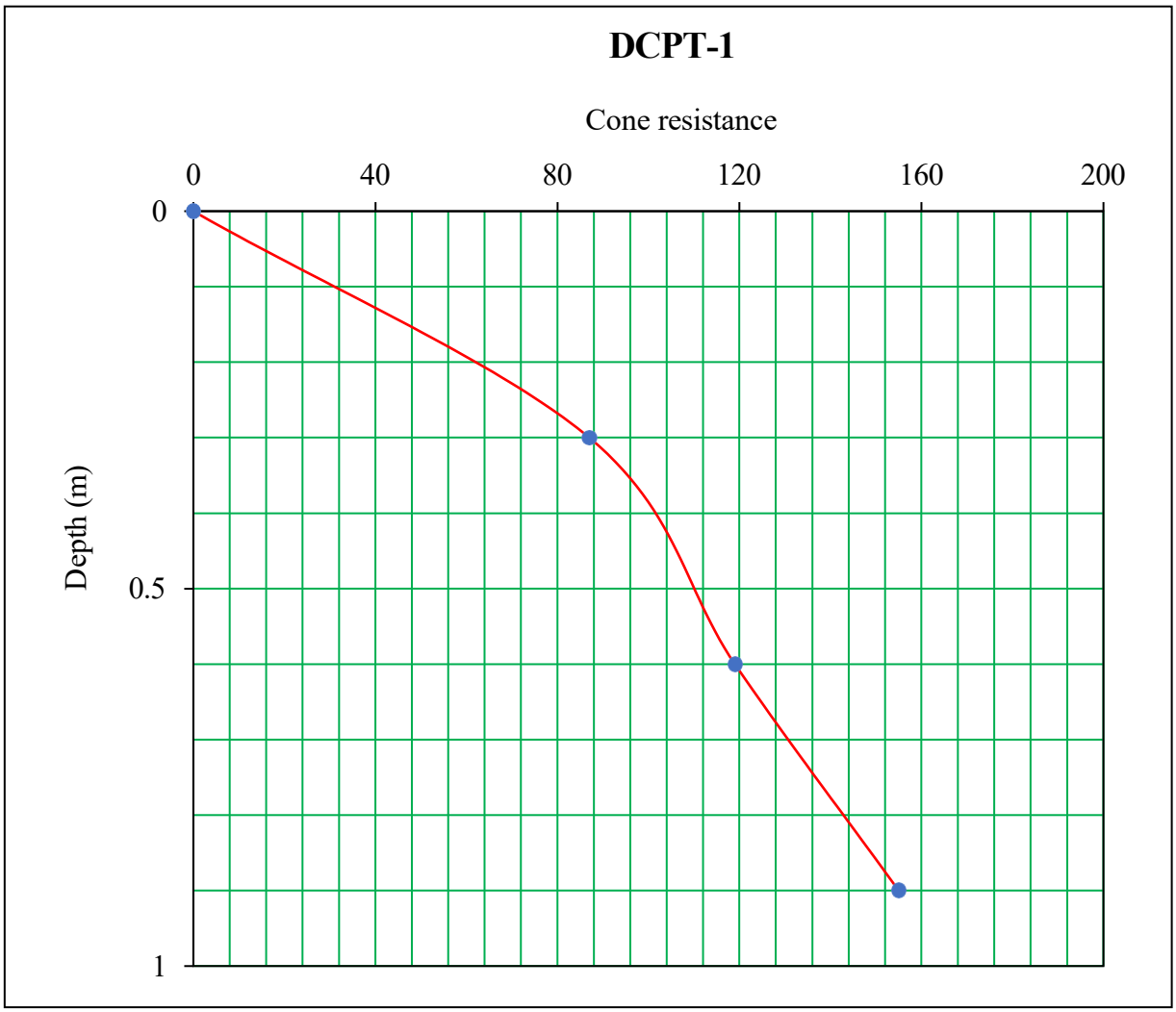
Unconfined Compressive Strength of Rock (Core)

Borehole Description	Depth (m)	Unconfined compressive strength (MPa)
BH-08	3.00	12.42
	4.50	17.39
	6.00	28.98
	9.50	53.00
BH-10	3.00	72.46
	4.50	84.88
	6.00	103.51
BH-19	3.00	68.32
	4.50	72.71
	6.00	72.79
	7.50	84.88
	9.00	84.55
	15.00	115.94
	21.00	121.07
BH- 20	3.00	45.54
	4.50	51.42
	6.00	52.00
	7.50	68.73
BH- 21	3.00	49.69
	4.50	53.83
	6.00	56.31
	12.00	93.00
	15.00	103.26
BH- 22	1.50	49.69
	3.00	70.39
	4.50	72.71
	6.00	77.43
	12.00	92.42
	15.00	111.46
BH- 23	3.00	53.83
	4.50	58.80
	6.00	66.25
	9.00	62.11
	15.00	91.09

9.0 SUMMARY OF DCPT TEST

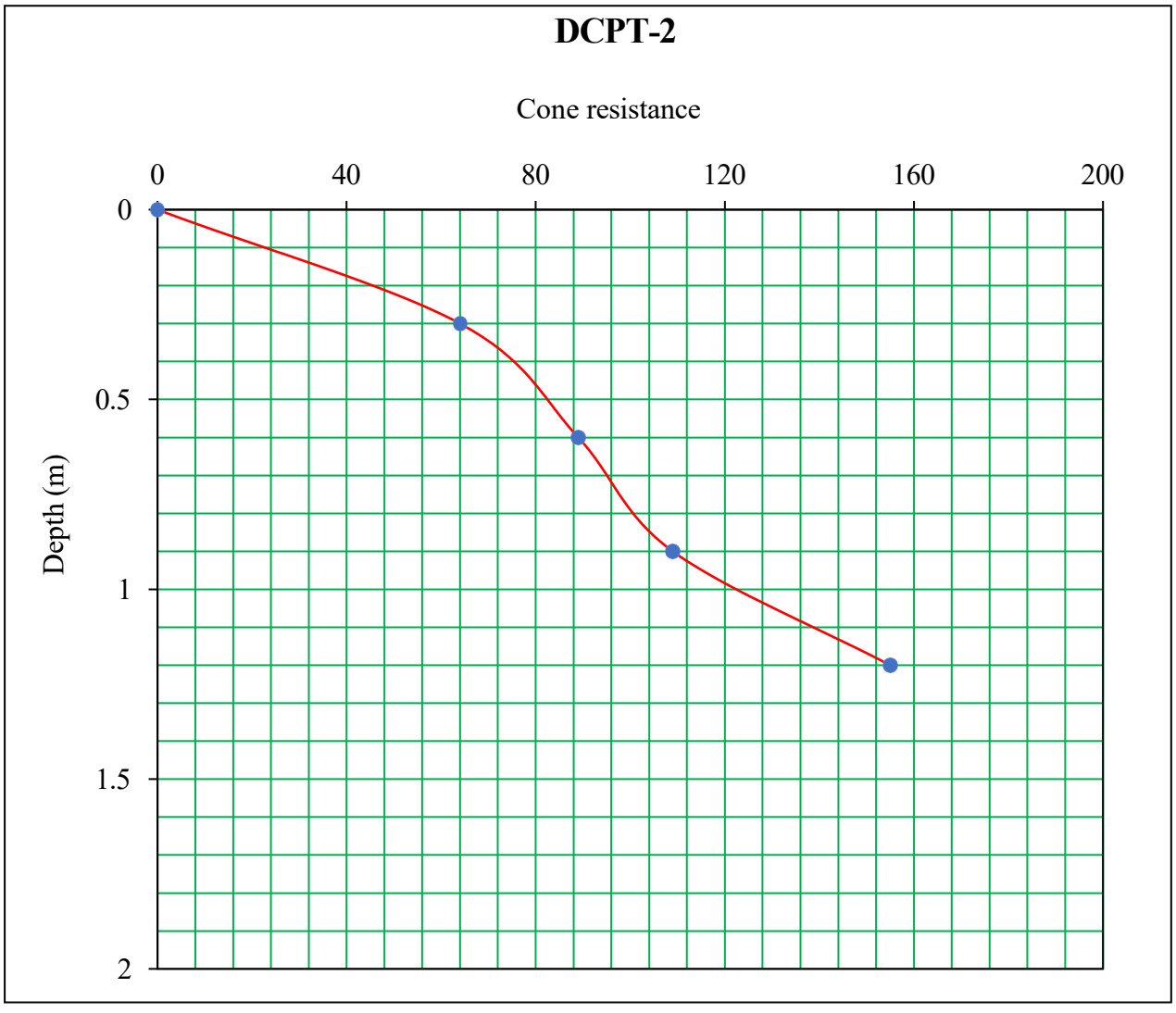
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-1	0	0	0
	300	0.3	87
	600	0.6	119
	900	0.9	155



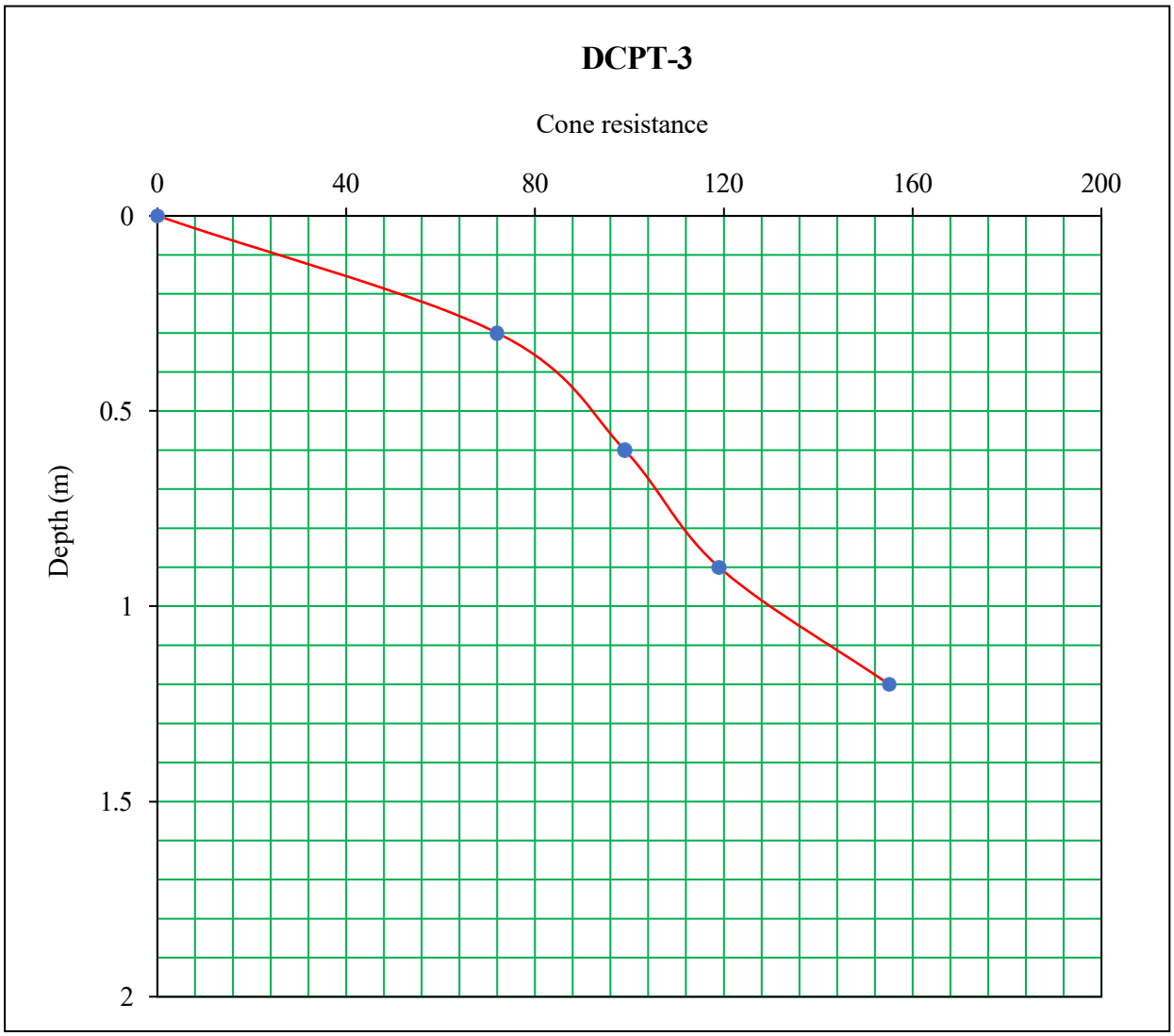
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-2	0	0	0
	300	0.3	64
	600	0.6	89
	900	0.9	109
	1200	1.2	155



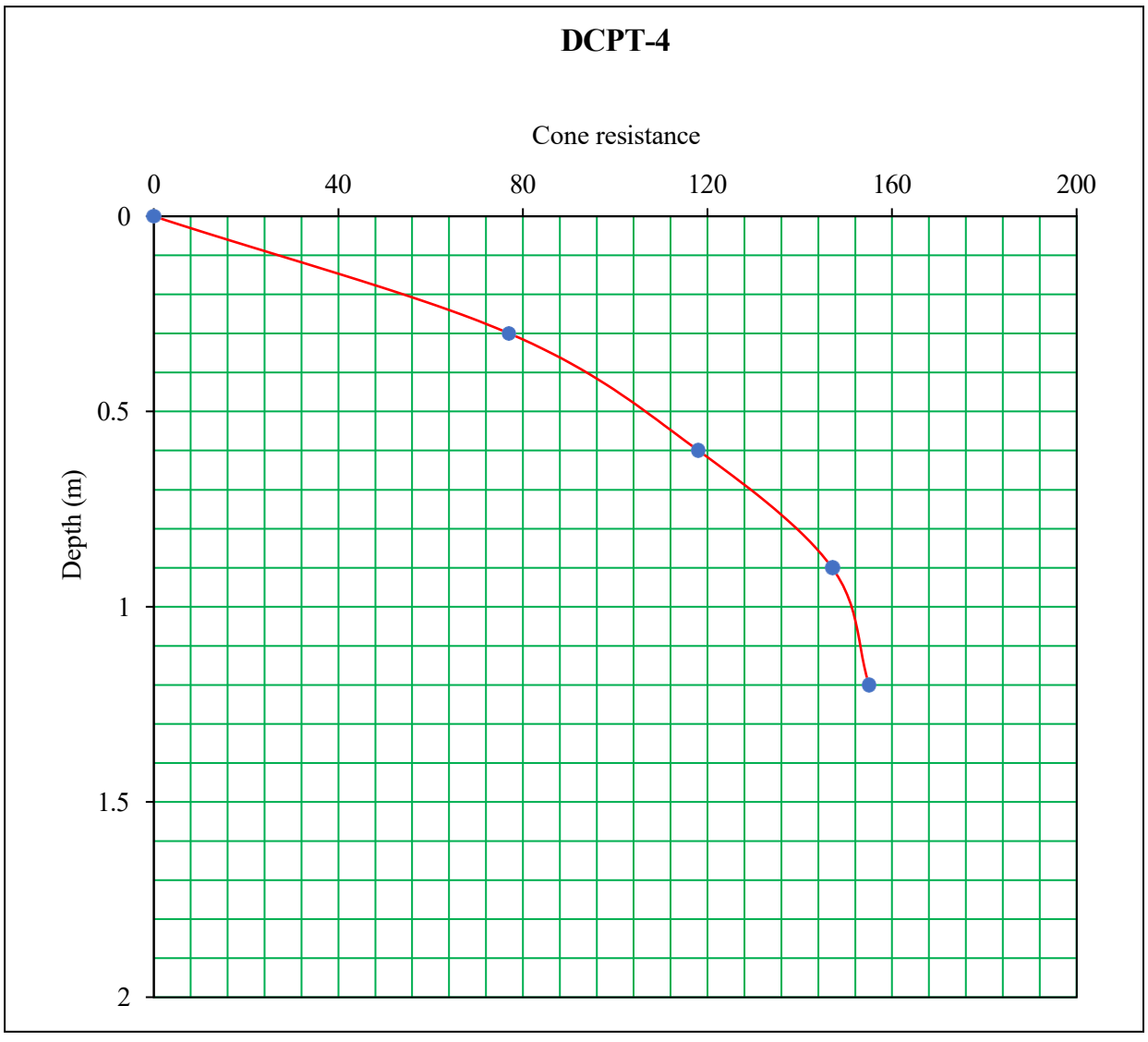
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-3	0	0	0
	300	0.3	72
	600	0.6	99
	900	0.9	119
	1200	1.2	155



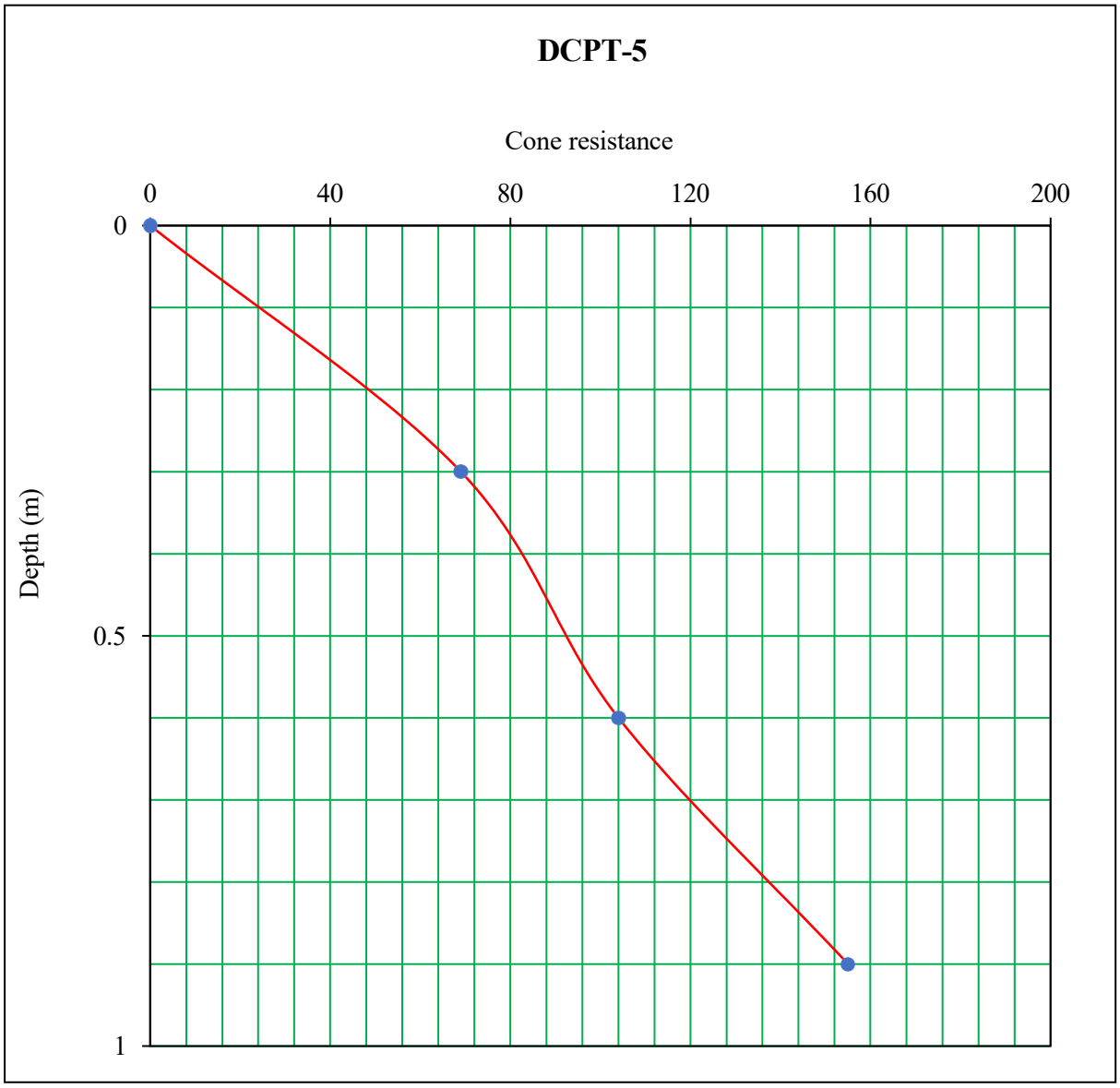
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-4	0	0	0
	300	0.3	77
	600	0.6	118
	900	0.9	147
	1200	1.2	155



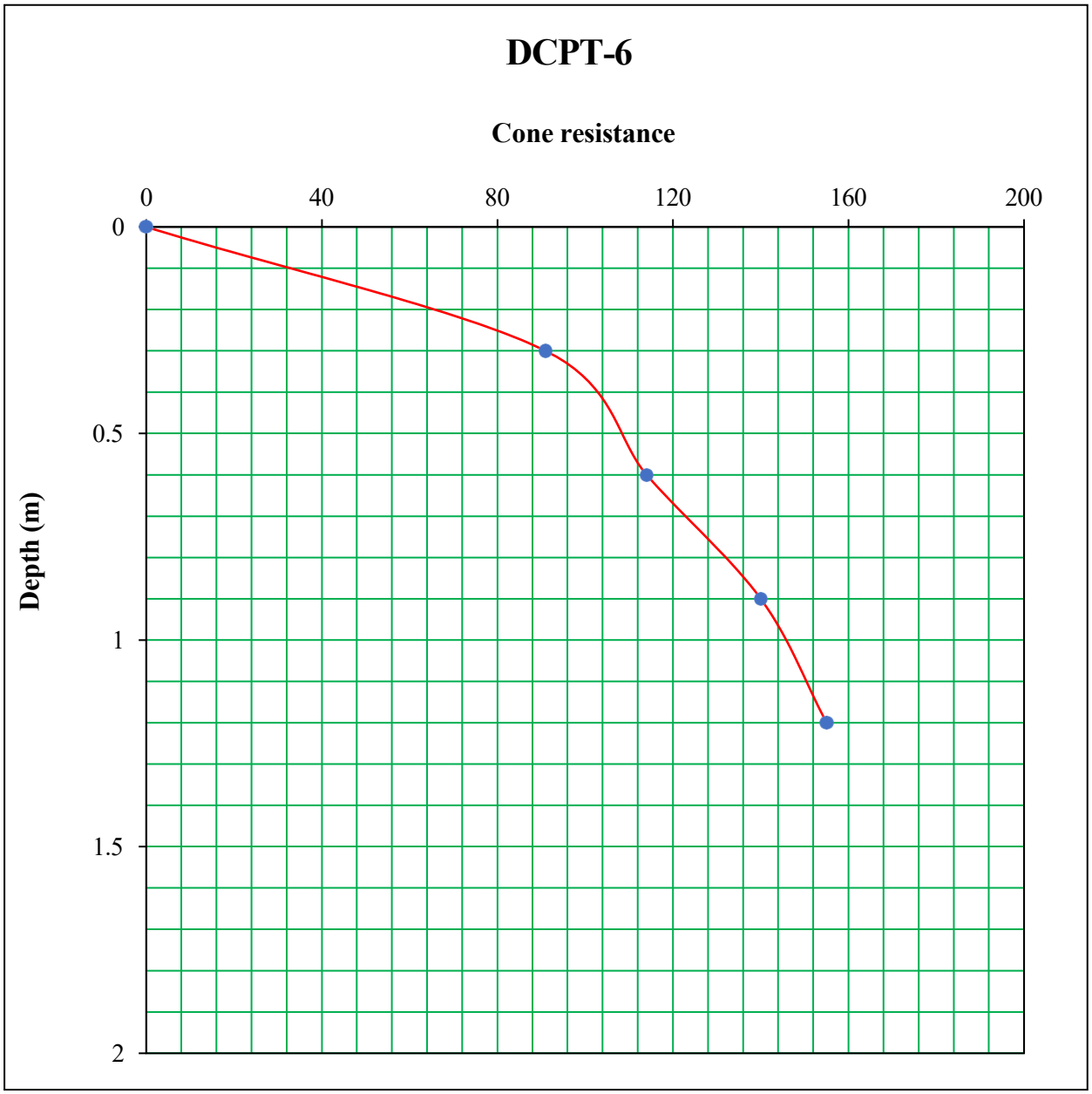
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-5	0	0	0
	300	0.3	69
	600	0.6	104
	900	0.9	155



