# Rajasthan Vanvasi Kalyan Parishad

## TENDER DOCUMENT

CONSTRUCTION OF SPECTATOR'S GALLERY WITH UTILITY BUILDING, RESURFACING WORK OF 400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND AT KOTRA, RAJASTHAN

## **Secretary**

Rajasthan Vanvasi Kalyan Parishad, Udaipur

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#### NOTICE INVITING TENDER

### Tender No. RVKP/KTR/UDPR/NIT-1/2024-25.

Name of the work: - CONSTRUCTION OF SPECTATOR'S GALLERY WITH UTILITY BUILDING, RESURFACING WORK OF 400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND AT KOTRA, RAJASTHAN

Interested Firm / Individuals satisfying the Prequalification Criteria as mentioned in Technical Bid should apply in the formats available at RVKP website-http://www.rvkp.org up to 18:00 hrs on 29/07/2024.

Bidders may download the document from the website http://www.rvkp.org. Bidders may ensure to submit the bid in hard copy in the office of Rajasthan Vanvasi Kalyan Parishad Kalyan Ashram Maharana Pratap Colony Hiran Magri, Sector 13 Udaipur- 313002 complete in all respect, on or before the closing date and time as indicated in the critical data sheet given below.

Bidders shall not tamper / modify the document in any manner. In case the same is found to be tempered in any manner tender will be rejected completely.

## **CRITICAL DATA SHEET**

Estimated Cost of Work (Rs.)	Rs. 4,43,57,450.00 (Rupees Four Crore Forty- Three Lakh Fifty-Seven Thousand and Four Hundred and Fifty)
Completion Time	12 Months
Tender Fee	Rs. 1500.00
	(Demand Draft payable at Rajasthan Vanvasi Kalyan Parishad, Udaipur to be drawn in favour of the Organizing Secretary
	Rajasthan Vanvasi Kalyan Parishad, Udaipur)
	At the time of Tender Submission
Earnest Money	Rs. 8,87,000.00
	(Demand Draft/FDR/RTGS etc. payable at Rajasthan Vanvasi Kalyan Parishad, Udaipur to be drawn in favour of the Organizing Secretary Rajasthan Vanvasi Kalyan Parishad, Udaipur)
Uploading/Publication of Tender Documents	08.07.2024 at 06:00 PM
Downloading of Bid Document/sale Start Date	08.07.2024 at 06:00 PM
Bid submission Start Date	08.07.2024 at 6:00 PM
Pre-Bid Meeting	15.07.2024 at 12:00 PM
Last Date & Time of Submission of Bids	29.07.2024 at 6:00 PM
Opening Date & Time of Technical Bids	30.07.2024 at 03:00 PM
Opening Date & Time of Financial Bids	Will be notified later

	Phone-079-29900100	
Contact detail	E-mail: - <u>rvkpudaipur3@gmail.com</u>	
	365 days (twelve months) from the date of	
Defect Liability Period	completion of the work.	
	At the rate of 2% of the Contract Value per month	
	which subject to a maximum of 10% of the	
Liquidated damages	accepted Contract Value.	
	5% of the tendered amount.	
Performance Guarantee		

## INSTRUCTIONS TO BIDDERS

## i. ELIGIBLITY CRITERIA

S.No.	Criteria	Documents Required
i	Legal Entity	
A	The contractor should have valid registration certificate	Copy of Registration certificate with GST & PAN and Should be register under Class A Category with CPWD/State PWD
ii	Technical Criteria	
В.	The bidder should have in the last three years ending 31st March 2024 successfully completed as a prime contractor at least one similar work of value not less than 80%	Copies of work orders along with satisfactory completion certificate mentioning value of completed work should be enclosed.
	OR	
	Two similar work each of value not less than 50% OR	
	Three similar works each of value not less than 40% the estimated costs mentioned.	
C.	The bidder should not be banned or blacklisted by any government organization / Govt. financial institution / Court / PSU / Central Government / State Government as on the Bid Due Date.	Undertaking signed by the authorized signatory that the Bidder has not been debarred not be banned or blacklisted by any government organization / Govt. financial institution / Court / PSU / Central Government / State Government as on the Bid Due Date.
iii	Financial Criteria	
D.	Average financial turnover of bidder during the last three years, ending 31.03.2024, should be at least 100% on civil work/ maintenance work of the estimated cost.	Audited Balance Sheet, Profit & Loss account for the last three consecutive financial years should be submitted along with the bid.

## ii. MODE OF SUBMISSION OF TENDER

Sealed Item Rates Tender under Two Bid Systems containing two Sealed covers of technical bid and financial/price bid should be submitted in hard copy at RVKP Udaipur office. Conditional tender shall not be accepted.

## iii. OPENING OF FINANCIAL BIDS/PRICE BIDS

- 1. Exact date and time shall be communicated through official E- mail address given in the bid document to the qualified bidders.
- 2. Conditional bids would be summarily rejected.
- 3. In case no bid or single bid is received, or any other reason whatsoever, RVKP may at its sole discretion to cancel the whole tendering process or extend the last date and time of submission of the bid.
- 4. Any separately submitted discount letter on the financial price shall not be considered by RVKP and shall be a ground for disqualification. Evaluation of financial bid shall be considered only on the quoted price in the financial bid submitted by the bidders.

### INSTRUCTIONS FOR BID SUBMISSION

- 1. Original hard copy of Earnest money, processing fee, and Tender fee along with attested copy of Registration, GST certificate, PF license, Registration, all original affidavits as required in bid should be submitted before deadline in Office of Rajasthan Vanvasi Kalyan Parishad Kalyan Ashram Maharana Pratap Colony Hiran Magri, Sector 13 Udaipur- 313002
- 2. The Tender can be downloaded from website http://www.rvkp.org/contactus.php.
- 3. Any other information regarding bid will be available in the Office of Rajasthan Vanvasi Kalyan Parishad Kalyan Ashram Maharana Pratap Colony Hiran Magri, Sector 13 Udaipur-313002, on all working days

### PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
  - Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule

## General information for the Vendors / Agencies for their prequalification to carry out the above-mentioned works on turnkey basis

- 1. The contractor should quote in the Rate and Amount column of the given price bid document only. However, if a discrepancy is found, the rate which correspond with the amount worked out by the contractor shall unless otherwise proved, be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figure or in words, then the rate quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rate quoted by the contractor will be taken as correct and not the amount.
- 2. Eligible firm coating the lowest price will be selected.
- 3. Intending contractors / vendors are requested to read carefully before filling the particulars in the Performa.
- 4. Information / details furnished by selected party, if found to be false / incomplete at any time in future or any information effecting prequalification is willingly / unwillingly withheld, if come to the notice of the RVKP at any point of time, the company's prequalification will be cancelled immediately.
- 5. Where copies are required to be furnished, these should be self-certified copies.
- 6. The cutoff date for calculation of past period for completion of projects shall be31<sup>st</sup> March 2024.

- 7. All pages of the tender document i.e. Pre-qualification criteria, Technical bid, Price Bid should be signed and stamped by bidder.
- 8. Contractor shall appoint technically qualified full time site supervisor to monitoring the day to day progress of work at site on their own cost.
- 9. Contact (+91- **9413056033/ +91- 9827077641)** for site visit / any query regarding tender

## TECHNICAL BID FORM

	TECH (TOHE DID 1	
1	Name of the firm	:
	Address	:
	Telephone No.	:
	Office	:
	Residence	:
	Mobile No	:
	Fax No.	:
	E-Mail	:
2	a) Whether Proprietorship/Partnership/Pvt. Ltd./ Pu	ıblic
	Ltd. Co.	:
	b) Names of the Proprietor, Partners, Directors	:
	i)	:
	ii)	:
	iii)	:
	c) Year of Establishment	:
3	Registration with Registrar of Companies (No	o. &
	Date) (For Corporation only)	:
ŀ	Registration with Tax Authorities	
	i) Income-Tax (PAN) No.	:
i	ii) GST No.	:
(	(Furnish copies of Income-Tax, GST certificate)	
5	Names of the Bankers with address	:

Details of work executed during the last 03 years (Please mention the qualifying works as per criteria)

Type	Work executed	Nature	Location	Valu	Duration of work		If work
of	for (name of	of		e Rs.	with dates of		left
work	the Institution /	work			Completion		incomplete or
	Body)	(in					terminated
		brief)					(give
							reasons)
					Commence	Completi	
					– ment	on	

Note: Copies of work orders along with satisfactory completion certificate mentioning value of completed work of Govt., Semi-Govt. Bodies or reputed private firms duly signed & seal of the client should be enclosed.

## 7 Annual Turnover in last 3 years:

Sr. No.	Year	Turnover (Rs. in Lakh)	Income-tax paid

Note: Furnish copies of audited balance sheet along with CA Contact Detail and Profit & Loss A/C. for the last 3years 2021-22, 2022-23, 2023-24.

## **8 LIST OF ENCLOSURES:**

ANNEXURE NO.	PARTICULARS	TICK IF ENCLOSED
I	Certificate of registration of Company / partnership deed.	
II	Certificates of registration with Income Tax, GST, EPF, and ESI.	
III	Audited Balance Sheet & Profit & Loss A/c. Statement for last three years.	
V	Copies of work orders along with xerox copies of relevant TDS certificate	
VI	Copies of performance certificate, work orders issued by Govt., Semi-Govt. Bodies or reputed firms	
VII	Copies of Income-Tax Returns / Assessment Orders for previous03 years.	

Note: - In absence of any of the above enclosures, the application is liable to be rejected.

## DECLARATION

- I / We have read the instructions appended to the Performa and I / We understand that if any
  false information is detected even at a later date, any future contract made between ourselves
  and RVKP, on the basis of the information given by me / us can be treated as invalid by the
  RVKP and I / We will be solely responsible for the consequences.
- I / We agree that the decision of RVKP, UDAIPUR in selection of contractors will be final and binding on me / us.
- All the information furnished by me/ us hereunder is correct to the best of my knowledge and belief.
- I / We agree that I / we have no objection if enquiries are made about the work listed by me / us in the accompanying sheets.
- I / We agree that I / We have not applied in the name of sister concern for the subject tendering process.
- Relation

Place : SIGNATURE

Date : NAME & DESIGNATION

**SEAL OF ORGANISATION** 

#### TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

To, Secretary Rajasthan Vanvasi Kalyan Parishad, Udaipur

Sub: - Acceptance of Terms & Conditions of Tender.

Tender No: - RVKP/KTR /UDPR/NIT-1/2024-25.

Name of Tender / Work: - CONSTRUCTION OF SPECTATOR'S GALLERY WITH UTILITY BUILDING, RESURFACING WORK OF 400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND AT KOTRA, RAJASTHAN

Dear Sir.

- 1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender / Work' from the website: <a href="http://www.rvkp.org">http://www.rvkp.org</a>. as per your advertisement, given in the above-mentioned website.
- 2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc.), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
- 3. The corrigendum(s) issued from time to time by your department / organization too has also been taken into consideration, while submitting this acceptance letter.
- 4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.
- 5. In case any provisions of this tender are found violated, then your department / organization shall without prejudice to any other right or remedy be at liberty to reject this tender / bid including the forfeiture of the full said earnest money deposit absolutely.
- 6. I/We agree to abide by this tender for a period of 90 days from the date of opening of the financial bid. I/we also agree to pay the ISD as specified in the Tender.
- 7. RVKP shall also be at liberty to cancel the Work Order of tender if I / Wefail to execute an agreement or to start the work as stipulated in the tender documents or fail to deposit the amount of initial security deposit as specified in the memorandum.
- 8. I / We agree that the RVKP reserves the right to accept the tender in whole or in part or split the works under separate contracts or accept or reject any or all the tenders without assigning any reason whatsoever thereof.
- 9. I / We are aware that the quantities mentioned in the tenders are indicative and the same can be increased or decreased depending on the requirement of the Institute and as per the site conditions. I / we will not seek compensation for the same and execute the additional quantities at the tender rates.

Yours Faithfully, (Signature of the Bidder, with Official Seal)

## **Terms & Conditions:**

- 1. The work shall be done in accordance with CPWD works/State PWD works manual and General Conditions of Contract (GCC).
- 2. Bidders are required to Submit the "Technical Bid' and 'Financial Bid 'separately in two envelopes.
- 3. The Technical bid shall not include any financial information. Such a bid will be summarily rejected.
- 4. Site visit is must along with concerned officer before submitting the tender.
- 5. The work shall be executed and accepted strictly in according to CPWD or state PWD Specifications.
- 6. In case the work is left over or abandoned at any stage. Whatsoever the reasons may be the remaining work shall be got completed departmentally or through other contractor/source and the excess amount spent by the organization in getting such works completed will be to the account to original contractor and shall be met from any amount due to him or recovered by normal legal channel.
- 7. Contractor is fully responsible for disposal of Waistages (malba)/debris/ remains if any etc. from the site/Complex as per direction of the Officer-in-charge.
- 8. No Tools & Plants shall be issued by the organization.
- 9. During execution of work if any damage to the existing structure/ last. occurs at site, the contractor shall have to restore it at his own cost.
- 10. In case of any mis-happening at the site of work the contractor shall be fully responsible.
- 11. In case of failure to execute the work on the part of the firm, after award of work and execution of agreement, earnest money shall be forfeited without any notice(if any).
- 12. Quantities shown in the BOQ are approximate quantities and may vary upto 10% either side.
- 13. Sub-standard material and workmanship will be rejected without any compensation and no claim for any loss or damage there of shall be entertained.
- 14. In case, bidder(s) submit a false certificate/ certification w.r.t. the tender or any other statuary documents, his /her tender will be rejected summarily.
- 15. No Sub-letting of the work is allowed.
- 16. No claim for any fluctuation in rates or otherwise shall be entertained
- 17. Conditional tenders shall not be accepted.
- 18. No advance payment is admissible.
- 19. The bidder shall depute competent and qualified person/staff to supervise the work.
- 20. The rates quoted by the bidder shall be applicable for the entire period of the contract. No revision in rates will be allowed during the period of contract.
- 21. The bidder shall be responsible for fulfilling all statutory provisions of all the labour laws and also payment of wages as per Minimum Wages Act / Rules of the Union as well as State Govt.
- 22. These are only proposed terms and conditions and can be modified, changed or added in the interest of the Institute, at the time of signing the Work Order.
- 23. Taxes as applicable shall be deducted from the bill(s), raised by the work executing agency from time to time.
- 24. All disputes shall be settled in Udaipur Jurisdictions only.

- 25. In case of any typing error in estimated sheet the rate of Rajasthan PWD BSR 2022 Jaipur for civil & Electrical works shall be taken as correct.
- 26. I/we have clearly and fully understood the work along with terms & conditions and shall abide by same in right earnest.

Signature	Address
Name	Phone No

## **BID SECURITY (BANK GUARANTEE)**

		[name of Bidder] (hereinafter called "the Bidder")		
has su	ibmitted his Bid dated_	[date] for the construction of		
Bid").		[name of Contract] (hereinafter called "the		
ĺ	WAY DEODY EL A			
of ban	nk] of	e presents that We		
		(hereinafter called "the Bank") are		
bound "the E	unto			
		Bank binds itself, his successors and assigns by these presents.		
SEAL	ED with the Common Se	eal of the said Bank thisday of2024.		
THE C	CONDITIONS of this ob	ligation are:		
(1)	If after Bid opening to specified in the Form of	the Bidder withdraws his bid during the period of Bid validity f Bid;		
	or			
(2)	If the Bidder having been notified of the acceptance of his bid by the Employer during t period of Bid validity:			
(a)	Fails or refuses to execute the Form of Agreement in accordance with the Instructions Bidders, if required; or			
(b)	Fails or refuses to furnish the Performance Security, in accordance with the Instruction to Bidders; or			
(c)	Does not accept the cor	rection of the Bid Price;		
deman Emplo	d, without the Employer yer will note that the an	mployer up to the above amount upon receipt of his first written having to substantiate his demand, provided that in his demand the nount claimed by him is due to him owing to the occurrence of one specifying the occurred condition or conditions.		
This C	Guarantee will remain in	force up to and including the date		
Bidder	rs or as it may be extend waived. Any demand in	mission of Bids as such deadline is stated in the Instructions to aded by the Employer, notice of which extension(s) to the Bank is a respect of this guarantee should reach the Bank not later than the		
DATE		SIGNATURE OF THE BANK		
WITN	ESS	SEAL		
	ture, name, and address]			

NIT (RAJASTHAN VANVASI KALYAN PARISHAD)

## NEFT MANDATE FORM

From: M/s.	Date:
То	
	Sub: NEFT PAYMENTS
•	up by RVKP, UDAIPUR. For remittance of our payments may be made through the above scheme to our under noted account.
	NATIONAL ELECTRONIC FUNDS TRANSFER MANDATAE FORM
Name of City	
Bank Code No.	
Bank 's name	
Branch Address	
Branch Telephone / Fax no.	
Supplier's Account No.	
Type of Account	
IFSC code for NEFT	
IFSC code for RTGS	
Supplier's name as per Account	
Telephone no. of supplier	
Supplier's E-mail ID	
	[Signature with date, name and designation] For and on behalf of Bidders_
Confirmed by Bank	[Name & address of the bidder]
Enclosed a copy of Crossed Cheque	

## **Bid Securing Declaration Form**

Date:	Tender No.
То	
Secretary Rajasthan Vanvasi Kalyan Parishad, Udaipur	

I/We understand that, according to your conditions, bids must be supported by a bid securing Declaration.

I/ We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am/we are in a breach of any obligation under the bid condition as below:

- A) Withdraws/modification/amends the submitted bid against this tender, impairs or derogates from the tender, during the period of bid validity specified in this tender.; or
- B) Having been notified of the acceptance of our bid by the purchaser during the period of bid validity
  - a. Fail or refuse to execute the contract, or
  - b. Fail or refuse to furnish the performance security, in accordance with the term of this tender document.

I/We understand this bid securing declaration shall cease to be valid if I am/ we are not the successful bidder or upon

- (a) The receipt of your notification of the name of the successful bidder and submission of required performance security, in accordance with the terns of this tender document; or
- (b) Thirty days after the expiration of the validity of my/our bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of: (insert legal capacity of person signing the bid securing declaration) Dated on day of (insert date of signing)

Corporate seal (where appropriate)

### FORMAT FOR INTEGRITY PACT

[To be submitted on Bidder's **Original** Letter Head]

To,
Secratery
RVKP, Udaipur

**Sub: Integrity Pact for -----(Name of Work / Project)** 

Dear Sir.

I/We acknowledge that RVKP, UDAIPUR is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document at **Enclosure-I.** 

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE making of the bid shall be regarded as an unconditional and absolute acceptance of this condition of the NIT.

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

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

	Yours faithfully,
Date:	(Signature, name and designation of the Authorized signatory)
Place:	Name and seal of Bidder

## INTEGRITY AGREEMENT [To be submitted on Stamp paper of At least Rs.100]

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

BETWEEN
RVKP, Udaipur (Hereinafter referred as the 'EMPLOYER', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns) AND
(Name and Address of the Individual/firm/Company) through(Hereinafter referred to as the (Details of duly authorized signatory)
"Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)
Preamble WHEREAS the Employer has floated the Tender (NIT No
AND WHEREAS the Employer values full compliance with all relevant laws of the land, rules

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

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

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

## **Article 1: Commitment of the Employer**

- (1) The employer commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Employer, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Employer will, during the Tender process, treat all Bidder(s) with equity and reason. The Employer will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s)

- confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
- (c) The Employer shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- (2) If the Employer obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Employer will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

- (1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the RVKP, UDAIPUR all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- (2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
  - (a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Employer's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
  - (b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
  - (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/ Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Employer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - (d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

- (3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the RVKP, Udaipur interests.
- (5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

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

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

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

## **Article 4: Previous Transgression**

- (1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Employer.

(3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Employer may, at its own discretion, revoke the exclusion prematurely.

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

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- (2) The Employer will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- (3) The Employer will disqualify Bidders, who do not submit, the duly signed Pact between the Employer and the bidder, along with the Tender or violate its provisions at any stageof the Tender process, from the Tender process.

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

- (1) This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.
- (2) If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, RVKP, Udaipur.

### **Article 7: Other Provisions**

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

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

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

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

(For and on behalf of Employer)
(For and on behalf of Bidder/Contractor)
WITNESSES: 1
2(signature, name and address)
Place:
Dated:

## **ABSTRACT OF COST**

Name of Work: Construction of Changing Room, Spectator's Gallery, Resurfacing work of 400 m Muddy

Athletic track and Practise football Ground. at Kotra, Rajasthan

SL No	PARTICULARS	SOR AMOUNT	NON SOR AMOUNT	AMOUNT
Α	CHANGING ROOM BLOCK			
1	Civil & Finishing Works	53,68,615.12	1,68,788.19	55,37,403.31
2	Plumbing Works	7,52,391.92	7,15,803.43	14,68,195.35
3	Electrical Works	7,08,776.00		7,08,776.00
	TOTAL PART A	68,29,783.04	8,84,591.62	77,14,374.66
В	SPECTACTOR GALLERY			
1	Civil & Finishing Works	1,15,12,117.02	54392.82	1,15,66,509.84
	TOTAL PART B	1,15,12,117.02	54,392.82	1,15,66,509.84
С	RENOVATION OF EXISTING HALL			
1	Renovation of Existing Hall Works	4,11,138.81	72,144.00	4,83,282.81
	TOTAL PART C	4,11,138.81	72,144.00	4,83,282.81
D	OUTDOOR SPORTS			
1	Upgration of 400m,8 lane Athletic Track (Mud Finish)	60,89,877.68	43,22,031.73	1,04,11,909.41
2	Football Ground Practice Without sub surface drainage system(Incl Sprinkler System)	23,13,360.00	55,34,379.74	78,47,739.74
	TOTAL PART D	84,03,237.68	98,56,411.47	1,82,59,649.15
E	SITE DEVELOPMENT WORKS			
1	Storm Water Drainage	24,10,442.28	920311.13	33,30,753.41
2	Septic Tank	88,147.00		88,147.00
3	UG Tank	19,79,592.00	1,90,176.26	21,69,768.26
4	Tubewell	9,088.00	735876.51	7,44,964.51
	TOTAL PART E	44,87,269.28	18,46,363.91	63,33,633.18
	TOTAL COST ( A+B+C+D+E )	3,16,43,545.82	1,27,13,903.82	4,43,57,449.64

Note: - The cost quoted above includes all taxes /charges etc.

## **BOQ**

## Tender No. RVKP/KTR/UDPR/NIT-1/2024-25.

Name of the work: - CONSTRUCTION OF SPECTATOR'S GALLERY WITH UTILITY BUILDING, RESURFACING WORK OF 400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND AT KOTRA, RAJASTHAN

#### SCHEDULE OF QUANTITIES NAME OF THE CONTRACTOR/COMMPANY NAME Percentage above or **Total Quoted Estimated Cost** Name of Project Amount (In S.No. below the (In Rs.) Rupees) estimated cost CONSTRUCTION OF CHANGING 77,14,374.66 1 **ROOM** SPECTACTOR GALLERY 1,15,66,509.84 RENOVATION OF EXISTING 4,83,282.81 3 HALL **OUTDOOR SPORTS** 1,82,59,649.15 3 SITE DEVELOPMENT WORKS 63,33,633.18 4 **TOTAL COST**

Total Amount (In Words:

Note: - The cost quoted above includes all taxes /charges etc.

