

जयपुर विकास प्राधिकरण, जयपुर

कमरा नं. 201 बी, द्वितीय तल, सी सी सी भवन, रामकिशोर व्यास भवन, इन्दिरा सर्किल जवाहर लाल नेहरू मार्ग, जयपुर-302004

दूरभाष : + 91-141-2569696, ई-मेल : ee.zone08.jda@rajasthan.gov.in

क्रमांक : जविप्रा/अधि.अभि.-8/2025-26/डी-405

दिनांक : 16.10.2025

निविदा सूचना

निविदा सूचना: जविप्रा/अधि.अभि.8/16/2025-26

जयपुर विकास प्राधिकरण द्वारा “जोन 8 जेडीए जयपुर में सांगानेर फ्लाईओवर से मालपुरा गेट के समीप वाया चोरड़िया पेट्रोल पम्प एलिवेटेड रोड का निर्माण कार्य” जिसकी अनुमानित लागत राशि रु. 21870.25 लाख के लिए ऑनलाईन बिड्स दिनांक 21.11.2025 को सायं 6:00 बजे तक आमन्त्रित की जाती है। निविदा बोली का ऑनलाईन आवेदन व भुगतान जविप्रा पोर्टल पर करने की अन्तिम तिथि 21.11.2025 को सायं 6.00 बजे तक है। निविदा बोली के दस्तावेजों का विस्तृत विवरण www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jda.rajasthan.gov.in पर देखा जा सकता है।

(UBN No.....)

निविदा में भाग लेने वालों को निम्न शर्तों की पूर्ति करनी होगी।

1. निविदादाता जयपुर विकास प्राधिकरण की वेबसाइट www.jda.rajasthan.gov.in पर पंजीकृत हो एवं निविदा में भाग लेने के लिए बोलीदाता को आवेदन करने के लिए दस्तावेज शुल्क, अमानत राशि, आर.आई.एस.एल. प्रोसेसिंग शुल्क ऑनलाईन जमा करनी होगी।
2. ऑनलाईन निविदा प्रस्तुत करने के लिए निविदादाताओं का राजस्थान सरकार के ई-प्रोक्यूरमेंट पोर्टल www.eproc.rajasthan.gov.in पर पंजीकृत हो।

अधिशायी अभियंता-8
जविप्रा, जयपुर।

JAIPUR DEVELOPMENT AUTHORITY

Office of Executive Engineer Zone-8, Room No. CB-201B, Second Floor, CCC Building, Ram
Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004

Telephone: +91-141-2569696 EPABX _____ email: ee.zone08.jda@rajasthan.gov.in

No: JDA/EE-8/2025/D- 405

Dated: 16.10.2025

NOTICE INVITING BID

NIB NO: EE-8/ 16 /2025-26

Online Bids are invited up-to 06:00 PM of 21.11.2025 for “**Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump in Zone 8 JDA Jaipur**”, Rajasthan estimated cost of Rs. 21870.25 Lacs The last date for applying Bid and making online payment on JDA portal is up to 06:00 PM dated 21.11.2025.

UBN : _____

Details may be seen in the Bidding Document at our office or the website of State Public Procurement Portal website www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jda.rajasthan.gov.in

To participate in the bid, bidder has to be:

1. Registered on JDA website www.jda.rajasthan.gov.in for participating in the Bid, the Bidder has to apply for the Bid and pay the Bidding Document Fee, RISL Processing Fee online only. The Bid Security may be deposited through online or Bank Guarantee as per attach specification.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e- Bid submission.
3. Registered in "AA" Class in JDA or 'AA' Class/Highest Class in any Central Government Department/State Government Department/Local Body/Railways or Corporations.


Executive Engineer -8
JDA, Jaipur

JAIPUR DEVELOPMENT AUTHORITY

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Telephone: +91-141-2569696 EPABX _____ email: ee.zone08.jda@rajasthan.gov.in

No: JDA/EE-8/2025/D-405

Dated: 16.10.2025

NOTICE INVITING BID NIB No. : JDA/EE-8/16/2025-26

Name & Address of the Procuring Entity	- Name : Executive Engineer- Zone-8, Jaipur Development Authority. - Address: Room No. CB-201A, Second Floor, CCC Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004 - Email : ee.zone08.jda@rajasthan.gov.in
Subject Matter of Procurement	Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur.
Bid Procedure	Two Stage tender (Two Envelope) open competitive) eBid procedure at http://eproc.rajastha.gov.in
Bid evaluation Criteria (Selection Method)	L1(eg. Least Cost based Selection (LCBS)-L1)
Websites for downloading Bidding Document, Corrigendum's, Addendums, etc.	Websites: www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in, www.jda.rajasthan.gov.in
Website for online Bid application and payment	- Website : www.jda.rajasthan.gov.in - For participating in the Bid, the Bidder has to apply for this Bid and pay the Bidding Document Fee, RISL Processing Fee and Bid Security Deposit, online only. - Bidding Document fee : Rs 5000.00/-Rupees (Rupees Five Thousand only) - RISL Processing Fee : Rs. 2500.00 (Rupees Two Thousand Five Hundred only) - Requisite Bid Security Deposit
Estimated Procurement Cost	Rs. 218,70,25,235.00
Bid Security Deposit	- Amount (INR): 2% Rs 4,37,40,505.00 of Estimated Procurement Cost for Bidder registered in other departments and 0.5 % Rs 1,09,35,126.00 for Bidder registered as contractor in JDA, Jaipur. - If a joint venture is allowed in the Bid then 2% Rs 4,37,40,505.00) in form of BG shall be deposited by bidders (Submitted BG in JV firm name). If any one of the partners of JV wish to deposit 2% earnest money (Bid Security) than it shall be deposited in the form of online method as per bid document.
Pre-Bid	31.10.2025 at 3:00 PM in "Manthan Hall", Main Building, JDA Campus, Jaipur.
Start/End date for Bid Applying, Payment and Bid Submission	Start Date: 21.10.2025 at 9:30 AM End Date: 21.11.2025 at 06:00 PM