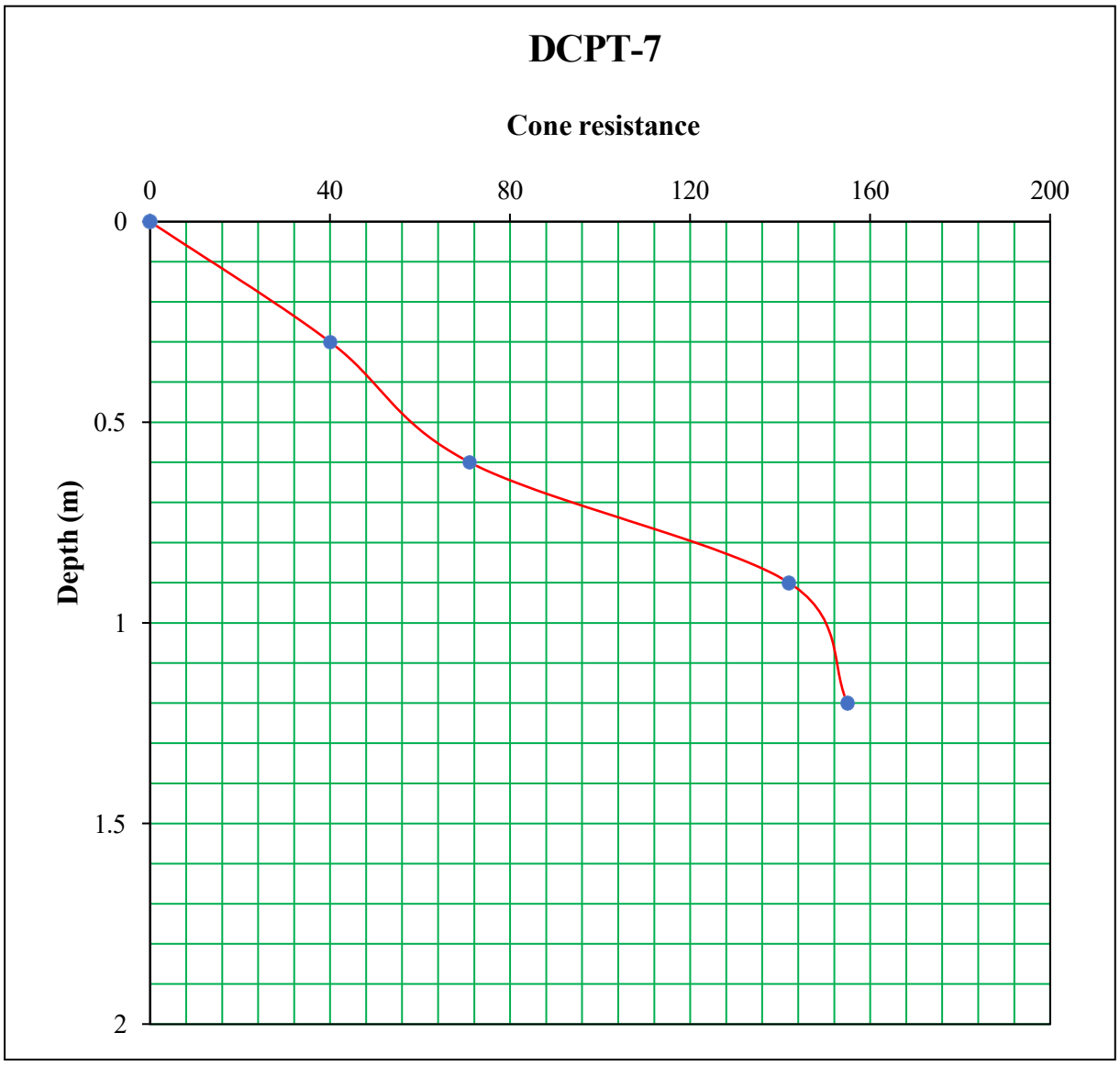
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-6	0	0	0
	300	0.3	91
	600	0.6	114
	900	0.9	140
	1200	1.2	155



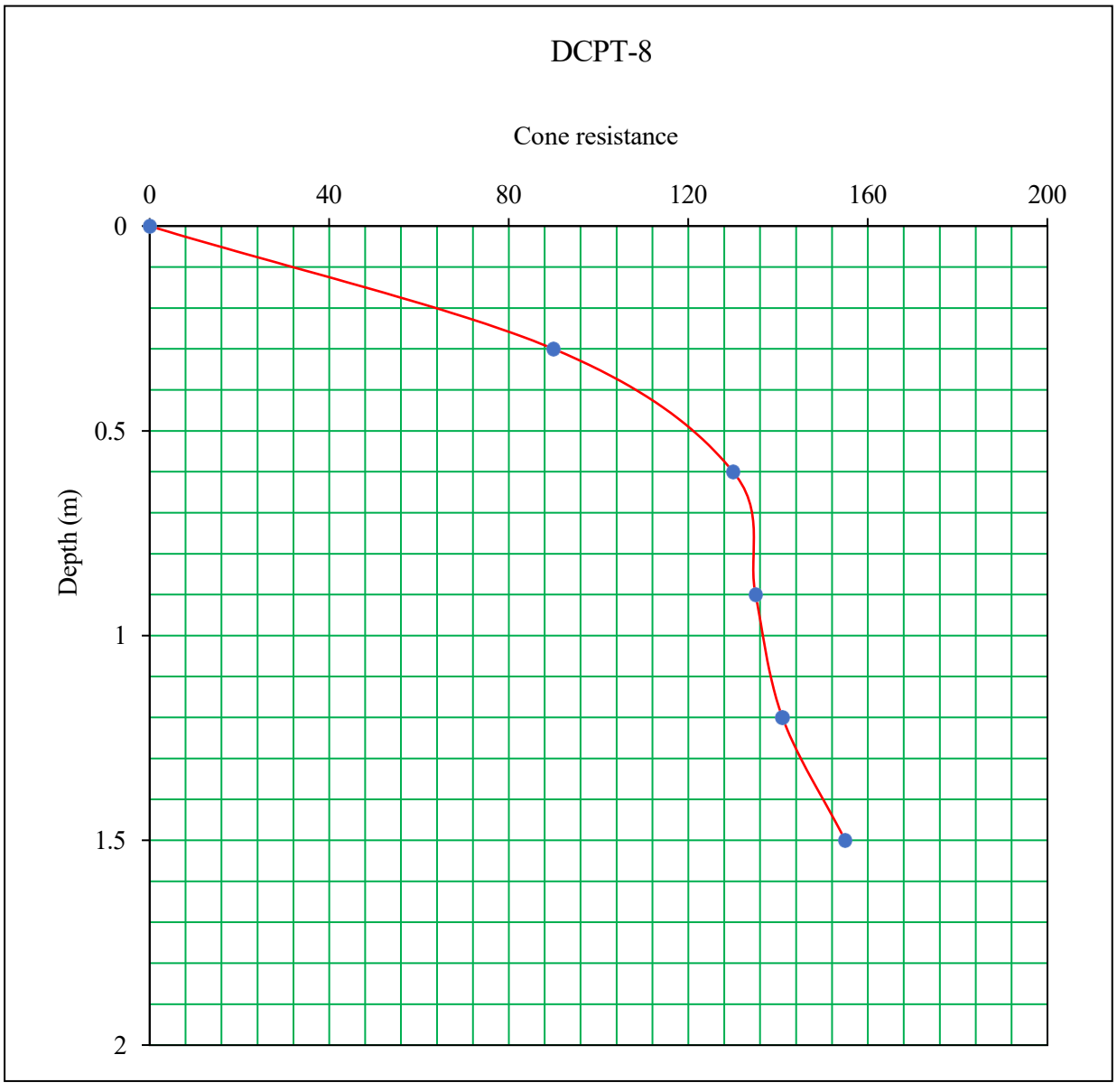
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-7	0	0	0
	300	0.3	40
	600	0.6	71
	900	0.9	142
	1200	1.2	155



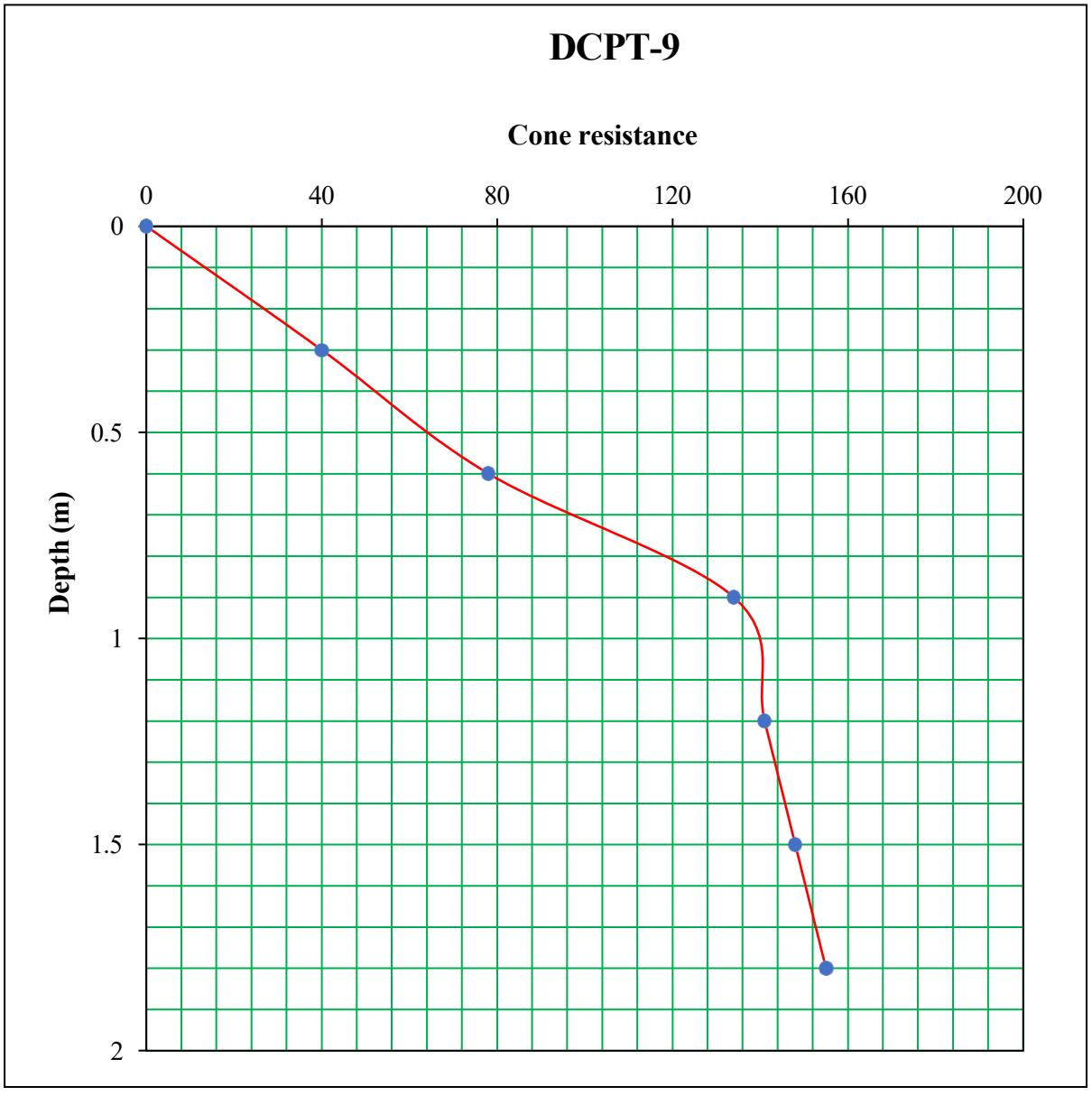
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-8	0	0	0
	300	0.3	90
	600	0.6	130
	900	0.9	135
	1200	1.2	141
	1500	1.5	155



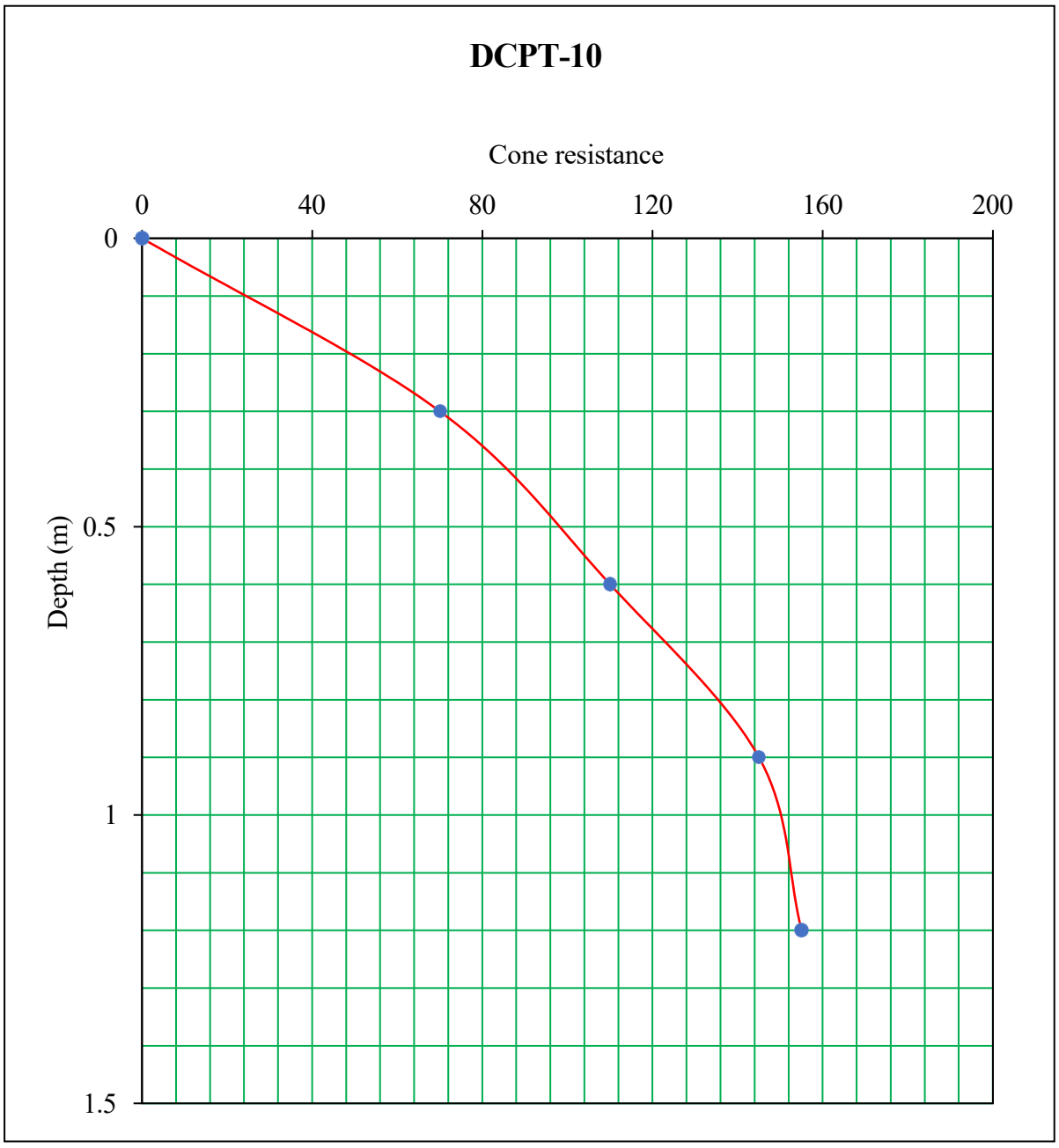
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-9	0	0	0
	300	0.3	40
	600	0.6	78
	900	0.9	134
	1200	1.2	141
	1500	1.5	148
	1800	1.8	155



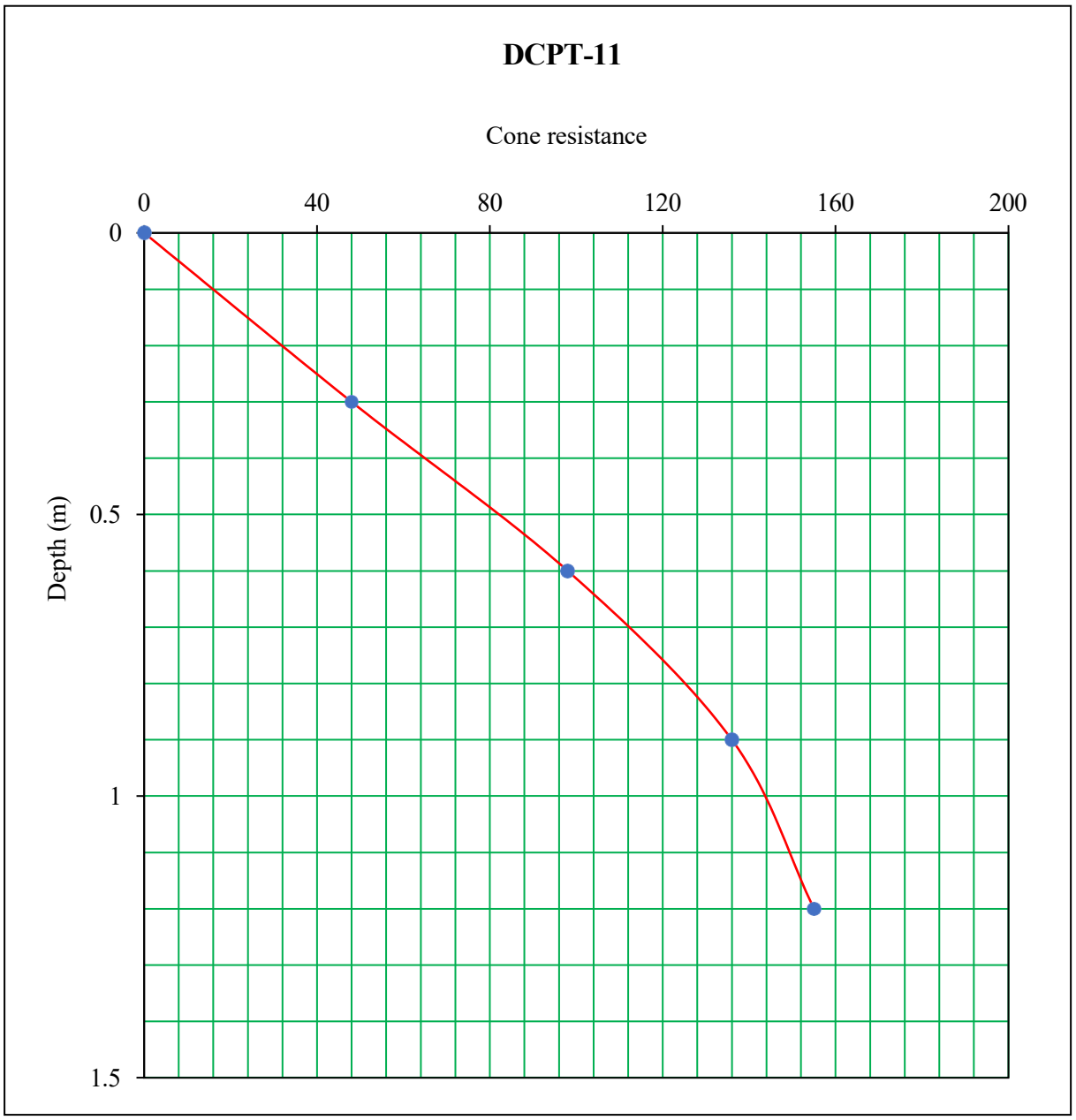
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-10	0	0	0
	300	0.3	70
	600	0.6	110
	900	0.9	145
	1200	1.2	155