L1 Criteria – The firm quoting the lowest price in total will be selected

## SCHEDULE OF QUANTITIES

CONSTRUCTION OF CHANGING ROOM, SPECTATOR'S GALLERY, RESURFACING WORK OF 400 M MUDDY ATHLETIC TRACK AND PRACTISE FOOTBALL GROUND. AT KOTRA, RAJASTHAN

	KOTRA, RAJASTHAN						
Sr. No.	ITEM	UNIT	QTY	RATE (Rs.)	AMO	OUNT (Rs.)	
1	Surface dressing of the ground including removing vegetation and in- equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. in all kinds of soil.	sqm	26	0.00	9.00	2340.00	
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5m in width as wel as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed: All kinds of soil		98-	12.65	175.00	1717213.42	
	Earth work in excavation/ by mechanical means (Hydraulic Excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50 m and liftup to 1.5 m, disposed earth to be levelled and neatly dressed.		0	.00		0.00	
3	Ordinary rock	cum	10	0.00	251.00	2510.00	
4	Earth work in excavation by mechanical mean	n 5 g ft d h	77	2.21	178.00	137453.38	
	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means)		0	.00		0.00	

5	All kinds of soil.	cum	381.00	209.00	79629.00
6	Ordinary or hard rock.	cum	10.00	312.00	3120.00
7	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	cum	1201.76	64.00	76912.54
8	Loading and unloading of excavated earth. (Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip) upto a lead upto 10 kms	cum	8991.89	165.00	1483661.81
9	Diluting and injecting chemical emulsion for POST- CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion):		0.00		0.00
	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diametre holes and plugging with cement mortar 1:2 (1 cement: 2 sand) to match the existing floor, With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration.	Sqm	1167.30	87	101555.10
10	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diametre holes and plugging with cement mortar 1:2 (1 cement: 2 sand) to match the existing floor, With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration.	sqm	803.00	87	69861.00
11	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.	cum	135.46	672.00	91030.26
12	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.	cum	1493.40	1024	1529241.60
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level:		0.00		0.00
	With 20mm nominal size graded stone aggregate.		0.00		0.00
13	M-15 – Grade concrete	Cum	131.18	4,544.00	596073.14

14	Providing and laying in position Ready mix concrete manufactured in fully automatic Batching Plant and transported to site in transit mixer for having continous agitated mixer, manufactured as per approved mix design of specified grade of RCC work including pumping of R.M.C. from transit mixer to site of laying, exculding the cost of centering, shuttering and reinforcement with all lead and lift including cost of admixtures in recommended portion as per IS 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer in charge. All works upto floor V floor M20 grade Design Mix by using cement as per codal provision.	cum	814.25	6,089.00	4957943.80
	Add extra for providing richer mixes respectively at all floor levels		0.00		0.00
15	Providing M-25 grade concrete by using cement as per codal provision instead of M-20 grade design mix.	cum	814.25	69.00	56182.97
	Providing and fabricating reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding (including cost of binding wire) all complete up to floor five level. ('Original producers' who manufacture billet directly from iron ores and roll the bilets to produce steel conforming to IS:1786)		0.00		0.00
16	Thermo-Mechanically Treated bars. FE 500 D or more conforming to IS 1786	kg	100591.24	77.00	7745526.10
17	Centering and Shuttering with plywood or steel sheets including strutting, propping bracing both ways and removal of formwork for foundation, footings, strap beam, raft, bases of columns etc.	Sqm	347.70	157.00	54588.90
	Centering and shuttering in cluding strutting, propping bracing both ways with steel props and removal of formwork for upto floor five level for :		0.00		0.00
18	Walls (any thickness) including attached pilasters, buttresses plinth and string course.	Sqm	1235.00	289.00	356915.00
19	Suspended floors, roofs, landings, staircases, balconies, girders, cantilevers, bands, coping bed plates, anchor blocks, sills, chhajjas, lintel, beam, plinth beam etc.	Sqm	2233.79	340.00	759489.57
20	Columns, pillars, posts and struts etc.	Sqm	600.16	375.00	225060.00

21	Brick masonry with F.P.S. bricks of class designation 75 in foundation and plinth with bricks Cement mortar 1 : 4 (1 cement : 4 coarse sand)	cum	87.00	4469.00	388803.00
	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level upto floor V level in all shapes and sizes in :		0.00		0.00
22	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	cum	102.17	5196.00	530853.50
23	Providing and laying Autoclaved Aerated Concrete (AAC) blocks masonary 150mm/230mm/300mm thick with Grade-I AAC blocks in superstructure above plinth level upto floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-charge. (The payment of RCC band and reinforcement shall be made for seperately).	cum	71.00	4,752.00	337392.00
24	Providing and laying Autoclaved Aerated Concrete (AAC) blocks masonary 100mm/125mm thick with Grade-I AAC blocks of density 551 to 650 kg/cum conforming to IS: 2185 (Part-3) in superstructure above plinth level upto floor V level in cement mortar 1:4 (1 cement: 4 coarse sand). The rate includes providing and placing in position 2 Nos. 6 mm dia MS bars at every third course of masonary work.	cum	4.00	5404.00	21616.00
25	Add extra providing and placing in position 2 Nos. ,6mm Ø M.S. bar at every third course of half brick masonry / AAC.	sqm	32.00	64.00	2048.00
	Kota stone slab flooring 25 mm thick over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)		0.00		0.00
26	For area of each slab from 901 to 2000 Sq.Cm :	sqm	1301.11	950.00	1236054.50

27	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement: 3 coarse sand) including making joints with without grooves (thickness of joints except at sharp curve shall not to more than 5mm) including making drainage opening wherever required complete including painting etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineerin- charge).	Cum	36.53	6,103.00	222912.08
	Providing and laying of paver block as per IS 15658: 2006 (Indian standard for precast concrete block for pavingspecification) and IRC: SP:63-2004 (guidelines for the use of interlocking concrete block pavement)		0.00		0.00
28	M-30, 60 mm thick to be used in non traffic areas like building premises, monument premises, land scapes, public gardens/park, domestic drives, paths and patios, Embankment slopes,sand stabilization Area etc.( As per table 1 of IS 15658:2006 (C) Category "C"not denated on any it"s faces like Hexagon,Rectangular, square shape as per IRC SP 63:2004	Sqm	0.00	736.00	0.00
29	6 mm thick cement plaster to ceiling of mix 1:3 (1cement : 3-fine sand)	sqm	127.00	139.00	17653.00
	Plaster on new surface on walls in cement sand mortar 1:4 including racking of joints etc. complete fine finish:		0.00		0.00
30	12 mm thick .	sqm	554.00	163.00	90302.00
	Plaster on new surface on walls in cement sand mortar 1:4 including racking of joints etc. complete fine finish:	-	0.00		0.00
31	20mm thick .	sqm	2013.41	202.00	406707.81
	Providing and applying white cement based putty over plastered surface to prepare the surface even and smooth complete		0.00		0.00
32	New Plastered Surface (three or more coats)	sqm	3459.73	84.00	290617.32
33	Applying one coat of Cement primer of approved brand and manufacture on wall surface including all scaffolding:	sqm	3459.73	14.00	48436.22
	White washing with lime to give an even shade including all scaffolding:		0.00		0.00
34	New work (three or more coats).	sqm	50.00	11.00	550.00

	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade including all scaffolding:		0.00		0.00
35	New work (two or more coats) over and including scrapping and priming coat with cement primer.	sqm	127.00	75.00	9525.00
	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade including all scaffolding:		0.00		0.00
36	Two or more coats on new work including prepartion of base with primer, putty, lippy etc complete in all respect.	sqm	678.75	43.00	29186.25
	Painting exterior surface of Wall with 100% acrylic exterior paint of approved brand and manufacture to give an even shade with two or more coats including prepartion of base with sand papering, primer, putty, etc complete in all respect including scaffolding and safety provision		0.00		0.00
37	New Work	sqm	2653.98	123.00	326439.54
	Applying priming coat :		0.00		0.00
38	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works	sqm	1226.94	23	28219.71
39	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	sqm	1226.94	12	14723.33
	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :		0.00		0.00
40	Two or more coats on new work	sqm	1226.94	69	84659.14
41	Dismantling CI or asbestos rain water pipe with fittingand clamps including stacking within 50 meter lead:		0.00		0.00
	100mm dia pipe.	Rmt	20.00	19.00	380.00
42	Dismantling tile work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meter lead:		0.00		0.00
	For thickness of tiles 25mm to 40mm.	sqm	32.00	34.00	1088.00
43	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:	0	0.00		0.00

44	Providing and fixing steel gate,Ladder grating, and grills made of angles, tees, square bars, flats,or black pipe with holdfast and fittings complete as per design and drawing including cutting welding and fabrication with priming coat of red oxide	Kgs	6549.42	96	628744.18
45	Supplying and fixing of chain link fencing with angle iron posts 50x50x6mm placed at every 3 Mtr. apart 30cm in ground embedded in cement concrete 1:3:6 (30x30x45cm) corner and every tenth post to be strutted with (50 x 50 x 6cm) angle iron provided and fixed and fitted with posts including earth work in excavation etc. complete with chain link size. 50mm x 50mm x 3.15mm	Sqm	582.00	629.00	366078.00
46	Supplying and fixing fixed wire gauge of 14 mesh x 24 gauge to the metal frame of rolled section by metal beading 20x3mm with suitable screw at not exceeding 150mm distance.	Sqm	7.20	617.00	4442.40
47	P & F 1st quality Heavy Duty Vitrified glazed MAT tiles on floor, skirting and steps etc.in different sizes (thickness minimum 10mm) with water absortion less than or equal 0.08% and conforming to IS 15622 of approved make in all colour and shade, laid with 20 mm thick CM 1: 4 including grounting the joints with white cement and matching pigment etc complete.	Sqm	419.00	1183	495677.00
48	Providing and fixing Granite stone slab mirror polished and machine edge cut in walls, pillars, steps, Shelves, Sills Counters, Floors etc. laid on 12mm (Av.) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) jointing with white cement mortar 1:2 (1white cement : 2 marble dust) with pigment to match the shade of the marble slab including grinding, rubbing and polishing complete.	Sqm	24.00	3850	92400.00

49	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Ceosetory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58- 60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/ cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm2, modulus of elasticity 900 N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately).Note: For WPC solid door/window frames, minus 5mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.	Rmt	29.00	1,935.89	56140.78
50	Providing and fixing 35 mm thick flush door shutter flat pressed wood based exterior grade bonded BWP/BWR synthetic resin having stamped IS 12823 grade I type II including both sides 1 mm thick Decorative laminated and 6 mm thick I.T.W. beading all around and Stainless steel decorative type designs fixtures / fastening 2Nos. Satin Finish Handle, 2Nos. Satin Finish Aldrops, towerbolt, hinges as per selection by Architect and approved by Authority etc. including I.T.W. triangular batten patti of size 30m.m.x30m.m.etc. as per architectural requirement and as directed by engineer in charge.	Sqm	25.52	6,262.50	159819.00
51	Extra for providing external lipping with 2nd class teak wood battens 6 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) Over item no. 8.13.	Sqm	22.52	141	3175.32
52	Extra if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured).	Sqm	22.52	308	6936.16
53	Providing and fixing IS: 3564 marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.	Each	7.00	908	6356.00

54	Providing and fixing bright finished Mortice lock of approved make Godrej or equivalent with pair of CP handles for doors with necessary screws etc complete (Best make of approved quality) as per direction of Engineer-in-charge.	Each	8.00	629.00	5032.00
	Providing and fixing aluminum work for doors ,windows, ventilators and partition with extruded built up standard tubular / appropriate Z sections and other sections of approved make conforming to IS:733 and IS:1285, fixed with rawl plugs and screws or with fixing clips ,or with expansion hold fasteners including necessary filling up of gap. at junctions , at top ,bottom and sides with required PVC/neoprene felt etc. Aluminium section shall be smooth ,rust free, straight ,mitered and jointed mechanically wherever required including cleat angle Aluminium snap beading for glazing /paneling , C.P. brass/ stainless steel screws Al. Tower bolt & Al. handle & Al. Aldrop etc.,all complete as per architectural drawings and the directions of Engineer- in – charge .(Glazing and paneling to be paid for separately).		0.00		0.00
	For fixed portion		0.00		0.00
55	Anodised aluminum (anodised transparent 81 dyed to required shade according to IS: 1868. (Minimum anodic coating of grade AC 15, Anodizing to be got done from approved Anodizer)	Kgs	62.00	326.00	20212.00
	For shutters builtup standard tubular sections of openable doors ,windows & ventilators including providing & fixing hinges / rollers etc. and making provision for fixing of fittings wherever required (lockes shall be paid for separately).		0.00		0.00
56	Anodised aluminum (anodised transparent 81 dyed to required shade according to IS: 1868. (Minimum anodic coating of grade AC 15, Anodizing to be got done from approved Anodizer)	Kgs	63.00	355.00	22365.00

	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVS / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item.)		0.00		0.00
57	With float glass panes of 5.0 mm thickness ( weight not less than 13.50 kg/sqm)	Sqm	5.00	902.00	4510.00
58	With float glass panes of 8 mm thickness	Sqm	3.00	1235	3705.00
59	Filling the gap upto 5 mm depth and 5 mm width in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineerincharge complete.	Rmt	21.00	78	1638.00
60	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each	4.00	328.00	1312.00
	Providing and fixing aluminium U shape handle of size 100mm with SS screws etc. Complete as per direction of Engineer-in-charge		0.00		0.00
61	Anodized (AC 15 ) aluminium	Each	10.00	67.00	670.00

	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations.  (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with proprietary water proofing compound conforming to IS. 2645 over the RCC slab including cleaning the surface before treatment.  (b) Laying cement concrete using broken bricks/brick bats 25 mm to 100mm size with 50% of cement mortar 1:4 (1 cement : 4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:4 (1 cement :4 coarse sand ) admixed with proprietary water proofing compound conforming to IS : 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.		0.00		0.00
63	(c) After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS: 2645.(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300xmm square(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge. With average thickness of 120mm and minimum thickness at khurra as 65 mm.	Sqm	207.00	473	97911.00

64	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:  (i) Ist course of applying cement slurry @ 4.4 Kg/sum mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.  (ii) Ilnd course of 20mm cement plaster 1:3 (1 cement: 3 coarse sand) mixed with water. proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface  (iii) Illrd course of applying blown or residual bitumen applied hot at 1.7 Kg per sqm. of area.  (iv) IVth course of 400 micron thick PVC sheet .(Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.)	Sqm	136.00	513	69768.00
65	Providing and laying water proofing treatment in sunkenportion of WCs, bathroom etc., by applying cement slurrymixed with water proofing cement compound consisting ofapplying: (i) first layer of slurry of cement @ 0.488 kg/sqm mixed withwater proofing cement compound @0.253 kg//sqm .This layerwill be allowed to air cure for 4 hours.(ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed withwater proofing cement compound @ 0.126 kg/sqm This layerwill be allowed to air cure for 4 hours followed by watercuring for 48 hours. The rates includes preparation of surfacetreatment & sealing of all joints, corners, junction withpolymer mixed slurry.	sqm	118.00	275	32450.00
66	Filling of sunk portion of roof with earthen pots of required height including filling voids with 1:3:6 light concrete, using brick bats complete levelling and dressing the surface by 50mm thick cement concrete 1:2:4 as per specification.	Cum	1453.40	1775	2579785.00
67	Making khurras 450 x 450mm with average minimum thickness 50mm cement concrete 1: 2:4 over P.V.C. Sheet 1 Mtr. x 1 Mtr. x 40micron finished with 12mm cement plaster 1: 3 and one coat of neat cement, rounding edges and making and finishing the out let complete.	Each	3.00	154	462.00

68	Providing & laying broken glazed titles on roof (broken glazed tiles not less than 9 Kg/Sqm) on top of hot bitumen @ 1.7 Kg/Sqm. (1.40 Kg of VG-40 (30/40 )grade and 0.30 Kg/Sqm. Of VG-10 (80/100) grade) and joints filled with cement mortar 1:2 (1 cement:2 marble dust mixed with water proofing compound all complete as per direction of Engineer in- charge.	Sqm	207.00	317	65619.00
69	P & F PVC Storage Tank ISI Marked (IS: 12701) indicating the BIS license No), of approved make with cover, 25mm dia 1M long G.I. over-flow pipe & 25 Cm. long wash out pipe with plug & socket, including making connection etc., complete of approved design: 3000 ltrs cap	Each	2.00	23522	47044.00
70	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	Sqm	7202.00	280.12	2017391.73
71	Filling in Red soil as approved by engineer in charge For Red Soil layers in including watering, ramming and consolidating and achieving required density soil must have property of not eroding ,holds water and soft. The rate includes all labour and machinary and spreading in layers and transportation complete.	Cum	1440.40	1,600.00	2304640.00

72	Supply and installation of Up rights & Crossbars made from 102mm x 112mm reinforced aluminium with double recess for flush fitting fixings. Reinforced welded aluminium corner joints for improved aesthetics and superior strength, with laser cut internal fixing for exceptionally accurate joints. Injection moulded toughened nylon net clips that won't deteriorate over time. Lock-in T-bar to allow for easy storage of the bottom net bar against upright for pitch maintenance. Reinforced net support system prevents bowing under intense tension. New, heavy duty ratchet winch and webbing strap allows for high-class net shape with the inclusion of a failsafe wire providing 100% security during matches. Lock-in bottom net bar 38mm diameter aluminium bar with ground secure key lock mechanism complete with 4 sockets and whitePolyester powder coated of size 7.32m x 2.44m Set = 2 Goals with 4 x 460mm deep sockets, and net etc. all complete as per as per Specification.	Pair	1.00	15,83,958	1583958.25
73	Supplying and stacking sludge at site including royalty and carriage upto 5 km lead complete (sludge measured in stacks will be reduced by 8% for payment).	Cum	714.00	456.16	325698.81
	Laying of lawns including ploughing leveling breaking ofclods manuring and removal of stones etc. (cost of manure orextra good earth to be paid separately) maintenance of lawnfoe 30 days or more till the grass forms a thick lawns free fromweeds and fit for moving in the duration of planting if lawndie some where the contractor will replant it at his own cost		0.00		0.00
74	Supplying and stacking of good earth at site including royalty and carriage upto 5 km lead complete (earth measured in stacks will be reduced by 20% for payment).	Cum	1428.00	240.00	342720.00
75	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km lead complete (manure measured in stacks will be reduced by 8% for payment):	Cum	714.00	720.00	514080.00
76	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	Cum	2856.00	81.22	231977.32
77	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	Cum	2856.00	56.71	161963.15

78	Providing & laying Selection no. 1 doob grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with required tools wooden and than rolling the surface with light roller make the surface smoothen and light watering the same maintenance for 30 days or more till the grass establish properly, as per direction of officer in charge	Sqm	7140.00	135.76	969341.71
79	Sprinkler System	Job	1.00	22,61,440 .50	2261440.50
80	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineerincharge.	Each	473.00	1882.44	890393.69
	Construction of septic Tank in all types of soil with 40 Cm.thick masonry in CM 1:6, 15 Cm thick C.C bed of 1:5:10, M-15 grade C.C floor & RCC slab covering with M15 grade c.c.floor, 50 mm thick stone slab partition walls, 20 mm thickplaster in CM 1:6 finished with neat floating cement, 4 Nosstone foot rests of approved design ,two No. 450 mm dia eachFerro cement cover with frame, earth work etc. complete asper approved drawing including disposal of surplus earthwithin a lead of 50 mtr:-		0.00		0.00
81	Size 400 x140x150 cm.(for 50 users) with 115 mm thick RCC (M-20) slab with Tor steel reinforcement 10mm φ @15 cm c/c bothways including shuttering complete in all respect. of soil	Each	1.00	59,860.00	59860.00

	Construction of soakage well in all type of soil with 300 mm thick dry masonry, top and bottom 300 mm course in CM 1:6, 80mm thick stone slab, jointing of slab in CM 1:3, Ralthal, Kharanja, 40 mm thick M-15 grade C.C flooring, earthwork complete as per approved drawing including disposal of earth within a lead of 50 mtr.:		0.00		0.00
82	Size 240 Cm. dia outside & 300 Cm. depth .	Each	1.00	22,138.00	22138.00
	Construction of soakage Trench in all types of soil with 300 mm thick dry stone masonry, 80 mm thick stone slab covering, jointing of slab in CM 1:3 Ralthal, Kharanja, 40 mm thick M-15grade C.C. flooring earthwork etc. complete as per approved drawing including disposal of earth within a lead of 50 Mtr.:		0.00		0.00
83	Top width 180Cm., bottom width 90Cm. & depth 240Cm.	Rmt	1.00	6149	6149.00
	Providing and fixing aluminium sliding door bolts, IsI marked anodised (anodic coating not less than grade AC 10 as per Is:1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete:		0.00		0.00
84	300xl6 mm	Each	1.00	252.00	252.00
	Providing and fixing aluminium handles, Isl marked, anodised (anodic coating not less than grade AC 10 as per Is:1868) transparent or dyed to required coloilr or shade, with necessary screws etc. complete:		0.00		0.00
85	125 MM	Each	2.00	59.00	118.00
	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality		0.00		0.00
	L D- 2.5		0.00		0.00
86	Rectangular shape 600x450 mm internal dimensions	Each	6.00	1,947.60	11685.63

	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the F`CC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels/ subway and bridge deck etc., prepared by mixing in the ratio Of 5:2 (5 parts integral crystalline slurry: 2 parts water) for vertical surfaces and 3:1 (3 parts integral crystalline slurry: 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help Of synthetic fibre brush. The material shall meet the requirements as specified jn Acl- 212-3Pl-2010 i.e. by reducing permeabmty of concrete by more than goo/a compared with control concrete as per DIN 1048 and resistam to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50 mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.		0.00		0.00
87	For vertical surface two coats @ 0.70 kg per sqm	sqm	192.00	630.32	121022.25
88	For horizontal surface one coat @1.10 kg per sqm	sqm	56.00	483.31	27065.54
89	P & F M.S. Foot Rests in with C.M.,1:3, standard design in 20mm square M.S. bar 50 mm embedded in wall & 10 cms. projected out complete.	Each	5.00	223.00	1115.00
	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.		0.00		0.00
90	400 mm dia	Rmt	90.00	1286.02	115741.49

	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer –in-charge, beyond 90 metre & upto 150 metre depth below ground level.		0.00		0.00
91	400 mm dia	Rmt	30.00	2758.53	82755.95
	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & ccessories etc. all complete, for all depths, as per direction of Engineer -in-charge.		0.00		0.00
92	200 mm nominal size dia	Mete	30.00	1507.04	45211.12
	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-incharge.	r	0.00		0.00
93	200 mm nominal size dia	Mete r	30.00	1705.56	51166.81
94	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	Cum	15.00	2295.16	34427.34
95	Development of tube well in accordance with IS: 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	Hour	24.00	1422.48	34139.45

	PLUMBING, WATERSUPPLY WORK		0.00		0.00
103	Makrana II quality marble having light spots	Each	4.00	923.00	3692.00
	P&F Marble Urinal Partition slab both sides polished of approved design cut from marble size 900x600mm.		0.00		0.00
102	Supply, Lowering, installation & testing of KSB make submersible pumping set with 3.0 HP to 5.0 HP motor 4 stage pump suitable for 4.0 - 5.0 m3 hr at 30 to 40 mtr. Head respectively. With Three Phase.	Each	1.00	116367.5 5	116367.55
101	80 mm dia	Set	1.00	11697.27	11697.27
	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS:5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required:		0.00		0.00
100	IS 13095 of following sizes as required :	Set	1.00	7512.69	7512.69
	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to		0.00		0.00
99	80 mm dia.	Mete r	120.00	1942.56	233107.48
	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required:		0.00		0.00
98	200 mm dia	Each	1.00	478.74	478.74
	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).		0.00		0.00
97	200 mm clamp.	Each	1.00	2834.71	2834.71
	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.		0.00	100.01	0.00
96	200 mm dia	Each	1.00	435.91	435.91
	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:		0.00		0.00

104	SANITARY FIXTURE & FITTINGS Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete	Nos.	8.00	14999.15	119993.20
105	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to Eureopean type W.C. of quality and make as approved by Engineer - in - charge.	Nos.	8.00	349.15	2793.20
106	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:  White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow including operated levers	Nos.	7.00	3600.00	25200.00
107	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Nos.	2.00	1607.95	3215.90
108	Providing and fixing pillar tap, capstan head, screw down high pressure with screws, shanks and back nuts Make Jaquar C.P.Pillar Cock (Model no-FLR-5011KN)	Nos.	7.00	2208.00	15456.00
109	Wall mixure With Overhead wall shower Providing, fixing and testing and commissioning of diverter with spout with bend pipe for overhead shower etc. as per drawings / details. equivalent to make Jaquar:- Shower head Multi flow (Model No-OHS-1799),Shower Arm (Model No-SHA-483) ,Shower wall mixure (Model No-CON-217KN)	Nos.	3.00	10216.00	30648.00
110	Providing and fixing C.P. brass towel rail complete with C.P. brass brackets fixed to wooden plugs with C.P. brass scews.(Make-Jaquar :- Towel Rack with Lower Hanger (Stainless Steel) with hook	Nos.	3.00	5460.00	16380.00

111	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:  One urinal basin with 5 litre white P.V.C. automatic flushing cistern	Nos.	2.00	6258.75	12517.50
112	Providing and fixing CP Brass 32 mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	Nos.	7.00	1034.80	7243.60
113	Providing and fixing C.P Brass angle valve 15 mm complete as per required. (Make: CP Angle stop cock with wall flange (Model no-FUS-29053)	Nos.	15.00	2007.00	30105.00
114	Providing and fixing 450mm Long Braided Hose pipe with M10X1 Nipple, 15mm Nut, O-Ring & Rubber Washer (Suitable for Wash Basin, Kitchen Sink etc.) of approved make and conforming to Manufacturers Standards.	Nos.	15.00	433.00	6495.00
115	Supply, storing, installation and testing towel ring, with concealed type brackets fixed, to the wall, with CP brass screws, etc. complete. (Make: Hind ware/cera/jaguar/Grohe) CP square Towel Ring(Model no-CAN-1121BN)	Nos.	3.00	1816.00	5448.00
116	Supply, storing, installation and testing liquid soap dispenser with CP / SS cap and bracket, fixed to wall with CP brass screw, etc. complete. (Make: Hind ware/cera/jaguar/Grohe) SOAP DISPENCER, PUSH-BUTTON TYPE, WHITE/SMOKED SDR-(Cat: WHT-DJ0010F)	Nos.	2.00	1817.00	3634.00
117	Providing and fixing of grab bars 300 mm Stainless steel in physically disabled toilet including all necessary fitting, SS Screws & Accessories etc. Completed in all manners and satisfied to of EIC.(Make: Hind ware/cera/jaguar/Grohe)	Nos.	2.00	2779.00	5558.00
118	Providing and fixing of grab bars Vertical Swing 18-8 S, type-304, 18-gauge (1mm) stainless steel tubing with satin-finish. 1–1/4 (25mm) outside diameter wall mounted in physically disabled toilet including all necessary fitting, SS Screws & Accessories etc. Completed in all manners and satisfied to of EIC.(Make: Hind ware/cera/jaguar/Grohe)	Nos.	2.00	22940.00	45880.00