Applying bid and making online payment on JDA portal (www.jda.urban.rajasthan.gov.in)	➤ Start Date: 21.10.2025 at 9:30 AM ➤ End Date: 21.11.2025 at 06:00 PM In case EMD in form BG original bank guarantee is to be submitted in room no. MB-SF- 225A (Room no. of DD(E&B) of main building, JDA, Jaipur from 24.11.2025 at 9.30 AM to 26.11.2025 at 05:00 PM.
Date/Time Place of Technical Bid Opening	➤ 27.11.2025 at 1:00 PM in Room No. 201-A, Second Floor, CB Building, JDA Campus, Jaipur.
Date/Time/Place of Financial Bid Opening	➤ After evaluation of Technical Bid successful bidder shall be informed on eproc. portal. ➤ No. 201-A, Second Floor, CB Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur-302004 (Rajasthan)
Bid Validity	➤ 120 days from the bid submission deadline
Time period	➤ 30 Months
Job No.	➤ 029/2025-26
* Jaipur Development Authority has decided to receive Bid Security, Tender Fee and RISL processing fee online through JDA Portal. However Bid Security can also be deposited in the form of BG. The Bid Security options available in tender for participants are a mentioned below:	
Note: 1. Bidder (authorized signatory) shall submit their offer on-line in Electronic formats both for technical and financial proposal. 2. In case, any of the bidders fails to pay the Tender Fee, BSD, and RISL Processing Fee, online (subject to confirmation), its Bid shall not be accepted. 3. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Type III) as per Information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCS, Safe crypt, N code etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC. Also, bidders must register on http://eproc.rajasthan.gov.in(bidders already registered on http://eproc.rajasthan.gov.in before 30-09-2011 must register again). 4. JDA will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed, choking of web site due to heavy load or any other unforeseen problems. 5. Bidders are also advised to refer "Bidders Manual Kit" available at e-Proc website for further details about the e-Tendering process. 6. Training for the bidders on the usage of e-Tendering System (e-Procurement) is also being arranged by DoIT&C, GoR on a regular basis. Bidders interested for training may contact e-Procurement Cell, DoIT&C for booking the training slot. Contact No: 0141-4022688 (Help desk 10 am to 6 pm on all working days) e-mail: eproc@rajasthan.gov.in Address : eProcurement Cell, JDA, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur 7. The procuring entity reserves the complete right to cancel the bid process and reject any or all of the Bids. 8. No contractual obligation whatsoever shall arise from the bidding document/ bidding process unless and until a formal contract is signed and executed between the procuring entity and the successful bidder. 9. Procurement entity disclaims any factual/ or other errors in the bidding document (the onus is purely on the individual bidders to verify such information) and the information provided therein are intended only to help the bidders to prepare a logical bid-proposal. 10. The provisions of RTPPA Act 2012 and Rules thereto shall be applicable for this procurement. Furthermore, in case of any inconsistency in any of the provisions of this bidding document with the RTPP Act 2012 and Rules thereto, the later shall prevail.	



**Executive Engineer -8
JDA,Jaipur**

Template of Online Receipt as part of NIB Document

Jaipur Development Authority, Jaipur.	
Bid Participation Receipt	
	Date & Time:-
Bid Detail	
Bid ID:	Procurement Entity:-
Bid Title:	
Bid Value:	Bid Opening Place:
Bidder Detail	
Name of Entity:	Mobile No.:
Registration Type:	Instrument Amount:
Payment Mode:	Payment Channel:
Instrument No.:	Instrument Date:

Dates Detail		
Sr. No.	Event Name	Event Date
1	Publishing Date	
2	Bid Opening Date	

Specific Instrument for eProc Rajasthan			
Instrument Type			
Instrument Number	Head Name	Amount	Date
	Tender Fee		
	RISL Processing Fee		
	Bid Security Deposit		
Issuer Detail: Jaipur Development Authority		Challan Number:	

More details about Registration Process, Terms and Conditions and FAQ along with contact detail is available on JDA website www.jda.rajasthan.gov.in.

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

SCHEDULE AND SPECIFICATIONS

Name of Work :- Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump in Zone 8 JDA Jaipur.

1.	NIB No.	:	EE/ 16 /2025-26
2.	Approximate cost	:	₹ 218,70,25,235.00
3.	Cost of the Bid document	:	₹ 5000.00, the bidders are required to submit bid security cost of bidding document & bid processing fee Through On Line Payment after registering with JDA on www.jaipurjda.org/e-services/e-tender portal. There should be a gap of three working days between the end date for bid applying, online payment & bid submission and bid opening date. In the absence of requisite fees the bid of the concerned bidder will be considered as non responsive and shall be liable for rejection.
4.	Bid Processing Fees	:	₹ 2500.00, Through On Line Payment only.
5.	Bid Security (In favor of Secretary, JDA, Jaipur.)	:	➤ Amount (INR: 2% (Rs. 4,37,40,505.00) For AA class contractors registered in the appropriate class with CPWD, Postal, Telegram, Railway, MES, Other State Government/Central Government undertakings/organizations of Estimated Procurement Cost. (The bidder must capable to bid in the bid as per their enlistment) ➤ 0.5 % (Rs 1,09,35,126.00) for Bidder registered as a contractor in the appropriate class in JDA. ➤ In case of Departments of the State Government and undertakings, Corporations, Autonomous bodies, Registered Societies, Cooperative Societies which are owned or controlled or managed by the State Government and Government undertakings of the Central Government shall submit a bid securing declaration in lieu of bid security. If a joint venture is allowed in the Bid then 2% Rs 4,37,40,505.00) in form of BG shall be deposited by bidders (Submitted BG in JV firm name). If any one of the partners of JV wish to deposit 2% earnest money (Bid Security) than it shall be deposited in the form of online method as per bid document
6.	Start/ End Date for Bid Applying, Online Payment & Bid Submission	:	➤ Start Date: 21.10.2025 at 9:30 AM onwards ➤ End Date: 21.11.2025 at 06:00 PM