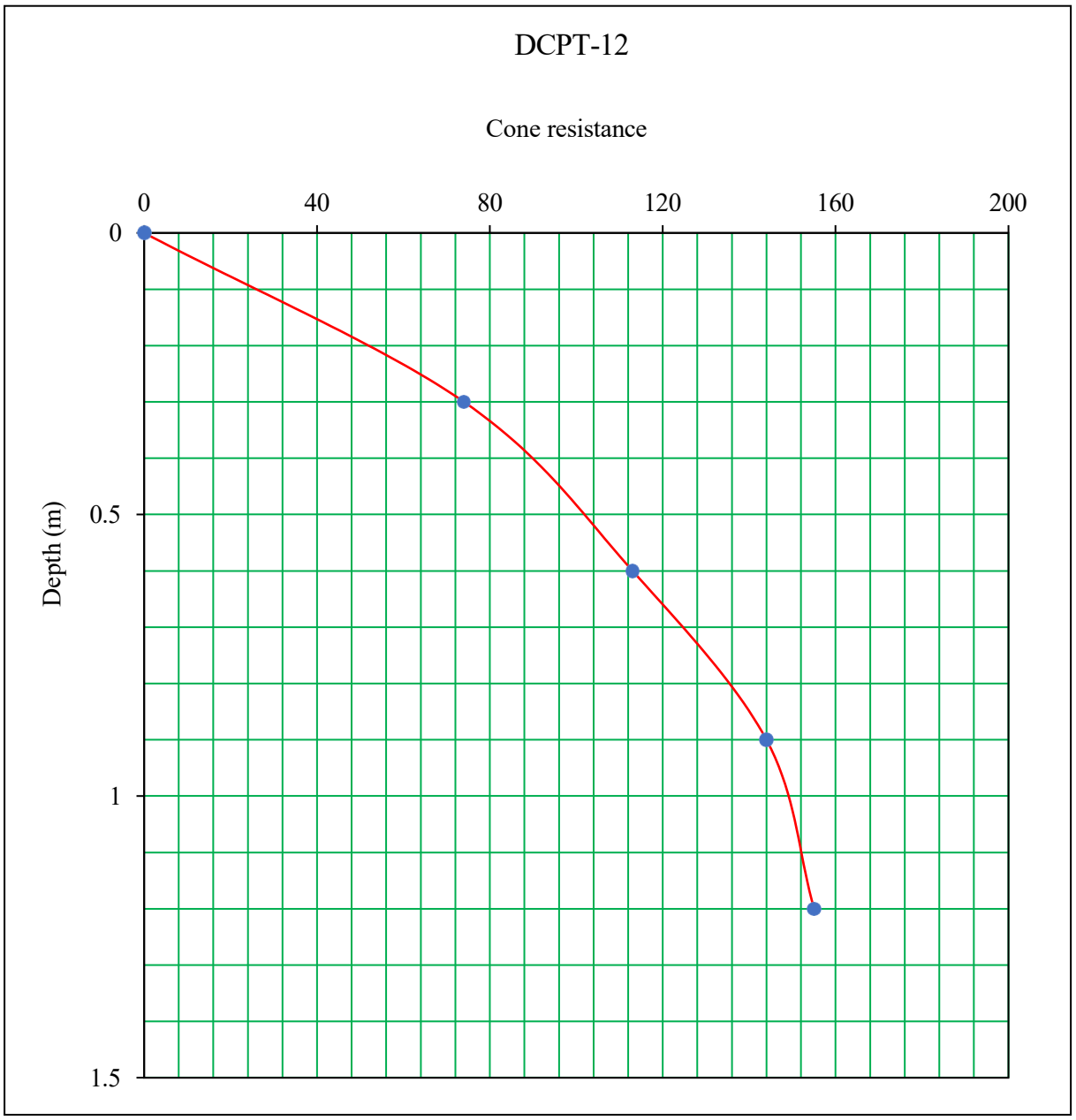
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-11	0	0	0
	300	0.3	48
	600	0.6	98
	900	0.9	136
	1200	1.2	155



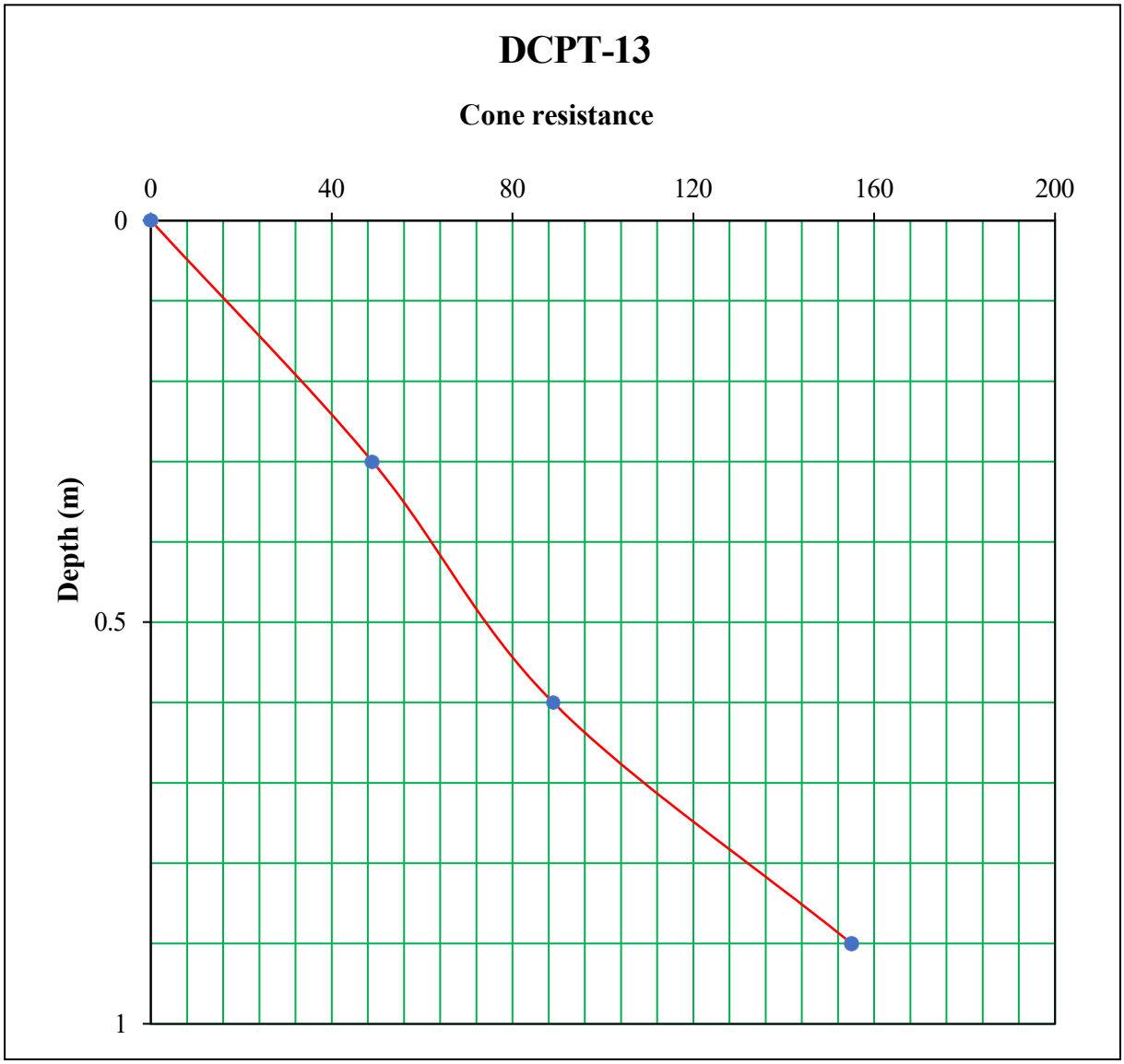
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-12	0	0	0
	300	0.3	74
	600	0.6	113
	900	0.9	144
	1200	1.2	155



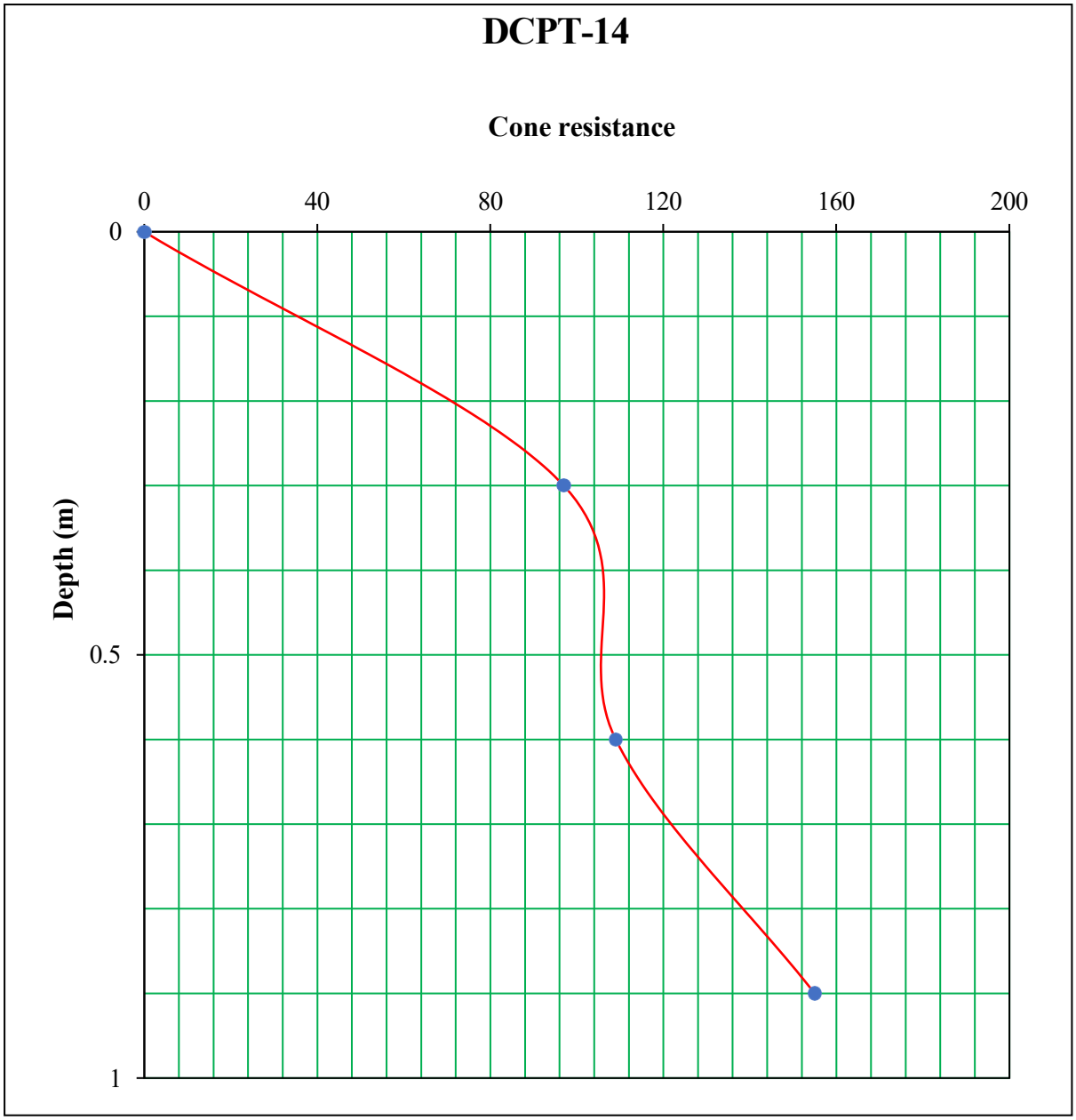
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-13	0	0	0
	300	0.3	49
	600	0.6	89
	900	0.9	155



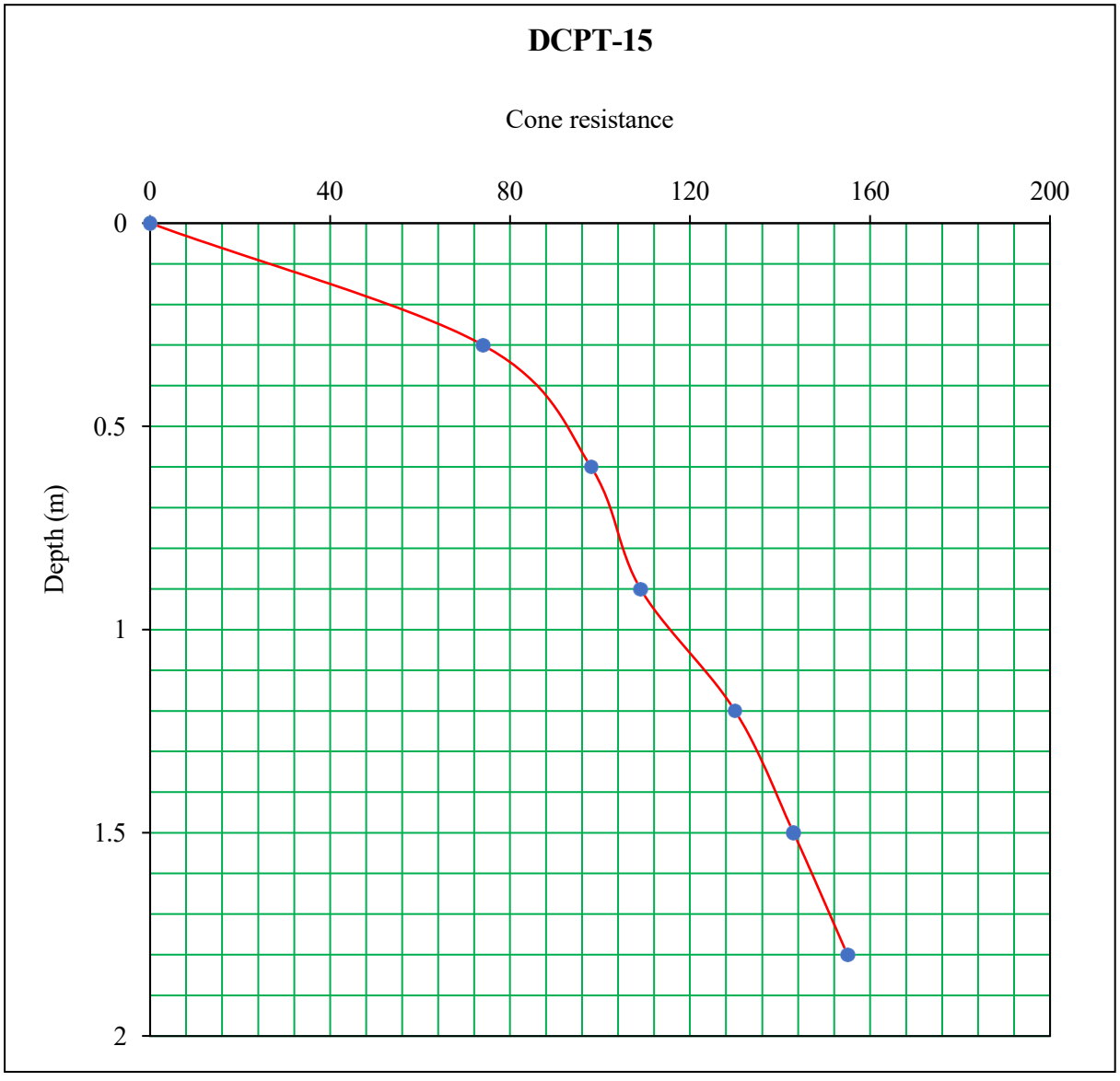
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-14	0	0	0
	300	0.3	97
	600	0.6	109
	900	0.9	155



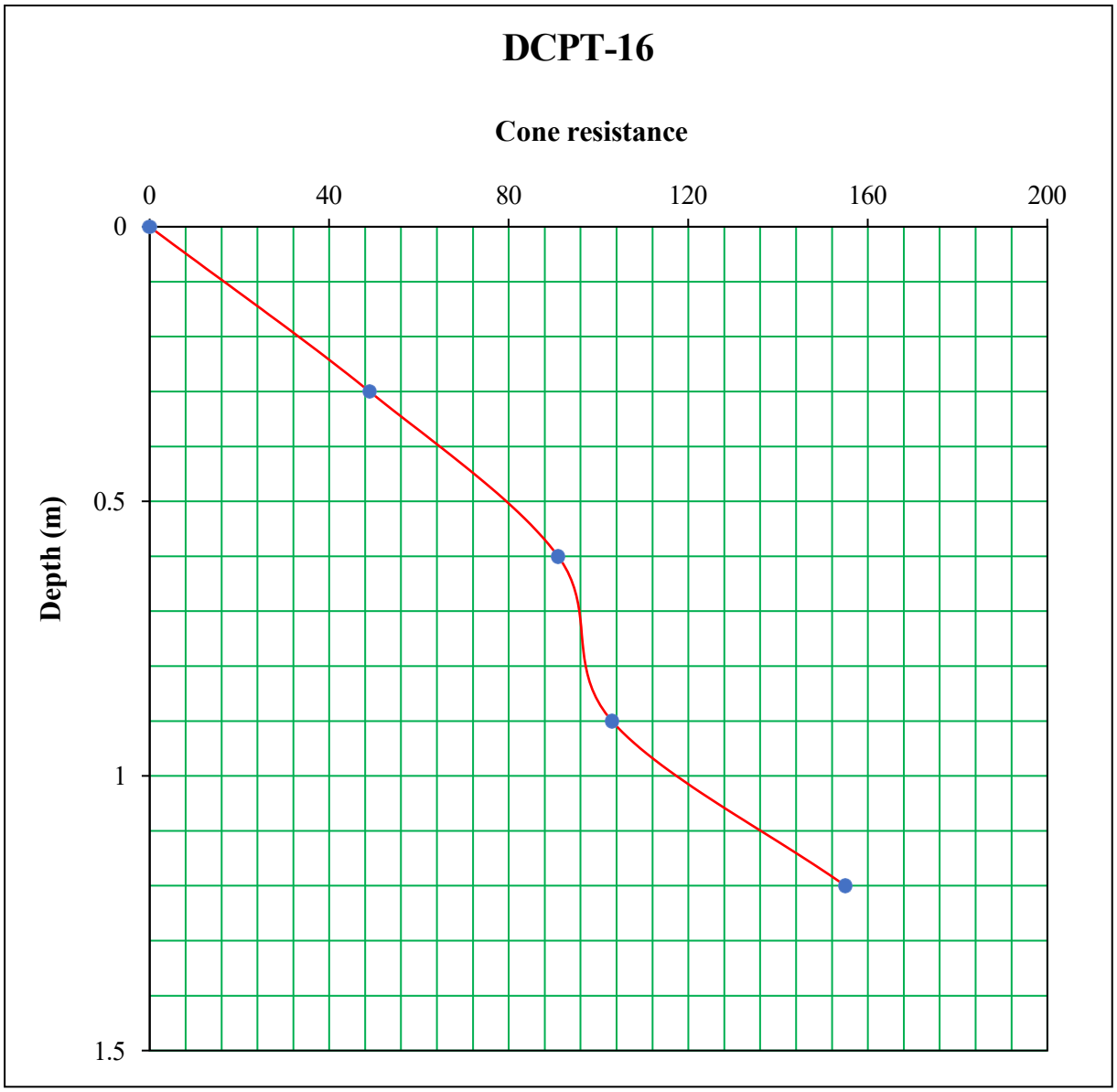
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-15	0	0	0
	300	0.3	74
	600	0.6	98
	900	0.9	109
	1200	1.2	130
	1500	1.5	143
	1800	1.8	155



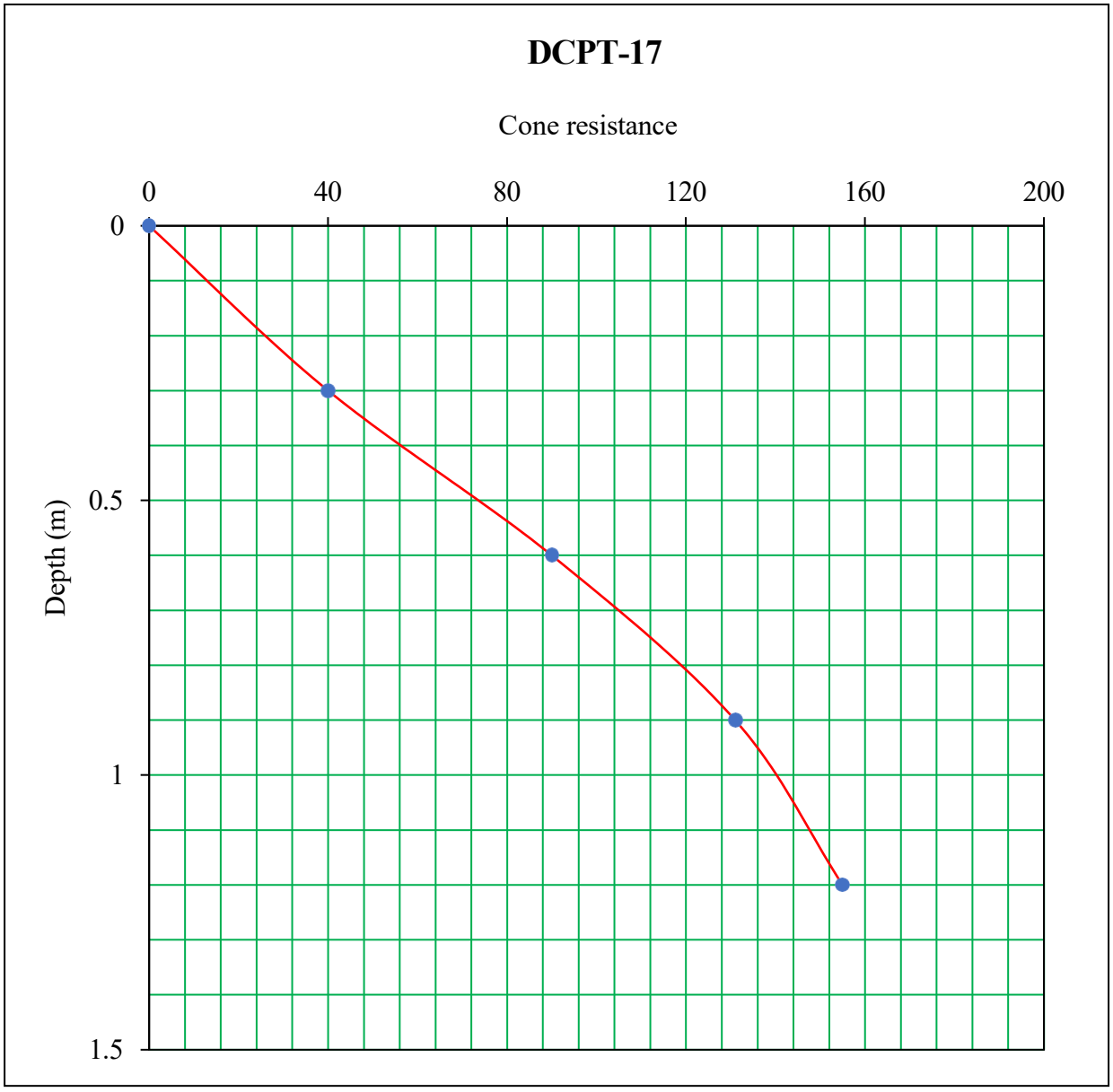
Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-16	0	0	0
	300	0.3	49
	600	0.6	91
	900	0.9	103
	1200	1.2	155



Observation of Dynamic Cone Penetration Test (As per IS-4968 Part-2)

Description	Depth (mm)	Depth (m)	Blows Count
DCPT-17	0	0	0
	300	0.3	40
	600	0.6	90
	900	0.9	131
	1200	1.2	155