119	Providing and fixing in position in OPTIMA HAND DRYER of approved makes & shapes with necessary holes and grooves work and making it well finished etc. complete. equivalent to make. OPTIMA HAND DRYER, SATIN HDR-(Cat: SAP-M99ACS	Nos.	2.00	24398.00	48796.00
120	WATER SUPPLY Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. 20 mm.	Rmt.	70.40	537.60	37847.04
121	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. 25 mm.	Rmt.	30.80	627.25	19319.30
122	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. 32 mm.	Rmt.	26.40	739.30	19517.52
123	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply and all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in ChargeInternal work - Exposed on wall 32MM	Rmt.	10.00	518.78	5187.80

124	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply and all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge Internal work - Exposed on wall 40MM	Rmt.	25.00	702.95	17573.75
125	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge External work :- 20 mm nominal dia Pipes	Rmt.	24.00	274.30	6583.20
126	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge External work :- 40 mm nominal dia Pipes	Rmt.	25.00	563.05	14076.25
127	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge External work :- 50 mm nominal dia Pipes	Rmt.	250.00	794.25	198562.50
128	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in ChargeExternal work :- 65 mm nominal dia Pipes	Rmt.	10.00	1674.40	16744.00
129	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) 25 mm nominal bore	Nos.	2.00	622.40	1244.80

130	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) 32mm nominal bore	Nos.	2.00	689.60	1379.20
131	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) 40mm nominal bore	Nos.	2.00	826.10	1652.20
132	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) 50mm nominal bore	Nos.	1.00	1026.65	1026.65
133	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) 65mm nominal bore	Nos.	1.00	1742.15	1742.15
134	Providing and fixing gun metal non- return valve of approved quality (screwed end) 40mm nominal bore Vertical	Nos.	1.00	1134.70	1134.70
135	Providing and fixing gun metal non- return valve of approved quality (screwed end) 50mm nominal bore Vertical	Nos.	1.00	1445.15	1445.15
136	Providing and fixing gun metal non- return valve of approved quality (screwed end) 65mm nominal bore Vertical	Nos.	1.00	2291.55	2291.55
137	Providing and fixing, 20 mm. dia. UPVC hydrant, for gardening, at required distance, with 20 mm. dia. ball valve of approved make, as recommended or equivalent and UPVC(SCH-80) pipe piece to provide the hydrant, up to main line connection, with angle & bsae plate support having size 40 X 40 X 6 mm support and 100 X 100 mm base plate, including excavation and PCC for bsae plate and all supporting fittings, making connections with main lines, specials, if required etc. complete with note board "NO DRINKING WATER", as directed.(Make:ZOLOTO/VTC/SANT)	Nos.	10.00	1456.00	14560.00
138	Providing and fixing in position of approved quality G.M. float valve with copper ball float and brass rods of required length suitable for test pressure of 5Kg/sq.cm of the following sizes: [A] 32 mm	Nos.	1.00	4157.00	4157.00
139	Providing and fixing 20mm diameter Brass Air release valve, double acting, screwe end of approved make complete as per engineer in charge.	Nos.	1.00	1410.00	1410.00
140	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS: 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Liter	2000.00	11.00	22000.00

141	Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement: 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:1.5:3 mix (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20 mm nominal size), including necessary excavation, foundation concrete 1:5:10 (1 cement: 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement: 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Nos.	6.00	10354.95	62129.70
142	INTERNAL DRAINAGE Providing, laying and jointing in true line and level 50mm diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials. (Make: prince/supreme / astral / finolex)	Rmt.	32.29	398.00	12849.43
143	Providing, laying and jointing in true line and level 110 diametre U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diametre x 149 mm length x 145 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	Rmt.	49.28	551.25	27165.60

144	Providing, fixing and testing PVC Deep seal P-Trap of 110 X 110 mm dia diameter, with necessary distance piece of 75mm dia pipe and 150 x 150mm heavy duty PVC three piece grating, making necessary holes and cutting in Slab/Walls, etc complete as per engineer in charge. (Make: prince/ supreme / astral / finolex)	Nos.	9.00	685.00	6165.00
145	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 75 mm diameter with jali of the following nominal diameter of self cleansing design with C.I scread down or hinged grating including the cost of cutting and making good the walls.	Nos.	9.00	361.20	3250.80
146	Providing and fixing, PVC cowl, 110 mm diameter on PVC ventilating pipes and verticals for soil and waste Pipes at top level / terrace level, as specified and required, etc. complete.	Nos.	2.00	138.00	276.00
147	Providing & Fixing 100mm diameter screwed PVC Cleanout Plug with suitable inset keys and opening male threaded joint with PVC coupling caulked to pipe and fittings, etc. complete as per direction of Engineer in charge.	Nos.	2.00	233.00	466.00
148	Providing and fixing rain water "KHURRAS" size 300 x 300 mm required depth with lead flashing around rainwater pipe with one piece lead sheet of 3 mm thick set on a layer of cold bitumen. Including heavy duty CI grating complete as required.	Nos.	2.00	1197.00	2394.00
149	EXTERNAL DRAINAGE Providing, laying, jointing and testing SN8 Foam core/ Rex under 150 mm diameter ground drainage pipes approved make laid to required alignment and slope with joints in C.M. 1:1 (fine sand) in pipe trenches incl. excavation in all soil types, bailing or pumping out water from trenches, shoring, whenever necessary testing, refilling, in layers, ramming & consolidation, removing away the surplus earth & spoils, dumping it on site or carting away to lead of 50 meters as directed incl. cement concrete bedding 1:3:6, 150mm thick. (depth up to 1000 mm to invert). (Make: Ashirvad / Astral / D-Rex )	Rmt.	25.00	2206.00	55150.00
150	Providing & fixing S.W. Gully trap with C.I.grating brick masonary chamber & water tight C.I. Cover with frame of 300x300 mm size (inside )with standard weight. Square mouth trap 100mm x 100mm size P- type	Nos.	2.00	1335.60	2671.20

151	Providing and fixing, best Indian make 1st quality, salt glazed PVC Sewer (intercepting) trap, of 150 mm. x 150 mm. size with cleaning eye cap and metal stopper chain, set in CC 1:2:4 etc., complete in last manhole including vent / fresh air pipe.	Nos.	2.00	7268.00	14536.00
152	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with bricks having crushing strength not less than 35Kg/Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(ii) Inside dimensions 500mm x 700 mm and 450mm deep for pipe line with one or two inlets.	Nos.	2.00	3561.40	7122.80
153	Extra over items 24.44 for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber.(ii) for 500mm x 700mm size.	Each	2.00	254.95	509.90
154	Constructing Manhole with R.C.C. top slab in 1:2:4 mix (1-cement :2-coarse sand : 4-graded stone aggregate 20mm nominal size) foundation concrete 1:3:6 mix (1-cement : 3- coarse sand :6-Brick bats 40 + 50mm size) inside plastering 15mm thick with Cement Mortar 1:3 (1-Cement : 3-coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1-Cement :2-Coarse sand :4-stone aggregate 20mm nominal size) finished smooth complete including curing and festing (i) Inside size 900mm x 1200mm and 1.5M. deep including C.I. cover with frame size 560mm diameter total weight of cover and frame to be not less than 128 kgs. (Wt. of cover 64 Kg. and Wt. of frame 64 Kg.)(A) With 230mm thick walls of brick msonry using brick having crushing strength not less than 35Kg. / Sq.cm. in Cement Mortar 1:5 (1- Cement: 5-Coarsesand) (1) A type depth 0.90 Metre for 150mm diameter sewer.	Nos.	4.00	10278.09	41112.36
155	(I) Extra rate for constructing B.B. masonry for every additional depth of 0.1M. or Part thereof over item No.24.27 (I) for depth from 0.9M to 1.5M.	Each	4.00	447.30	1789.20

156	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts including setting and joining the p pes in C.M.1:2 watering and laying (to level or slope)of I.S. class NP2 of following internal diameters. (v) 900mm dia.	Rmt	30.00	2211.64	66349.20
157	Supply, installation, testing and commissioning of Hydro pneumatic Horizontal Multistage Pump's system, PRESSURISED WATER FROM UGWT TO OHT:-Each Pump Flow: 10 m3/hr, Each Pump Head: 30 Mtr, Pump MOC: Pump Head & Base - CED Coated Cl, Assembly - SS304, SUC & DEL - 40x40 mmEach Pump Motor: 1.1 KW (1.5 HP), 2Pole, 3Phase, 50Hz, IE3.Control Panel (1W+1S): Control Panel IP54 Equivalent, Multi VFD based inbuilt PLC & Cascade opetation.Pressure Tank - 100 Litre pressure tank (Globle make, 10 Bar).Scope of Supply: Pumpset (2 Nos.) Skid Mounted, Control Panel (Wall Mounted 1 No), Suction & Discharge Header with Isolation & NRV, Pressure Guage & Pressure transmitter, Pressure tank, Air Vent Valve.	Nos.	1.00	395440.0 0	395440.00
	ELECTRICAL WORK		0.00		0.00
158	SECTION 1.00 POINT WIRING Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	Pt.	25.00	1467.00	36675.00
159	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.  Group C	Nos.	10.00	858.00	8580.00
160	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	Nos.	4.00	1562.00	6248.00

161	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Nos.	10.00	477.00	4770.00
162	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Nos.	10.00	586.00	5860.00
163	Supplying and fixing brass batten/ angle holder including connection etc. as required.	Nos.	5.00	131.00	655.00
164	Installation, Testing, Commissioning of wall bracket /ceiling fittings of all sizes and shapes containing upto two GLS/CFL/LED lamps per fitting, complete with all accessories including connections etc. as required.	Nos.	45.00	119.00	5355.00
165	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.  2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Mtrs.	198.00	233.00	46134.00
166	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.  2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Mtrs.	50.00	275.00	13750.00
167	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.  2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Mtrs.	25.00	334.00	8350.00
168	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.  4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Mtrs.	15.00	537.00	8055.00
169	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.  4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Mtrs.	15.00	754.00	11310.00

170	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.20 mm	Mtrs.	150.00	128.00	19200.00
171	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.  25 mm	Mtrs.	50.00	145.00	7250.00
172	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.  32 mm	Mtrs.	10.00	184.00	1840.00
173	Supplying and fixing two module stepped type electronic fa regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	2.00	369.00	738.00
174	SECTION 2.00 CABLES & ACCESSORIES ARMOURED ALLUMINIUM CABLES. Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Upto 35 sq. mm	Mtr.	175.00	387.00	67725.00
175	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 35 sq. mm and upto 95 sq. mm	Mtr.	25.00	405.00	10125.00
176	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 95 sq. mm and upto 185 sq. mm	Mtr.	25.00	422.00	10550.00

177	Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand / Solid Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables c) 4 Core 10 Sq.mm.	Mtr.	10.00	160.00	1600.00
178	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.a-1) 3 Core 4 Sq.mm.	Mtr.	10.00	332.00	3320.00
179	Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.  (B) 2 core 4 Sq. mm	Mtr.	120.00	241.00	28920.00
180	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 25 sq. mm (28mm)	Ea.	2.00	313.00	626.00
181	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 35 sq. mm (28mm)	Ea.	6.00	369.00	2214.00
182	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 50 sq. mm (28mm)	Ea.	4.00	413.00	1652.00
183	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 70 sq. mm (28mm)	Ea.	4.00	468.00	1872.00

184	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 95 sq. mm (28mm)	Ea.	2.00	588.00	1176.00
185	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulatedand PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 120 sq. mm (28mm)	Ea.	2.00	613.00	1226.00
186	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 3½ X 150 sq. mm (28mm)	Ea.	2.00	697.00	1394.00
187	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 4 X 10 sq. mm (25mm)	Ea.	2.00	269.00	538.00
188	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required 4 X 16 sq. mm (25mm)	Ea.	2.00	309.00	618.00
189	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.  150 mm width X 50 mm depth X 1.6 mm thickness	Rmt.	25.00	716.00	17900.00

190	FABRICATION Providing, erecting, fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles, square, round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete. (for Cable Tray support).	KG	5.00	90.00	450.00
191	Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II )with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground / road surface for enclosing cable (D)120 mm outer dia.	Mtr.	100.00	159.00	15900.00
192	SECTION 3.00 SWITCHGEARS & DISTRIBUTION BOARDS MINIATURE CIRCUIT BREAKERS. Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral	Ea.	20.00	599.00	11980.00
193	Supplying and fixing following rating, double pole, 240 V isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 A	Ea.	5.00	435.00	2175.00
194	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as require 25A	Ea.	4.00	2028.00	8112.00
195	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as require 40A	Ea.	4.00	2642.00	10568.00

196	Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS:8828 in existing box having following capacity ((QTY FOR MCB OF DB AND MCB OF PANEL)Also consider in general)  12 way, Double door	Ea.	2.00	2053.00	4106.00
197	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminalspreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.200 A,36KA,FPMCCB	Ea.	2.00	15206.00	30412.00
198	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40A	Ea.	8.00	970.00	7760.00
199	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63A	Ea.	6.00	1034.00	6204.00
200	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 100A	Ea.	2.00	1227.00	2454.00
201	providing and erecting Approved make Earth fault Relay suitable to mount with inter connection suitable to following size of moulded case circuit breaker having CT ratio & MCCB rating as following along with shunt trip 220V AC. with all internal connections & complete erected in existing M.S.housing  (2) 125 A -200 A, CT Ratio 1/200	Ea.	2.00	5820.00	11640.00

202	Supplying and erecting triple pole & neutral 440V/500V panel mounting Aluminium Busbars with four equal Nos. of bus having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each busbar,erected in existing cubical panel with necessary connections.  (B) Suitable for 200 Amp. capacity	Rn.M tr	2.00	1210.00	2420.00
203	CUPBOARDS.Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.sheet for internal partitions with necessary accesories , supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket,heavy duty end terminal connection,danger notice board,necessary ventilation,earthing strip complete. The Panel shall be painted with epoxy powder coating. (The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size.(B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory as per IEC 61439 for beneficial use.(ii) with 550 mm. depth	Sq. Mtr	5.00	22650.00	113250.00

204	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required. (f) One wire 10.00 sq. mm	Mtr.	15.00	101.00	1515.00
205	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required. (b) One wire 1.50 sq. Mm	Mtr.	15.00	18.00	270.00
206	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required.(g) One wire 16.00 sq. Mm	Mtr.	15.00	157.00	2355.00
207	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required. (c) One wire 2.50 sq. mm	Mtr.	15.00	29.00	435.00

208	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required. (d) One wire 4.00 sq. mm	Mtr.	15.00	40.00	600.00
209	providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required.  (e) One wire 6.00 sq. mm	Mtr.	15.00	62.00	930.00
210	Providing, erecting, fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles, square, round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	Kg.	5.00	90.00	450.00
211	providing and erecting ,Fabricating the box type items made from M.S. Sheet with A.I. supports, wings, doors, handles other hardware materials as per requirement design with finishing by three tank powder coating processed inside and outside painted, erected as directed including minor civil work	Kg.	5.00	210.00	1050.00
212	Supplying and erecting approved make suitable panel indicator lamps of LED type lamp, lens cover, Bakelite holder complete erected with necessary connections.WITH SWITCH FOR BMS INTEGRATION FOR ALL FEEDERS OF PANELS. (For R-Y-B & on-off-trip indication)	Ea.	5.00	50.00	250.00

213	Supplying & erecting approved make Digital time switch having lithium cell 6 years operative and operate battery backup 1 channel day clock with 14 memory programme, suitable to operate on 240V + 5%, 16A with, floating contacts Minimum switching setup time 1 minimum & LCD display. Also comprised permanent ON/OFF switching. Programming switches & housed in fire proof thermoplastic enclosure & transparent cover erected as required with necessary connection erected as directed.	Ea.	1.00	3700.00	3700.00
214	Providing & erecting capacitor duty contactor 3 phase, 415 V with proper connection for following rating: (B) 15 KVAR	Ea.	1.00	2985.00	2985.00
215	Supplying & erecting power contactor ,AC3 duty for time switch complete erected as per direction Cat III .[D] 4 pole 440V 40 Amp.	Ea.	1.00	3250.00	3250.00
	SECTION 4.00 LIGHT FIXTURE AND FANALL LIGHT FIXTURES SHALL COMPLY TECHNICAL PARAMETERS AS MENTIONED BELOW:1.The Fixture and driver should be of same make only.2.The manufacture should provided Complete TTC and quality assurance Plan for Fixtures during supply.3.The Warranty letter for 5years should be provided by the Manufacturer.4.Fixture should be warrantied for 5yrs for 50,000 hrs @ L70 ( LM79 from NABL accredited Lab to be submitted along with Letter from Manufacturer for the Life class claim of L70 @ 50,000 hrs.)5.The product should be Manufactured in India (all the Components should be manufactured in India except the Led source which can be imported . (Approved Led source Nichia , Cree, Lumileds , Osram, Bridgelux Only the Invoice copy of the Purchase of Led modules from these manufacturer's need to be submitted).)6. PF >=0.95 and THD <=10 % ( Certificate need to be submitted from NABL Accredited lab)7. The manufacturer should be ISO 9001 -2015 and ISO 14001 -2004 Company8. The manufacturer should have its own NABL accredited Laboratory & Inhouse Type C Goniometer9. The manufacture should have BIS of all the Lighting products.10.Dust free air conditioned environment for assembly of LED modules and PCBs11. Automatic temperature controlled re flow owen for surface mounted devices 12. Automatic Pick and Place machine for LEDs and electronic components.13. Environment chamber for life cycle testing of LED lights under different environmental conditions of ambient temperature (-40 to 100oC) and humidit (upto 95%).		0.00	0.00	0.00

216	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 160V to 270V,Power Factor more than 0.9, THD < 15 %, CCT 3000 K to 6500K, Luminaire efficacy> 85 lumens/watt , LED driver efficiency > 85 % (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (B) LED Panel Light with provision for Plane front frame with translucent cover fixed to housing complete.IP20 (vi) 36 watts, 24" x 24", Surge- 2KV cat-III	Nos	2.00	2325.00	4650.00
217	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 160V to 270V,Power Factor more than 0.9, THD < 15 %,CCT 3000 K to 6500K, Luminaire efficacy> 85 lumens/watt ,LED driver efficiency > 85 %( fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)(A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20(iii) 16-20 watts, Surge-2 KV cat-III	Nos	25.00	760.00	19000.00

218	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name  120 to 300 V,Power Factor more than 0.9, THD < 10 %, CCT 3000 K to 6500K, Luminaire efficacy> 100 lumens/watt ,LED efficiency-110 lumens/watt LED driver efficiency > 85 % CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux make LED used for luminaire. (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Tube Light with integral driver (a) 5-9 Watts, Surge-2 KV, IP-20,2 feetCat-III	Nos.	9.00	210.00	1890.00
219	Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 120 to 300 V,Power Factor more than 0.9, THD < 10 %,CCT 3000 K to 6500K, Luminaire efficacy> 100 lumens/watt ,LED efficiency-110 lumens/wattLED driver efficiency > 85 %CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux make LED used for luminaire. (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)(A) Tube Light with integral driver(d) 22-24 Watts, Surge - 2KV,IP-20, 4 feet Cat-III	Nos.	15.00	480.00	7200.00

220	FANS & ACCESSORIS. Providing & erecting Approved make Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C.50 Hz 1200 mm sweep complete having 3 blades aluminium body and blade sets having ornamental design shanks, canopy erected with earthing. [Make shall be approved by Engineer in Charge]	Ea.	5.00	2460.00	12300.00
221	FAN ACCESSORIES. Supplying and erecting 19 / 20 mm. nominal bore Medium Class M.S. Pipe down rod erected duly painted for fan complete with proper insulation without leakage and earthing.	Mtr.	5.00	125.00	625.00
222	TABLE FANS, EXHAUST FANS & ACCESSORIES. Supplying & erecting approved make low noise decorative exhaust fan having square frame ABS body with inbuilt lowers & square frame. 250mm with 1350 RPM cat-ii	Ea.	4.00	1596.00	6384.00
223	Supplying & erecting single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM [E] 450 mm dia 1400 RPM Cat.II	Nos	2.00	4600.00	9200.00
224	SECTION 5.00 EARTHING AND LIGHTINING PROTECTIONSupplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nutbolt & spring washer spaced at 50mm	Mtr.	32.00	144.00	4608.00
225	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Mtr.	120.00	51.00	6120.00
226	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Ea.	4.00	13838.00	55352.00
					4,43,57,449.64

## **LIST OF APPROVED MAKES**

## **CIVIL MAKE LIST**

SR. NO.	ITEM	APPROVED MAKES/BRANDS
1	ORDINARY PORTLAND CEMENT / PORTLAND POZZOLANA CEMENT	AMBUJA CEMENT, ULTRA TECH, ACC, JAYPEE, SANGHI, SIDDHEE, WONDER, J. K CEMENT, LAFARGE, DALAMIA, INFRACEM (NUVOCO)
2	REINFORCEMENT STEEL (TMT FE – FE 500D)	TATA STEEL, SAIL, JINDAL STEEL & POWER LTD, RINL (VIZAG), JSW STEEL LTD, NATIONAL ELECTOTHERM, ASR THERMAX, GALLANT, GERMAN, FRIENDS, GRACE, GOD
3	SAND	AS PER MIX DESIGN FOR CONCRETE WORK OR ZONE-II.
4	READY MIX CONCRETE	LAFARGE, NUVOCO, ULTRATECH, ACC, RMC INDIA, COROMANDAL, RAYMIX
5	WHITE CEMENT	BIRLA, J.K., LA FARGE, ACC, DALMIA MAGIC
6	BRICK MASONRY	HAVING CRUSHING STRENGTH NOT LESS THAN 35 KG/SQ CM OF LOCALLY AVAILABLE
7	AERATED LIGHT WEIGHT CONCRETE BLOCK MASONRY (AAC BLOCK MASONRY-SAND BASED)	AEROCON, CYPOROX, MAGICRETE, ECOLIGHT, BUILTECH, J K, INSTABLOCK, INFINITY
8	AAC MORTAR / ADHESIVE	FERROUSCRETE, ULTRATECH, JK, ARDEX ENDURA, MYK ARMENT KERAKOLL, GREENBOND, INFINITY, BRONCO
9	STRUCTURAL ROLLED STEEL SECTIONS-BEAMS, CHANNELS, TEE, FLATS, ANGLES, BARS (ROUND, SQUARE, HEXAGONAL)	TATA, SAIL, RINL, JINDAL
10	STRUCTURAL HOLLOW STEEL SECTIONS (SQUARE & RECTANGULAR)	TATA, ASIAN, JINDAL, APPOLO
11	DECKING STEEL SHEET	TATA BLUE SCOPE, LLOYDS, JSW, JINDAL, KINGSPAN, PENNAR, ALPA PEB, SAIL, NEZONE
12	STRUCTURAL TUBULAR SECTIONS	TATA, ASIAN, JINDAL, APPOLO
13	TEAK WOOD	GHANA, BERMA TEAK (INDIAN TEAK) C.P.
14	SAL WOOD	INDIAN OR IMPORTED (FIRST CLASS)