7.	Physical BG (Bid Security Start & Closing Date)	Original BG is to be submitted in Room No. MB-SF-225A (Room no. of DD(E&B) of main building, JDA, Jaipur from 24.11.2025 at 11:00 AM to 26.11.2025 at 5:00 PM.
8.	Date/Time/Place of pre-Bid	➤ 31.10.2025 at 3:00 PM in "Manthan Hall", Main Building, JDA Campus, Jaipur.
9.	Date/ Time/ Place of Technical Bid Opening	27.11.2025 1:00 PM Room No. CB-SF-201-A, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004
10.	Date/ Time/ Place of Financial Bid Opening	Will be intimated later to the Technically qualified bidders
11.	Bid Validity	120 days from the bid submission deadline
12.	Time Period	30 Months
13.	A&F/Job No.	029/2025-26

Procedure for bidding:

Single part bid system:

Single part (Two-envelope) (2 docket) system would be adopted, Docket-1 being for Documents and Docket-2 being for Financial Bid.

Docket-1:- is for proof of deposition of Bid Security, cost of bidding document and bid processing fee along with copy of GST registration & **GST Registration and latest GSTR-3B return for last month from month of floating bids**, signed Annexure "B" and copy of enlistment as contractor/ bidder in required category.

Docket-2:- is for financial bid.

The financial bid will be opened only for bidders whose proper Bid Security, copy of GST registration & **GST Registration and latest GSTR-3B return for last month from month of floating bids**, proof for deposition of bidding document fee, RISL processing fee, copy of enlistment of contractor in the required category and signed Annexure "B" are found to be in order. Bid Security will be accepted only in the form of online deposition or in the form of Bank Guarantee.

1. Two part bid system:

Two part (Two-envelope) (2 docket) system would be adopted, Docket-1 being for Technical Bid and Docket-2 being for Financial Bid.

Docket-1:- There will be three separate folders- Folder-1 is for proof of deposition of Bid Security, cost of bidding document and bid processing fee along with copy of GST registration & **GST Registration and latest GSTR-3B return for last month from month of floating bids**, signed Annexure "B" and copy of enlistment as contractor/ bidder in required category. Folder-II is for bid document and folder-III is for technical bid.

Docket-2:- There will two separate folders-1 is for financial bid and 2 is for bill of quantities.

The technical bid will be opened only for bidders whose proper Bid Security, copy of GST registration & **GST Registration and latest GSTR-3B return for last month from month of floating bids**, proof for deposition of bidding document fee, RISL processing fee, copy of enlistment of contractor in the required category and signed Annexure "B" are found to be in order. Bid Security will be accepted only in the form of online deposition or in the form of Bank Guarantee.

SCHEDULE – A: INFORMATION USEFUL FOR THE BIDDERS:

The Bidder should see the site and fully understand the conditions of the site before bidding and include all lead, lift etc. for the material in his item rate/percentage to be quoted on the rates give in the Schedule 'G'. The work shall be carried out in accordance with the MoRTH specifications/IRC specifications and to the entire satisfaction of the Engineer-In-Charge of the work.

SCHEDULE – B: LIST OF THE DRAWING:

1. General Arrangement Drawing (GAD)

The other drawings may be seen in office of the undersigned.

SCHEDULE – C: LIST OF THE DRAWING TO BE SUPPLIED BY THE BIDDER:

List of the drawing to be supplied by the bidder- NIL. But the bidder shall have to arrange at his own cost drawings required for the work after deposition necessary cost with JDA.

SCHEDULE - D: TEST OF THE MATERIALS:

The testing of the materials and workmanship shall be conducted by the JDA staff as necessary. The result of such tests should confirm to the standard laid down in the Indian standard MORTH/IRC/PWD detailed specification. Qualified personnel as required duly approved by JDA shall have to be engaged at site by the contractor at his cost. The JDA reserves the right to engage such staff and recover the expenses from the contractor on such account in case of his failure to do so.

SCHEDULE – E: SAMPLES OF THE MATERIALS:

The sample of the materials to be used by the bidder shall be deposited 15 days in advance with the Engineer In charge and be got approval by him before use.

SCHEDULE - F: TIME OF COMPLETION:

The work should start within 10 days of issue of work order and complete within time limit.

SCHEDULE – G: ATTACHED SEPARATELY BASED ON RUIDP BSR 2013, JDA ELECTRICAL BSR 2016, JDA BSR 2016 and JDA approved Non BSR Item.**SCHEDULE – H: SPECIAL CONDITION:** Attached Separately.**SCHEDULE-I : LIST OF MATERIAL TO BE SUPPLIED BY THE DEPARTMENT: NIL****SCHEDULE – J: COST OF BID DOCUMENTS, PROCESSING FEES & BID SECURITY.**

The Bid Processing fee is payable in favor of M.D. RISL & Cost of bid document & Bid Security is payable in Favour of the Secretary, JDA, Jaipur. Bidders have to pay bid processing fees, cost of bidding documents, and Bid Security through Online. If a bidder opts to deposit the bid security through bank guarantee, the bank guarantee should be valid for the next seven months after the bid opening date. A copy of the such bank guarantee will be required to be attached with the bid submission documents uploaded on the E-procurement portal of GOR. The bank guarantee will be physically handed over upto prescribed time to Nodal officer of the on-line tendering system of JDA i.e. D.D(E&B) in room No. 215N Extension building, JDA, JLN marg, Jaipur, as per specified in bidding documents,

Annexure-4. Special Conditions of Contract regarding defect liability period.

Annexure-2A. Bank guarantee will be in specified Performa enclosed with this bidding document for Bid Security.

Annexure-2B. Bank guarantee will be in specified Performa enclosed with this bidding document for Performance Security.

Annexure-A. Compliance with the code of integrity and no conflict of interest (RTPP Act/Rules).