10.1 CHEMICAL ANALYSIS OF SOIL

Bore Hole No.	pH	Chloride Mg/L	Sulphate (SO3) mg/L
BH-01	**7.58**	504.13	327.4
BH-02	**7.83**	468.05	303.9
BH-03	**7.68**	484.82	314.8
BH-04	**7.62**	502.95	326.6
BH-05	**7.55**	514.21	333.9
BH-06	**7.71**	477.42	310.0
BH-07	**7.75**	494.51	321.1
BH-08	**7.82**	513.01	333.1
BH-09	**7.85**	524.50	340.6
BH-10	7.65	569.17	316.2
BH-11	7.77	618.71	343.7
BH-12	7.80	574.44	319.1
BH-13	7.81	595.01	330.6
BH-14	7.68	617.27	342.9
BH-15	7.86	631.09	350.6
BH-16	7.88	585.92	325.5
BH-17	7.93	606.91	337.2
BH-18	7.98	629.60	349.8
BH-19	7.84	643.70	357.6
BH-20	7.89	597.64	332.0
BH-21	7.92	619.05	343.9
BH-23	7.49	642.19	356.8

10.2 CHEMICAL ANALYSIS OF WATER

Bore Hole No.	pH	Chloride Mg/L	Sulphate (SO3) mg/L
BH-19	7.87	656.57	364.75
BH-20	7.88	609.59	338.64
BH-21	7.90	631.43	350.78
BH-22	7.69	621.07	347.5
BH-23	7.52	642.69	346.6

11.0 LAB SHEET

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 01

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	4.35	25.17	32.42	33.41	4.65	NP	NP	NP	SP
2	2.00	SPT			4.57	23.86	34.04	35.08	2.45				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 02

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	4.22	27.33	31.45	32.41	4.60	NP	NP	NP	SP
2	2.00	SPT			3.97	31.31	29.56	30.46	4.70				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 03

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.64	3.73	21.61	34.38	35.43	4.85	NP	NP	NP	SP
2	2.00	SPT			3.50	27.98	31.76	32.73	4.02				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 04

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	3.29	31.52	29.86	30.77	4.56	NP	NP	NP	SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 05

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client :	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	0.00	25.92	50.60	19.98	3.50	NP	NP	NP	SW

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 06

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.64	0.00	13.16	60.72	23.98	2.14	NP	NP	NP	SW
2	2.00	SPT			0.00	13.04	56.82	25.89	4.25				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 07

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	4.49	12.64	55.01	23.85	4.01	NP	NP	NP	SW

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 08

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	0.00	14.53	39.54	42.68	3.25	NP	NP	NP	SP
2	2.50	SPT			0.00	14.13	40.74	40.55	4.58				SP
3	3.00	CR	Greyish moderately weathered with poor-quality rock with CR=60% & RQD=44%										
4	4.50	CR	Greyish highly weathered with poor-quality rock with CR=46% & RQD=26%										
5	6.00	CR	Greyish highly weather with poor-quality rock with CR=50% & RQD=41%										
6	7.50	CR	Greyish highly weather with very poor-quality rock with CR=46% & RQD=20%										
7	9.00	CR	Greyish highly weather with poor-quality rock with CR=46% & RQD=28%										
8	9.50	CR	Greyish slightly weather with fair quality rock with CR=80% & RQD=60%										

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 09

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.64	10.32	20.64	45.12	21.47	2.45	NP	NP	NP	SW
2	3.00	SPT			7.54	25.42	42.23	22.81	2.00				SW
3	3.50	SPT			6.55	18.29	44.17	27.49	3.50				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 10

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	1.57	28.49	33.17	32.64	4.13	NP	NP	NP	SP
2	3.00	CR	Greyish highly weathered with very poor-quality rock having CR = 20% & RQD = 0%										
3	4.50	CR	Greyish highly weathered with poor-quality rock having CR = 40% & RQD = 33%										
3	6.00	CR	Greyish moderatrly weathered with poor-quality rock having CR = 60% & RQD = 26%										
3	7.50	CR	Greyish moderatrly weathered with poor-quality rock having CR = 60% & RQD = 27%										
3	9.50	CR	Greyish highly weathered with poor-quality rock having CR = 42% & RQD = 26%										

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 11

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.64	1.98	13.34	41.92	38.56	4.20	NP	NP	NP	SP
2	3.00	SPT			1.47	14.22	40.88	39.67	3.76				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 12

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	2.01	13.40	42.76	37.79	4.03	NP	NP	NP	SP
2	3.00	SPT			1.50	14.30	41.70	40.46	2.04				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 13

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.00	SPT	NIL	2.63	2.2	14.23	42.61	37.54	3.42	NP	NP	NP	SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 14

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	7.39	27.38	41.39	22.35	1.49	NP	NP	NP	SW

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 15

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	6.42	22.63	43.29	26.94	0.72	NP	NP	NP	SP
2	3.00	SPT			1.54	29.13	32.51	31.99	4.84				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 16

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	1.79	15.16	42.36	40.14	0.54	NP	NP	NP	SP
2	3.00	SPT			2.64	11.23	44.23	40.27	1.63				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 17

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.63	2.06	13.40	40.12	41.69	2.73	NP	NP	NP	SP
2	3.00	SPT			2.12	13.50	41.32	42.94	0.11				SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 18

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.64	4.56	16.25	38.44	40.23	0.52	NP	NP	NP	SP

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 19

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.66	3.15	14.73	38.91	40.45	2.76	NP	NP	NP	SP
2	3.00	CR	Greyish completely weathered with very poor-quality rock having CR = 4% & RQD = 0%										
3	4.50	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
4	6.00	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
5	7.50	CR	Greyish completely weathered with very poor-quality rock having CR = 9% & RQD = 0%										
6	9.00	CR	Greyish completely weathered with very poor-quality rock having CR = 7% & RQD = 7%										
7	10.50	CR	Greyish completely weathered with very poor-quality rock having CR = 5% & RQD = 0%										
8	12.00	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
9	13.50	CR	Greyish completely weathered with very poor-quality rock having CR = 8% & RQD = 0%										
10	15.00	CR	Greyish highly weathered with very poor-quality rock having CR = 15% & RQD = 9%										
11	16.50	CR	Greyish highly weathered with very poor-quality rock having CR = 22% & RQD = 11%										
12	18.0	CR	Greyish highly weathered with poor-quality rock having CR = 40% & RQD =										

	0		26%
13	19.50	CR	Greyish highly weathered with poor-quality rock having CR = 48% & RQD = 36%
14	21.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 54% & RQD = 42%
15	21.50	CR	Greyish Slightly weathered with fair quality rock having CR = 79% & RQD = 70%

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 20

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.66	5.23	22.17	33.45	37.41	1.74	NP	NP	NP	SP
2	3.00	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
3	4.50	CR	Greyish Highly weathered with very poor-quality rock having CR = 30% & RQD = 14%										
4	6.00	CR	Greyish Highly weathered with poor-quality rock having CR = 50% & RQD = 31%										
5	7.50	CR	Greyish Moderately weathered with poor-quality rock having CR = 54% & RQD = 36%										
6	9.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 61% & RQD = 42%										
7	10.50	CR	Greyish Slightly weathered with fair quality rock having CR = 71% & RQD = 52%										

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 21

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	5.39	17.39	34.45	38.53	4.24	NP	NP	NP	SP
2	3.00	CR	Greyish completely weathered with very poor-quality rock having CR = 3% & RQD =0 %										
3	4.50	CR	Greyish completely weathered with very poor-quality rock having CR = 5% & RQD = 0%										
4	6.00	CR	Greyish completely weathered with very poor-quality rock having CR = 7% & RQD = 0%										
5	7.50	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
6	9.00	CR	Greyish completely weathered with very poor-quality rock having CR = 8% & RQD =0 %										
7	10.50	CR	Greyish completely weathered with very poor-quality rock having CR = 10% & RQD = 8%										
8	12.00	CR	Greyish Highly weathered with very poor-quality rock having CR = 12% & RQD = 10%										
9	13.50	CR	Greyish Highly weathered with very poor-quality rock having CR = 25% & RQD = 17%										

10	15.00	CR	Greyish highly weathered with very poor-quality rock having CR = 40% & RQD = 24%
11	16.50	CR	Greyish highly weathered with very poor-quality rock having CR = 45% & RQD = 23%
12	18.00	CR	Greyish highly weathered with poor-quality rock having CR = 49% & RQD = 25%

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail: info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 22

Project Name:	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	CR	Greyish completely weathered with very poor-quality rock having CR = 2% & RQD = 0%										
2	3.00	CR	Greyish completely weathered with very poor-quality rock having CR = 3% & RQD = 0%										
3	4.50	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
4	6.00	CR	Greyish completely weathered with very poor-quality rock having CR = 7% & RQD = 0%										
5	7.50	CR	Greyish completely weathered with very poor-quality rock having CR = 9% & RQD = 0%										

6	9.00	CR	Greyish Highly weathered with very poor-quality rock having CR = 13% & RQD = 9%
7	10.50	CR	Greyish Highly weathered with very poor-quality rock having CR = 20% & RQD = 16%
8	12.00	CR	Greyish Highly weathered with very poor-quality rock having CR = 32% & RQD = 19%
9	13.50	CR	Greyish Highly weathered with very poor-quality rock having CR = 41% & RQD = 22%
10	15.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 55% & RQD = 26%
11	16.50	CR	Greyish Moderately weathered with poor-quality rock having CR = 65% & RQD = 34%
12	18.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 69% & RQD = 40%
13	19.50	CR	Greyish Slightly weathered with Fair quality rock having CR = 72% & RQD = 60%
14	20.00	CR	Greyish Slightly weathered with Good quality rock having CR = 79% & RQD = 77%

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

OFFICE NO.03, GOKULDHAM CHS LTD, SUKAPUR, NEW PANVEL, DIST-RAIGAD, MAHARASHTRA-410206
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com, Phone no. 9867158937

BOREHOLE NO. – 23

Project Name :	GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.
Name of Client :	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

LAB SHEET

Sr No.	Depth (m.)	Type of Sample	FSI (%)	SP. Gr.	Grain Size Analysis					Atterberg's Limits			Soil Group
					Gravel (%)	Sand			Silt & Clay (%)	LL	PL	PI	
						C (%)	M (%)	F (%)		(%)	(%)	(%)	
1	1.50	SPT	NIL	2.65	2.77	20.26	29.44	42.55	4.98	NP	NP	NP	SP
2	3.00	CR	Greyish completely weathered with very poor-quality rock having CR = 4% & RQD = 0%										
3	4.50	CR	Greyish completely weathered with very poor-quality rock having CR = 3% & RQD = 0%										
4	6.00	CR	Greyish completely weathered with very poor-quality rock having CR = 6% & RQD = 0%										
5	7.50	CR	Greyish completely weathered with very poor-quality rock having CR = 9% & RQD = 0%										
6	9.00	CR	Greyish Highly weathered with very poor-quality rock having CR = 18% & RQD = 12%										
7	10.50	CR	Greyish Highly weathered with very poor-quality rock having CR = 31% & RQD = 21%										
8	12.00	CR	Greyish Highly weathered with very poor-quality rock having CR = 38% & RQD = 24%										

9	13.50	CR	Greyish Highly weathered with poor-quality rock having CR = 47% & RQD = 26%
10	15.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 57% & RQD = 30%
11	16.50	CR	Greyish Moderately weathered with poor-quality rock having CR = 65% & RQD = 47%
12	18.00	CR	Greyish Moderately weathered with poor-quality rock having CR = 67% & RQD = 49%
13	19.50	CR	Greyish Moderately weathered with poor-quality rock having CR = 70% & RQD = 50%
14	21.00	CR	Greyish Slightly weathered with fair quality rock having CR = 78% & RQD = 65%

12.0 BORE LOG

&

GRAPH OF GRAIN SIZE ANALYSIS

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-01
Date of Boring	12-10-2023

GWT (m)	NIL
Termination Depth (m)	2.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	2.00	NIL	SPT	30	41	50	91	
2.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-02
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	2.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	2.00	NIL	SPT	19	39	48	87	
2.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-03
Date of Boring	10-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	15	30	49	79	
3.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-04
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	1.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50	NIL	SPT	40	100	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-05
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	1.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SW	1.50	NIL	SPT	49	100	-	REF	

SW : Well Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-06
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	2.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SW	1.50	NIL	SPT	40	44	50	94	
2.00	Brownish murrom with small pebbles		SP	0.50		SPT	50	-	-	REF	

SW : Well Graded Sand SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-07
Date of Boring	09-10-2023

GWT (m)	NIL
Termination Depth (m)	1.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.00	Brownish murrom with small pebbles		SW	1.00	NIL	SPT	100	-	-	REF	REF

SW : Well Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-08
Date of Boring	09-10-2023

GWT (m)	NIL
Termination Depth (m)	9.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	2.50	NIL	SPT	10	14	18	32	
2.50	Brownish murrom with small pebbles					SPT	19	29	100	REF	REF
3.00	Grayish moderately weathered with poor quality rock		MWR	1.50		CR	CR = 60%			RQD = 44%	
4.50	Grayish highly weathered with poor quality rock		HWR	6.00		CR	CR = 46%			RQD = 26%	
6.00	Grayish highly weather with poor quality rock					CR	CR = 50%			RQD = 41%	
7.50	Grayish highly weather with very poor quality rock					CR	CR = 46%			RQD = 20%	
9.00	Grayish highly weather with poor quality rock					CR	CR = 46%			RQD = 28%	
9.50	Grayish slightly weather with fair quality rock		SWR	0.50		CR	CR = 80%			RQD = 60%	

SP = Poorly Graded Sand

HWR = Highly Weathered

Rock

MWR = Moderately Weathered Rock

SWR = Slightly Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-09
Date of Boring	09-10-2023

GWT (m)	NIL
Termination Depth (m)	3.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SW	3.00	NIL	SPT	14	18	22	40	
3.00	Brownish murrom with small pebbles					SPT	21	29	40	69	
3.50	Brownish murrom with small pebbles		SP	0.50		SPT	100	-	-	REF	

SW : Well Graded Sand

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-10
Date of Boring	10-10-2023

GWT (m)	NIL

Termination Depth (m) 9.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish silty soil		SP	1.50	NIL	SPT	34	100	-	REF	REF
3.00	Grayish highly weathered with very poor quality rock		HWR	3.00		SPT	CR = 20 %			CR = 00 %	
4.50	Grayish highly weathered with poor quality rock					CR	CR = 40 %			RQD = 33 %	
6.00	Grayish moderatrly weathered with poor quality rock		MWR	3.00		CR	CR = 60 %			RQD = 26 %	
7.50	Grayish moderatrly weathered with poor quality rock					CR	CR = 60 %			RQD = 27 %	
9.50	Grayish highly weathered with poor quality rock		HWR	2.00		CR	CR = 42 %			RQD = 26 %	

SP = Poorly Graded Sand

HWR = Highly Weathered

Rock

MWR = Moderately Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-11
Date of Boring	10-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	30	41	47	88	
3.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-12
Date of Boring	10-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	15	31	42	73	
3.00	Brownish murrom with small pebbles					SPT	50	100	-	REF	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-13
Date of Boring	10-10-2023

GWT (m)	NIL
Termination Depth (m)	1.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.00	Brownish murrom with small pebbles		SP	1.00	NIL	SPT	100	-	-	REF	REF

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

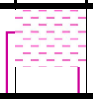
Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-14
Date of Boring	10-10-2023

GWT (m)	NIL
Termination Depth (m)	1.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SW	1.50	NIL	SPT	49	100	-	REF	REF

 SW : Well Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-15
Date of Boring	09-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	19	42	55	97	
3.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	REF

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-16
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	17	40	44	84	
3.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	REF

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-17
Date of Boring	11-10-2023

GWT (m)	NIL
Termination Depth (m)	3.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	3.00	NIL	SPT	21	42	47	89	
3.00	Brownish murrom with small pebbles					SPT	100	-	-	REF	REF

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150 mm
Borehole No.	BH-17
Date of Boring	13-10-2023

GWT (m)	NIL
Termination Depth (m)	1.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPL	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50	NIL	SPT	19	39	100	139	

SP : Poorly Graded Sand

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name: **GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**

Name of Client: INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-19
Date of Boring	14-10-2023

GWT (m) 5.80

Termination Depth (m) 21.50

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50		SPT	11	50	100	150	REF
3.00	Grayish completely weathered with very poor quality rock					CR	CR = 4 %			RQD = 00 %	
4.50	Grayish completely weathered with very poor quality rock					CR	CR = 6 %			RQD = 00 %	
6.00	Grayish completely weathered with very poor quality rock				▽	CR	CR = 6 %			RQD = 00 %	
7.50	Grayish completely weathered with very poor quality rock		CWR	12.00		CR	CR = 9 %			RQD = 00 %	
9.00	Grayish completely weathered with very poor quality rock					CR	CR = 7 %			RQD = 07%	
10.50	Grayish completely weathered with very poor quality rock					CR	CR = 5 %			RQD = 00 %	
12.00	Grayish completely weathered with very poor quality rock					CR	CR = 6 %			RQD = 00 %	
13.50	Grayish completely weathered with very poor quality rock					CR	CR = 8 %			RQD = 00 %	
15.00	Grayish highly weathered with very poor quality rock		HWR	6.00		CR	CR = 15 %			RQD = 09 %	
16.50	Grayish highly weathered with very poor quality rock					CR	CR = 22 %			RQD = 11 %	
18.00	Grayish highly weathered with poor quality rock					CR	CR = 40 %			RQD = 26 %	
19.50	Grayish highly weathered with poor quality rock					CR	CR = 48 %			RQD = 36 %	
21.00	Grayish Moderately weathered with poor quality rock		MWR	1.50		CR	CR = 54 %			RQD = 42 %	
21.50	Grayish Slightly weathered with fair quality rock		SWR	0.50		CR	CR = 79 %			RQD = 70 %	

▽ GWT = GROUND WATER TABLE


SP = Poorly Graded Sand


HWR = Highly Weathered


Rock

MWR = Moderately Weathered Rock


SWR = Slightly Weathered Rock


CWR = Completely Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216

E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

~~Method of Boring~~	~~ROTARY~~
Dia of Boaring	150mm
Borehole No.	BH-20
Date of Boring	14-10-2023 to 15-10-2023

~~GWT (m)~~	~~5.40~~
Termination Depth (m)	10.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta (m)	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50		SPT	17	29	100	129	REF
3.00	Grayish completely weathered with very poor quality rock		CWR	1.50		CR	CR = 6 %			RQD = 00 %	
4.50	Grayish Highly weathered with very poor quality rock		HWR	3.00	▽	CR	CR = 30 %			RQD = 14 %	
6.00	Grayish Highly weathered with poor quality rock					CR	CR = 50 %			RQD = 31 %	
7.50	Grayish Moderately weathered with poor quality rock		MWR	3.00		CR	CR = 54 %			RQD = 36 %	
9.00	Grayish Moderately weathered with poor quality rock					CR	CR = 61 %			RQD = 42%	
10.00	Grayish Slightly weathered with fair quality rock		SWR	1.00		CR	CR = 71 %			RQD = 52 %	

▽ GWT = GROUND WATER TABLE

SP = Poorly Graded Sand

HWR = Highly Weathered Rock

MWR = Moderately Weathered

Rock SWR = Slightly Weathered

Rock CWR = Completely

Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-21
Date of Boring	16-10-2023 to 19-10-2023

GWT (m)	5.50
Termination Depth (m)	18.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50		SPT	40	100		100	REF
3.00	Grayish completely weathered with very poor quality rock					CR	CR = 03 %			RQD = 00 %	
4.50	Grayish completely weathered with very poor quality rock					CR	CR = 05 %			RQD = 00 %	
6.00	Grayish completely weathered with very poor quality rock				▽	CR	CR = 07 %			RQD = 00 %	
7.50	Grayish completely weathered with very poor quality rock		CWR	9.00		CR	CR = 06 %			RQD = 00 %	
9.00	Grayish completely weathered with very poor quality rock					CR	CR = 08 %			RQD = 0%	
10.50	Grayish completely weathered with very poor quality rock					CR	CR = 10 %			RQD = 08 %	
12.00	Grayish Highly weathered with very poor quality rock					CR	CR = 12 %			RQD = 10 %	
13.50	Grayish Highly weathered with very poor quality rock					CR	CR = 25 %			RQD = 17 %	
15.00	Grayish highly weathered with very poor quality rock		HWR	7.50		CR	CR = 40 %			RQD = 24 %	
16.50	Grayish highly weathered with very poor quality rock					CR	CR = 45 %			RQD = 23 %	
18.00	Grayish highly weathered with poor quality rock					CR	CR = 49 %			RQD = 25 %	

▽ GWT = GROUND WATER TABLE

SP = Poorly Graded Sand

HWR = Highly Weathered Rock

CWR = Completely Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

GWT (m) 9.50

Termination Depth (m) 20.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Grayish completely weathered with very poor quality rock					CR	CR = 2 %			RQD = 00 %	
3.00	Grayish completely weathered with very poor quality rock					CR	CR = 3 %			RQD = 00 %	
4.50	Grayish completely weathered with very poor quality rock		CWR	7.50		CR	CR = 6 %			RQD = 00 %	
6.00	Grayish completely weathered with very poor quality rock					CR	CR = 7 %			RQD = 00 %	
7.50	Grayish completely weathered with very poor quality rock					CR	CR = 9 %			RQD = 00 %	
9.00	Grayish Highly weathered with very poor quality rock					CR	CR = 13 %			RQD = 09%	
10.50	Grayish Highly weathered with very poor quality rock					CR	CR = 20 %			RQD = 16 %	
12.00	Grayish Highly weathered with very poor quality rock		HWR	6.00		CR	CR = 32 %			RQD = 19 %	
13.50	Grayish Highly weathered with very poor quality rock					CR	CR = 41 %			RQD = 22 %	
15.00	Grayish Moderately weathered with poor quality rock					CR	CR = 55 %			RQD = 26 %	
16.50	Grayish Moderately weathered with poor quality rock		MWR	4.50		CR	CR = 65 %			RQD = 34 %	
18.00	Grayish Moderately weathered with poor quality rock					CR	CR = 69 %			RQD = 40 %	
19.50	Grayish Slightly weathered with Fair quality rock		SWR	2.00		CR	CR = 72 %			RQD = 60 %	
20.00	Grayish Slightly weathered with Good					CR	CR = 79 %			RQD = 77 %	

HWR = Highly Weathered Rock

MWR = Moderately Weathered Rock

SWR = Slightly Weathered Rock

CWR = Completely Weathered Rock

	quality rock						

GWT = GROUND WATER TABLE

Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-22
Date of Boring	22-10-2023

HWR = Highly Weathered Rock

MWR = Moderately Weathered Rock

SWR = Slightly Weathered Rock

CWR = Completely Weathered Rock

BHASKRAM JYOTISH ANUSANDHAN KENDRA PVT. LTD

Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216
E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com

Project Name:	**GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47, MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.**
Name of Client:	INDIAN INSTITUTE OF MANAGEMENT BANGLORE.