FLUSH DOOR (DECORATIVE / NON-DECORATIVE)	INFINITY, GREEN, DURO, CENTURY, SWASTIK, KIT PLY, ANCHOR, UNIPLY, ARCHID PLY, GREENLAM, MERINO, GREEN PLY, GLOBE, BHUTAN BOARD, HINDUSTAN BOARD/EQUIVALENT.
PLYWOOD/BLOCK BOARD/ SOFT BOARD	ANCHOR, DURO, MERINO, CENTURY, KITPLY, NIPPONPLY, GREENPLY, DUROPLY
WATER PROOF/MARINE GRADE PLYWOOD AS PER – IS – 710 (BWP)	GREEN, ARCHID, KITPLY, ANCHOR, UNIPLY, CENTURY, NIPPONPLY
COMMERCIAL PLYWOOD – IS – 303 (BWR)	GREEN, ARCHID, KITPLY, ANCHOR, UNIPLY.CENTURY, NIPPONPLY
DECORATIVE PLY (VENEER)	GREEN, DURIAN, CENTURY, ARCHID, DUROPLY
NATURAL VENEER	TIMEX, DURIAN, CENTURY PLY, GREEN, DUROPLY
MDF	NUWOOD, DURATUFF (EXTERIOR GRADE ONLY)
PRELAM PARTICLE BOARD	NOVAPAN, ANCHOR, MERINO, BHUTAN. (EXTERIOR GRADE ONLY)
LAMINATE SHEET	FORMICA, GREENLAM, CENTURY, DURIN, ALFA-ICA, DECOLAM, SUNDECK, BLOOM, MERINO, SUNMICA, GREENPLY, DUROPLY
LIQUOR /MELAMINE /PU POLISH	MRF, ASIAN, ICI, TARALAC
WOODEN ADHESIVES	FEVICOL, BLUE COAT, ARALDITE, PIDILITE, DUNLOP.
ALUMINIUM SECTIONS	JINDAL, INDIAN ALUMINIUM SECTION, HINDALCO (INDAL), INDAL, HINDALCO
INTERIOR WORKS	SUPER DURABLE POWDER COATED (AKZONOBEL, JOTUN, FULLER AG)
SHUTTERING PLY	ARCHID, CENTURY, MERINO, KITPLY
MOISTURE RESISTANCE BOARD	GREENLAM, DURO, MERICO
ALUMINIUM WINDOW LOCKS, HANDLE, FRICTION STAYS	ALUALPHA, SECURESTYLE, GIESSEE, ROTO, GEZE, SAVIO, FRIKSTAY
OXIDISED ALUMINIUM FITTING	DORMA, EBCO, DOORLINE, CLASSIC
ALUMINIUM LOUVERS	TECHNAL, DOMAL, METALIUM
ANODISING	BHORUKA ALUM, ALUFIT ALUM, AJIT INDIA, ALUFIN
GASKET OF INFILL PANEL FOR ALUMINIUM	AMEE RUBBER, GOLD SEAL, OSAKA RUBBER, MAHARASHTRA POLYMER, MAHARASHTRA TYRE & RUBBER INDUSTRIES.
ROUGH GROUND FOR ALUMINIUM WORKS	IS 710 PLY, 6MM TO 8MM THICK OR GHANA TEAK.
COMPACT SHEET	ALFIACA, SUNDEK, VIR, BLOOM, FORMICA, MERINO
CEMENT BONDED PARTICLE BOARD	SHERA, NCL (BISON BOARD), EVEREST (ETERNITE).
CALCIUM SILICATE BOARD / GYPSUM BOARD	SAINT GOBAIN GYPROC, ARMSTRONG, KNAUFF, CREDENCE, DEXUNE, DAIKEN, HILUX, LAFARTZ,
	PLYWOOD/BLOCK BOARD/ SOFT BOARD  WATER PROOF/MARINE GRADE PLYWOOD AS PER - IS - 710 (BWP)  COMMERCIAL PLYWOOD - IS - 303 (BWR)  DECORATIVE PLY (VENEER)  NATURAL VENEER  MDF  PRELAM PARTICLE BOARD  LAMINATE SHEET  LIQUOR /MELAMINE /PU POLISH  WOODEN ADHESIVES  ALUMINIUM SECTIONS  INTERIOR WORKS  SHUTTERING PLY  MOISTURE RESISTANCE BOARD  ALUMINIUM WINDOW LOCKS, HANDLE, FRICTION STAYS  OXIDISED ALUMINIUM FITTING  ALUMINIUM LOUVERS  ANODISING  GASKET OF INFILL PANEL FOR ALUMINIUM  ROUGH GROUND FOR ALUMINIUM WORKS  COMPACT SHEET  CEMENT BONDED PARTICLE BOARD  CALCIUM SILICATE BOARD /

		AEROLITE.
39	DEAD LOCKS/ MORTISE LOCKS/NARROW STILE DEAD LOCKS/ TUBULAR LOCKS	KICH, DORMA, DORSET, YALE, GODRAJ, ENERITE, SIGMA, OPEL, DOORSET, EUROPA
40	FLOAT GLASS / WIRED GLASS, MIRROR	MODI GUARD, SAINT GOBAIN, FLOAT GLASS INDIA LTD.HNG.
41	REFLECTIVE GLASS	SAINT GOBAIN, PPG, ASAHI, EMIRATES, PILKINGTON.
42	GLASS PROCESSOR	IMPACT SAFETY, GLASSTECH, GSC, ASAHI, FG
43	FOR HS/HT, BULLETPROOF, DGU, TOUGHNESS, LAMINATION ETC.	GLASS, GOLDPLUS, EMIRATES
44	PRECAST TERRAZO TILES (MOSAIC)	ROYAL, ALCOCK, VYARA, NITCO
45	CERAMIC TILES	ASIAN, EURO, BELL CERAMIC, JOHNSON, SOMANY, NITCO, KAJARIA, VARMORA. SIMPOLO,NITCO
46	GLAZED TILES	ASIAN, EURO, BELL CERAMIC, JOHNSON, SOMANY, NITCO, KAJARIA, VARMORA. SIMPOLO,NITCO
47	VITRIFIED TILES	ASIAN, EURO, BELL CERAMIC, JOHNSON, SOMANY, NITCO, KAJARIA, VARMORA. SIMPOLO, NITCO
48	GLASS MOSAIC	BISAZZA, PALLADIO, ITALIA, DALAL TILES INDUSTRIES, UNISTONE, UNITILE, NITCO
49	PAVER BLOCK & KERB STONE	NITCO ,UNITTILE, ULTRA,DALAL TILES INDUSTRIES,VYARA, SUPER CEMENT, PAVCON OR EQUVALENT MAKE
50	GRASS PAVER BLOCK	AMDAVAD ENVIRO, PAVCON
51	NON-METALLIC FLOOR HARDENER	IRONITE, FOSROC, STP, CICO, SIKA
52	CEMENT CONCRETE TILES DESIGNER TILES	ULTRA, EUROCON, NITCO, MODERN TILES GROUP OF INDUSTRIES
53	PAINT, PRIMER, PUTTY	ASIAN, BERGER, ICI, BIRLA (PUTTY), JK (PUTTY) NEROLAC, WONDER
54	SYNTHETIC ENAMEL PAINTS	BERGER, ASAIN, NEROLAC, DUCO
55	SWELLABLE BAR	PIDILITE, FOSROC, CHRYSO, SOPREMA, HAYAKAWA, MYK SCHOMBURG, SIKA
56	PARALLEL THREADED COUPLERS (COMPLIANT TO IS: 16172:2014)	DEXTRA, HALFEN MOMENT, G-TECH, ASCON, HERRISAN
57	EXPANSION JOINTS	MIGUA, 3R JOINTS & SEALS, PD PROJECTS, ASP, SANFIELD INDIA, HERCULES, TRISTAR, VEXCOLT, DEVIN, Z-TECH
58	OVERDECK INSULATION	PIDLITE, FOSROC, BASF, SIKA
59	EPOXY FLOORING	BASF, FOSROC, FOSROC, DR.CIPY
60	EPOXY PAINT	KANSAI NEROLAC, ASIAN AKZONOBEL (DULUX),

		FOSROC, ICI		
61	VITRIFIED/ CERAMIC TACTILE TILES	H&R JOHNSON, PAVIT, SOMAY, EQUIVALENT		
62	PU TACTILE STRIPS & STUDS	SIGNXPRESS INDIA, DELCO, PRO SAFE LIVING, EQUIVALENT		
63	LINOLEUM FLOORING & ANGLE FIT RUBBER (OR EDGE GUARD)	GERFLOR, TARKETT, MONDO, JONSONITE		
64	SPORTS DIVIDER CURTAIN	GARED USA, SHELDE, FREEWILL		
65	ACRYLIC DISTEMPER	ASIAN, BERGER, NEROLAC, ICI		
66	CEMENT PAINT	SNOWCEM PLUS, BERGER, NEROLAC		
67	PLASTIC EMULSION PAINT	ASIAN, NEROLAC, BERGER/ASIAN, ICI		
68	LOW VOC PAINT/ EMULSION PAINT	ASIAN, NEROLAC, BERGER, ICI		
69	TEXTURE EXTERNAL PLASTER	SPECTRUM, CORAL, TERRE PALETTE, EARTHEN TEXTURES, TRAVERTINO TEXTURE		
70	METAL CLADDING/ ALUMINIUM FLAT SHEEL CLADDING	JINDAL, HINDALCO, ALU-BOND		
71	EXPANDED MESH CLADDING WITH PVDF COATING	ARHAMM ENGG, PRIYA MESH, ASIAN STRECK		
73	CONSTRUCTION CHEMICALS (PLASTICISERS, BONDING AGENTS, SBR LATEX, MICRO CONCRETE)	BASF, FOSROC, SIKA INDIA PVT. LTD., CICO TECH LTD., MC BAUCHEMIE, SUNANDA CHEMICALS, PIDILITE		
74	CHEMICAL WATER PROOFING & INTEGRAL WATER PROOFING COMPOUND	CHEMICAL WATER PROOFING & INTEGRAL WATER PROOFING COMPOUND		
75	CRYSTALLINE WATER PROOFING	PENETRON, KRYTON, FOSROC, PIDILITE, KERAKOLL, BERGER / ASIAN SMART CARE, BASF, ARMENT		
76	SILICON SEALANT/ SILICON PAINT	WACKER, DOWCORNING, GE, SOUDAL, BOSTIK, CHRYSO		
77	POLYSULPHIDE SEALANT	PIDILITE, CHAWKSEY, HENKEL		
78	P.U SEALANT	SIKA (EXTERIOR GRADE - UV RESISTANT) / LATICRETE		
79	PVC WATER STOP	ARTI CABLES BARODA, FIXOPAN, MARUTI		
80	DOOR WINDOW HARDWARE	KICH, DORMA, EPPW, PALLADIUM, MAGNUM		
81	FLOOR SPRING	DORMA, MAB, HAFLE, DOORSET, EVERITE, OMEGA, HARDWYN		
82	HYDRAULIC DOOR CLOSER	DORMA, YALE, HAFLE, HARDWYN, TRIUM, EVERITE, HYPER		
83	PRE-COATED STEEL ROOFING/ WALLING SHEETS 550 MPA	TATA BLUESCOPE, INTERARCH, NIPPON DENDRO (POLY STEEL) SHREE PRECOATED (META COLOR)		
84	POLYPROPYLENE FIBERS	NINA CONCRETE, RELIANCE		
85	FIRE RATED DOOR	NAVAIR, SHAKTIMAT, AGEW, RADIANT, ENVIROTECH, SWASTIK, ACODOR		

86	ANCHOR FASTENERS	AXEL, HILTI, FISCHER, KUNDAN, MUNGO,	
		CORROSHIELD, BUILDEX, BOSCH	
87 88	SPANDREL INSULATION WOOL FELT/WEATHER STRIP	GLASS WOOL ANAND, REDDIPLEX LTD.	
89	STAINLESS STEEL RAILING/	D LINE, DORMA, JINDAL, OZONE, GEZE	
90	RUST REMOVER/CONVERTER	FEOVERT (KRISHNA CONCHEM), ROFF RUST CLEAR (PIDILITE INDUSTRIES)	
91	NON-SHRINK GENERAL PURPOSE GROUT	FOSROC, BASF	
92	ANCHORING CHEMICAL FOR REBAR DOWELL BAR	HILTI, FISCHER, AXEL	
93	SS CLAMPS FOR CLADDING	HILTI, AXEL	
94	MS ROLLING SHUTTER	SONA, SAGAR, SURYODAY, GANDHI, STNDARD, SWASTIK, SHUDHWAR, SHAKTI HORMANN, AVIAN	
95	WPC DOOR SHUTTER, WPC DOOR FRAME	ALSTONE, ECOSTE, ARCHIDPLY, EVERWOOD	
96	PADDING	DE, GARED, FREEWILL	
99	TURE	EJ, FEATHERLIGHT, WIPRO, ASTER, MERRYFAIR	
100	CUBICLE	IO, GREENLAM STURDO CLASSIQUE GRANDEUR, SOLACE (SS SERIES) BY SPCMS, T LINE, DORMA, TRESPA	
	E WOODEN FLOORING	OR, JUNCKER, AND ACTION APPROVED BY BWF, ITTF, FIBA, FIVB, IAAF, ITF AS PER CONCERN GAME.	
	LOCKING RUBBER TILES	/ILL, FAIRMONT, SOFLEX	
	VONDO MAT, JUDO MAT	DREX. PROGAME, BUDOLAND, DAEDO	
	INIUM SKIRTING	/ILL, SUMMIT, WILLSON, JOHNSONITE	
	R SKIRTING	/ILL, SUMMIT, WILLSON, JOHNSONITE	
106	ETIC ROLLABLE COURT SURFACE	(, GERFLOR MONDO, TARKETT	
107	STIC FALSE CEILING	FRONG-OPTRA, OFF, SOUND EASY, QUIETUDE,	
108	ETARDANT DOORS	R, OZONE, QUIETUDE	
109	DOOR, WINDOW, VENTILATION SYSTEM	VEKA PVT. LTD, FENESTA BUILDING SYSTEMS, PROFINE INDIA WINDOW TECHNOLOGY PVT. LTD.,, ENCRAFT INDIA PVT. LTD.,PWDS	

		EXTRUSIONS PVT. LTD., WEATHERSEAL (BY ASIAN PAINTS), ALUPLAST INDIA PVT. LTD., DUROPLAST
110	VOOL INDIA, ROXUL ROCKWOOL, OWEN CORNING, TWIGA	VOOL INDIA, ROXUL ROCKWOOL, OWEN CORNING, TWIGA
111	INTON EQUIPMENT	DE SPORTS, SENOH, GARED
112	YBALL EQUIPMENT	DE SPORTS, SENOH, GARED
113	TENNIS EQUIPMENT	, STAG, DHS STIGA
114	AULIC BASKETBALL EQUIPMENT	/ILL, SCHELDE SPORTS, SENOH, GARED
115	ATOR SEATING AREA- SEAT	ST. FREEWILL, HOSHO, SOGEMAP
116	DOUBLE SKIN ALUMINUM STANDING ROOFING SYSTEM	, KINGSPAN, ALUFORM EQUIVALENT
117	MING POOL DECK TILE ANTI SLIP TILE	OOLS, FLOOR GRESS, AGROB BUCHTAL
118	TABLE LOUVERS	L/ REYNERS/ TECHNAL/ SHRISAIALUMINIUM
119	NG FAÇADE SYSTEM	
119.1	IZED ALUMINUM HARDWARE (HEAVY DUTY)	E, SAPA BUILDING SYSTEMS, EUROPEAN FAÇADE PRODUCT, RAYNERS, HARDIMA, ALUALPHA, LGF SYSMAC, HINDALCO
119.2	ALUMINUM STRUCTURAL MEMBERS NDOWS, DOORS, GLAZING AND PARTITIONS	O, SAPA BUILDING SYSTEMS, SAPA BUILDING SYSTEMS, RAYNERS, INDALCO, JINDAL, HINDALCO, NALCO, HALCO
119.3	GLAZING STRUCTURAL / SUSPENDED IGHT	GOBAIN, PIKINGTON, GLAVERBAL
119.4	/ FLOAT / FROSTED GLASS	GOBAIN, AIS, PILKINGTON, MODIGUARD, ATUL, GOLDEN FISH
119.5	/ SS SPIDER FITTINGS	A, HAFALE, OZONE, LISUS, SADEV
119.6	TICALLY SEALED PERFORMANCE GLASS TOUGHENED GLASS	GOBAIN, GUARDIAN GLASS, PILKINGTON, MODIGUARD

133	MING POOL SYSTEM & FILTRATION SYSTEM	HA, FLUIDRA
132	EN EQUIPMENT	I INDUSTRIAL, DELIGHT ENGINEERING, SUREOLOGICS KITCHEN SOLUTION, SAI SHAKTI ENGINEERING
131	ARBONATION PAINT	OSROC, FLEXCRETE
130	IQUID APPLIED POLYURETHANE MEMBRANE TERRACE WATERPROOFING SYSTEM	NDA/ FOSROC/ BASF/ PIDILITE
129	M OVER DECK INSULATION OVER TERRACE WATER PROOFING	POROSILE, VERMIPLAST
128	IRE	USHA MARTIN/JSW/DP WIRES
127	NDOR	)YWIDAG/ FREYSSINET
126	INUM EXPANDED MESH/ARCHITECTURAL ALUMINUM MESHES	INCO, PEMPL
125	IVES & SEALENT	ИУК LATICRETE, BASF, FOSROC, PIDILITE, DOWSIL, ACEBOND, PYROPLEX, BRONCO
124		EJ, DORSET, YALE, EPPW, DORMA, KITCH, ENERITE, SIGMA, OPEL, DOORSET, EUROPA
123	_ FALSE CEILING	RONG ORCAL, SAINT GOBAIN, GYPROC, HUNTER DOUGLUS
122	BACTERIAL PAINT	/ LIQUID PLASTIC/SSK/VIESSMANN /ARTILIN / BASF / HUNTSMAN
121	DARD	RS, RAJSHREE, ARMSTRONG
120	OR PVC FALSE CEILING	GOBIN, ARMSTRONG, USG
119.8	R ROD	EM, SILICA, EPE, SOFTEX
119.7	ATED VISION PANELS	GTON, SCHOTT, FERILITE, SAINT GOBAIN, GLAVERBEL,

134	E CEILING	ER DOUGLUS, ARMSTRONG, DURLUM
135	STIC WALL PANELS	ANUTONE, HERADESIGN, DAIKEN, TASCO, AEROCEIL, GREENLAM, KNAUF, ARMSTRONG, HERADESIGN
136	LOSE BASED ACOUSTIC PLASTER/ACOUSTIC SPRAY TREATMENT	ENVIRO ACOUSTICS OVT LTD, ASONA
	WARE	
137	/ BOLTS / SCREWS	GKW, ATUL, HILTI, NETTLE FOLD, PATTA, GRIPPLE, RAW PLUG
138	/WINDOW FITTINGS INCL. DOOR CLOSER / FLOOR SPRINGS	HAFELE, GEZE, DORMA, HETTICH, EVERITE, GODREJ, IPSA
139	ST PATCH FITTINGS	GEZE, DORMA, ASSA ABLOY, HETTICH, OZONE
140	ATED DOORS	ICLEAN, SHAKTI HORMANN, PROMAT, NAVAIR, SUKRI, KINDEL, GMP, SIGNUM, GALAXY, RADIANT FIRE DOORS
141	UPVC DOORS & WINDOWS	FENESTA, GLANZ, LINGEL ATUL, MODIGUARD, SAINT GOBAIN, ECO, NEELKAMAL, OKOTECH, SALAMANDER, RAJSHRI
142	ACOUSTIC DOORS / SHUTTERS	STAIRWAY STUDIO, SIGNATURE INTERIORS, ENVIROTECH
143	REVOLVING DOORS	DORMA, BOONEDAM, KABA
144	FAÇADE SYSTEM	SCHUCO, SAPA BUILIDNG SYSTEMS, EUROPEAN FAÇADE, REYNUS
145	SS MORTISE LOCK WITH ONE DEAD BOLT AND PAIR OF SS HANDLES STEEL GRADE SS 304 / SS MORTISE LATCH & LOCK WITH SIX LEVERS PAIR OF SS HANDLES STEEL GRADE SS304 / SS TOWER BOLT	DORMA, GEZE, HAFELE, ASSA ABLOY, HETTICH, GODREJ, DORSET, IPSA
146	SS BUTT HINGES WITH BALL BEARING GRADE SS 304	DORMA, HAFELE, GEZE, HETTICH, IPSA
147	PULL HANDLE BACK-TO-BACK OF LENGTH 150MM OF STEEL GRADE SS 304 / PULL HANDLE, SINGLE SIDE OF LENGTH 150MM OF STEEL GRADE SS 304	DORMA, HAFELE, GEZE, HETTICH, IPSA
148	LEVER HANDLE IN SS 304FINISH	DORMA, HAFELE, HETTICH, GEZE, INGERSOLL RAND
149	RIETARY SLIDING/ FOLDING DOORS	DORMA, HAFELE , HETTICH, GEZE, IPSA

150	FITTINGS	DORMA, HAFELE , HETTICH, GEZE, IPSA
151	G CHANNELS	DORMA, HAFELE , BLUM, HETTICH, GEZE, IPSA
152	NG, FROSTING FILM/ VINYL SHEETS	3M OR EQUIVALENT
153	LESS STEEL SLIDING DOOR BOLTS	INGERSOLL RAND, GODREJ, HAFELE
154	E- ALUMINIUM FLASHING SHEET WITH PERFORATION	KALZIP, KINGSPAN, EQUIVALENT

LIST OF APPROVED MAKES FOR PHE SYSTEM		
Sr.No.	Item Description	Make
1	All Sanitary fittings	Toto / Cera / Sloan / Jaquar / Euronics /
		Geberit / Astral / Hindware/Kohler As
		per Interior selection
2	All Bath & CP fittings	Toto / Cera / Sloan / Jaquar / Euronics /
		Geberit / Astral / Hindware/Kohler As
		per Interior selection
3	EWC Flushing Cistern	Viega / Geberit / Kohler / Sloan
4	Urinal Flush Valve	Viega / Euronics / Geberit / Jaquar /
		Sloan
5	Flusho-Meter (Urinal / EWC)	Kohler / Sloan / Jaquar
6	UPVC Pipe, Ball Vales & fittings ( SCH 40 &	Supreme / Astral / Ashirvad / Prince
	SCH 80)	
7	Hot Water supply pipe CPVC (SDR 13.5/	Supreme / Astral / Ashirvad / Prince
	SDR 11)	
8	UPVC SWR Pipe	Supreme / Astral / Ashirvad / Huliot /
		Wavin
9	UPVC Foamcore Pipe /DWC pipe /HDPE	Supreme / Astral / Ashirvad / Huliot /
	pipe	Wavin

10	Silent Pipes UPVC / PP	Supreme / Astral / Ashirvad / Huliot / Wavin
11	Ball valves - Brass / Gun metal	Sant / Sloan / Honeywell / Varie
12	Non return valve, Pressure reduce valve, Y- Strainer, Air Release Valve, Sluice valves, Butterfly valves, Check valves	Sant / Sloan / Honeywell / Varie
13	Hydropneumatic system and pumps	Grundfos / Xylem / Lubi / Wilo
14	Electrical Flow meter / Water meter	Honeywell / Sant / Varie or equivalent
15	Liquid static pressure switch, Pressure gauges	Greystone / Tensorflow / Danfoss / H- gure or equivalent
16	Shaft & Pipe Clamps	Chilly / Shaivi / Mupro / Hilti or equivalent
17	Cockroach Trap / Trap guard	Chilly / Proset / TECE or equivalent
18	R.C.C. Manhole cover & frame	Strong Drain / Thermodrain / HP / NECO/ RIF/ SKF/ CRESENT FOUNDARY
19	FRP Grating /Manhole cover & frame	Strong drain / Thermodrain / HP
20	Drain Channel	Astral / Huraton / Aco
21	Insulation material for hot water pipes	Superloan / Accoflex / Tharmaflex
22	R O Plant	Ion-Exchange / Tharmax / Aquaguard
23	Heatpump	A.O. smith / Mitsubishi / Flow Dynemic
24	Water Cooler	Voltas / Blue Star / Usha
25	RCC Hume Pipes	Indian Hume Pipe / Alcock / Jain spun pipe / Pragati / Daya spun pipe/ Patel hume pipe
26	Float valve	L & T / VBA / RB / Watertech / Prayag /Sant
27	Fire Sealants	Hilti / 3M or Equivalent
28	Solenoid valve	L & T / VBA / RB / Watertech / Prayag /Sant
29	STP vendor	Flow Dynemic /Subham / Aquatic / Equivalent
30	Rain Water Harvesting system	Flow Dynemic /Subham / Aquatic / Equivalent
31	SS Pipe	Viaga / Eurotubi Europa / Geberit
32	PPRC pipe	KPT / Huliot / Prince / Kantham

	LIST OF APPROVED MAKES FOR ELECTRICAL SYSTEM		
SR.NO.	ITEM DESCRIPTION	MAKE LIST	
1	H.T. VCB PANEL	L&T / SIEMENS / ABB / SCHNEIDER ELECTRIC / CG POWER /C&S HT PANEL SHALL BE OEM OR OEM APPROVED CHANNEL PARTNER.	
2	PROTECTION RELAY FOR H.T PANEL	ABB / L&T / SIEMENS / SCHNEIDER / CSPC / ALSTOM/C&S	
3	H.T. XLPE CABLE	FINOLEX / RR KABLE / AVOCAB / HAVELLS/ POLYCAB / KEI	
4	H.T. JOINT (HEAT SHRINKABLE)	RAYCHEM / 3M	
5	OIL TYPE TRANSFORMER	VOLTAMP / UNIMAG/ TRANSFORMER & RECTIFIER / ABB / CG POWER/ KIRLOSKAR	
6	MEDIUM VOLTAGE CABLE / CONTROL / FLEXIBLE CABLE / WIRES FOR INTERNAL WIRING / FIRE RATED CABLES	FINOLEX / RR KABLE / AVOCAB / HAVELLS/ POLYCAB / KEI	
7	DG SET	STERLING & WILSON / SUDHIR / CUMMINS / PERKINS /KIRLOSKER /SUPER NOVA /GREAVES /POWER	
8	ALTERNATOR	AS PER THE DG SET SUPPLIER.	
9	DG SET AMF PANEL	AS PER THE DG SET SUPPLIER. (SWITCHGEAR AS	