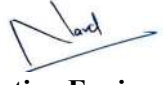
Annexure-B. Declaration by the bidder regarding qualifications (RTPP Act/Rules).

Annexure-C. Grievance Redressal during the procurement process (RTPP Act/Rules).

Annexure-D. Additional Conditions of Contract (RTPP Act/Rules).

Annexure-E. Process for Tender Participation & Depositing Payment on 'Online Tender Participation' Portal of JDA & Bid Submission on 'e-Procurement Portal' of Government of Rajasthan.

Signature of the Bidder with address


**Executive Engineer Zone-8
JDA, Jaipur.**

SPECIAL CONDITIONS

SCHEDULE 'H'

01. If there is any typographical error or otherwise in the 'G' Schedule the rates given in the relevant BSR on which schedule 'G' has been prepared, shall prevail.
02. The bidder shall follow the bidder labour regulation and abolition Act 1970 & Rule 1971.
03. The JDA shall have right to cause on audit and technical examination of the work and the final bills of the bidder including all supporting vouchers, abstract etc. to be made within two years after payment of the final bills and if as a result such audit any amount is found to have been over paid/excess in respect of any work done by the bidder under the contract or any work claimed by him to have been done under this contract and found not to have been executed the bidder shall be liable to refund such amount and it shall be lawful ;for the JDA to recover such sum from him in ;the manner prescribed in special condition no. 6 or any other manner legally permissible and if it is found that the bidder was paid less then that was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be paid by the JDA to the bidder.
04. Whenever any claim against the bidder for the payment of a sum of money arises out or under the contracts, the JDA shall be entered to recover the sum by appropriating in part or whole of the security deposit of the bidder. In the event of the security being insufficient or if no security has been taken from the bidder then the balance of the total sum recoverable as the case may shall be deducted from any sum then due or which a any time there contract with the JDA should this sum be sufficient to recover the full amount recoverable, the bidder shall pay to JDA on demand the balance remaining due. The JDA shall further have the right to effect such recoveries under P.D.R. Act.
05. The rate quoted by the bidder shall remain valid for a period of **120 days** from the date of opening of the bids.
06. By submission of this bid the bidder agree to abide with all printed conditions provided in the PWD manual form 64 (Chapter 3-para 36) and subsequent modification. (Annexure-C)
07. No conditions are to be added by the bidder and conditional bid is liable to be rejected.
08. If any bidder withdraws his bid prior to expiry of said validity period given at S.No. 5 or mutually extended prior or makes modifications in the rates, terms and conditions of the bid within the said period which are not acceptable to the department or fails to commence the work in the specified period, fails to execute the agreement the department shall without prejudice to any, other right or remedy, be at liberty to forfeit the amount of earnest money given in any form absolutely. If any bidder, who having submitted a bid does not execute the agreement or start the work or dose not complete the work and the work has to be put to rebidding, he shall stand debarred for six months from participating of bidding in JDA in addition to forfeiture of Earnest Money / Security Deposit and other action under agreement
09. Any material not conforming to the specifications collected at site shall have to be removed by the bidder within a period of 3 days of the instructions, issued by the Engineer-In-charge in writing. Failing which, such material shall be removed by the Engineer-In-charge at risk and the bidder after expiry of 3 days period.
10. The material collected at site and paid provisionally shall remain under the watch and ward of the bidder till it is consumed, fully on the work.
11. The rates provided in bid documents are inclusive of all Taxes and royalties otherwise specified.
12. No extra lead of earth/material shall be paid over and above as specified in 'G' schedule. Source/borrow pit area for earth shall have to be arranged by the Bidder at his own cost.
13. Undersigned has full right to reject any or all bids without given any reasons.

14. As per Supreme Court decision "All contracts with Governments shall require registration of workers under the building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 and extension of benefits to such workers under the act."
15. Special Conditions of Contract regarding Defect Liability Period (DLP) for various works costing Rs. 25.00 lacs and more shall be applicable. (Annexure-4)
16. The bidders are required to submit copy of their enlistment as bidder.
17. Conditions of RPWA-100 will be mandatory & acceptable to the bidder.
18. The bidder will have to install display boards at site of work as directed by Engineer In Charge. Failing which penalty of Rs. 5000/- day will be imposed.
19. All the provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and Rules, 2013 and amendments issued from time to time by the Finance Department, GOR shall be applicable. If there are any contradictions in existing special conditions and provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and Rules 2013 provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT, 2012 and Rules 2013 shall prevail.
20. In case of rate received in the bid is below than BSR rate, additional performance security shall be deposited by the bidder as per Rule (75A) of RTPP Rules.
21. The Annexure 'B' (RTPP Act/Rules) is mandatory to be signed by the bidder failing which the bid shall summarily be rejected without asking for any clarification.
22. Contractors enlisted in JDA, should be get reviewed periodically. The registered bidder who has not been reviewed within a period of 5 years 3 months, shall not be allowed to participate in the bid. Contractors enlisted in other departments shall be as per provision of PWF&AR.
23. The bidder shall not work after the sunset and before sunrise without specific permission of the authority Engineer.
24. The bidder shall arrange his own machinery required for the work as per Schedule-III.
25. Mortar of Masonry work and lean concrete will be permitted mixer with hopper.
26. The contractor shall provide and maintain, hard top passenger jeeps e.g. Mahindra Bolero or equivalent make for Employer's engineering staff for project related travelling in Jaipur in accordance with Clause 124 of MORTH Specifications, IV Revision. At least one such vehicle shall be provided at all times day and night as required by the Engineer-in-charge and/or their staff. Nothing extra shall be paid for such provision of vehicle.
27. The steel strands, cement and reinforcement steel to be procured after approval of EIC.
28. Expansion Joints & bearings are to be got approved by JDA prior to procurement.
29. The designs & drawings of all structures, RE walls and its fascia panels ,and (revisions if any) will have to be provided by the Contractor and shall be got approved from NIT/IIT at his own cost.
30. The design of staging shall have to got proof checked by MNIT or any other MORTH empanelled consultant before execution of work for which no extra payment will be made.
31. The bidders are requested to fill properly the RTPP annexure A, B, C, and D failing which Bid may be rejected.
32. The bidders are requested to pay special attention towards Section-7, Special condition of contract for safety, health and environment (SHE) and the related penalty clause. The agency ensure all safety measures during execution to avoid any accident at work site. **The Agency will solely be responsible for any accident/Mishappening may occur at site during execution of work.**
33. Liquidated damages for not achieving key dates will to be levied separately and it shall be Rs. 1,00,000.00 (Rupees One Lacs) per day for each key date is applicable on foundation and substructure. Liquidated damages for not achieving key dates will be levied separately and it shall be Rs. 1,00,000.00 (Rupees One Lacs) per week for each key date for casting of PSC Segmental Box Girder in casting yard,