GWT (m) 7.60

Termination Depth (m) 21.00

BORELOG

Depth (m)	Visual Discription	LEGENDS	Soil Classification	Thickness of starta	GWT (m)	TYPE OF SAMPLE	SPT-NO 0-150 mm	SPT-NO 150-300	SPT-NO 300-450	N-Value (Observed)	N-Value (Corrected)
1.50	Brownish murrom with small pebbles		SP	1.50		SPT	33	100		100	REF
3.00	Grayish completely weathered with very poor quality rock		CWR	6.00		CR	CR = 4 %			RQD = 00 %	
4.50	Grayish completely weathered with very poor quality rock					CR	CR = 3 %			RQD = 00 %	
6.00	Grayish completely weathered with very poor quality rock					CR	CR = 6 %			RQD = 00 %	
7.50	Grayish completely weathered with very poor quality rock					CR	CR = 9 %			RQD = 00 %	
9.00	Grayish Highly weathered with very poor quality rock		HWR	6.00		CR	CR = 18 %			RQD = 12%	
10.50	Grayish Highly weathered with very poor quality rock					CR	CR = 31 %			RQD = 21 %	
12.00	Grayish Highly weathered with very poor quality rock					CR	CR = 38 %			RQD = 24 %	
13.50	Grayish Highly weathered with poor quality rock					CR	CR = 47 %			RQD = 26 %	
15.00	Grayish Moderately weathered with poor quality rock		MWR	6.00		CR	CR = 57 %			RQD = 30 %	
16.50	Grayish Moderately weathered with poor quality rock					CR	CR = 65 %			RQD = 47 %	
18.00	Grayish Moderately weathered with poor quality rock					CR	CR = 67 %			RQD = 49 %	
19.50	Grayish Moderately weathered with poor quality rock					CR	CR = 70 %			RQD = 50 %	
21.00	Grayish Slightly weathered with fair quality rock		SWR	1.50		CR	CR = 78 %			RQD = 65 %	

HWR = Highly Weathered Rock

MWR = Moderately Weathered Rock

SWR = Slightly Weathered Rock

CWR = Completely Weathered Rock

GWT = GROUND WATER TABLE

SP = Poorly Graded Sand

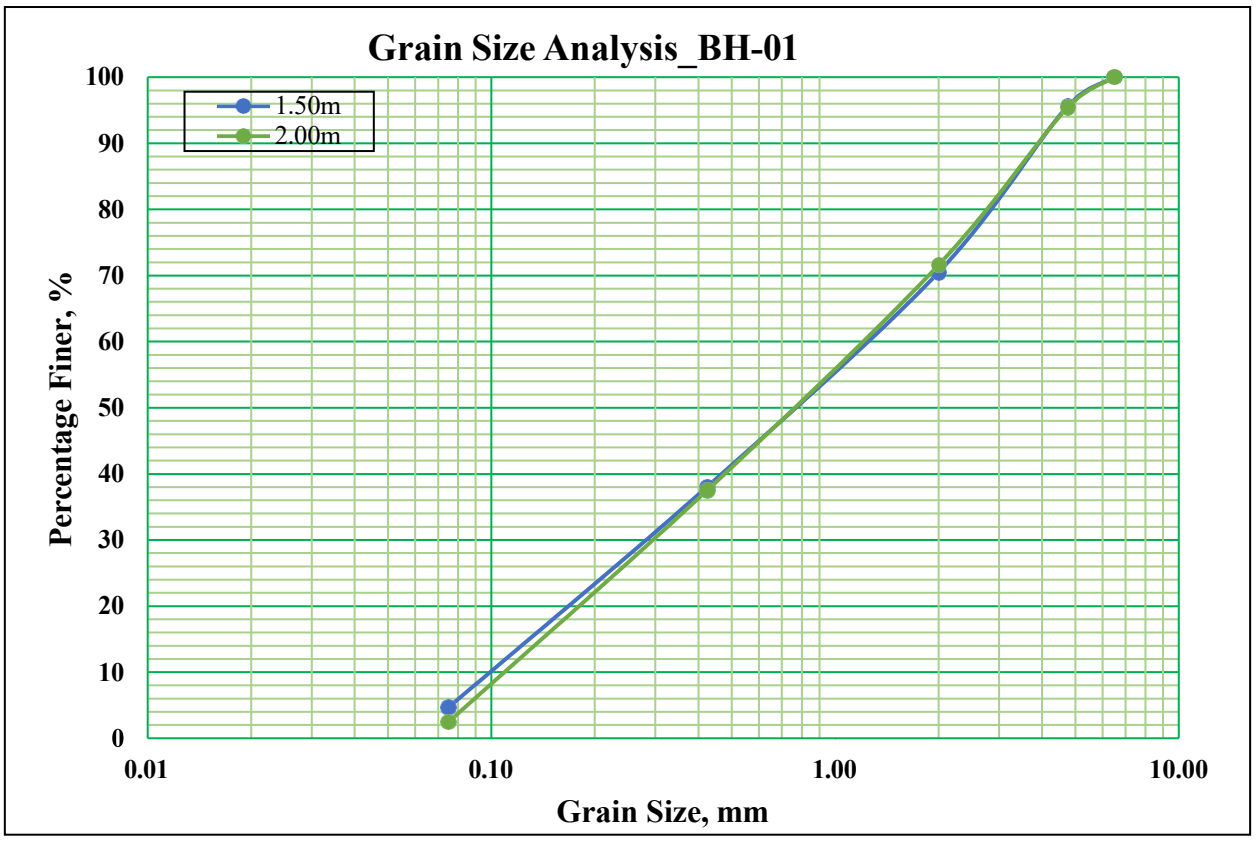
Method of Boring	ROTARY
Dia of Boaring	150mm
Borehole No.	BH-23
Date of Boring	19-10-2023 to 22-10-2023

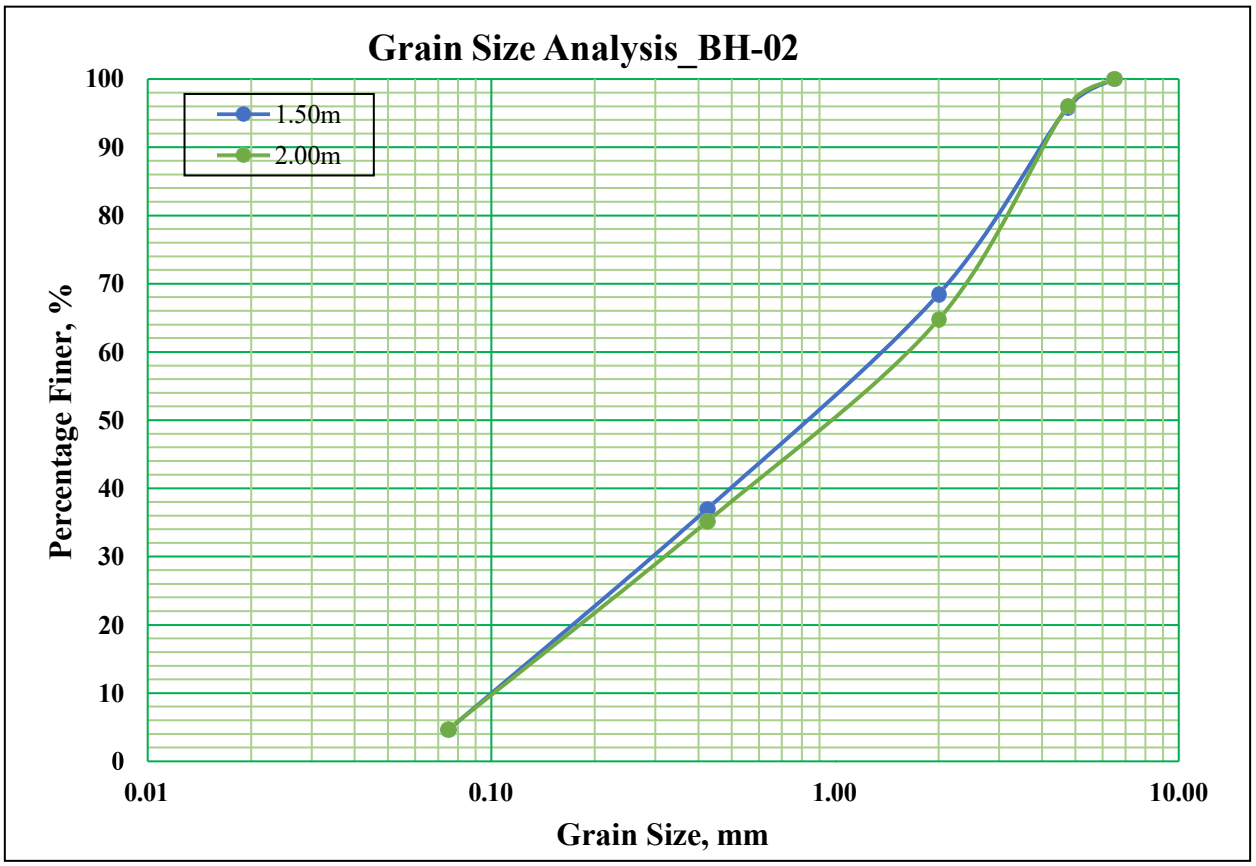
HWR = Highly Weathered Rock

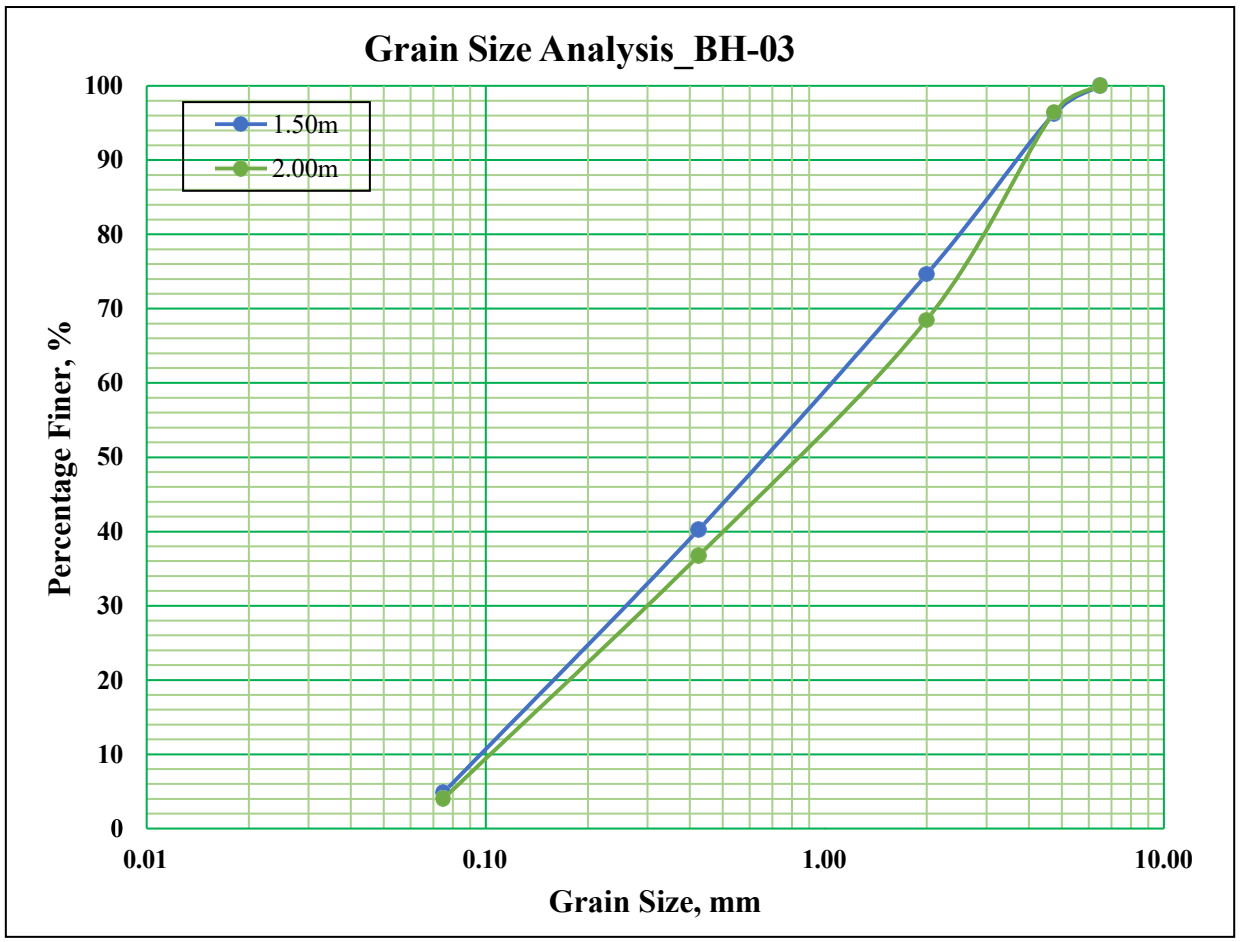
MWR = Moderately Weathered Rock

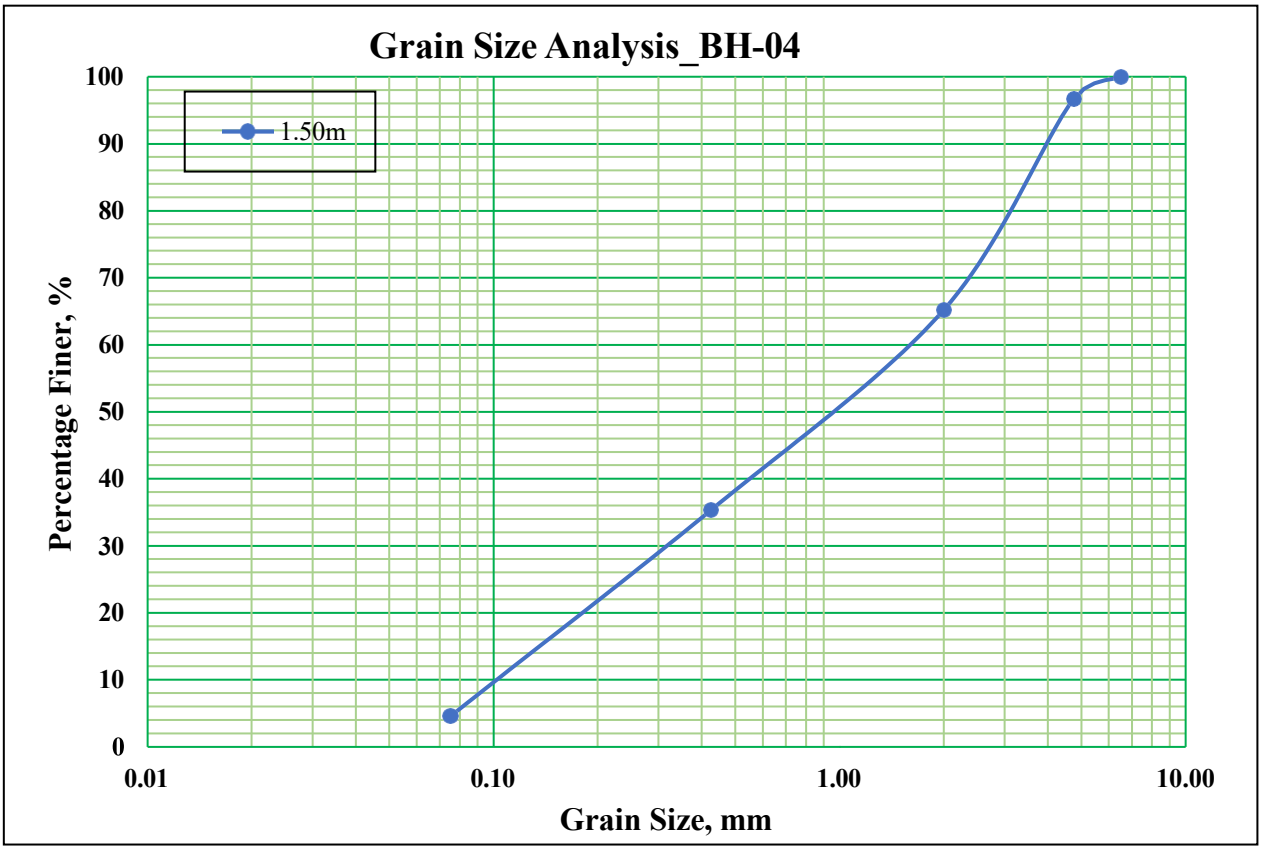
SWR = Slightly Weathered Rock

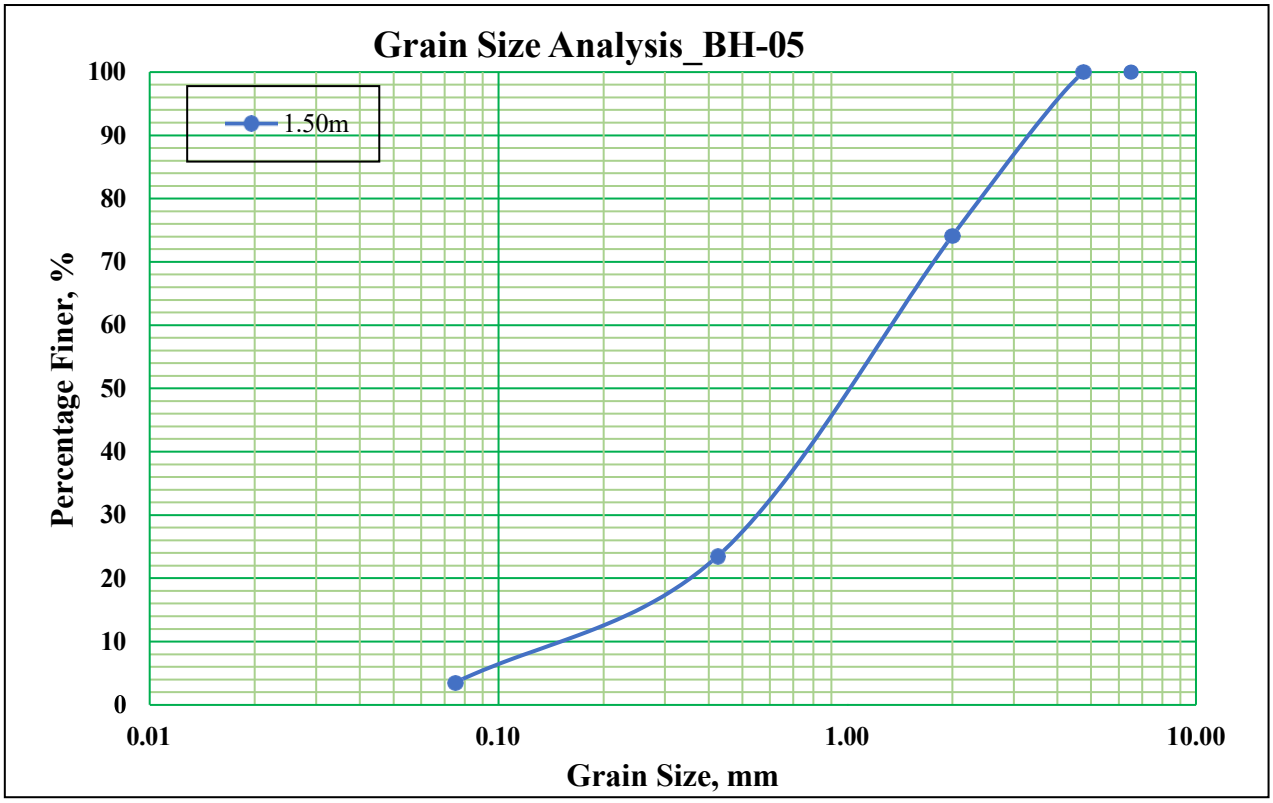
CWR = Completely Weathered Rock

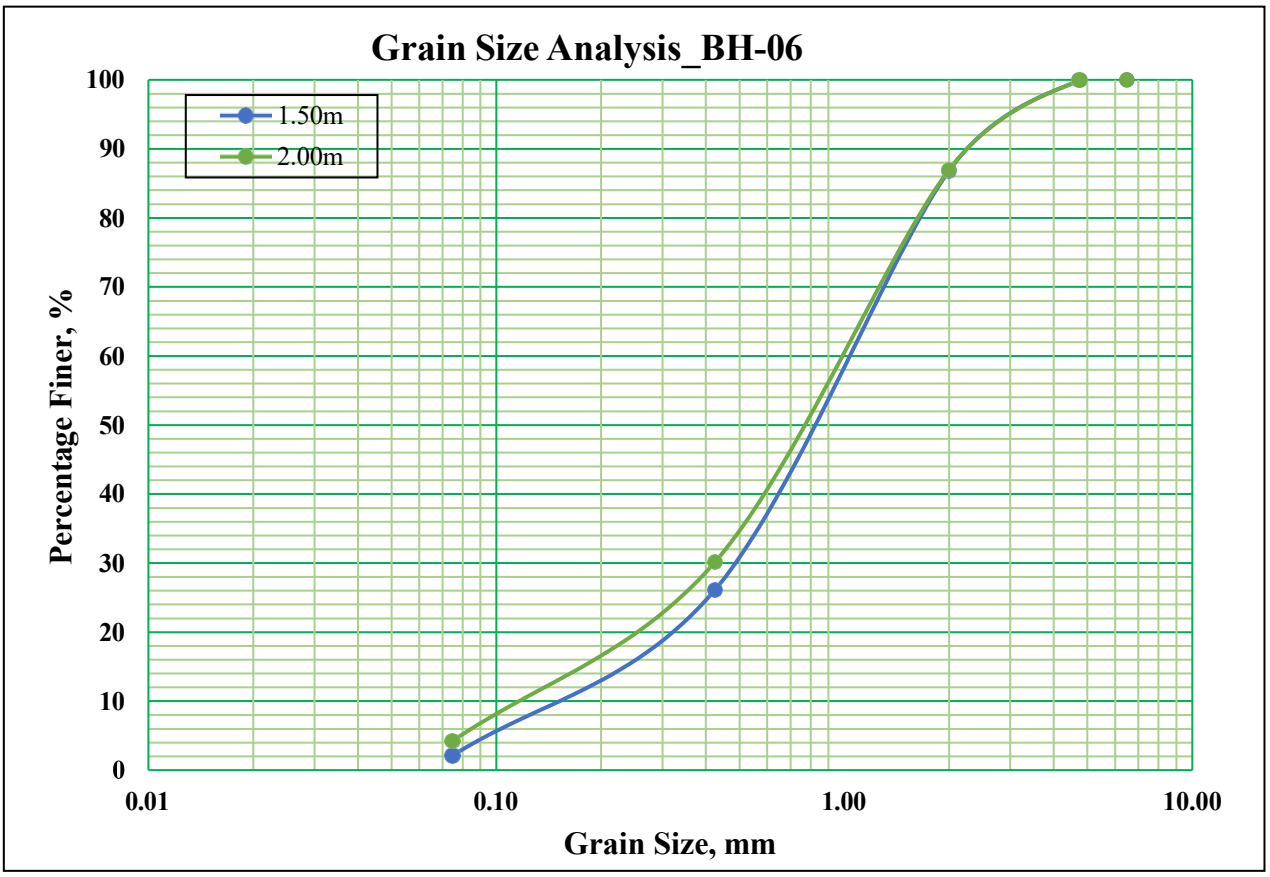

Grain Size Analysis_BH-01
1.50m
2.00m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