		PER MAKE LIST.)
10	SYNCHRONIZATION RELAY	WOODWARD / STUKE / DEIF/ SIEMENS
11	SANDWICH BUSDUCT	LEGRAND / SCHNEIDER / L & T / C & S / ENTRACO BKS
12	LT PANELS & APFCR PANEL AS PER IEC 61439 (TTTA) PANELS	LEGRAND / SCHNEIDER / L&T / SEIMENS - OEM CERTIFIED IEC- 61439 REQUIRED.
13	LT PANELS AS PER CPRI	FABRICATED PANELS WITH STANDARD APPROVED SWITCH GEARS & ACCESSORIES CPRI / ERDA APPROVED PANEL SUPPLIERS, 65 KA SHORT CIRCUIT WITHSTHAND STRENGTH. OEM APPROVED CHANNEL PARTNER.
14	CAPACITOR	SCHNEIDER / DATAR / EPCOS / L & T / SIEMENS / ABB / LEGRAND
15	DISTRIBUTION BOARDS & SWITCH GEARS	LEGRAND / SCHNEIDER / SIEMENS / HONEYWELL / L&T / C&S / HAVELLS
16	LT ACB	LEGRAND / SCHNEIDER / L&T / SEIMENS
17	LT MCCB WITH EARTH FAULT	LEGRAND / SCHNEIDER / L&T / SEIMENS
18	LT MCB, ELCB, ISOLATOR	LEGRAND / SCHNEIDER / SIEMENS / HONEYWELL / L&T
19	LT CONTACTORS	LEGRAND / SCHNEIDER / L&T / SEIMENS
20	CURRENT TRANFORMER & POTENTIAL TRANSFORMER	AE / ASHMOR / G & M / L&T
21	METERS (DIGITAL)	CONZERVE / SCHNEIDER / SECURE / L & T / LEGRAND/ABB
22	LOAD MANAGER/MFM	CONZERVE / SCHNEIDER / SECURE / L & T / LEGRAND / ABB
23	PROTECTION RELAYS- EARTH FAULT	SIEMENS / L & T / SCHNEIDER / ALSTOM / CSPC
24	INDICATING LAMP	SIEMENS / SCHNEIDER ELECTRIC / L & T/ TEKNIC / ABB
25	ELECTRIC TIMER	SIEMENS / L&T / LEGRAND / CONSERVE / RUSHABH ENTERPRISE
26	ROTARY SWITCH	LEGRAND / SCHNEIDER / SIEMENS / HONEYWELL / L&T
27	PUSH BUTTON AND PUSH BUTTON SET	SIEMENS / SCHNEIDER ELECTRIC / L & T/ TEKNIC
28	ANNUNCIATOR	PROTON / EAPL / TEKNIKA
29	LUGS / BIMETALLIC LUGS	DOWELL'S / HMI / COMET/ HEX
30	CABLE GLAND	JAINSON / COMET / POLYCAB/ HEX /3M
31	CONNECTORS ( COLOURS AS PER PHASE & NEUTRAL )	SALZER / ELEMEX / L&T
32	ATS	ASCO / SOCOMEC / L&T
33	CABLE TRAY ( ALL TYPE )	LEGRAND / PROFAB / DUDHAT / INDIANA / KEW

		/ PRECISION / SUMIP / ASC
34	SPD	NISHARP - CAPE / OBO / LEGRAND/ SCHNEIDER
35	DWC PIPE	REX / NOBLE /ASTRAL
36	L.T. CABLE JOINTING KIT	RAYCHEM / 3-M
37	PVC CONDUITS AND ACCESSORIES	PRECISION / NIHIR / POLYCAB / ASTRAL / BBC / AKG
38	CASING CAPING	PRECISION / NIHIR / POLYCAB / ASTRAL / BBC / AKG
39	FLOOR TRUNKING & FLOOR JUNCTION BOX	HONEYWELL / LEGRAND / SCHNEIDER/ C&S / PANASONIC/ HAVELLS / L&T / OR AS PER ARCHITECT/INTERIOR/CLIENT SELECTION
40	MODULAR SWITCHES, SOCKETS & OTHER ACCESSORIES	HONEYWELL / LEGRAND / SCHNEIDER/ C&S / PANASONIC/ HAVELLS / L&T / OR AS PER ARCHITECT/INTERIOR/CLIENT SELECTION
41	METAL CLAD SOCKET WITH MCB	HONEYWELL / LEGRAND / SCHNEIDER/ C&S / PANASONIC/ HAVELLS / L&T / OR AS PER ARCHITECT/INTERIOR/CLIENT SELECTION
42	PVC TAPE	STEEL GRIP/ANCHOR
43	PVC JUNCTION BOX	PRECISION / NIHIR / POLYCAB / ASTRAL / BBC / AKG
44	LIGHT FIXTURE  (FOR ENTIRE PROJECT SINGLE  MAKE WILL BE APPROVE)	LIGHTING TECHNOLOGIES / PHILIPS / HAVELLS / WIPRO / CROMPTON / BAJAJ / PANASONIC OR AS PER ARCHITECT/INTERIOR/CLIENT SELECTION
45	HIGH SPEED FAN & EXHAUST FAN	BAJAJ/ HAVELLS/ CROMPTON/USHA / ORIENT
46	POLE	K - LITE / AMBICA / FABRICATED / OR AS PER ARCHITECT/INTERIOR/CLIENT SELECTION / BAJAJ / TRANSRAIL / RR ISPAT
47	METAL CONDUIT	BEC / AKG / BHARAT/STEEL CRAFT
48	UPS SYSTEM	NUMERIC / APC / VERTIV / EATON
49	EARTHING SYSTEM	CAPE - NISHARP / OBO BETTERMANN / ABB /ASHLOK
50	LIGHTNING PROTECTION	CAPE - NISHARP / OBO BETTERMANN / ABB
51	IP JUNCTION BOX	HENSEL / LEGRAND / OBO / RITTAL
52	CALL BELL	ANCHOR/ ORPAT/ VISION
53	PLC & HMI	SCHNEIDER/ SIEMENS/MK/ABB/DELTA /PHOENIX
54	FIRE STOPPER	HILTI/3M
	Special Note: -	
1	The MCB And MCB DB'S Must Be Of Same Make.	

2	If "Equivalent Make" is proposed for the items then Contractor is required to submit Detailed specifications / certificates for the proposed make for BOQ item, which shall be considered/approved by the Engineer-in-Charge after evaluating performance of the equipment in consultation with Group of Experts. Necessary documents in support of the same shall be submitted before procurement to
3	Engineer in Charge for approval.  Makes/ Models of items of all fixtures/ Items/ Materials must be got approved from the Engineer in charge well before placing any order to the OEM. The contractor/ agency is required to submit all relevant test certificates documents and along with the proposal. The decision of Engineer-in-charge is binding in this regard and no variation is acceptable.
4	All The Material Should Be IEC Compliant As Per Standard Mentioned In Tender Make List.
5	The Make Approved Shall Be Guaranteed To Have Support From OEM For Minimum 10 Years With Required Spares.
6	The Material With Higher Delivery Lead Time Shall Be Immediately Informed To Client / Consultant Before Order Execution.
7	Procurement of item with aesthetic value and visibility shall be on prior approval of Architect and Engineer in charge for specific area of application.
8	All the material like switch gears & switches, Lighting fixtures, wire & Cables should be use single approved make throughout the entire project. Any changes in approved make should be confirm with engineer in charge/ competent Authority.
9	The Client reserves the right to select/ change the manufacturer & approved make from the above list at the time of execution.

	LIST OF APPROVED MAKES FOR EX	XTRA LOW VOLTAGE SYSTEMS
_	_	_
SR.NO.	ITEM DESCRIPTION	MAKE LIST
	FIRE DETECTION & ALARM SYSTEM	
1	FIRE ALARM CONTROL PANEL (FAS)	BOSCH / TYCO (JOHNSON CONTROL) /
		HOCHIKI / HONEYWELL-ESSAR / SEIMENS
2	MULTI SENSOR & HEAT DETECTORS.	BOSCH / TYCO (JOHNSON CONTROL) /
		HOCHIKI / HONEYWELL-ESSAR / SEIMENS
3	CONTROL / MONITOR / ISOLATOR	BOSCH / TYCO (JOHNSON CONTROL) /
	MODULES.	HOCHIKI / HONEYWELL-ESSAR/ SEIMENS
4	MANUAL PULL STATION	BOSCH / TYCO (JOHNSON CONTROL) /
		HOCHIKI / HONEYWELL-ESSAR/ SEIMENS
5	LOOP POWERED HOOTER CUM	BOSCH / TYCO (JOHNSON CONTROL) /
	STROBE	HOCHIKI / HONEYWELL-ESSAR / SEIMENS
6	RESPONSE INDICATOR	BOSCH / TYCO (JOHNSON CONTROL) /
		HOCHIKI / HONEYWELL-ESSAR / SEIMENS
7	BEAM DETECTORS	BOSCH / TYCO (JOHNSON CONTROL) /
		HOCHIKI / HONEYWELL-ESSAR / SEIMENS
8	BACK-UP BATTERIES.	EXCIDE / AMARRAJA / AMARON / LIVGUARD
		/ HBL
9	MONITORED POWER SUPPLY	SANSTAR / MEAN-WELL / DELTA / OMRON

	PUBLIC ADDRESS & VOICE	
10	PAVA IP ZONE CONTROLLER &	HONEYWELL-VARIODYN / ATEIS-IDA8 /
10	AMPLIFIER	HONEYWELL-VARIODYN / ATEIS-IDA8 / BOSCH-PRAESENSA / EV
11	PAVA SYSTEM SOFTWARE	HONEYWELL-VARIODYN / ATEIS-IDA8 /
		BOSCH-PRAESENSA / EV
12	PAVA SYSTEM SPEAKERS - CEILING /	HONEYWELL-VARIODYN / ATEIS-IDA8 /
	WALL / SURFACE	BOSCH-PRAESENSA / EV
13	AUDIO SOURCE	HONEYWELL-VARIODYN / ATEIS-IDA8 /
		BOSCH-PRAESENSA / EV
	IP CCTV SYSTEM	
14	IP CAMERA DOME/BULLET/PTZ	HONEYWELL / TYCO / PELCO / AXIS / BOSCH
15	IP CAMERA - NPR	HONEYWELL / TYCO / PELCO / AXIS / BOSCH
16	IP NETWORK VIDEO RECORDER	HONEYWELL / TYCO / PELCO / AXIS / BOSCH
17	CCTV WORKSTATION	DELL / HP / LENOVO
18	CCTV DISPLAY UNIT	SONY / SAMSUNG / PANASONIC
	DOOR ACCESS CONTROL SYSTEM	
19	SMART CARD READER CUM DOOR	AXIS / SPECTRA / HONEYWELL / HID
	CONTROLLER	
20	ACCESS CONTROL SOFTWARE WITH	AXIS / SPECTRA / HONEYWELL / HID
	T&A MODULE.	
21	SMART CARDS	AXIS / SPECTRA / HONEYWELL / HID
22	EML / DROP BOLT DOOR LOCK WITH	DORMAKABA / BELL / ALGATEC
	MOUNTING ACCESSORIES.	
23	EMERGENCY BREAK GLASS / DOOR	DORMAKABA / BELL / ALGATEC
	RELEASE (GREEN)	
24	DOOR POSITION SENSOR	DORMAKABA / BELL / ALGATEC
25	STAINLESS STEEL EXIT BUTTON	DORMAKABA / BELL / ALGATEC
26	MONITORED POWER SUPPLY	SANSTAR / MEAN-WELL / OMRON
27	SMART CARD PRINTER	FARGO / HID / IDCUBE
28	PRINTERS	HP / EPSON / CANON / BROTHER
	SECURITY SYSTEM	
29	BAGGAGE SCANNER	SMITH / GODREJ / RAPISCAN
30	UNDER VEHICLE SCANNING SYSTEM	COMPORT / GATEKEEPER / VEHANT
31	BOOM BARRIERS	SOMFY / DORMAKABA / FAAC / ZKTECO
32	UHF READER WITH CONTROLLER	SOMFY / HID / ID CUBE
33	TRIPOD ENTRY GATE	DORMAKABA / MAGNETIC AUTOCONTROL /
		FAAC / ZKTECO
34	SWING LANE GATE	DORMAKABA / MAGNETIC AUTOCONTROL /
		FAAC / ZKTECO
35	FULL HEIGHT TURNSTILE	DORMAKABA / MAGNETIC AUTOCONTROL /
26	DOOD FRANKS METAL RETECTOR (5.5)	GODREJ / PERTO
36	DOOR FRAME METAL DETECTOR (POLE	DORMAKABA / PENTASCAN / RAPISCAN /
	/ FRAME TYPE)	GODREJ / VEHANT
37	VISITOR MANAGEMENT SYSTEM	SUPREMA / HID / SPECTRA / HONEYWELL
38	VISITOR MANAGEMENT WORKSTATION	DELL / HP / LENOVO
39	VISITOR ID PRINTER.	HP / EPSON / CANON
	T.C. TOTALD T IMPLEM	, 2.0011, 0.111011

	·	LINE
67	PROFESSIONAL DISPLAY / TV UNIT	SAMSUNG / SONY / PANASONIC / LG / NEW
66	LED DISPLAY BOARDS LARGE	PARTRONICS / DTEN / XTREMMEDIA
65	INFORMATION DISPLAY KIOSK	PARTRONICS / DTEN / XTREMMEDIA
64	PROJECTOR	CRISTIE / BARCO / PANASONIC / EPSON
	5.15225 & 661111261-0115	/ EXTHAR
63	AV CABLES & CONNECTORS	LIBERT / KRAMER / CRESTRON / HONEYWELL
62	AUDIO MIXING CONSOLE	YAMAHA / BOSE / SHURE / SCHEMICES
61	MICROPHONE	YAMAHA / BOSE / SHURE
60	WALL SPEAKER	JAMO / BOSE / TELOME / JBL
59	CEILING SPEAKER	JAMO / BOSE / TELOME / JBL
	AUDIO VIDEO SYSTEM	
58	RACK MONITORED PDU WITH RS-485	VALRACK / RITTAL / NETRACK
57	NETWORKING RACK	VALRACK / RITTAL / NETRACK
56	RECEIPTION CONSOLE UNIT	CISCO / CORAL / MATRIX
55	IP / SIP / ANALOGUE DESK PHONE	CISCO / CORAL / MATRIX
54	IP PBX / EPABX	CISCO / CORAL / MATRIX
53	FIRE WALL	CISCO / BARRACUDA / FORTINET
52	WIFI CONTROLLER	CISCO / HP / BELDON
51	WIFI ACCESS POINT	CISCO / HP / BELDON
50	NETWORK ROUTER	CISCO / HP / BELDON/ KRAMER / CRESTRON
49	VOICE GATEWAY	CISCO / HP / BELDON/ KRAMER / CRESTRON
48	FIBER SFP MODULES	CISCO / HP / BELDON/ KRAMER / CRESTRON
47	NETWORK SWITCH	CISCO / HP / BELDON / KRAMER / CRESTRON
	ICT NETWORKING ACTIVE SYSTEM	Signa disadente
46	FIBER DUPLEX PATCH CORD	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
45	LOADED FIBER LIU & ACCESORIES	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
44	OUTDOOR SINGLE MODE FIBER CABLE	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
43	CAT6/6A RJ45 IO WITH FACE PLATE	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
42	CAT6/6A PATCH CORDS	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
41	CAT6/6A LOADED PATCH PANEL	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
111	CAT6/6A CABLE	BELDON / SCHNEIDER / 3C3 / COMMSCOPE
40	ICT NETWORKING PASSIVE SYSTEM	

76	WATER TANK LEVEL TRANSMITTER	GREYSTONE / SETRA / NEXTECH / DWYER	
77	DIFFERENTIAL PRESSURE SWITCH	GREYSTONE / SETRA / NEXTECH / DWYER	
	(FILTER STATUS)		
78	CURRENT SWITCH	GREYSTONE / SETRA / NEXTECH / DWYER	
79	DUCT PRESSURE TRANSMITTER	GREYSTONE / SETRA / NEXTECH / DWYER	
80	WATER PRESSURE TRANSMITTER	GREYSTONE / SETRA / NEXTECH / DWYER	
81	WATER FLOW METER (M-BUS / MODBUS)	GREYSTONE / SETRA / NEXTECH / DWYER	
82	WATER MODULATING VALVE ACTUATOR	SETRA / NEXTECH / BELIMO	
	LIGHTING CONTROL		
83	OCCUPANCY SENSOR (US+PIR) CEILING	HAGER / HONEYWELL-MK / SCHNEIDER /	
03	/ PASSAGE MOUNT	STEINEL STEINEL	
84	LIGHTING CONTROLLER 8 CHANNEL	HAGER / HONEYWELL-MK / SCHNEIDER /	
		STEINEL	
85	KNX/LIGHTING CONTROL WIRE.	HAGER / HONEYWELL-MK / SCHNEIDER /	
		STEINEL	
	CABLES & TRAY		
86	ELV CABLES - SIGNAL &	POLYCAB / CALIPLAST / FINOLEX / HAVELLS /	
	COMMUNICATION	AVOCAB / HONEYWELL	
87	ELV CONDUIT METAL / PVC	AKG / BEC / PRESISION	
88	ELV CABLE TRAY	OBO / PROFAB / INDIANA	
89	VIDEO WALL	VESTEL / AET / SAUMSUNG	
1	Special Note: -	aliant hafaya Matayial daliyany / Evasytian at	
1	site.	client before Material delivery / Execution at	
2		Change the manufacture or approved make	
_	from the above list.	change the manaracture of approved make	
3	All the material should be ISI and as po	er standards mentioned in specifications and	
	BOQ.		
4		d to have support from OEM for minimum 10	
	Years with required spares.		
5	_ ,	ime shall be immediately informed to client /	
	consultant before order execution.		
6		se there is change in technical / functional	
	requirement by client.		

### **HVAC Make List**

	/lake List	
Sr No.	Material/ Item	Preferred Make
1	Air handling Units/ treated fresh air units / Ventilation Units	Systemair/ Flaktgroup/ Carrier/ Edgetech/ VTS/Citizen/ Zeco
2	Air Washer	Systemair/ Flaktgroup/ Carrier/ Edgetech/ VTS/Citizen/ Zeco
3	Air Separator	Xylem/ Emerald/ Anergy/ K D Agencies
4	Al. Sheets	Hindalco/ Balco/ Nalco
5	Aluminum tape	Johnson/ Birla-3M/ Nippon Industries
6	Anchor/ Fastener	Hilti/ Fisher/ MUPRO
7	Auto Air Vent	Anergy/ RapidControl/ SKS/ Sant Industries/ Honeywell/Castle
8	Balancing Valves	Advance/ Honeywell/ Danfoss/ T&A/ Flowcon
9	Ball Valves set with &without Y	Hanamall/Faranald/Zalata
10	Strainer For FCU Butterfly Valves	Honeywell/ Emerald/ Zoloto Audco/ Advance/ Honeywell
11	Ball Valve	Zoloto/ Honeywell/ Audco/ Emerald/ Rapid Control/ Castle
12	Cabinet Fans	Systemair/ Kruger/ Greenheck/Nicotra
13	Centrifugal Fans for ventilation/ AHUs/ Airwasher	Systemair/ Kruger/ Greenheck/Nicotra
14	Water chilling machine/ Auto tube cleaning/Chiller plant manager (CPM)	Carrier/Climaveneta/York/Trane/ Daikin/Blue star
15	Celdeck Pad	DRI/ Humidin/ Munters
16	Check Valves	Audco/ Advance/ Honeywell
17	Closed Cell Nitrile rubber insulation/ EPDM insulation	Armacell/ K- Flex/ Diamond Flex / Paramount
18	Closed Expansion Tank	Xylem/ Armstrong/ Reflex/ Sevcon/ Emerald/ Anergy
19	FRLS Cables	As per Electrical Section make list
20	Cooling Towers (CTI/ CERTIFIED)	Advance2020/ Bell / Paharpur
21	Differential Pressure Switch (Water)	Johnson/ Staefa/ Honeywell
22	DX units and VRF	Daikin/ Hitachi/ Toshiba/ Blue Star/ Mitsubishi Electric/ LG /carrier/Voltas/Samsung
23	Dry Scrubber	Trion/ Ryd Air/Humidin/ ESPAIR
24	EC Fan	ziehl-abegg/ Rosenberg/ Ebm-papst
25	Expansion Bellows/ Pipe Supports/ Vibration Isolators/ Duct Flexile Connections	Resistoflex/ Kanwal(Easyflex)/ Cori/ Flexionics

Sr No.	Material/ Item	Preferred Make
26	Fan coil Units / CHW Cassette AC / Split AC	Edgetech/ JCI/ Diakin/ Trane/Citizen/ Zeco/Carrier/Mideakubic
27	Filters (Pre, Fine, Hepa)	Dyna Filters/ American Air Filter/ Camfil/ Thermodyne / Frudenberg
28	Flexible Duct	Twiga/ RuskinTitus/ Atco/ Kimmco/ Sevenstar
29	Flow switch	Rapidcool/ Siemens/ Anergy/ Honeywell/ Danfoss
30	FRP Material	Reichhold/ Equivalent
31	Fibre glass insulation	Owens corning/ U. P. Twiga / Kimmco
32	Fire Paint	Flamebar / AMEETUFF/ 3M / promat/ JAY & CO-Cischem
33	G.I. Pipes	SAIL/ Tata/ Jindal(HISSAR)
34	G.I. Sheets / PPGL Sheets	SAIL/ Tata/ Jindal
35	Grills/ Diffusers/ Fire Dampers/ Louvers/ Volume Control Dampers/ Back Draft Dampers	Systemair/ Caryaire/ Cosmos/ Trox/ Greenheck / Ruskintitus
36	GSS Factory Fabricated Ducts/ Duct Flanges	Rolastar/Zeco/ Ductofab/ Asawa/Waves / GP Spira
37	Heat Pump	Carrier/ York/ Trane/ Daikin/ Bluebox
38	Inline Fans	Systemair/ Kruger/ Greenheck/ Humidin/ NicotraAir Flow / Wolter/Caryaire
39	M.S. Pipes	(i)SAIL/ Tata/ Jindal(HISSAR) (below 350 mm dia) (ii) SAIL/ Tata/MSL (above 350 mm dia)
40	M.S. Sheets	SAIL/ Tata/ Jindal
41	Motorized Actuator For Valves& Damper	Belimo/ Honeywell/ Siemens/ Johnson Controls
42	Motorized Butterfly valves	Honeywell/ Belimo/ Siemens/ Johnson controls/ Advance
43	Induction Motors	ABB/ Siemens/ CGL/ Bharat Bijlee//Marathon/Havells
44	Ozone Generator	Ultrafresh/ Eltech/ Omniscient/ Chemotronic/ Ruks engineers ltd / Faraday
45	PIBC Valves	Danfoss/ Siemens/Belimo/ Flowcon/ Oventrop
46	Plug Fans	Ziehlabegg/ Kruger/ Nicotra/ Greenheck/ Systemair
47	Pot Strainer	Advance/ Honeywell/ Emerald/ SANT/ SM/ Sandhu
48	Precision AC	Emerson/ Bluebox/ Flaktgroup/ stulz
49	Pressure Gauge	Fiebig/ H.Guru/ Emerald/ Dwayer

Sr No.	Material/ Item	Preferred Make
50	Pressure Relief Dampers	Trox/ Systemair/ Cosmos/ Caryaire/ Airflow Engineers/Greenheck
51	Pressurization Unit	Xylem/ Armstrong/ Reflex/ Sevcon/ Emerald/ Anergy
52	Propeller Fans	Kruger/ Greenheck/ Caryaire/ Systemair/ Crompton/Nicotra/Air Flow/ Wolter
53	Puff pipe support	Malanpur/ Lloyd/ Beardsell/Alaska/ ShethInsulation
54	PVC Eliminators	Munterz/ BKBextrusions/ D.P. Engineers/ Enviro Tech
55	PVC Pipes	Finolex/ Prince/ Supreme/ Ashirwad/ Astral
56	Refrigerant Piping	Mandev/ Mexflow/ Rajco
57	Rock Wool insulation	Roxul-Rockwool/ Rockwoolindia/ Lloyd/ Owens corning
58	Spiral Round/ Oval ducts	GPSpira/ Dustech/ SpiralTubes/ Asawa
59	Split/ Window AC	Carrier/ Daikin/ Hitachi/ Mitsubishi/ Blue Star/Voltas/Lloyd/Toshiba
60	Starbond/ Lag Protective Coating	Paramount polytreat/ Pidilite
61	Thermometers	Feibig/ H.Guru/ Emerald/ Dwayer
62	Pre-insulated Pipes	Perma / Severnstar / Zeco
63	Engineering Dehumifier	Condair/Bryair/Munters
64	Ultrasonic/ Electromagnetic Flow meter	ABB/ Siemens/ Emerson/ Kamstrup/ Virtec/L&G
65	Ultrasonic Humidifier	Carel/ Daspass/ Radipcool/ Stulz
66	UV lamp	AlfaaUV/ Aeropure/ Sanuvox/ Ruks
67	Vane/Tube Axial flow Fans	Kruger/ Greenheck/ Systemair/Nicotra
68	Variable frequency drive	ABB/ Allenbradley/ Danfoss/ Siemens/ Schneider/ L & T
69	VAV/ CAV Boxes	Trox/ Trane/ JohnsonControls/ Honeywell/ Systemair/ Cosmos/ Carryaire
70	Flexible Coupling	Victaulic/ Tyco
71	Water Pumps	Armstrong/ Xylem/ Grundfos
72	Welding Rods	Advani/ L&T/ ESAB
73	Steel Wire Rope Support	Gripple / Conklin / HILTI
74	Y-Strainers / Suction Guide	Advance/ Honeywell/ Emerald/ SANT
75	2-way/ 3-way Modulating Valves and Thermostat	Johnson Controls/ Siemens/ Honeywell/ Danfoss/ Oventrop / Belimo
76	Active/ passive Harmonic filter for VFD	L&T/ EPCOS/ Schneider/ Danfoss/ ABB

Sr No.	Material/ Item	Preferred Make	
	(Except for Chiller VFD)		
77	FCU Manifold Kit	Caleffi / TA / Oventrops	
78	Fabric Ducts	Prihoda/Nutech/FabricSox	
Note:-All electrical items makes to be considered from electrical list of makes			

#### Notes: -

Makes/ Models of items of all fixtures/ Items/ Materials must be got approved from the Engineer in charge well before placing any order to the OEM/ its authorized dealer. The contractor/ agency is required to submit all relevant test certificates documents and along with the proposal. The decision of Engineer-in-charge is binding in this regard and no variation is acceptable.