R.E. wall panel casting, placing of segmental box girder in position, bow string girder.

34. There is no ROB in the Project Length. One Bow String Composite structure of approximate Length 76m c/c of expansion joint is proposed over Dravyawati river sections.
35. The bidders are requested to pay special attention towards the liquidated damages clause of O.C.C. wherein mile stones have been defined and liquidated damages have been proposed for not achieving key dates, not mobilizing required machinery and for not installing requisite number of casting beds for PSC girders.
36. The bidders are requested to pay proper attention towards clause for Corporate Social Responsibilities (CSR). However, the DLP shall not be applicable for this part of work.
37. Pile Load Tests and Routine Load Tests shall be executed by doing anchor piles only. Routine & initial pile load tests shall not be measured for payment. Designs and Drawings of the anchor Piles shall be got done by the Contractor. Piling work shall exclusively be executed by hydraulic rig machine, no extra payment shall be made.
38. No extra payment will be made for overlap, couplers, chairs and spacers in the steel reinforcement. If the couplers are used in replacement of the overlap, the design of the same shall be done as per relevant IS Codes and will have to be got approved from JDA before execution of work. No extra cost on this account shall be payable. The weight of HSFG bolts shall not be measured for payment.
39. Admixture shall be used as approved by EIC.
40. Monthly photographs & drone videos of ongoing work to be provided by bidder at the submission of bill i.e. first week of every month. Failing which the penalty of Rs. 25,000/- per month will be imposed.
41. All the applicable permits/NOC's/Traffic diversion permission and plan shall have to be arranged and borne by the bidder at their own cost. However JDA may assist in obtaining such permissions/NOC. Any delay in obtaining such permits/NOC shall not be considered for delay in works as per agreement.
42. Any damages of the utilities and underground services, during execution of work caused by contractor/machinery/labour will have to be restored by the bidder at his own cost for which no extra payment shall be made.
43. Job Mix design for bridge work and road work shall have to be got done by NABL accredited lab or NIT/IIT and got approved by JDA before execution of work. No extra payment shall be made on this account.
44. Bidder should submit on the date of downloading of the bid documents, the documentary proof of Tax Registration Certificate. Works Executed photocopies of completion / execution certificate issued by an officer not below the rank of Executive Engineer giving detail of contract including date of start, date of completion, amount of work done, nature of work etc. and turnover of above pre-qualification requirement. Please note that copies of award letters will not be accepted taken as proof for meeting the pre-qualification criterion.
45. The rates quoted by the bidder should be inclusive of all the taxes including GST etc.
46. Contractor should be provided as built drawings (03 sets) after completion of project at his own cost.
47. In the any dispute arising between the parties hereto in relation to any matter contained within this Bid/Agreement, such dispute shall be applicable as per clause 23 OR by a competent court having jurisdiction over the location where the Agreement is executed, i.e. Jaipur. No other court shall have jurisdiction to hear such disputes.
48. No Price Escalation will be admissible on Electrical Items and value of work done i.e. (R) will be calculated after deduction of electrical works.
49. The mobilization advance can be made on the request of contractor (at 9% per annum interest compound annually basis) to assist in defraying the initial expenses that necessarily be incurred by the contractor for mobilization as per office order of Finance Department (GF&AR), GoR vide No-F.3(2)FD/GF&AR/2020 dated 16.06.2022.

50. Dimensions can be verified from the GAD/ plan profile attached with [Annexure B](#) or with the drawings available at the EE office. Approximate weight of one segment of Spine and Wing of 2 to 2.5m length will varies from 70 to 75 Tonnes. Complete segment shall be cast including spine and wing together and brought to site for launching.
51. Geotechnical report Attached as [Annexure D](#) for reference purpose only.

Signature of Bidder
With full Name, Address & Mobile No.



Executive Engineer Zone-8
JDA, Jaipur

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

Other Conditions

1. DLP period of various nature of works amounting more than Rs. 25 Lacs will be as per order No. JDA/EX.En.(TA to DE-I)/2016/D-29 dated 11.03.2016
2. निविदा में निर्धारित राशि से अधिक/कम Bid Security राशि बिडर द्वारा वसपदम नहीं जमा कराई जावें, सिस्टम द्वारा भी कम/अधिक राशि बिड स्वीकार नहीं की जावेंगी।
3. अलग-अलग समय में जमा कराई गई राशि सिस्टम द्वारा जोडकर एक बिड में स्वीकार नहीं की जावेगी।
4. एक यू.टी.आर. काम में लेने के पश्चात् पुनः उसी नम्बर का यू.टी.आर. सिस्टम द्वारा दूसरी बिड में प्रयुक्त नहीं किया जावें।



Executive Engineer Zone-8
JDA, Jaipur

Signature of Bidder

With full Name, Address & Mobile No

RTPP Annexure A: Compliance with the Code of Integrity and No Conflict of Interest

Any person participating in a procurement process shall-

- (a) Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- (b) Not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (c) Not indulge in any collusion, Bid rigging or anticompetitive behavior to impair the transparency, fairness and progress of the procurement process;
- (d) Not misuse any information shared between the procuring entity and the bidders with an intent to gain unfair advantage in the procurement process;
- (e) Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (f) Not obstruct any investigation or audit of a procurement process;
- (g) Disclose conflict of interest, if any; and
- (h) Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity.