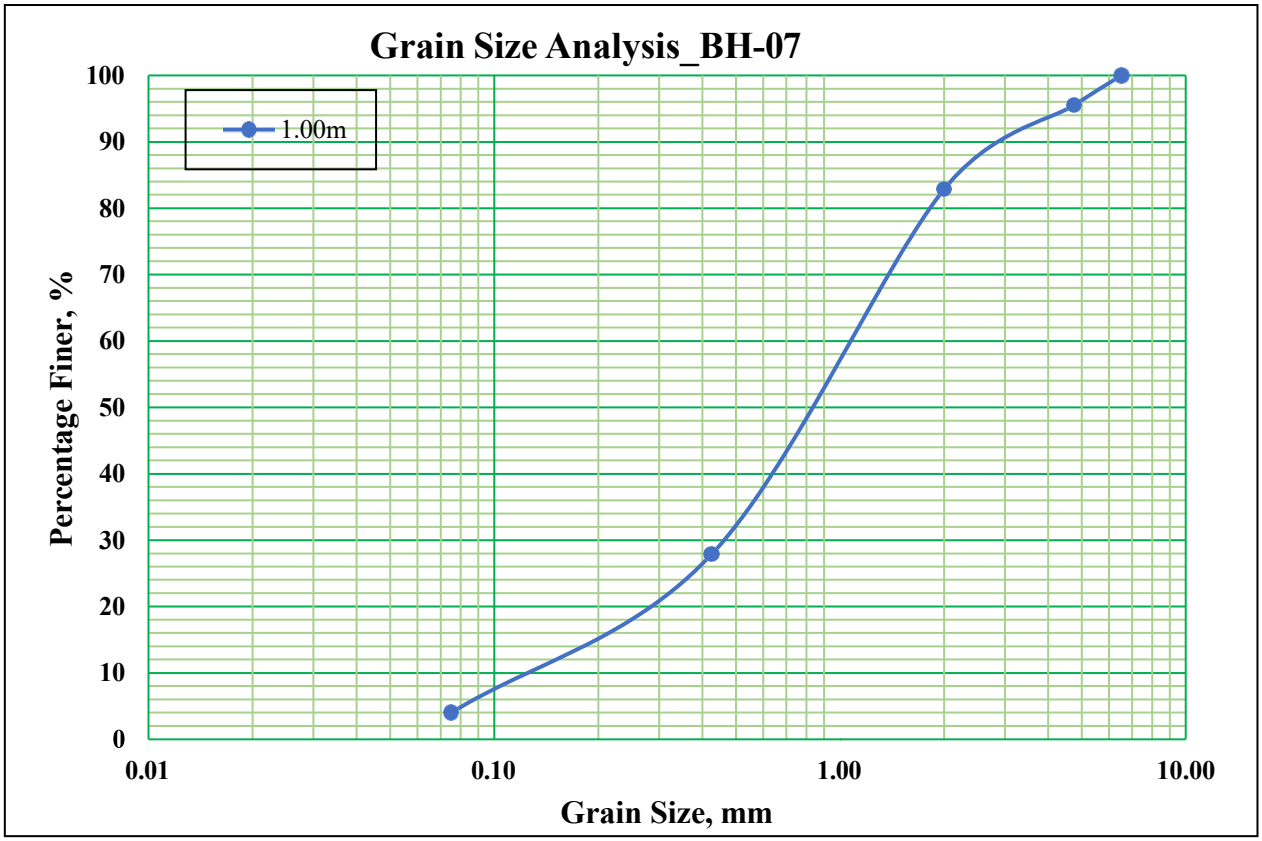

Grain Size Analysis_BH-02
1.50m
2.00m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

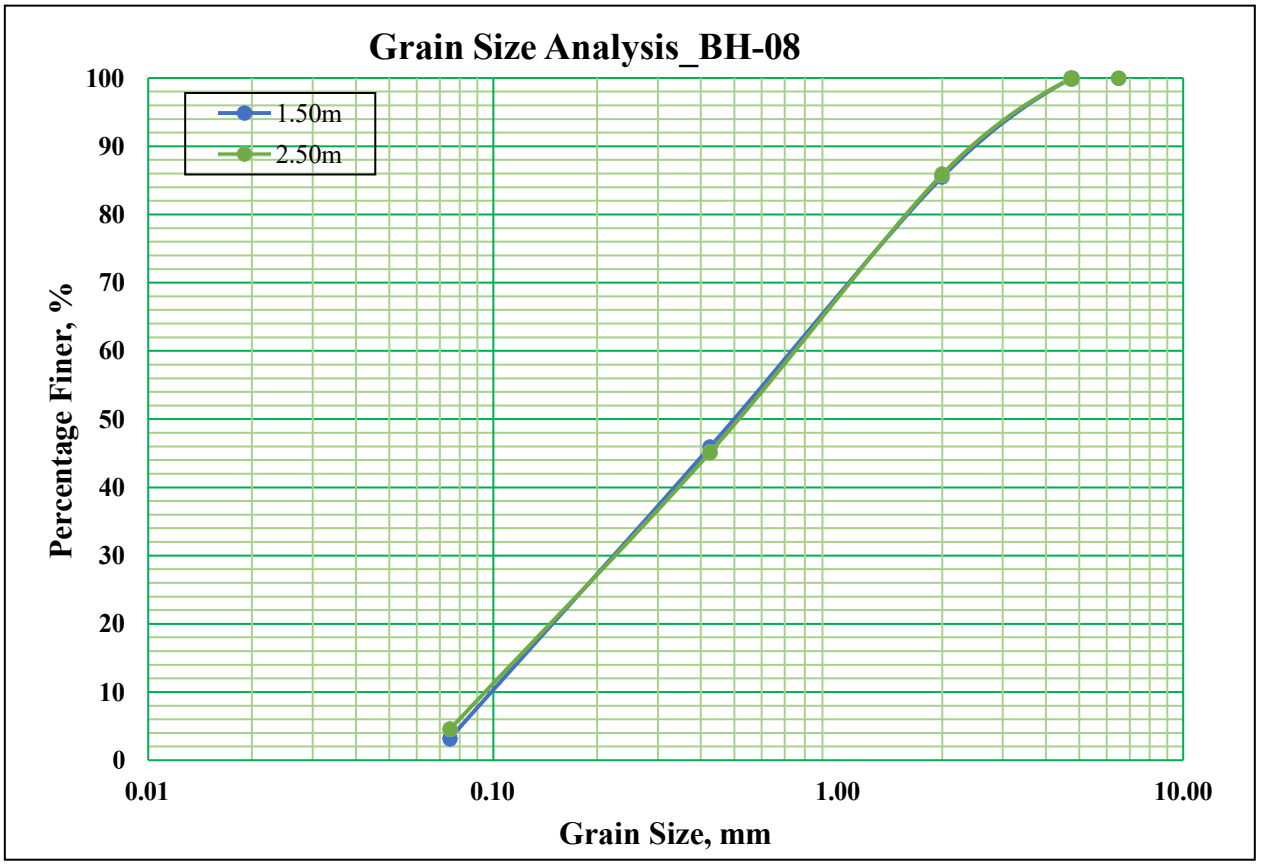

Grain Size Analysis_BH-03
1.50m
2.00m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

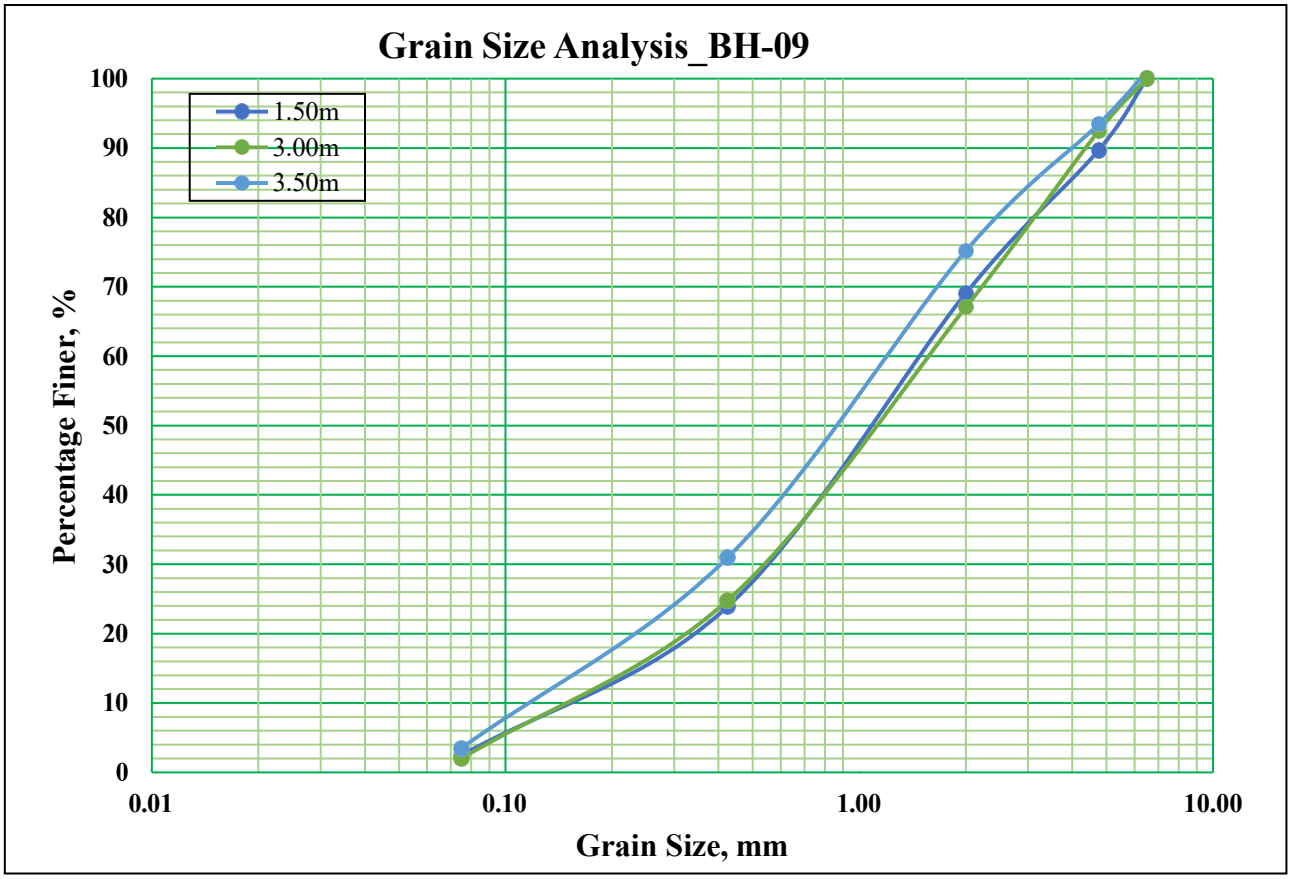

Grain Size Analysis_BH-04
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

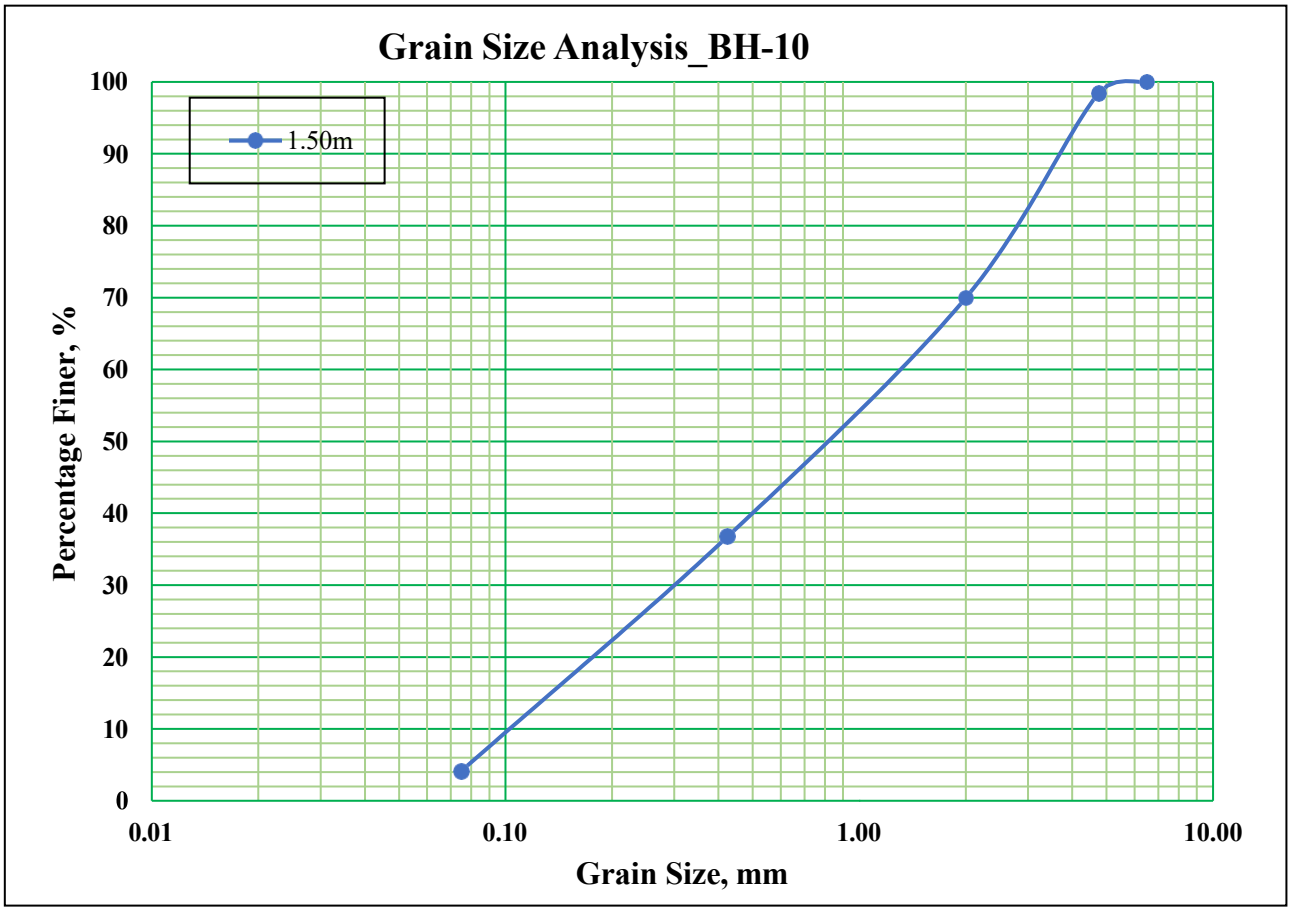

Grain Size Analysis_BH-05
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

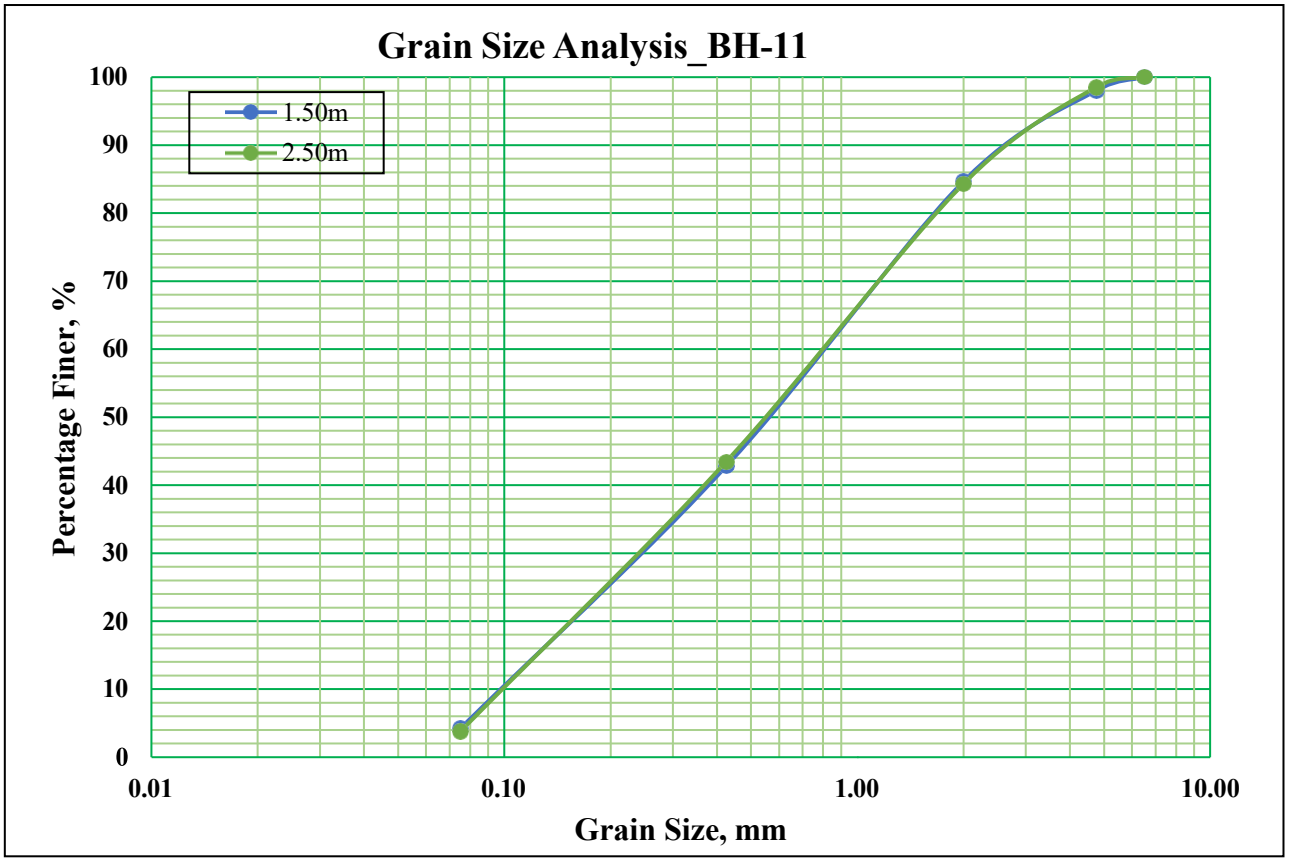

Grain Size Analysis_BH-06
1.50m
2.00m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

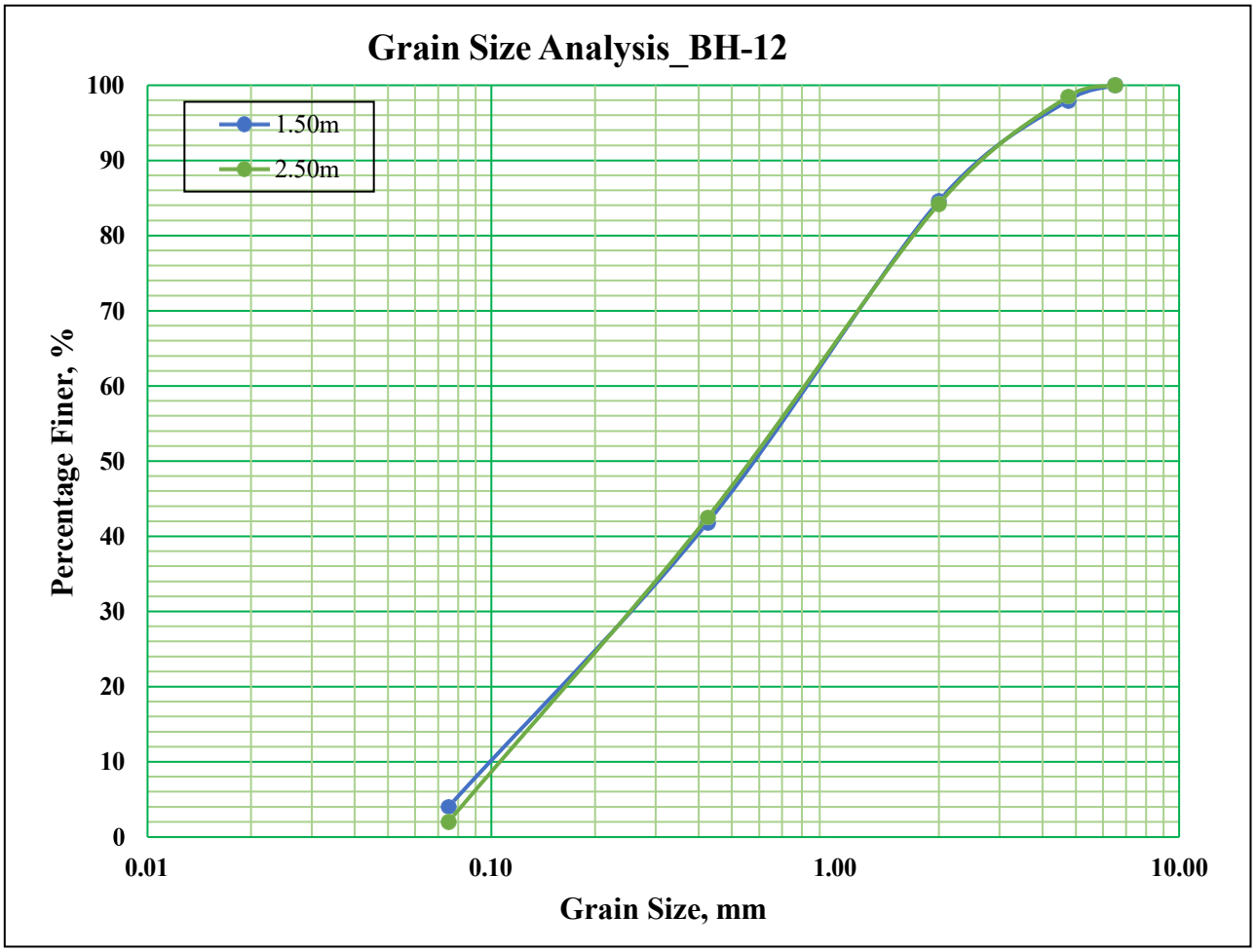

Grain Size Analysis_BH-07
1.00m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