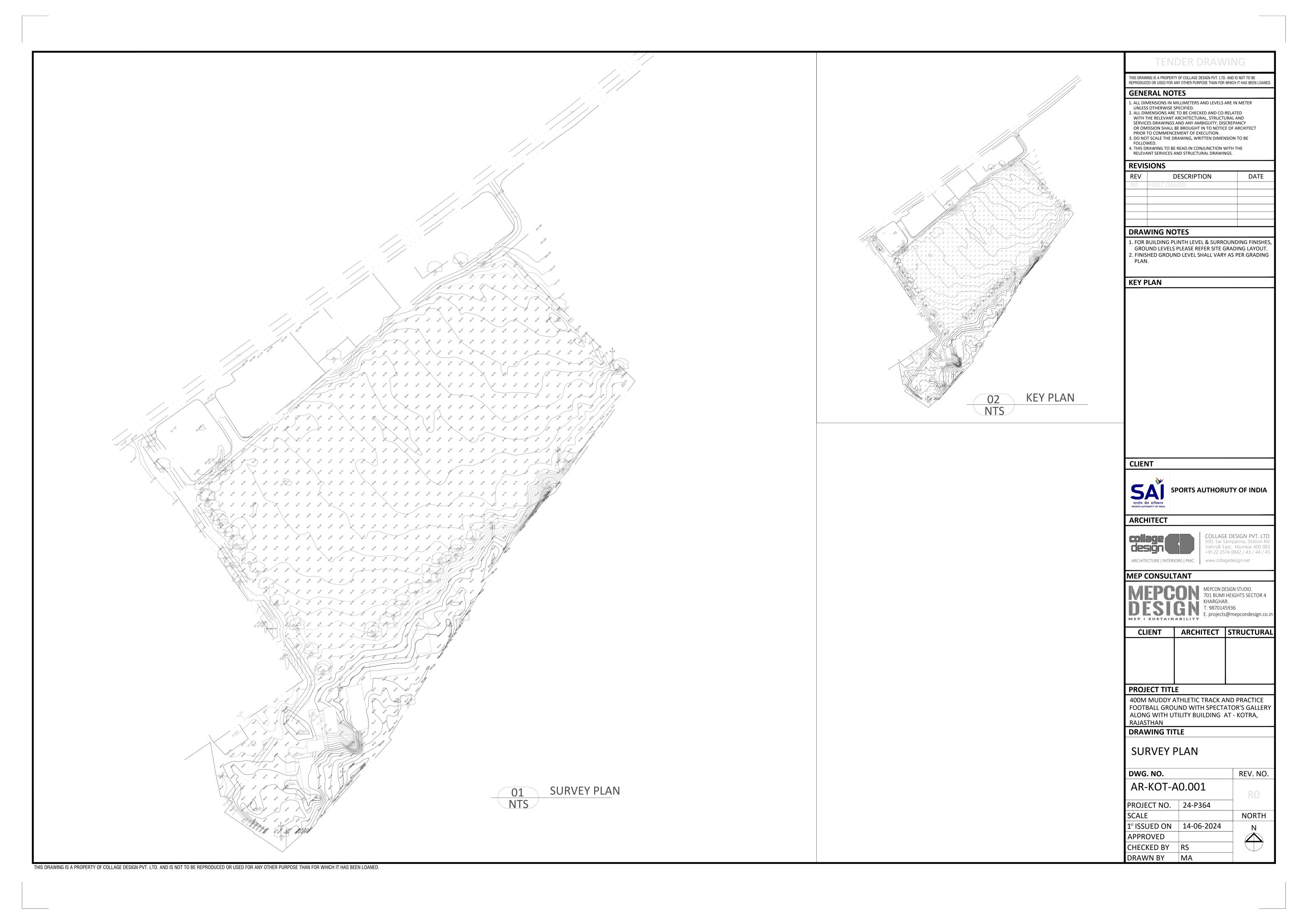
Procurement of item with aesthetic value and visibility shall be on prior approval of Architect and Engineer in charge for specific area of application.

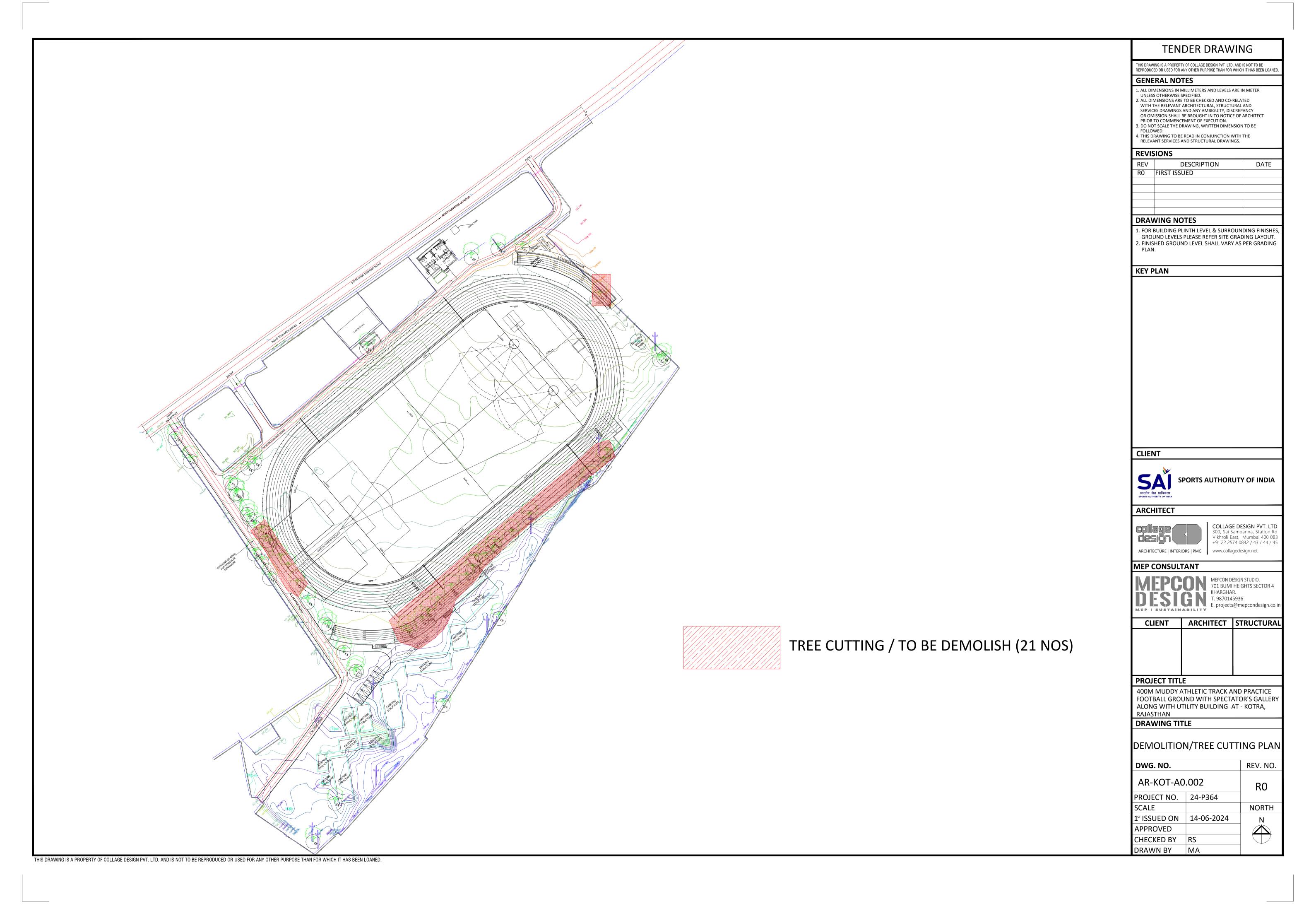
In case of products not indicated in this list, BIS/ IS marked products shall be preferred.

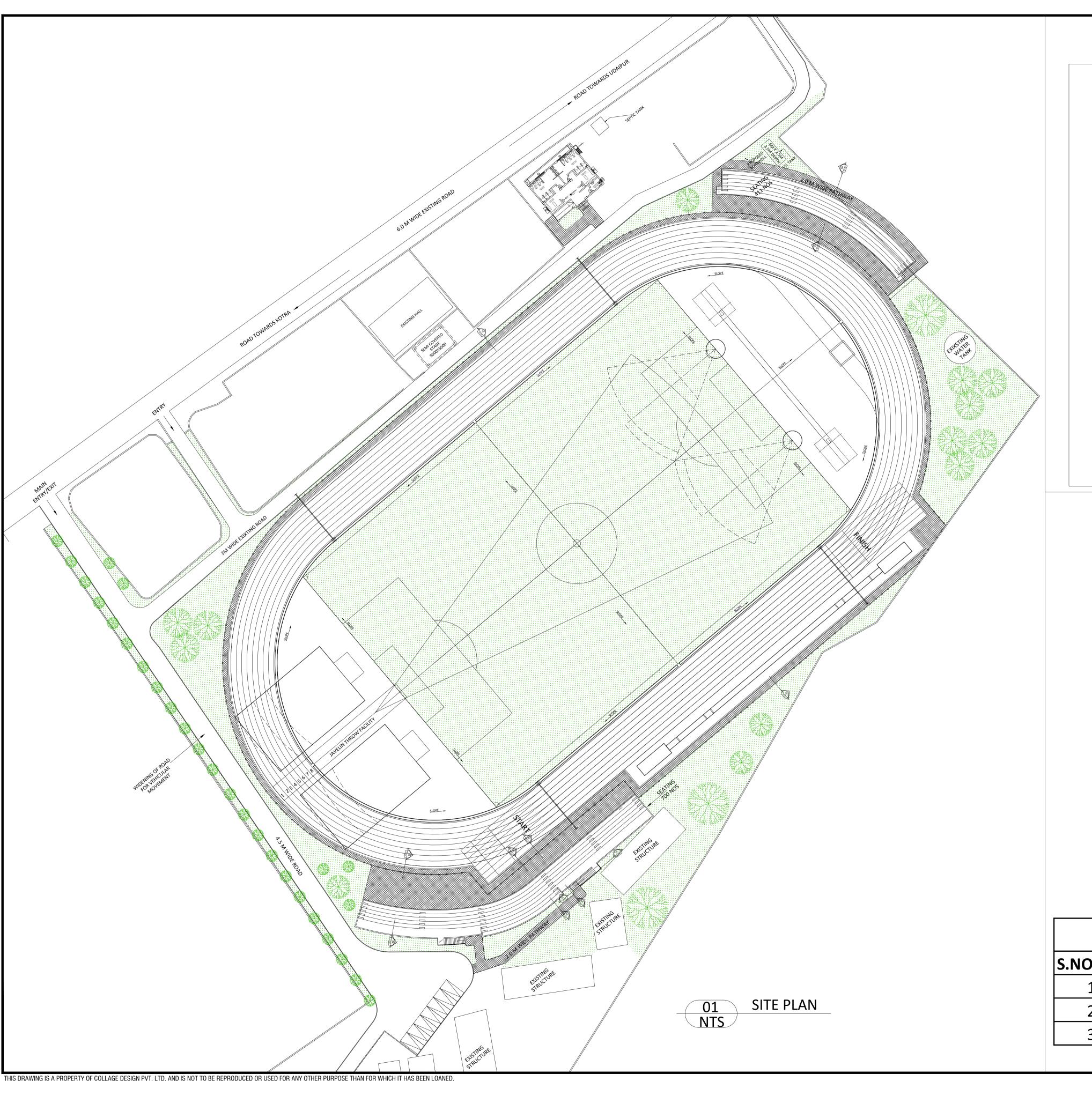
For "Equivalent Make" mentioned for the items in Make List: Contractor is required to submit detailed specification of the proposed make for BOQ item, which shall be considered/approved by the Engineer-in-Charge after evaluating performance of the equipment in consultation with Group of Experts. Necessary documents in support of the same shall be submitted before procurement to Engineer in Charge for approval.

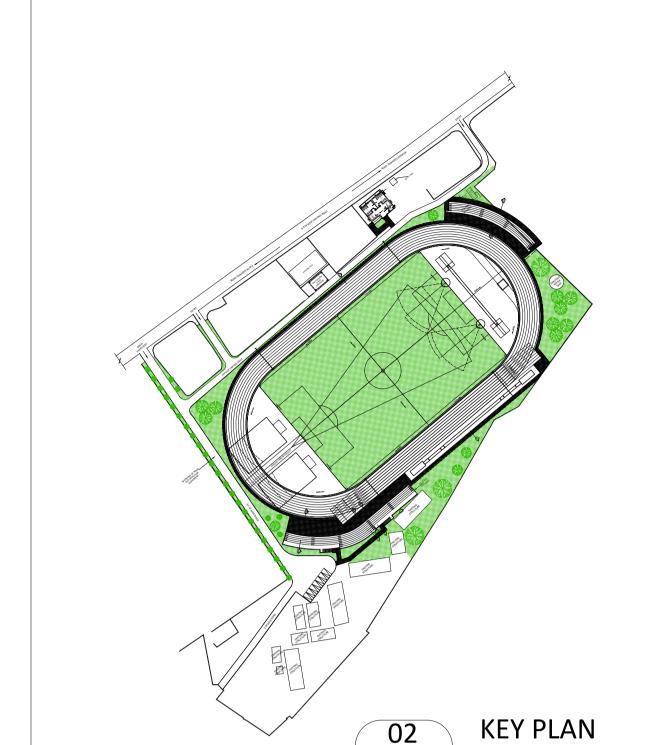
	LIST OF APPROVED MAKES FOR FIRE FIGHTING			
Sr No.	Item	MAKE		
1	Diesel Engine Pumps	Kirloskar / Lubi/Armstrong /Grundfos		
2	Elecrical Pumps	Kirloskar / Lubi/Armstrong /Grundfos		
3	Jockey Pumps	Kirloskar / Lubi/Armstrong /Grundfos		
4	Pressure Switches	Danfoss / Indfoss / Varie		
5	OS & Y Valve with Ductile Iron Body,	Sant / L&T / Audco		
6	Cast Iron Y type strainer	Sant / L&T / Audco		
7	D.I. Butterfly Valve	Sant / L&T / Audco		
8	Wafer type double flanged ball type non return valve	Rapidrop / Viking / Victualic / Sant		
9	Pipes	Jindal / TATA / Surya		
10	Structrual Steel	ISI Marked		
11	Tube type Flowmeter of size 150 NB	Rapidrop / Viking / Victualic / Sant		
12	Pressure Relief Valve with waste cone	Sant / L&T / Audco		
13	Circulation relief valve pressure not less than 20 bar	Zoloto/Sant/Viking		
14	Hydrants System Accessories	NEWAGE GUJARAT / MINIMAX / EVERSAFE / Sant / L&T / Audco		
15	Hose Box	NEWAGE GUJARAT / MINIMAX / EVERSAFE / Sant / L&T /		

		Audco
16	Sprinklers, Flexible, Flowswitch and Accessories	NEWAGE GUJARAT / RAPIDROP / VIKING / VICTAULIC / Sant / L&T / Audco
17	Flexible Droppers	NEWAGE GUJARAT / RAPIDROP / VIKING / VICTAULIC Sant / L&T / Audco
18	Test and Drain	NEWAGE GUJARAT / RAPIDROP / VIKING
19	Cables	FINOLEX / RR KABLE / AVOCAB / HAVELLS/ POLYCAB / KEI
20	Portable Fire Extinguishers	Safeguard/Ceasefire/Minimax
21	4 - Way Siamese connection tank inlet connection with built-in NRV connecting 150 NB pipe.	NEWAGE GUJARAT / MINIMAX / EVERSAFE
22	RCC foundation supports (0.2 cu.m per support)for A/G Pipes complete with concrete grade M20 including cost of fine aggregate, coarse aggregate, cement, water , form work, steel reinforcement MS Flats, U bolts & nuts, painting material, ms supports etc complete as per drawing.	As per specification and drawing
23	Coating and Wrapping	PYPEKOTE/RUSTEK/COATEK
24	Orifice Plate SS 304 thickness	Local Manfactured
25	NP2 class pipes	Indian Hume Pipe / Alcock / Jain spun pipe / Pragati / Daya spun pipe
26	Pressure relief valve of 25mm MOC-Brass PN 20 rating UL/FM Listed	Rapidrop / Viking / Victualic
27	Water cum foam Monitor ar for throw range minimum 53m and with foam pickup tube.	NEWAGE GUJARAT / MINIMAX / EVERSAFE
28	MCC Panel	Kirloskar/Lubi/Munilekelectric
29	Non Return Valve	Rapidrop / Viking / Victualic / Sant / L&T / Audco
30	Pressure Relief Valve, Circulation Relief Valve	Rapidrop / Viking / Victualic / Sant
31	Pressure Guages	H Guru/ Wiki/ Feibg
32	DI Threaded Fittings UL&FM	NVR / Viking / Victualic / Rapidrop / Sant / L&T / Audco
33	Butt Weld Fittings	Zoloto / VS / Culcutta tubes & valves / Unik
34	Gas Leak Detectos and Ammonia Detectors	Schrack/Ambetronics









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- 4. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE RELEVANT SERVICES AND STRUCTURAL DRAWINGS.

### **REVISIONS**

REV	DESCRIPTION	DATE
R0	FIRST ISSUED	

### DRAWING NOTES

1. FOR BUILDING PLINTH LEVEL & SURROUNDING FINISHES, GROUND LEVELS PLEASE REFER SITE GRADING LAYOUT. 2. FINISHED GROUND LEVEL SHALL VARY AS PER GRADING

### **KEY PLAN**

CLIENT



# ARCHITECT



COLLAGE DESIGN PVT. LTD 300, Sai Sampanna, Station Rd Vikhroli East, Mumbai 400 083 +91 22 2574 0842 / 43 / 44 / 45

## MEP CONSULTANT

MEPCON DESIGN STUDIO. 701 BUMI HEIGHTS SECTOR 4 KHARGHAR.

CLIENT	ARCHITECT	STRUCTURAL

# PROJECT TITLE

400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND WITH SPECTATOR'S GALLERY ALONG WITH UTILITY BUILDING AT - KOTRA, RAJASTHAN

# **DRAWING TITLE**

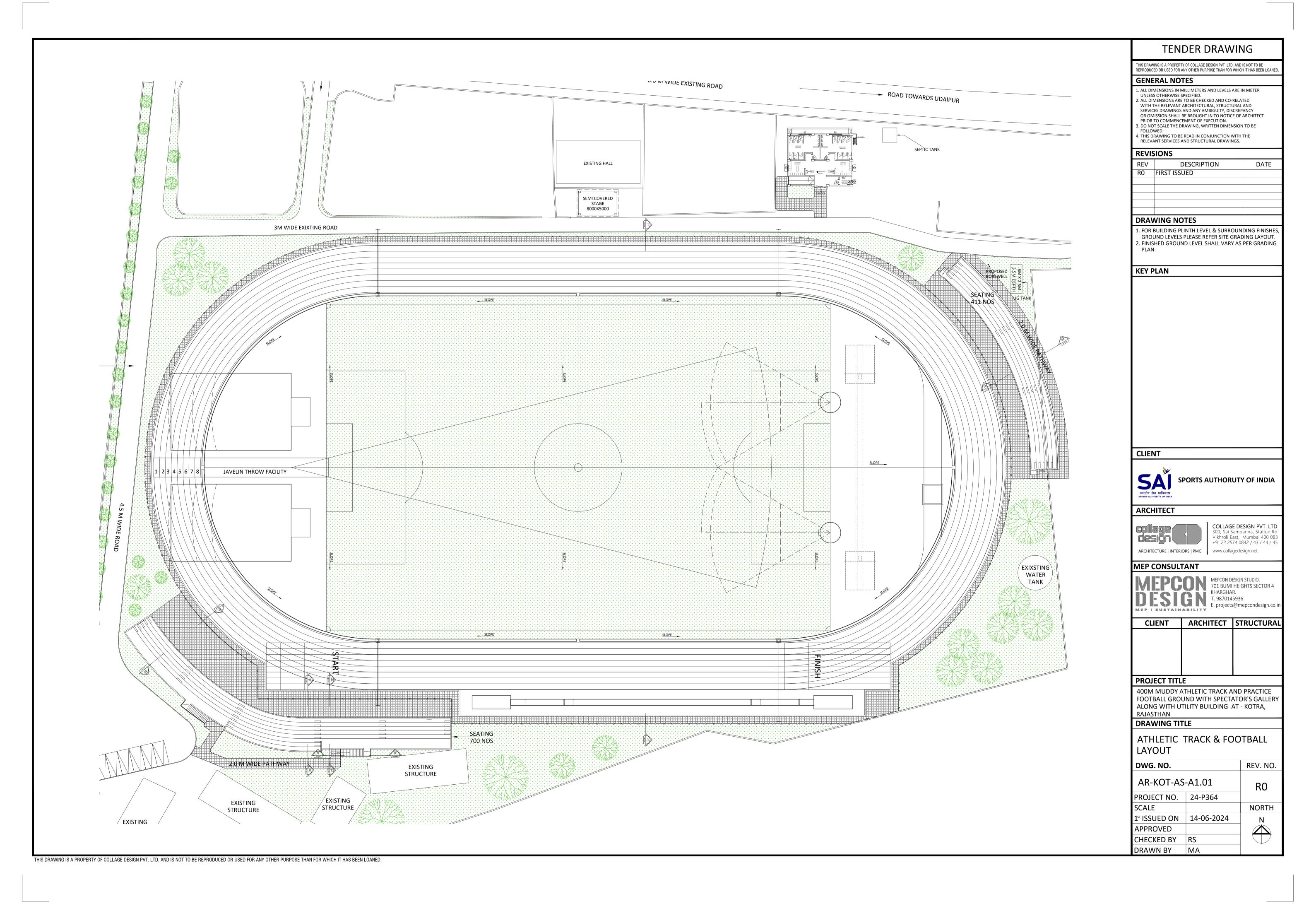
AREA CHART				
.NO	DESCRIPTION	AREA	UNIT	
1	FACILITY BUILDING	148.7	SQM	
2	SEATING STAND-1	522.4	SQM	