Conflict of interest:-

The Bidder participating in a bidding process must not have a Conflict of Interest.

A Conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- (i) A bidder may be considered to be in conflict of interest with one or more parties in the bidding process if, including but not limited to:
 - (a) Have controlling partners/shareholders in common; or
 - (b) Receive or have received any direct or indirect subsidy from any of them; or
 - (c) Have the same legal representative for purposes of the bid; or
 - (d) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the procuring Entity regarding the bidding process; or
- (e) The bidder participates in more than one bid in a bidding process. Participation by a bidder in more than one bid will result in the disqualification of all bids in which the bidder is involved. However, this does not limit the inclusion of the same sub bidder, not otherwise participating as a bidder, in more than one bid; or
- (f) The bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods, works or services that are the subject of the Bid; or
- (g) Bidder or any of its affiliates has been hired (or proposed to be hired) by the procuring entity as engineer-in-charge/consultant for the contract.

Signature of Bidder.

RTPP Annexure B: Declaration by the Bidder regarding Qualifications

Declaration by the Bidder

In relation to my/our Bid submitted to.....for procurement of in response to their Notice inviting Bids No.....Dated..... I/we hereby declare under Section 7 of Rajasthan Transparency in Public Procurement Act, 2012 that:

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entry;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the union and the state government or any local authority as specified in the Bidding Document.
3. I/we are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons.
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;

Date :

Signature of Bidder

Place :

Name:-.....

Designation:-.....

Address:-

Note:- Annexure “B” is mandatory to be fulfilled & signed with seal by the bidder failing which the bid shall summarily be rejected without asking any clarification.

RTPP Annexure C: Grievance Redress during Procurement Process

The designation and address of the First Appellate Authority is **EC of JDA**.

The designation and address of the Second Appellate Authority is **ACS/Principal Secretary UDH Govt. of Rajasthan**.

(1) Filing an appeal:-

if any bidder or prospective bidder is aggrieved that any decision, action or omission of the procuring entity is in contravention to the provisions of the Act or the rules or the guidelines issued there under, he may file an appeal to First Appellate authority, as specified in the Bidding document within a period of ten days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved:

Provided that after the declaration of a bidder as successful the appeal may be filed only by a bidder who has participated in procurement proceedings:

Provided further that in case a procuring entity evaluates the technical bids before the opening of the financial bids, an appeal related to the matter of financial bids may be filed only by a bidder whose technical bid is found to be acceptable.

(2) The officer to whom an appeal is filed under Para (1) shall deal with the appeal as expeditiously as possible and shall endeavor to dispose it of within thirty days from the date of the appeal.

(3) If the officer designated under Para (1) fails to dispose of the appeal filed within the period specified in Para (2), or if the bidder or prospective bidder or the procuring entity is aggrieved by the order passed by the first appellate authority, the bidder or prospective bidder or the procuring entity, as the case may be, may file a second appeal to second appellate authority specified in the bidding document in this behalf within fifteen days from the expiry of the period specified in Para (2) or of the date of receipt of the order passed by the first appellate authority, as the case may be.

(4) Appeals not to lie in certain cases:-

No appeal shall lie against any decision of the procuring entity relating to the following matters, namely:-

- (a) Determination of need of procurement
- (b) Provisions limiting participation of bidders in the bid process
- (c) The decision of whether or not to enter into negotiations
- (d) Cancellation of a procurement process
- (e) Applicability of the provisions of confidentiality

(5) From of Appeals:-

- (a) An appeal under Para (1) or (3) above shall be in the annexed form along with as many copies as there are respondents in the appeal.
- (b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.

- (c) Every appeal may be presented to first appellate authority or second appellate authority, as the case may be, in person or through registered post or authorized representative.
- (6) Fee for filing Appeal:-**
 - (a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.
 - (b) The fee shall be paid in the form of bank demand draft or banker's cheque of a scheduled bank in India payable in the name of appellate authority concerned.
- (7) Procedure for disposal of Appeal:-**
 - (a) The first appellate authority or second appellate authority as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing
 - (b) On the date fixed for hearing, the first appellate authority or second appellate authority, as the case may be shall-
 - (i) Hear all the parties to appeal present before him; and
 - (ii) Peruse or inspect documents, relevant records or copies thereof relating to the matter.
 - (c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the appellate authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.
 - (d) The order passed under sub-clause (c) above shall also be placed on the state public procurement portal.

Signature of Bidder.

FORM No. 1

[see rule 83]

**Memorandum of Appeal under the Rajasthan
Transparency in Public procurement Act, 2012**

Appeal No..... of
..... Before the..... (First/Second
Appellate authority)

- 1- Particulars of appellant :
 - (i) Name of the appellant:
 - (ii) Official address, if any:
 - (iii) Residential address:
 - 2- Name and address of the respondent(s):
 - (i)
 - (ii)
 - (iii)
 - 3- Number and date of the order appealed against and name and designation of the Office/authority who passed the order (enclose copy), or a statement of a decision, action or omission of the procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:
 - 4- If the Appellant propose to be represented by a representative the name and postal address of the representative:
 - 5- Number of affidavits and documents enclosed with the appeal:
 - 6- Grounds of appeal :
(Supported by an affidavit)
 - 7- Prayer :
- Place :
- Date : **Appellant's Signature**

RTPP Annexure D: Additional Conditions of Contract

1. Correction of arithmetical errors

Provided that a financial bid is substantially responsive, the procuring entity will correct arithmetical errors during evaluation of financial Bids on the following basis:

- (i) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the procuring entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security shall be forfeited or its bid securing declaration shall be executed.