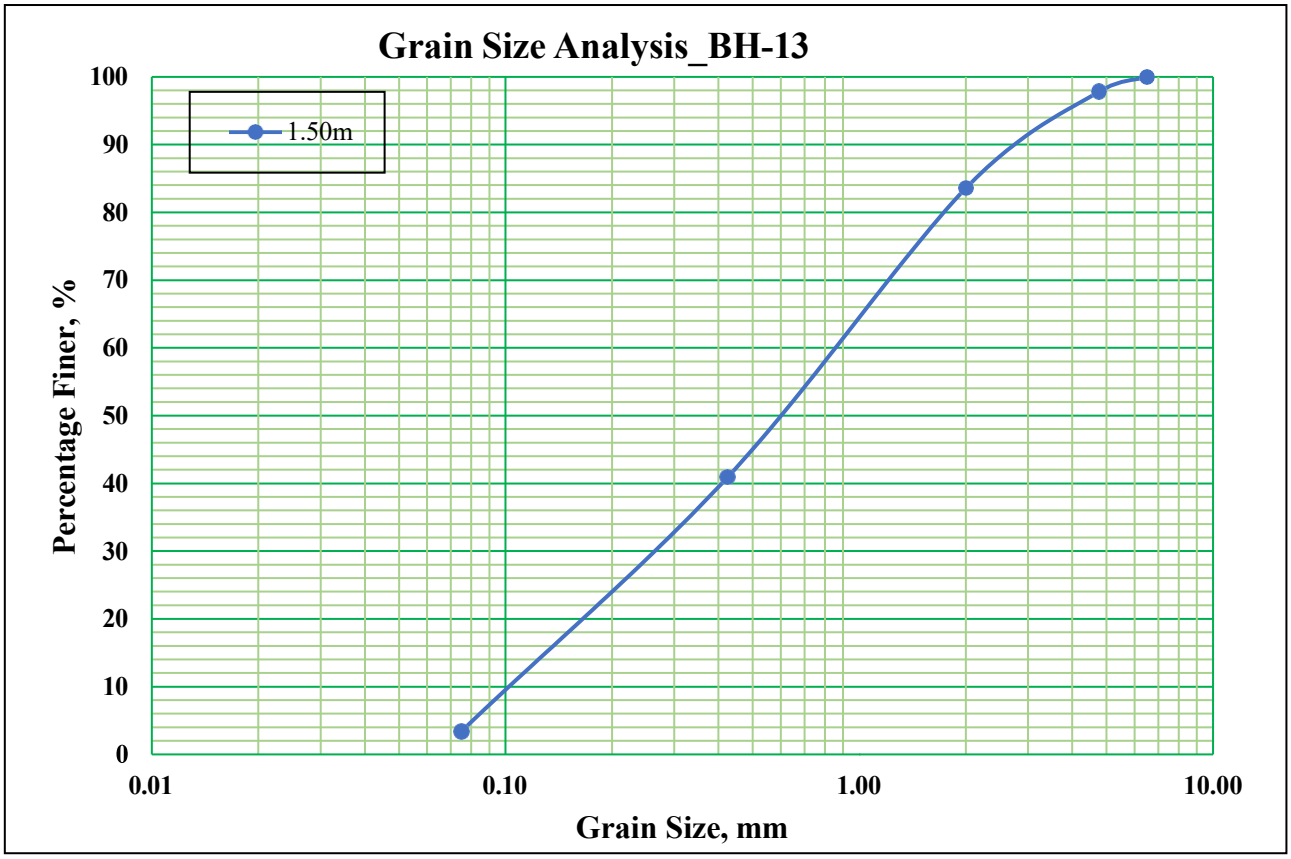

Grain Size Analysis_BH-08
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

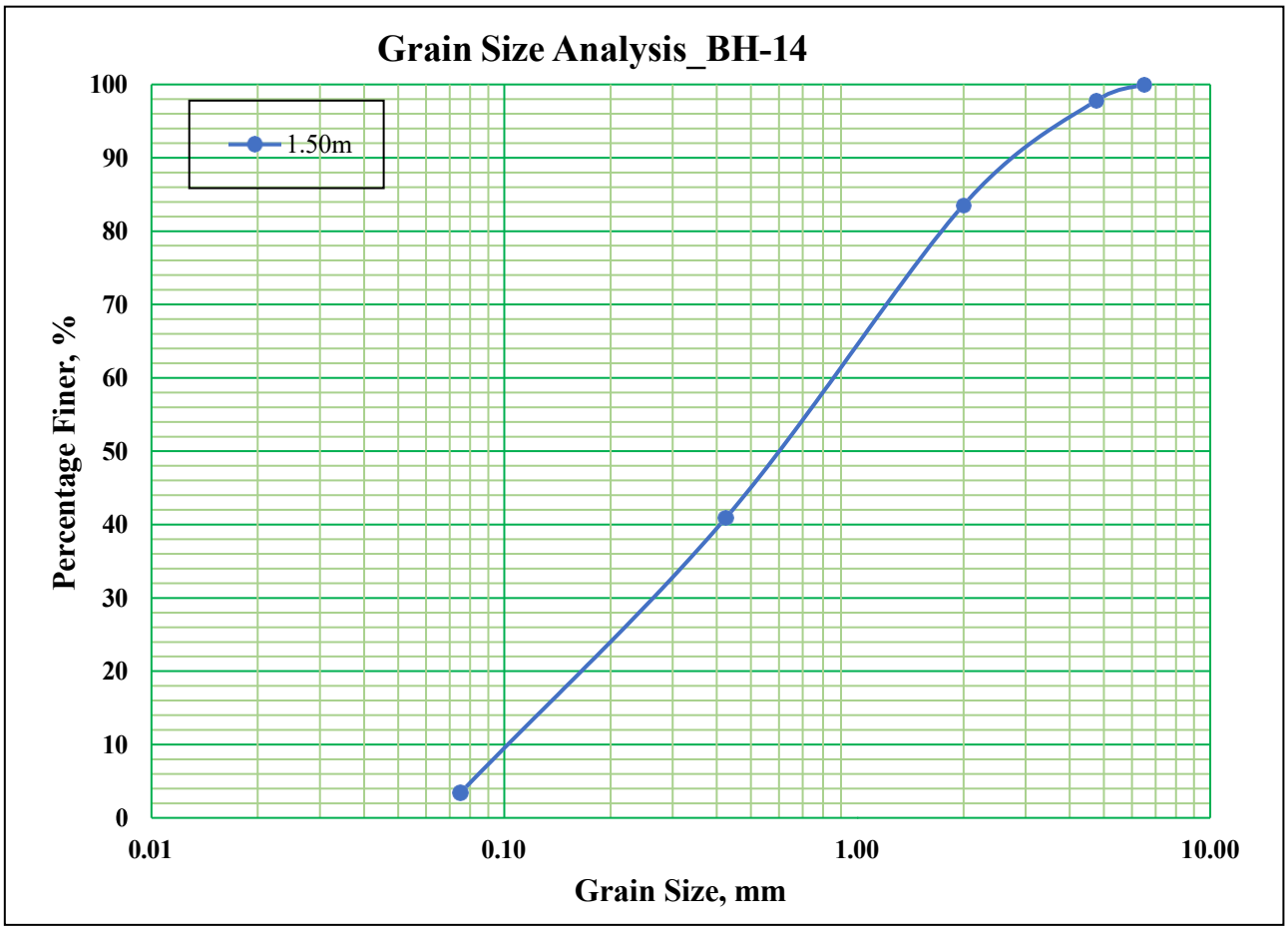

Grain Size Analysis_BH-09
1.50m
3.00m
3.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