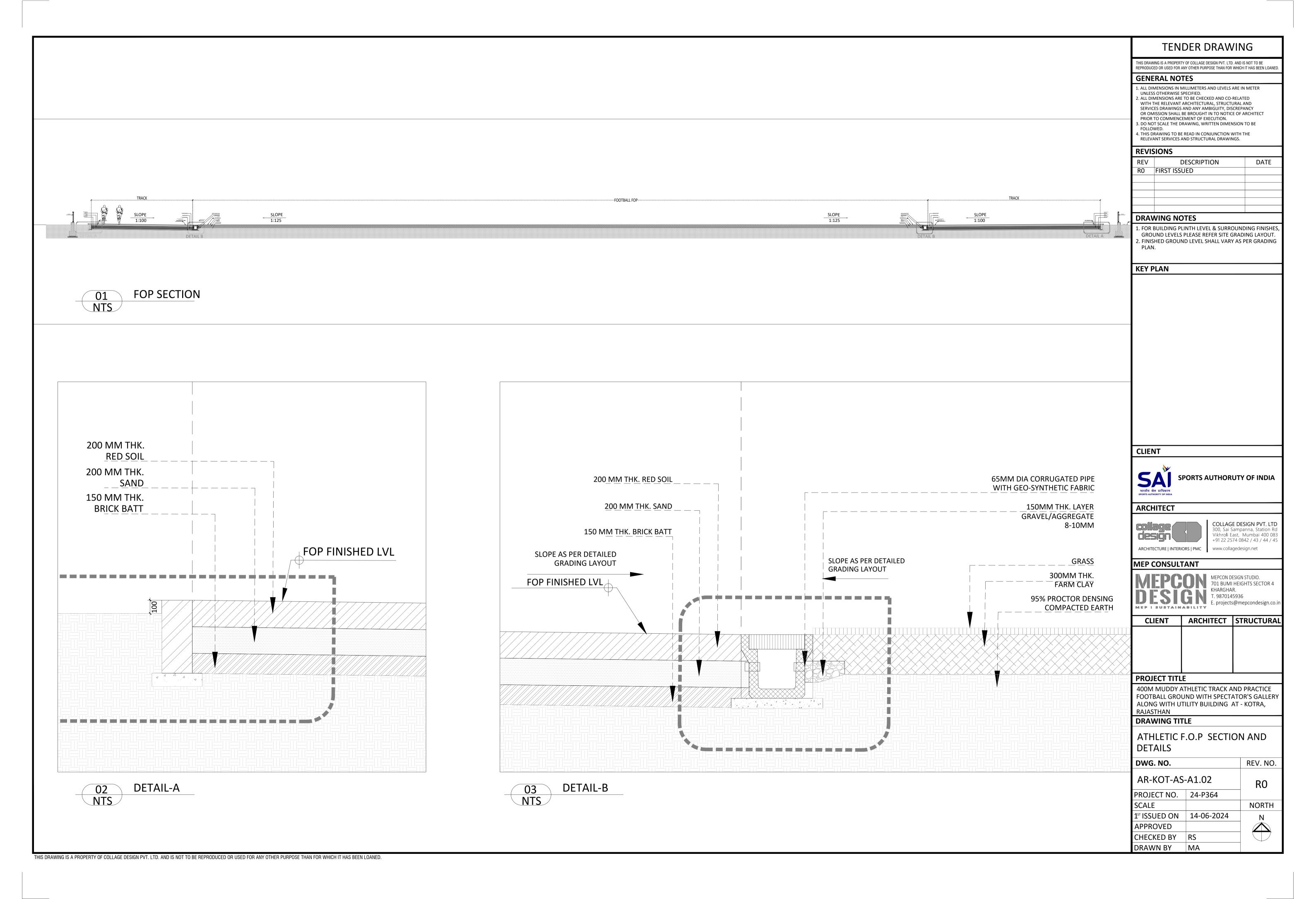
SEATING STAND-2

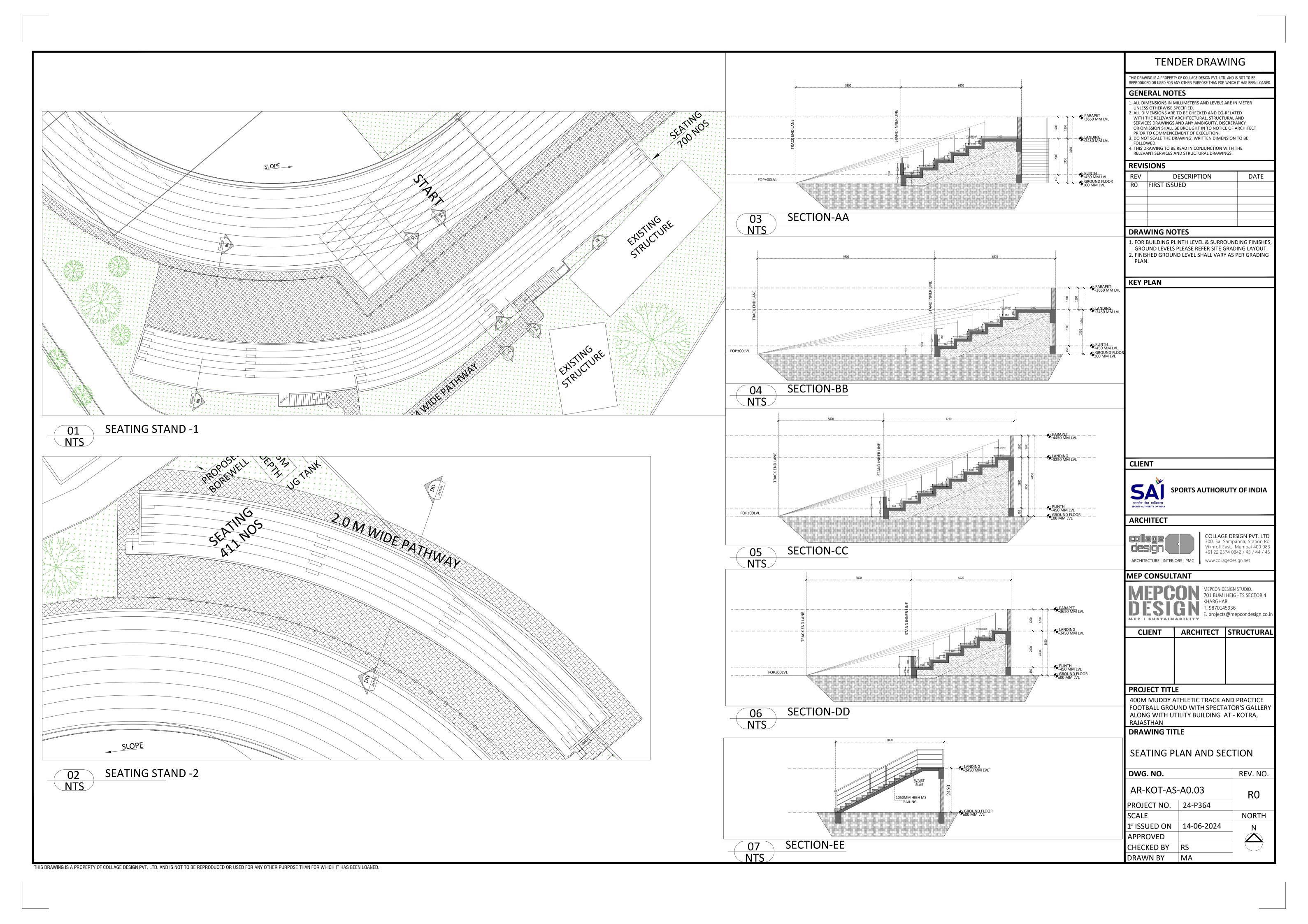
T	Ε	PLAN	

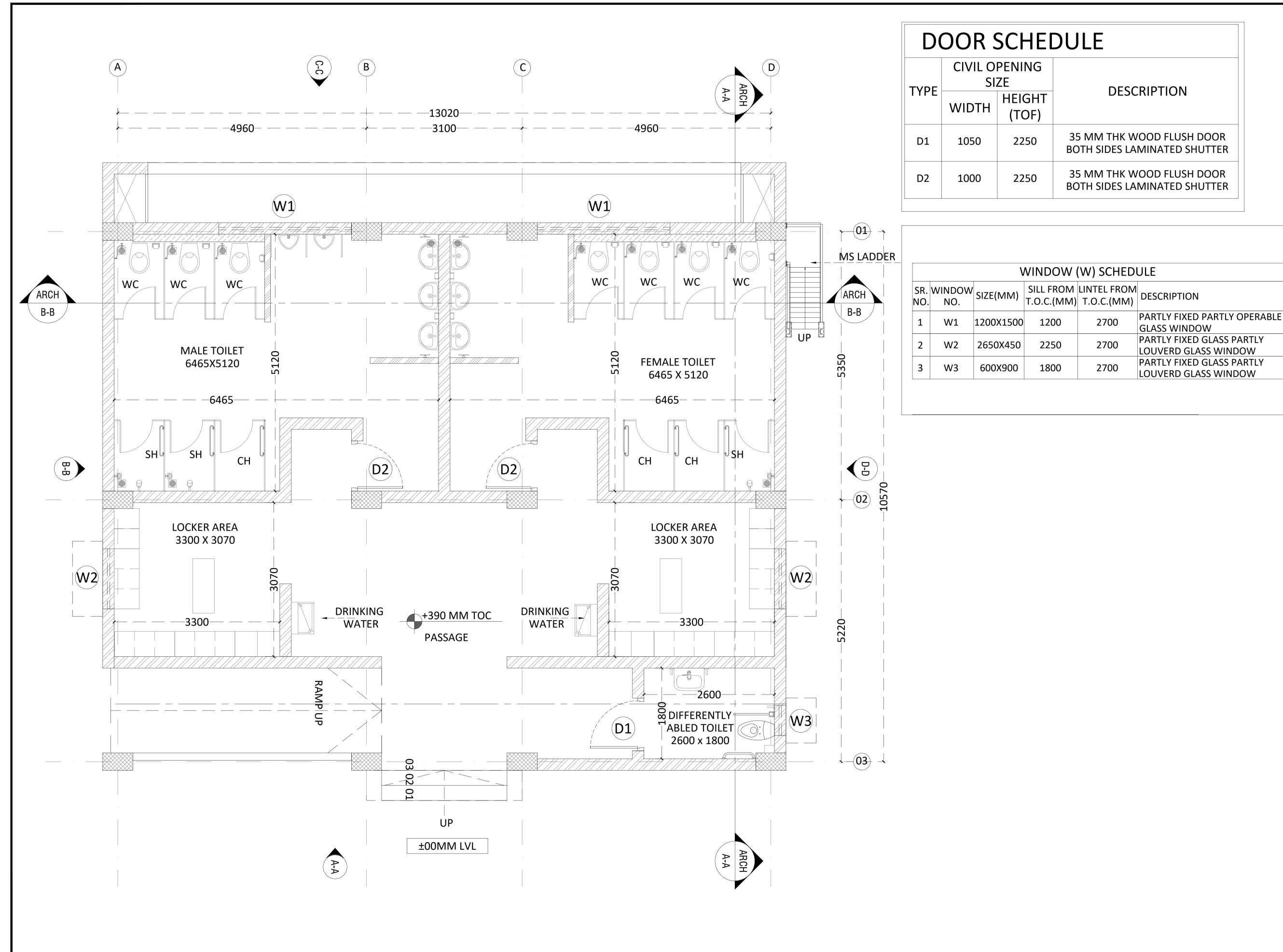
SQM

DWG. NO.		REV. NO.
AR-KOT-A0	RO	
PROJECT NO.	24-P364	110
SCALE		NORTH
1 <sup>ST</sup> ISSUED ON	14-06-2024	N
APPROVED		
CHECKED BY	RS	
DRAWN BY	MA	









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## REVISIONS

REV	DESCRIPTION	DATE
R0	FIRST ISSUED	

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# **KEY PLAN**

CLIENT



SPORTS AUTHORUTY OF INDIA

ARCHITECT



COLLAGE DESIGN PVT. LTD 300, Sai Sampanna, Station Rd Vikhroli East, Mumbai 400 083 +91 22 2574 0842 / 43 / 44 / 45 www.collagedesign.net

MEP CONSULTANT



MEPCON DESIGN STUDIO. 701 BUMI HEIGHTS SECTOR 4 E. projects@mepcondesign.co.in

ARCHITECT	STRUCTURAL
	ARCHITECT

# PROJECT TITLE

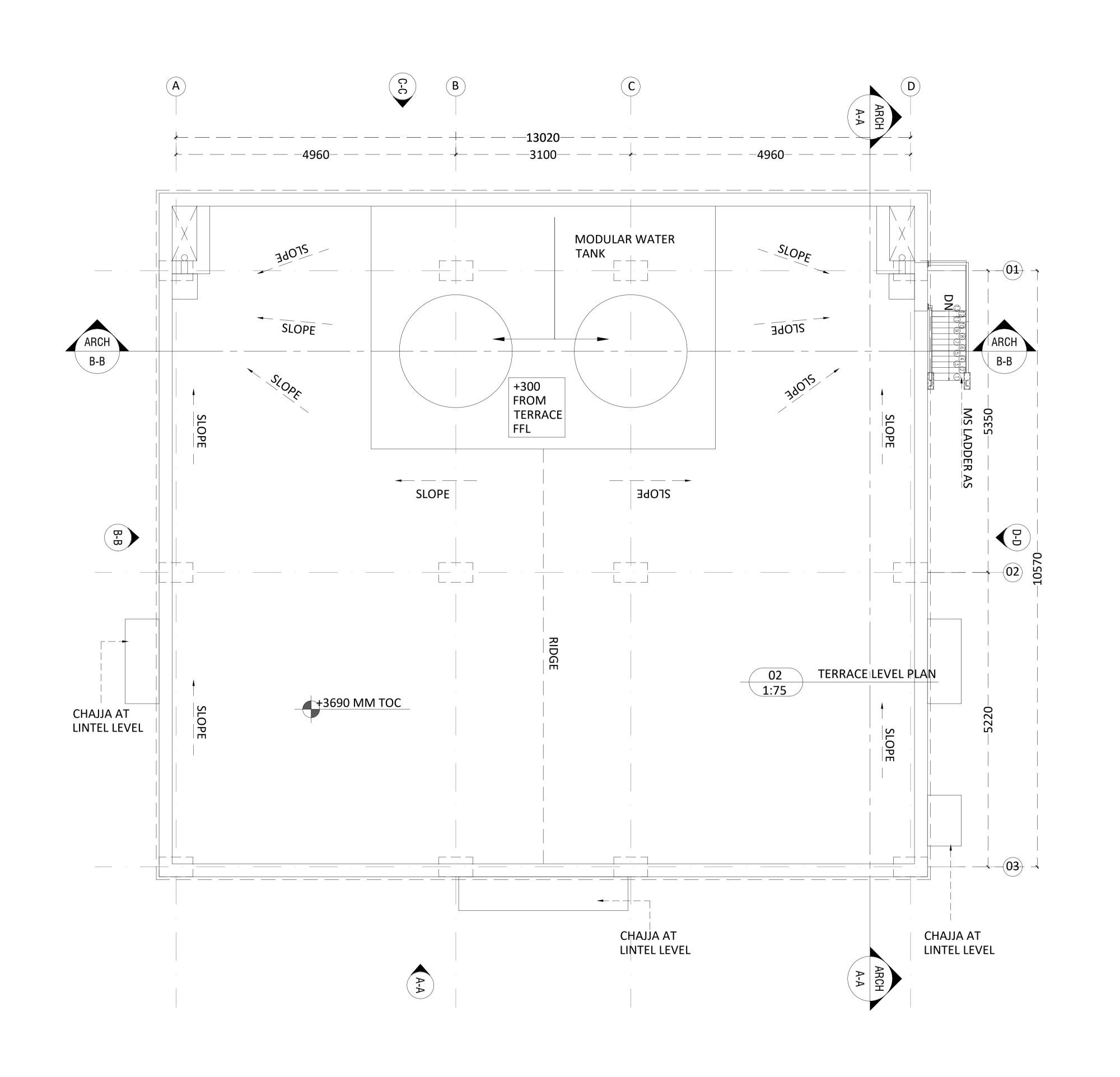
400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND WITH SPECTATOR'S GALLERY ALONG WITH UTILITY BUILDING AT - KOTRA, RAJASTHAN

# DRAWING TITLE

GROUND FLOOR PLAN

DWG. NO.		REV. NO.
AR-KOT-AS-A1	RO	
PROJECT NO.	24-P364	
SCALE		NORTH
1 <sup>ST</sup> ISSUED ON	14-06-2024	N
APPROVED		
CHECKED BY	RS	
DRAWN BY	MA	

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4. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE RELEVANT SERVICES AND STRUCTURAL DRAWINGS.

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KEVISIONS		
REV	DESCRIPTION	DATE
R0	FIRST ISSUED	

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## **KEY PLAN**

## CLIENT



SPORTS AUTHORUTY OF INDIA
भारतीय खेल प्राधिकरण
sports Authority of India

## ARCHITECT



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## MEP CONSULTANT



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CLIENT	ARCHITECT	STRUCTURAL

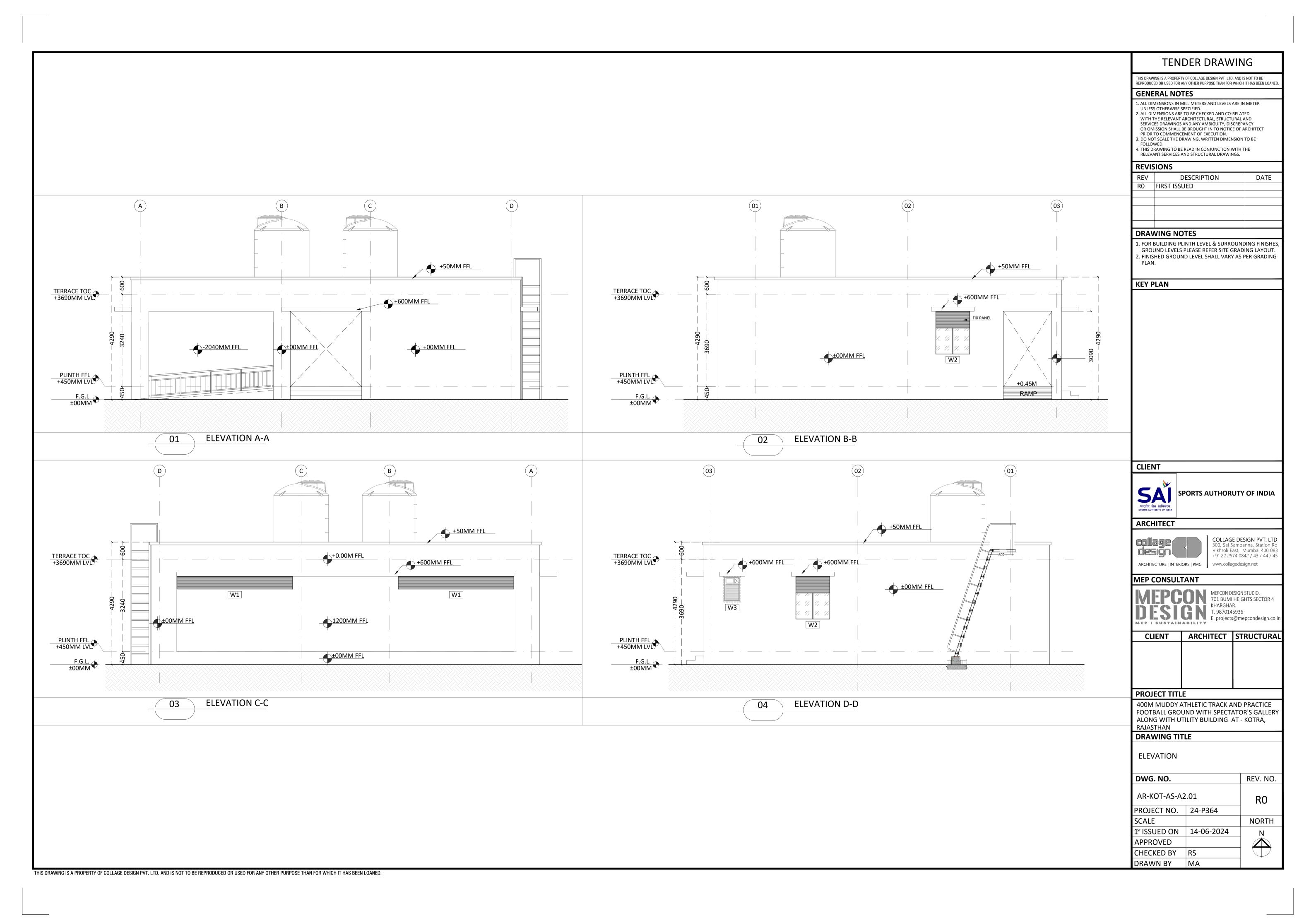
## PROJECT TITLE

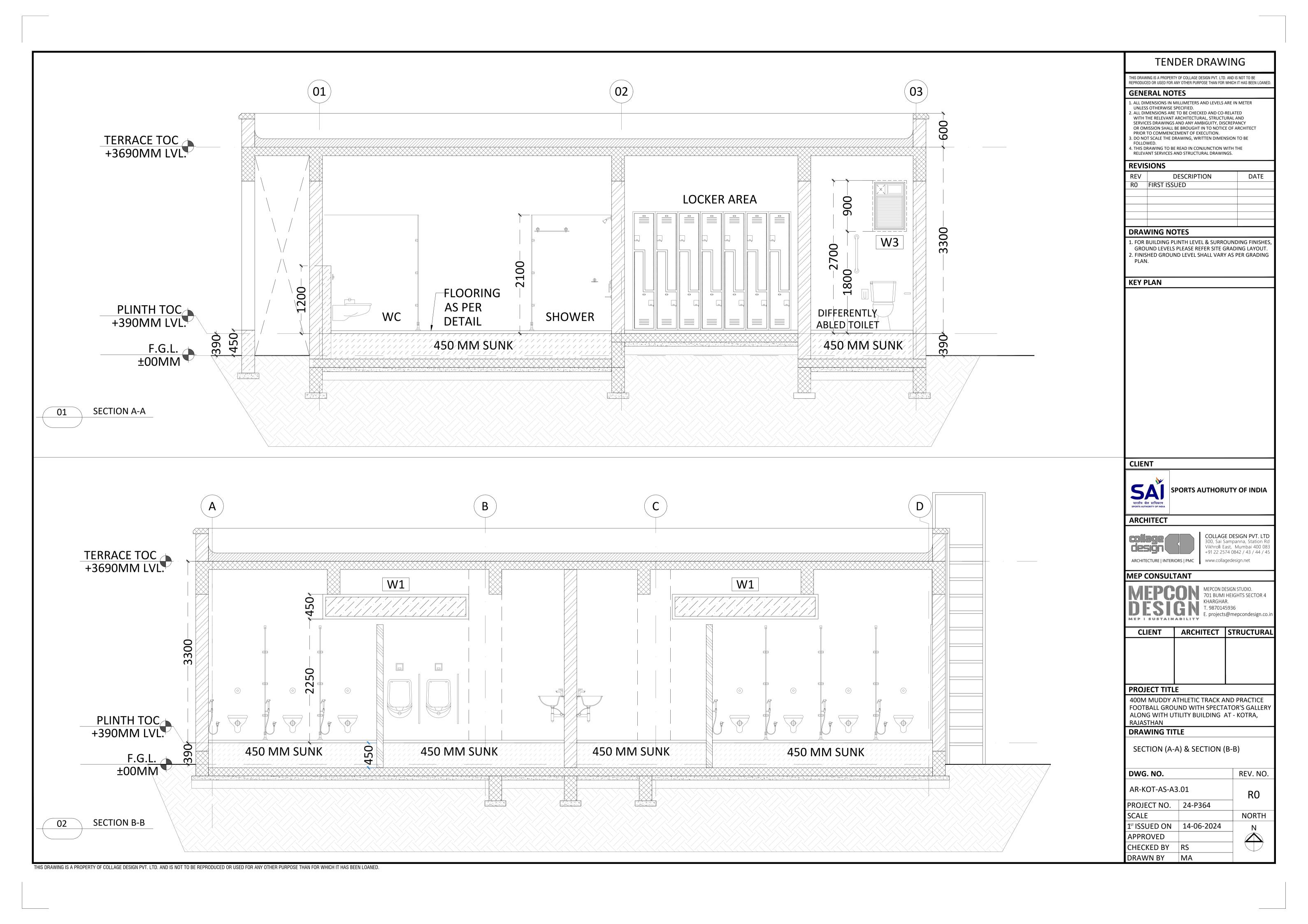
400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND WITH SPECTATOR'S GALLERY ALONG WITH UTILITY BUILDING AT - KOTRA, RAJASTHAN