2. Procuring Entity's Right to Vary Quantities.

- (i) At the time of award of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased or decreased, by a specified percentage, but such increase or decrease shall not exceed twenty percent, of the quantity specified in the bidding documents. It shall be without any change in the unit prices or other terms and conditions of the bid and the conditions of contract.
- (ii) If the Procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the bidding document due to change circumstances, the bidder shall not be entitled to any claim or compensation except otherwise provide in the conditions of contract.
- (iii) In case of procurement of goods or services, additional quantity may be procured by placing a repeat order on the rates and conditions of the original order. However, the additional quantity shall not be more than 50% of the value of goods of the original contract and shall be within one month from the date of expiry of last supply. If the supplier fails to do so, the procuring entity shall be free to arrange for

the balance supply by limited bidding or otherwise and the extra cost incurred shall be recovered from the supplier.

3. Dividing quantities among more than one bidder at the time of award (In case of procurement of Goods):-

As a general rule all the quantities of the subject matter of procurement shall be procured from the Bidder, whose Bid accepted. However, when it is considered that the quantity of the subject matter of procurement to be procured is very large and it may not be in the capacity of the Bidder, whose Bid is accepted, to deliver the entire quantity or when it is considered that the subject matter of procurement to be procured is of critical and vital nature, then in such cases, the quantity may be divided between the Bidder, whose Bid is accepted and the second lowest Bidder or even more Bidder in that order, in a fair, transparent and equitable manner at the rates of the Bidder, whose Bid is accepted.

Signature of Bidder

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

BID DOCUMENTS

TECHNICAL BID

(PRE QUALIFICATION)

Envelope – 2

FOR THE WORK OF

Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump in Zone 8 JDA Jaipur.

Period of Download	:	From 21.10.2025 from 9.30 AM onwards to 21.11.2025 upto 6:00 PM
Period of Upload	:	From 21.10.2025 from 9.30 AM onwards to 21.11.2025 upto 6:00 PM
Date of Pre Bid Meeting	:	31.10.2025 at 3.00 PM 'MANTHAN' Hall, JDA, Jaipur
Date of opening of technical bid	:	27.11.2025 at 1:00 PM Room No. CB-SF-201-A, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004
Approximate Cost	:	Rs. 218,70,25,235.00
Cost of Bid document	:	Rs. 5000.00 payable online only.
Bid processing Fee	:	Rs. 2500.00 payable online only.
Completion period	:	30 Months


Executive Engineer Zone-8
JDA, Jaipur

JAIPUR DEVELOPMENT AUTHORITY JAIPUR

SPECIAL CONDITION OF THE CONTRACT FOR PRE QUALIFICATION OF CONTRACTORS

Name of work: **Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump in Zone 8 JDA Jaipur.**

Special conditions of contract for **PRE QUALIFICATION** as detailed here under, shall be applicable in addition to all other terms and condition already prescribed under standard agreement forms/rules and regulations to contract. These conditions are over and above all the conditions.

1. Procedure:

Procedure for **PRE QUALIFICATION** would be as follow:

- (a) Two-envelope (docket) system would be adopted, for **PRE QUALIFICATION**, Docket-1 being for Technical Bid and Docket-2 being for Financial Bid.
Docket-1:- There will be three separate folders- **Folder-1** is for proof of deposition of Bid Security, cost of bidding document and bid processing fee along with copy of GST registration & GST Registration and latest GSTR-3B return for last moth from month of floating bids, Annexure “B” (RTPP Act/Rules) is mandatory to be fulfilled & signed with seal and copy of enlistment as contractor/ bidder in required category. **Folder-II** is for bid document and **folder-III** is for technical bid.
Docket-2:- There will two separate **folders-1** is for financial bid and **folders-2** is for bill of quantities.
- (b) The technical bid will be opened only of whose bidders those proper Bid Security, copy of GST registration & GST Registration and latest GSTR-3B return for last moth from month of floating bids, proof for deposition of bidding document fee, RISL processing fee, copy of enlistment of contractor in required category and signed Annexure “B” (RTPP Act/Rules) is mandatory to be fulfilled & signed with seal are found to be in order. The bid Security will be accepted only in from of online deposition or in form of Bank Guarantee.
- (c) The Technical Bid envelope would be opened on the **date 27.11.2025at 1:00 PM** in the chamber of Room No. CB-SF-201-A, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004.
- (d) The Financial Bid envelope would be opened only of those bidders who fulfill all the **PRE QUALIFICATION** criteria.
- (e) The bidder should be registered in “AA” class in JDA/ and AA or equivalent class in Any central Government Department/ State Government Department/ Local body/ Railways or Corporations.

2. **Criteria:**

Criteria for PRE Qualification would be as follows:-

- (a) The bidder should have executed following **quantities** of work in **any one** financial year of the last Seven financial years i.e. from 2018-19 to 2024-25, however he may include the work done of year 2025-26 also.

S. No.	Item	Quantity
1	*RCC Design Mix concrete grade M-35 or Above.	38037.00 Cum
2	*PSC SEGMENTAL BOX GIRDER	14239.00 Cum
2	*Steel Reinforcement /Steel Strands/Structural Steel	7371.00 MT

***These quantities are either in isolation or in sum of continuity of above**

*** Similar nature of work shall mean a major Bridge/ROB/Flyover/elevated road//Metro corridor of precast segmental type; segments launched with the help of launcher on Piers without Ground support staging system.**

*** The Contractor shall construct the structure/elevated road as per the architectural views provided in the GAD; and he shall not be allowed to change the type of superstructure or substructure from what is provided in the architectural view in the GAD.**

Note:-

- **The Bidder should enclose the certificate having quantities Financial year wise otherwise the certificate will not be considered.**
- **Quantities of all the items mentioned in criteria 2(a) should be executed in one financial year.**
- **Certificate issued by Govt. of India, State Govt., Union Territory and Govt. Undertakings, Autonomous bodies shall only be considered.**
- **The bidder should enclose the GST Registration and latest GSTR-3B return for last month from month of floating bids.**

- (b) (i) The bidder should have completed/executed at least one similar nature work of Elevated road/Viaduct/bridge/metro corridor/ flyover by segmental construction method in last Seven financial year (in addition to current financial year, if opted by the bidder) of value not less than 50% (Rs. 109.35 Crore) of the estimated cost of work (bid cost) updated to present price level.

or

- (ii) The bidder should have completed/executed at least two similar nature of work (Elevated road/Viaduct/bridge/metro corridor/ flyover by segmental construction method) in last Seven financial year (including current financial year, if opted by the bidder) of value not less than 30% (Rs. 65.61 Crore) of the estimated cost of work (bid cost) updated to present price level.