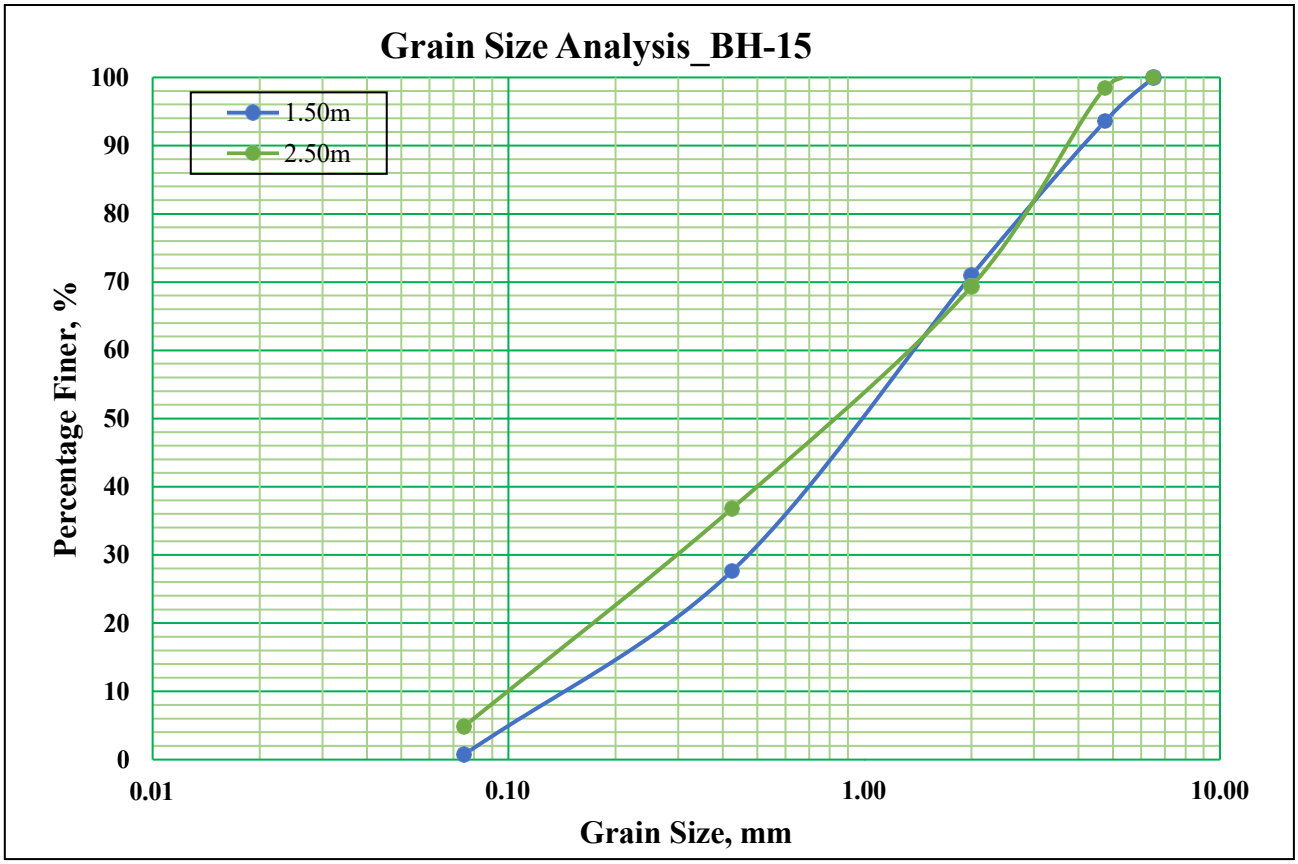

Grain Size Analysis_BH-10
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

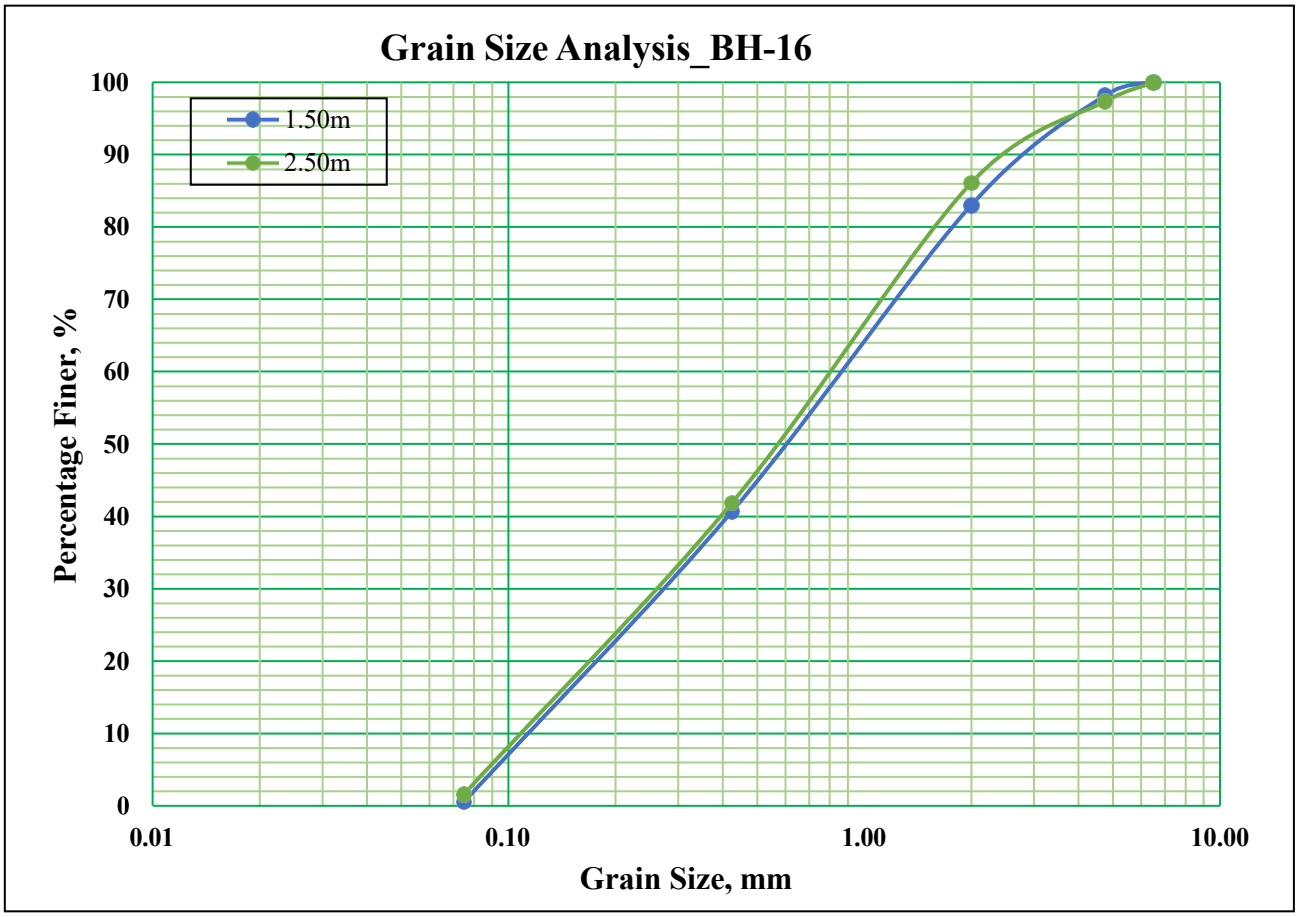

Grain Size Analysis_BH-11
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

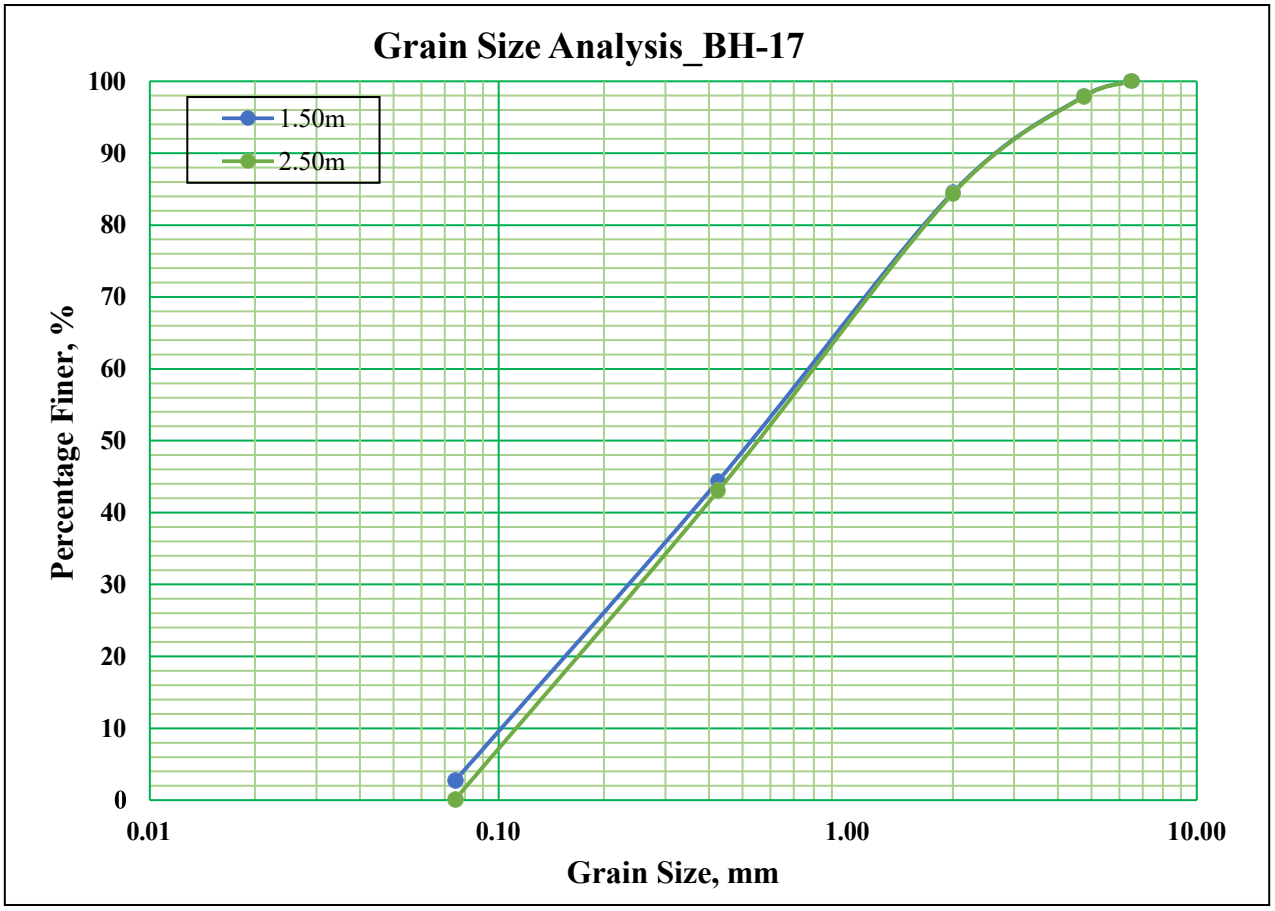

Grain Size Analysis_BH-12
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

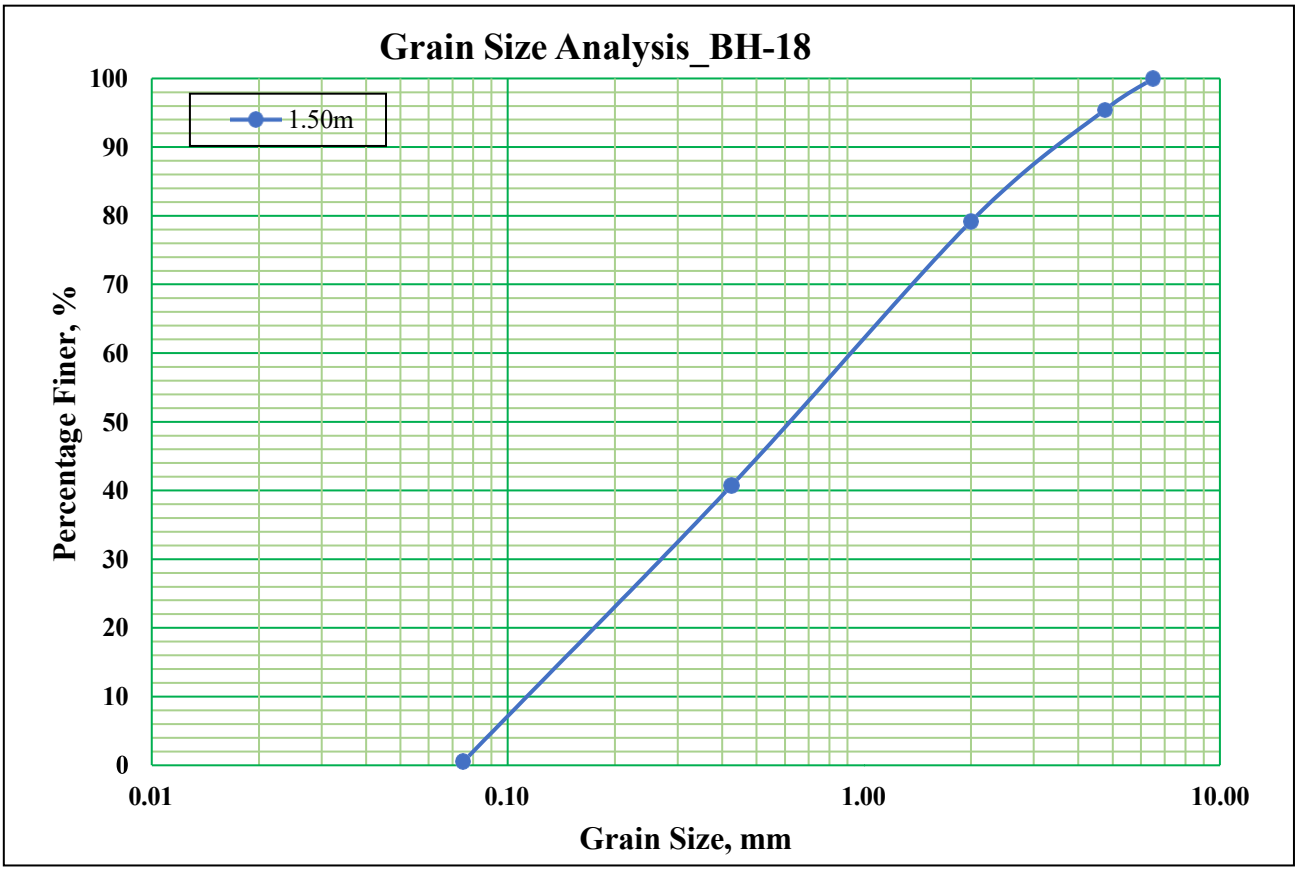

Grain Size Analysis_BH-13
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

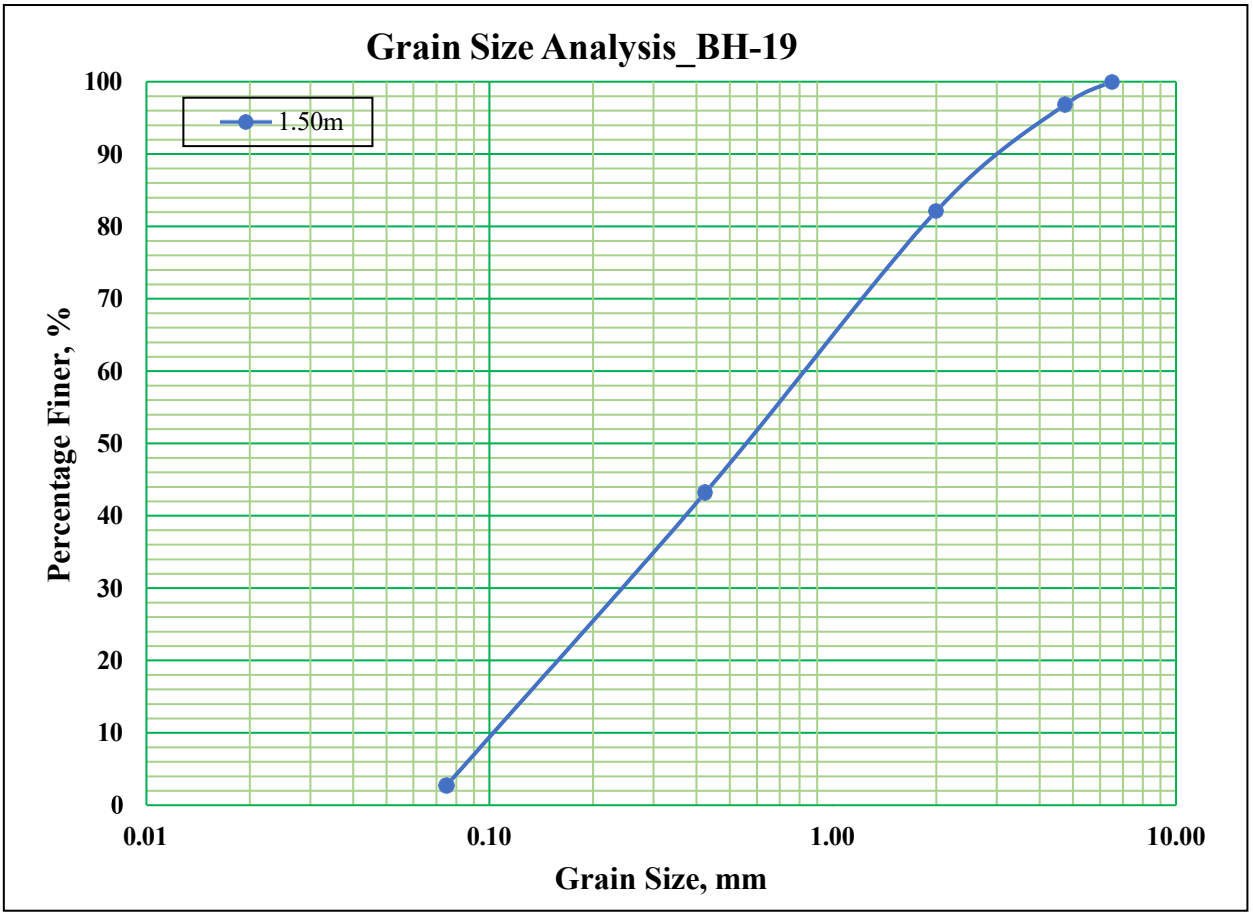

Grain Size Analysis_BH-14
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

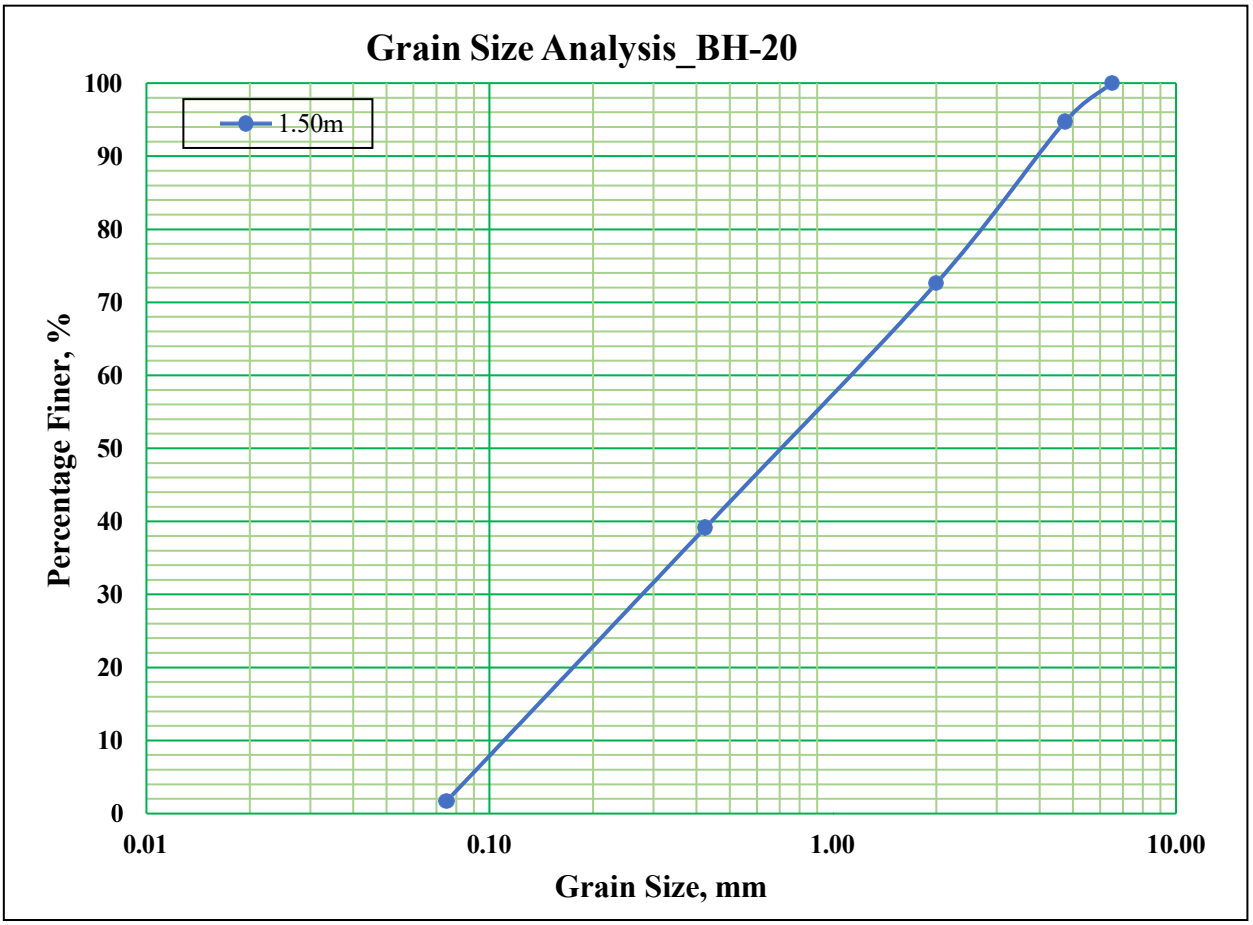

Grain Size Analysis_BH-15
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

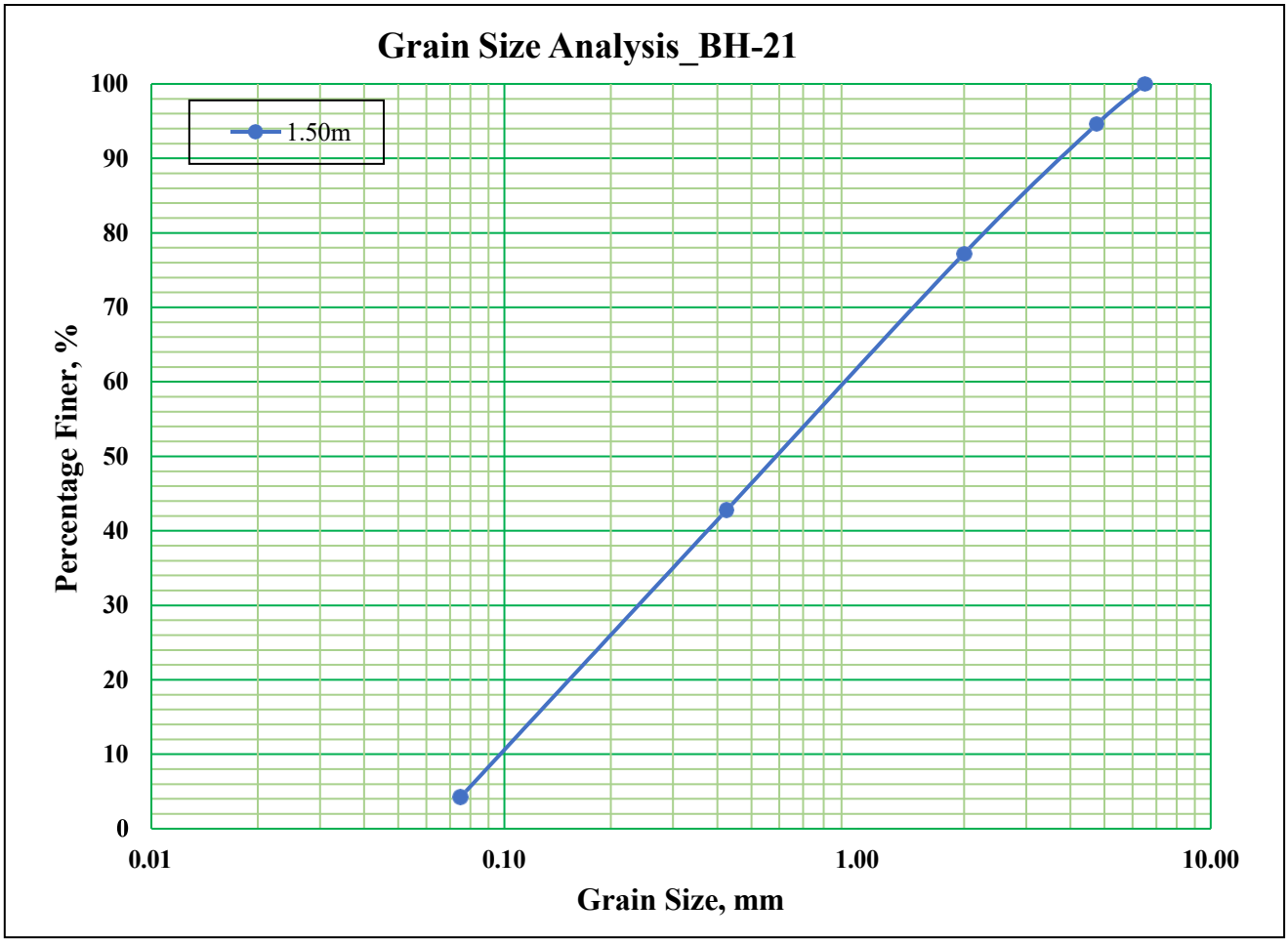

Grain Size Analysis_BH-16
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

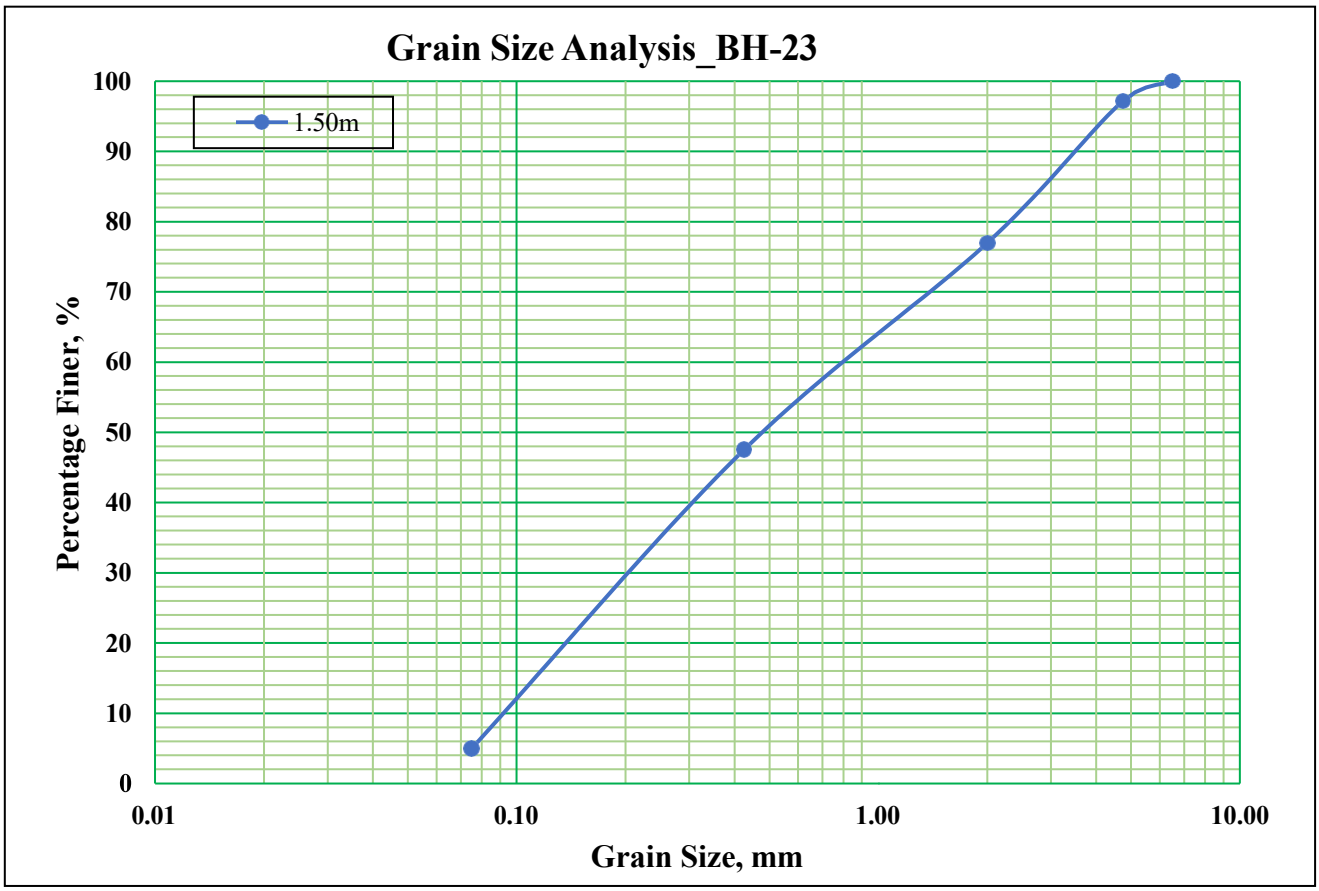

Grain Size Analysis_BH-17
1.50m
2.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm


Grain Size Analysis_BH-18
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

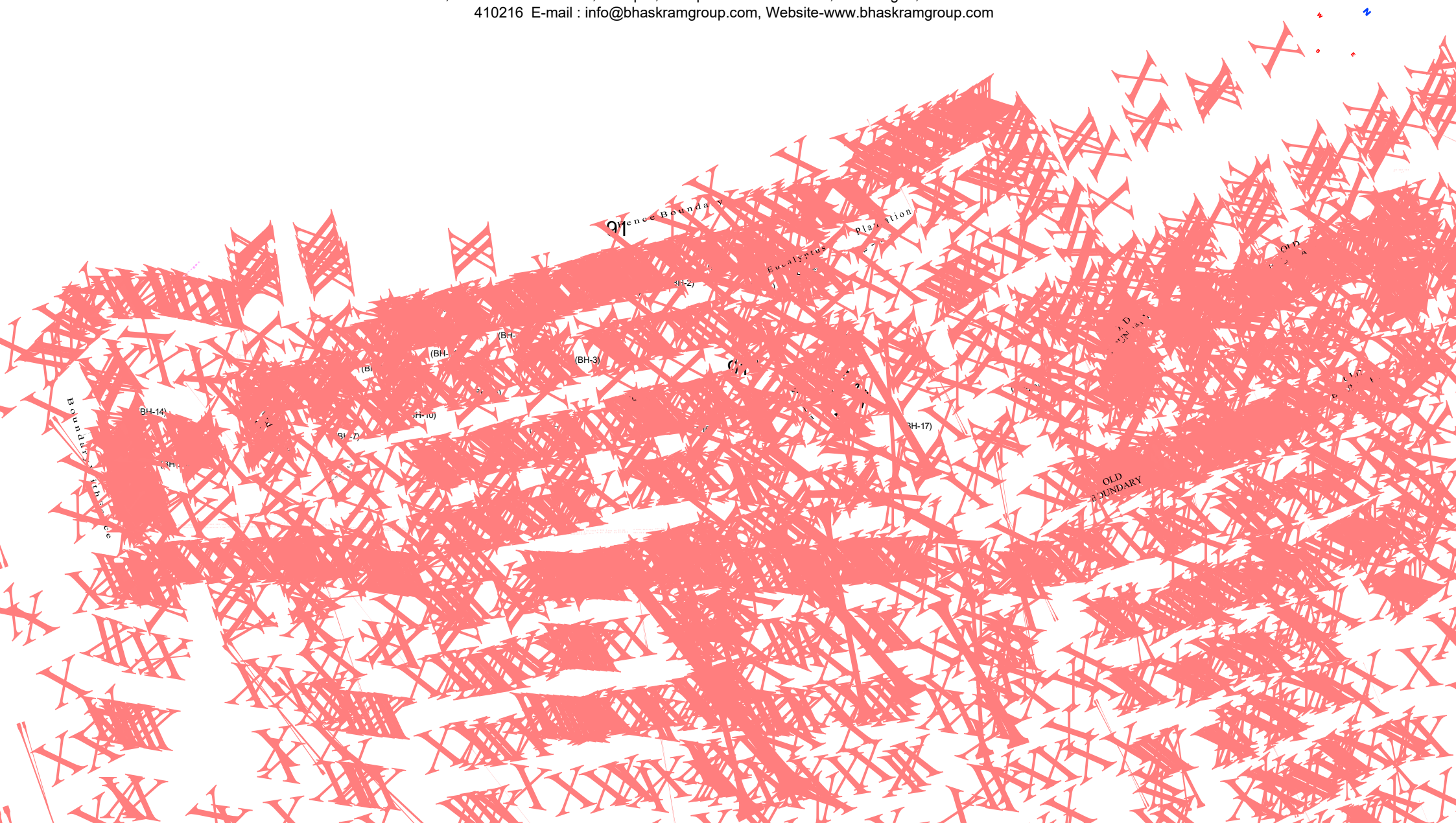

Grain Size Analysis_BH-19
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

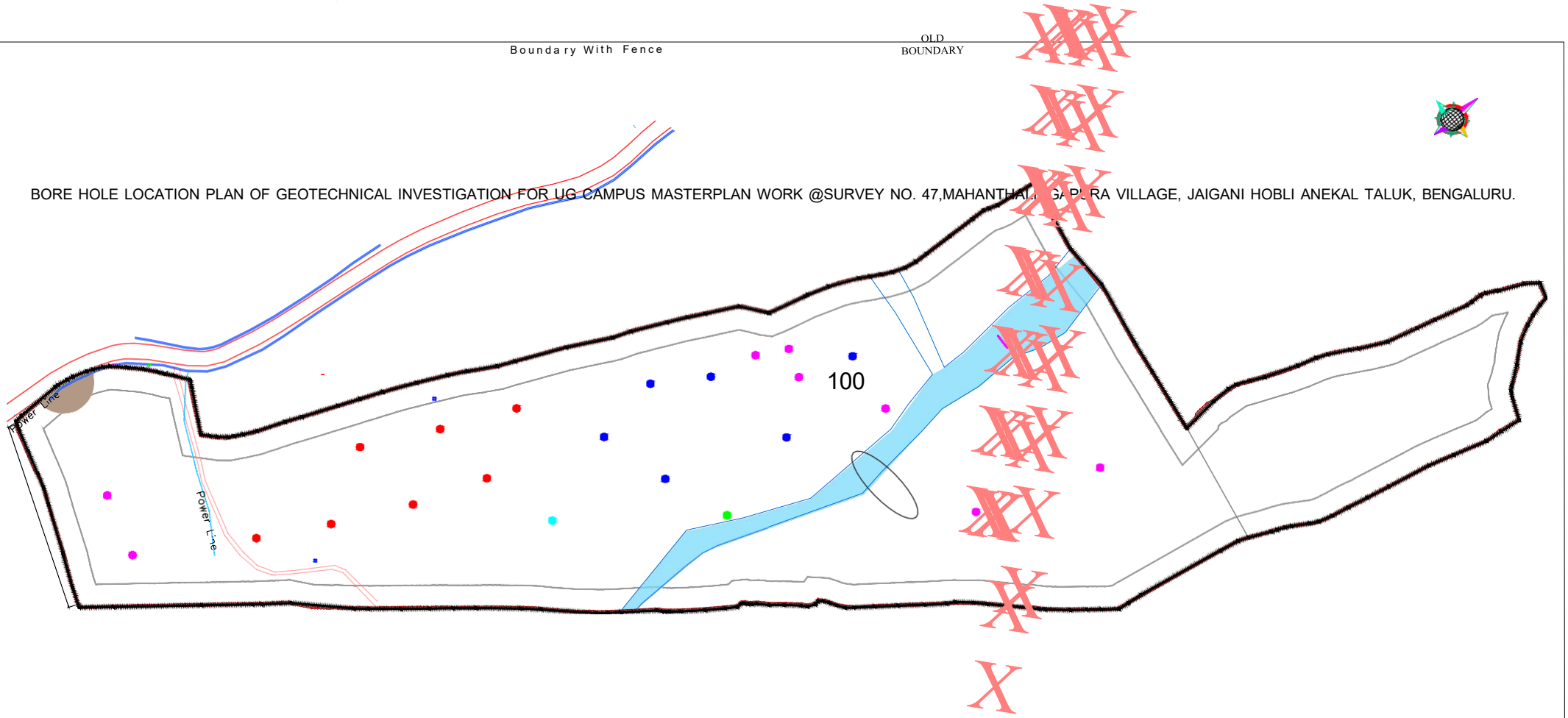

Grain Size Analysis_BH-20
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm


Grain Size Analysis_BH-21
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm


Grain Size Analysis_BH-23
1.50m
Percentage Finer, %
100
90
80
70
60
50
40
30
20
10
0
0.01
0.10
1.00
10.00
Grain Size, mm

B H A S K R A M J Y O T I S H A N U S A N D H A N K E N D R A P V T . L T D
Office No. 03, Gokuldham CHS Ltd., Sukapur, New panvel Navi Mumbai, Dist-Raigad, Maharashtra-410216 E-mail : info@bhaskramgroup.com, Website-www.bhaskramgroup.com





BORE HOLE LOCATION PLAN OF GEOTECHNICAL INVESTIGATION FOR UG CAMPUS MASTERPLAN WORK @SURVEY NO. 47,MAHANTHALINGAPURA VILLAGE, JAIGANI HOBLI ANEKAL TALUK, BENGALURU.