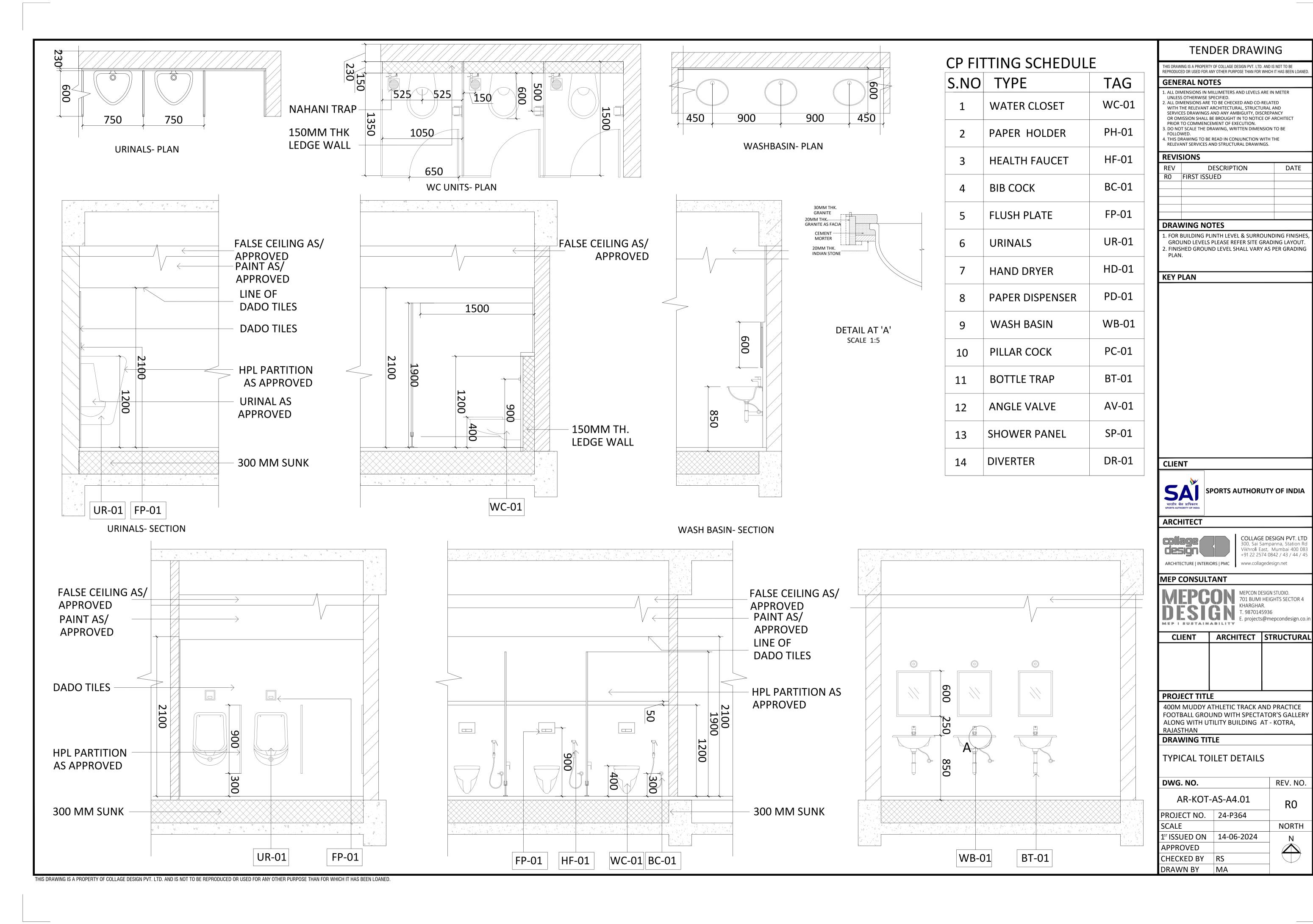
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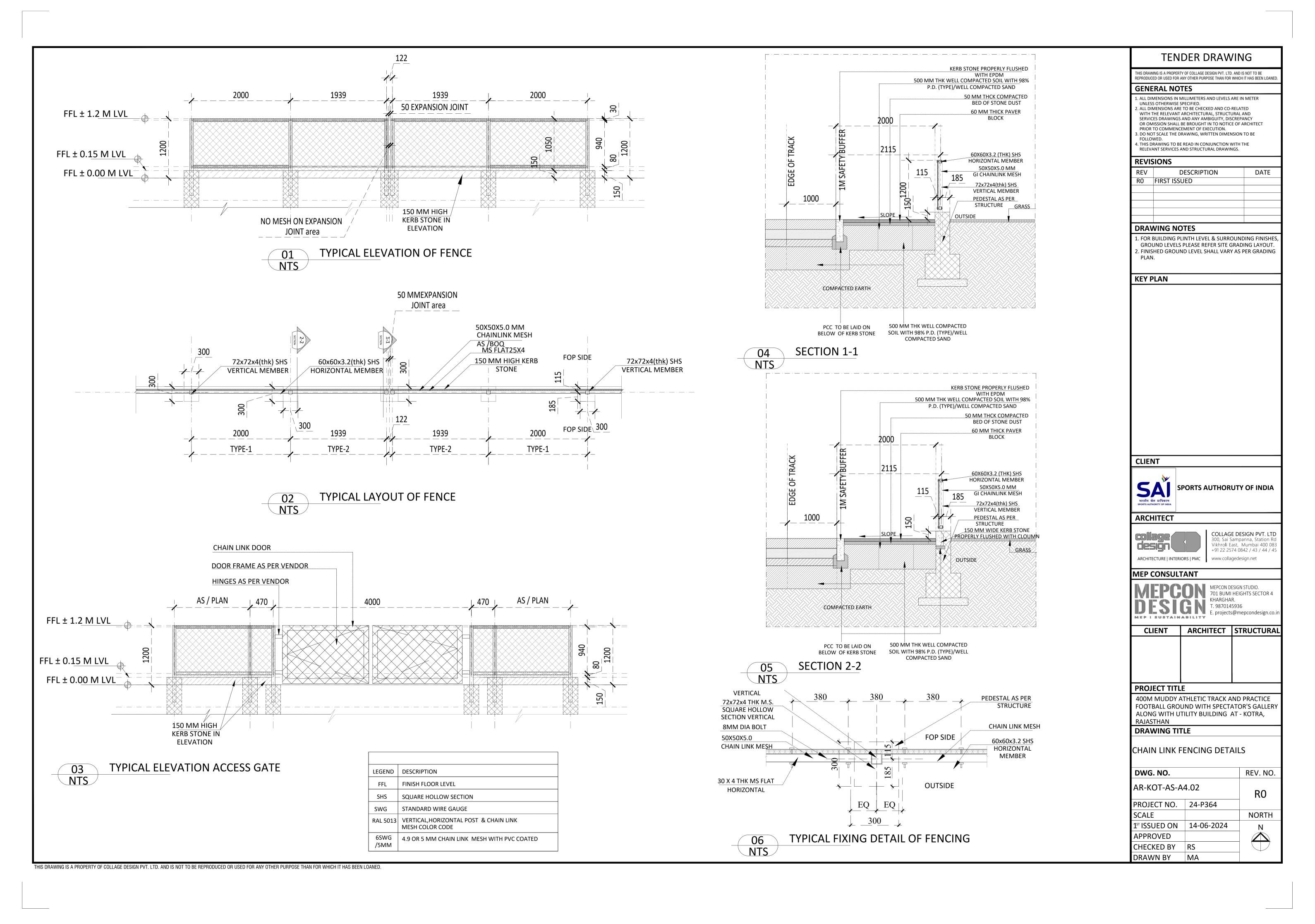
TERRACE PLAN

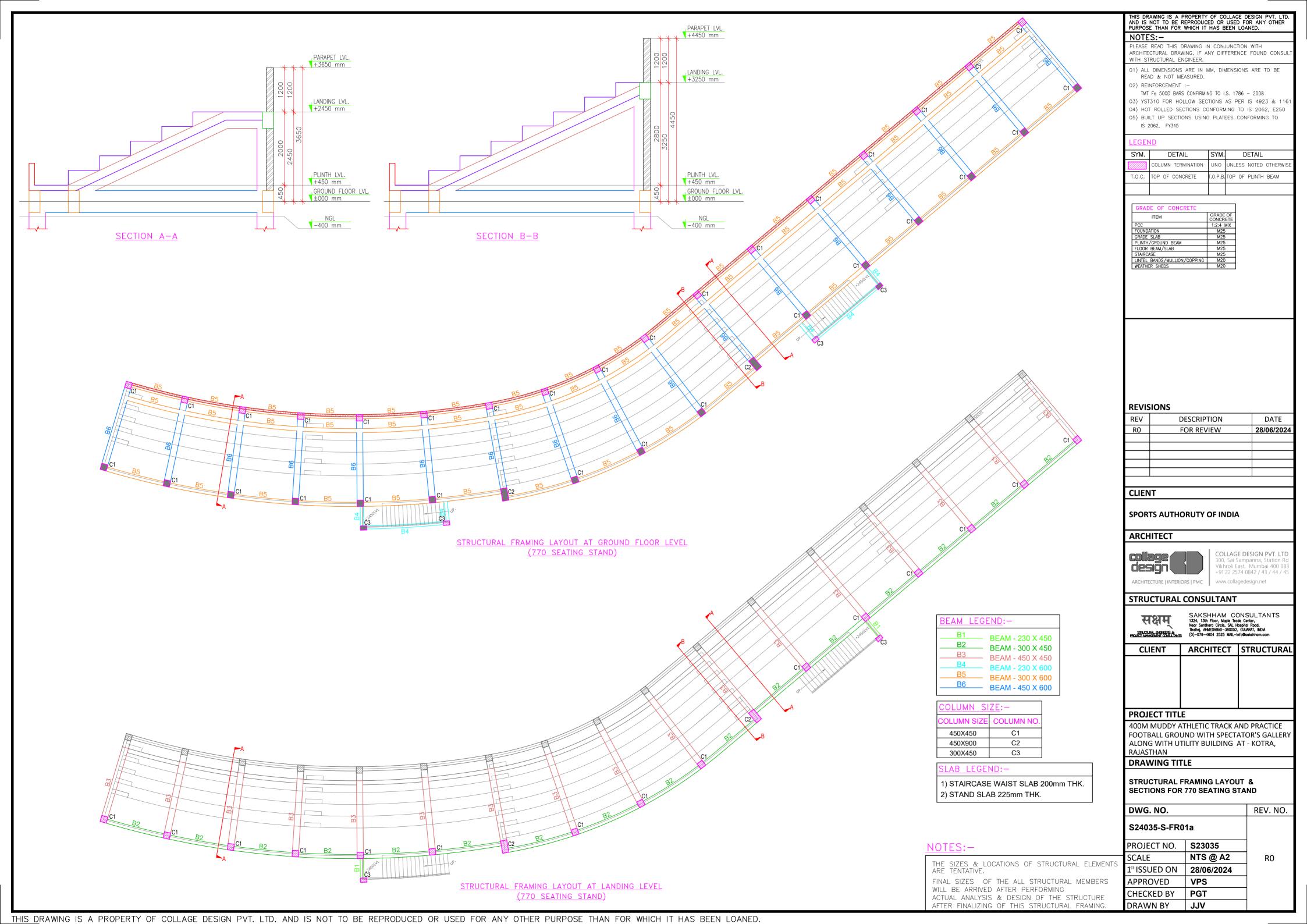
DWG. NO.		REV. NO.
AR-KOT-AS-A1	R0	
PROJECT NO.	24-P364	
SCALE		NORTH
1 <sup>ST</sup> ISSUED ON	14-06-2024	N
APPROVED		
CHECKED BY	RS	
DRAWN BY	MA	

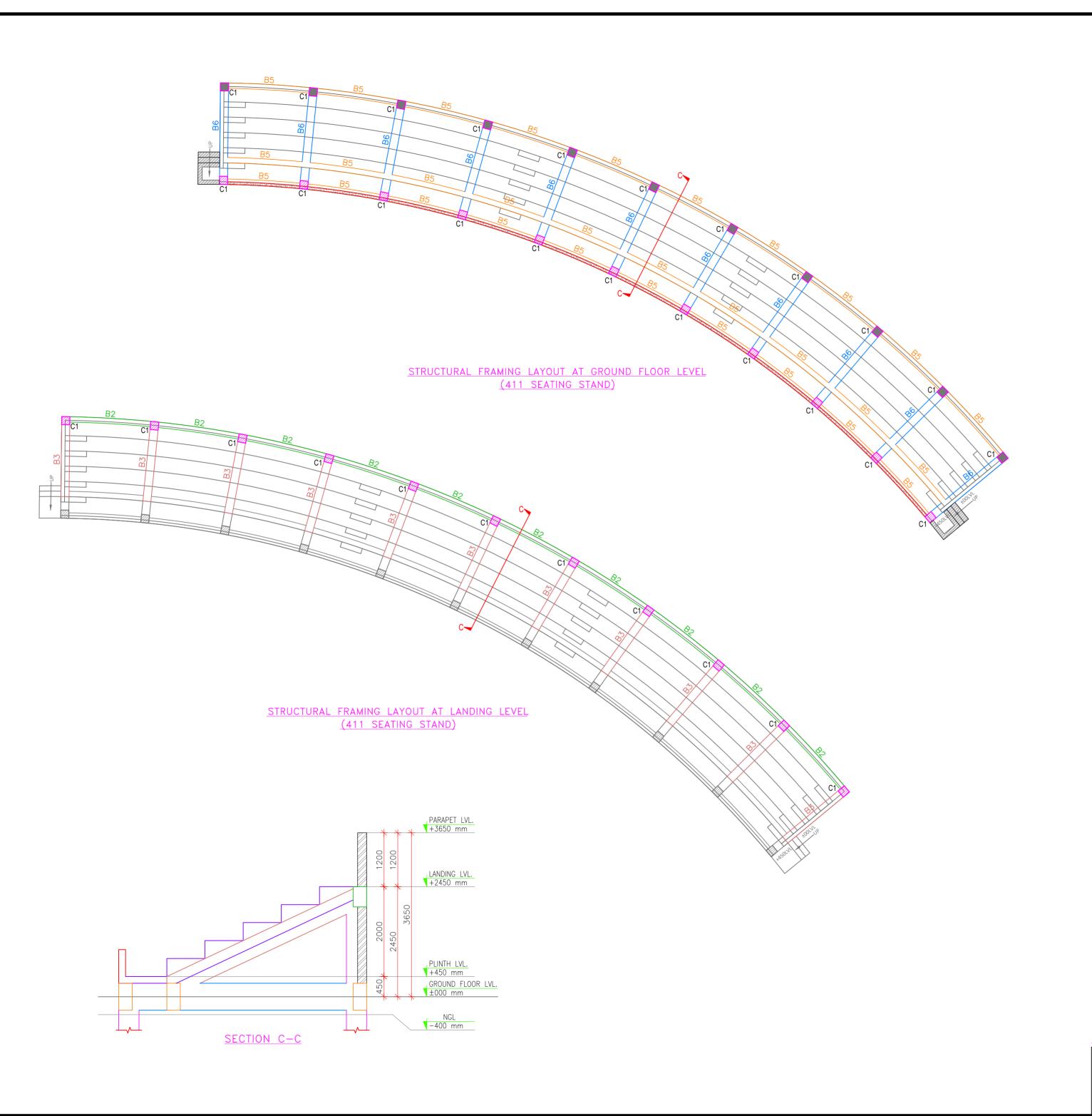












EAM LEGEND:-BEAM - 230 X 450 B2 BEAM - 300 X 450 B3 BEAM - 450 X 450 BEAM - 230 X 600 B5 BEAM - 300 X 600 B6 BEAM - 450 X 600

OLUMN SIZ 450X450 C1 450X900 C2 300X450 C3

#### LAB LEGEND:

1) STAIRCASE WAIST SLAB 200mm THK. 2) STAND SLAB 225mm THK.

READ & NOT MEASURED. 02) REINFORCEMENT :-TMT Fe 500D BARS CONFIRMING TO I.S. 1786 - 2008 03) YST310 FOR HOLLOW SECTIONS AS PER IS 4923 & 1161

PLEASE READ THIS DRAWING IN CONJUNCTION WITH ARCHITECTURAL DRAWING, IF ANY DIFFERENCE FOUND CONSUL WITH STRUCTURAL ENGINEER.

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01) ALL DIMENSIONS ARE IN MM, DIMENSIONS ARE TO BE

04) HOT ROLLED SECTIONS CONFORMING TO IS 2062, E250 05) BUILT UP SECTIONS USING PLATEES CONFORMING TO

IS 2062, FY345 <u>LEGEND</u>

SYM.	DETAIL	SYM.	DETAIL
	COLUMN TERMINATION	UNO	UNLESS NOTED OTHERWISE
T.O.C.	TOP OF CONCRETE	T.O.P.B.	TOP OF PLINTH BEAM

GRADE OF CONCRETE	
ITEM	GRADE OF CONCRETE
PCC	1:2:4 MIX
FOUNDATION	M25
GRADE SLAB	M25
PLINTH/GROUND BEAM	M25
FLOOR BEAM/SLAB	M25
STAIRCASE	M25
LINTEL BANDS/MULLION/COPPING	M20
WEATHER SHEDS	M20

#### REVISIONS

REV	DESCRIPTION	DATE
R0	FOR REVIEW	28/06/2024

### CLIENT

### **SPORTS AUTHORUTY OF INDIA**

### **ARCHITECT**



COLLAGE DESIGN PVT. LTD 300, Sai Sampanna, Station Rd Vikhroli East, Mumbai 400 083 +91 22 2574 0842 / 43 / 44 / 45 www.collagedesign.net

REV. NO.

R0

### STRUCTURAL CONSULTANT

SAKSHHAM CONSULTANTS 1324, 13th Floor, Mople Trade Center,
Near Surdhara Circle, SAL Hospital Road,
Thatles, AMEDABAN-380052, GUARAT, INDIA
(0)-079-4604 2525 MAIL-info@sakshham.cor

CLIENT	ARCHITECT	STRUCTURAL

### PROJECT TITLE

DWG. NO.

400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND WITH SPECTATOR'S GALLERY ALONG WITH UTILITY BUILDING AT - KOTRA, RAJASTHAN

### **DRAWING TITLE**

S24035-S-FR01b

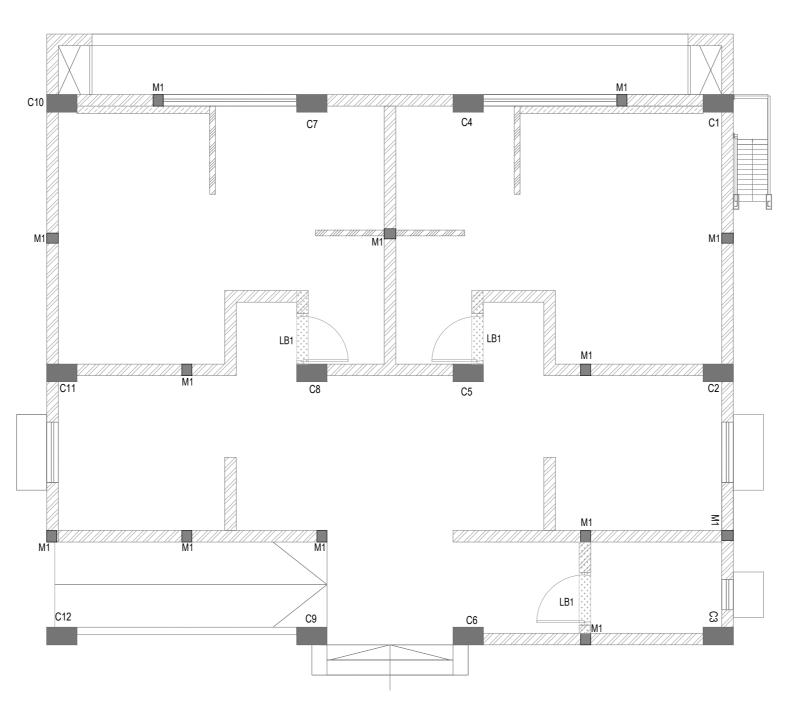
#### STRUCTURAL FRAMING LAYOUT & **SECTIONS FOR 411 SEATING STAND**

PROJECT NO.	S24035
SCALE	NTS @ A2
1 <sup>ST</sup> ISSUED ON	28/06/2024
APPROVED	VPS
CHECKED BY	PGT
DRAWN BY	JJV

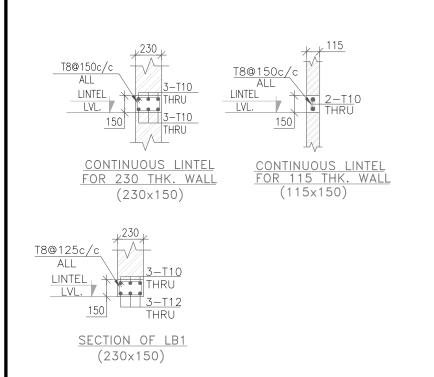
NOTES:-

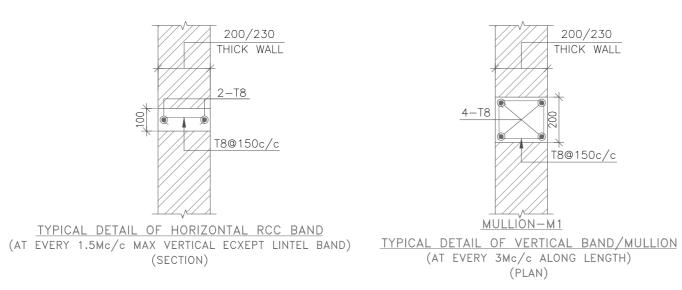
THE SIZES & LOCATIONS OF STRUCTURAL ELEMENTS ARE TENTATIVE.

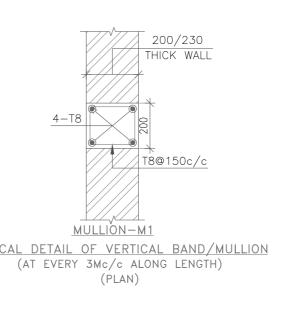
FINAL SIZES OF THE ALL STRUCTURAL MEMBERS WILL BE ARRIVED AFTER PERFORMING ACTUAL ANALYSIS & DESIGN OF THE STRUCTURE AFTER FINALIZING OF THIS STRUCTURAL FRAMING

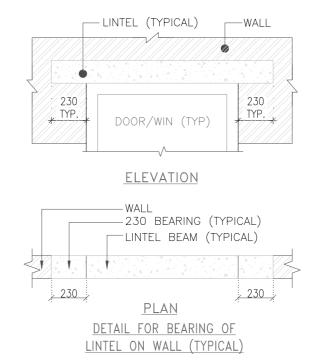


STRUCTURAL LAYOUT AT GROUND FLOOR LINTEL LEVEL (\*NOTE:- MULLION SPACING SHALL BE AT EQUAL DISTANCE AS PER NO. OF MULLION PROVIDED.)









R/F (N/MM²)         M 20         M25           Fe 500D         57 db         49 db           WHERE db = DIA. OF BAR           GRADE OF CONCRETE           ITEM         GRADE OF CONCRETE           PCC         1:2:4 MIX           FOUNDATION         M25           GRADE SLAB         M25           PLINTH/GROUND BEAM         M25           FLOOR BEAM/SLAB         M25           STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
### WHERE db = DIA. OF BAR    GRADE OF CONCRETE
GRADE OF CONCRETE   ITEM
ITEM
TIEM   CONCRETE
FOUNDATION         M25           GRADE SLAB         M25           PLINTH/GROUND BEAM         M25           FLOOR BEAM/SLAB         M25           STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
GRADE SLAB         M25           PLINTH/GROUND BEAM         M25           FLOOR BEAM/SLAB         M25           STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
PLINTH/GROUND BEAM         M25           FLOOR BEAM/SLAB         M25           STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
FLOOR BEAM/SLAB         M25           STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
STAIRCASE         M25           OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
OVERHEAD WATER TANK         M25           UNDER GROUND WATER TANK         M25           TRIMIX/CC PAVEMENT         M25
UNDER GROUND WATER TANK M25 TRIMIX/CC PAVEMENT M25
TRIMIX/CC PAVEMENT M25
Transity of Transition
LINTEL BANDS/MULLION/COPPING M20
WEATHER SHEDS M20
CLEAR COVER TO REINFORCEMENT
CLLAR COVER TO REINTORCEMENT

CHARACTERISTIC STRENGTH CONCRETE GRADE

CLEAR COVER TO REINFORCEMENT					
		TOP	ВОТТОМ	SIDE	
a)	FOOTING	50	50	50	
b)	COLUMN/SHEAR WALL	_	_	40	
c)	RCC WALL	-	1	25	
d)	SLAB	25	25	-	
e)	BEAM	25	25	25	
f)	RETAINING WALL	-	-	50	
g) '	WATER TANK BOTTOM SLAB	50	50	-	
h) '	WATER TANK SIDE WALL	_	_	50	
i) :	STAIRCASE WAIST SLAB	25	25	25	

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- FOLLOWED.

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#### REVISIONS

REV	DESCRIPTION	DATE
R0	FIRST ISSUED	

#### **DRAWING NOTES**

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 FINISHED GROUND LEVEL SHALL VARY AS PER GRADING

### **KEY PLAN**

### CLIENT



**SPORTS AUTHORUTY OF INDIA** 

### ARCHITECT



COLLAGE DESIGN PVT. LTD www.collagedesign.net

### MEP CONSULTANT



MEPCON DESIGN STUDIO.
701 BUMI HEIGHTS SECTOR 4
KHARGHAR. ESIGN KHAKGHAK.
T. 9870145936
E. projects@mepcondesign.co.in

CLIENT	ARCHITECT	STRUCTURAL

### PROJECT TITLE

400M MUDDY ATHLETIC TRACK AND PRACTICE FOOTBALL GROUND WITH SPECTATOR'S GALLERY ALONG WITH UTILITY BUILDING AT - KOTRA, RAJASTHAN

### DRAWING TITLE

STRUCTURAL DETAILS AT LINTEL LEVEL OF CHANGING ROOM BUILDING

DWG. NO.	REV. NC	
STR-KOT-CH-A1.0	RO	
PROJECT NO.	24-P364	
SCALE		NORTH
1 <sup>ST</sup> ISSUED ON	14-06-2024	N
APPROVED		
CHECKED BY	RS	
DRAWN BY	MA	

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