Note:-

- (i) The starting & completion/ execution date of the work is to be in between above said financial year. If no then maximum work (70%) of work mentioned in certificate submitted is to be completed/executed in above said financial years. The bidders should have to enclose the proper bifurcated certificate accordingly otherwise the certificate will not be considered.
- (ii) In case; if single work selected by the bidder, is of mix in nature having different components; then a proper bifurcated completion certificate showing the required similar nature component, should be enclosed.
- (iii) “Civil Engineering Work of Similar Nature” would mean Construction of Elevated road/Viaduct/bridge/metro corridor/ flyover by segmental construction method.
- (c) The bidder should have achieved an annual financial turnover of at least 60% of the estimated cost of the work (bid cost) in any one of last Seven financial years (including current year, if opted by the bidder).
- (d)

Note:-

- (i) **The bidder should enclose certificate of Turn over from Chartered Accountant for last seven financial years & audited balance sheet of the year which is considered by the bidder in criteria 2 (c).**
- (ii) **If current year or last year has been opted by bidder whose balance sheet is not submitted till the submission of bid then certificate from Chartered Accountant should be enclosed.**
- (e) The bidder should give self-declaration to deploy the machinery and equipment as specified in Schedule– III, for the execution of this work.
- (f) Bid Capacity: Bidders who meet the minimum qualification criteria will be qualified only if available bid capacity is equal to or more than the total Bid value.

The available bid capacity will be calculated as under:

$$\text{Bid Capacity} = (A \times N \times 3 - B)$$

Where

A = Maximum value of civil engineering work executed in any one year during the last seven financial years (updated to present Price level) taking in to account the completed as well as works in progress. However, the bidder may opt current year in the seven year assessment period

- N = Number of year prescribed for completion of the work for which bids are invited. In present case value of N shall be **2.5**
- B = Value, at present price level of existing commitments and ongoing works to be executed during 'N' period (period prescribed for completion of the works for which the bids are invited)

Note:-

- (i) **Certificate from Chartered Accountant should be enclosed by bidder clearly indicated maximum value of Civil Engineering Work in one Financial Year.**
- (g) **Litigation History:** - Bidder should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last Seven years. The maximum value (updated at the present price level) of disputed amount claimed in the litigation/arbitration resulting from contracts executed in last Seven years shall be deducted from the calculated Bid Capacity of the bidder. The details shall be furnished in Schedule VI.

- (i) The present price level for turnover, cost of completed work & disputed amount of similar nature, the previous year's value shall be given weightage of 10% per year as follows :-

(a)	For Current Year	(2025-26)	1.00
(b)	For last year	(2024-25)	1.00
(c)	For one year before	(2023-24)	1.10
(d)	For two year before	(2022-23)	1.21
(e)	For three year before	(2021-22)	1.33
(f)	For four year before	(2020-21)	1.46
(g)	For five year before	(2019-20)	1.60
(h)	For six year before	(2018-19)	1.76

3. Documentation:

The bidder should furnish the following documents along with the technical bid:

- (a) Information regarding financial resources and capability in Schedule –I.
- (b) Information regarding works executed in the last seven years in Schedule–II
- (c) Certificates from the concerned Engineer–In–Charge in support and verification of the information furnished in Schedule–II
- (d) Self-declaration regarding machinery and equipment required for deployment, as detailed in schedule – III.
- (e) Information regarding details of maximum value of civil engineering works executed in any one year during the last seven years taking into account the completed as well as works in progress in schedule – IV.
- (f) Information regarding existing commitments and ongoing works to be completed in schedule – V.
- (g) Information regarding details of litigation or arbitration contracts to be furnished in schedule – VI.
- (h) Calculation of Bid capacity in schedule – VII.
- (i) Self-declaration as per Annexure I.
- (j) Details regarding evaluation criteria in schedule-VIII.

Note: These schedules are mandatory to fill by the bidder, falling which the information to be treated as NIL.

4. Important Notes:

- (a) The bidder must ensure that all the information required in the Documents is furnished by him complete in all respects. He would not be allowed to withdraw any document, or to rectify any information furnished therein, after submitting the bid.
- (b) The bidder should give a self-declaration that the information furnished in schedule I, to VII is correct. If any information is found incorrect, the offer of the bidder shall be rejected and action be taken as per rules.
- (c) Bidders must do paging of all enclosure of bid documents.

5. Rejection of bids

The department reserves the rights to reject any bid or to disqualify any or all the bidders, without assigning any reasons at any stage.

- I. If bid is not accompanied with the requisite documents mentioned in clauses 3(a) to 3(i) or is not in accordance with procedure specified in para 1, or is not accompanied with bid security, copy of GST Registration and latest GSTR-3B return for last month from month of floating bids, proof for deposition of bidding document fee, RISL processing fee, Annexure “B” (RTPP Act/Rules) is mandatory to be fulfilled & signed with seal by the bidder and registration of contractor in required category it would be liable for rejection.

II. Furnishing of incorrect or incomplete or concealment of any information required in the bid documents would render the bid liable for rejection.

- III. The bidder shall prepare bid in the digital/ electronic mode for uploading on e-procurement portal in the format/type of file specified in evaluation qualification criteria” all the documents uploaded should be digitally signed with DSC of authorized signatory, deemed as all the pages of the uploaded documents are signed.”
- IV. The self-declaration and Annexure ‘B’ to be enclosed by the bidder regarding qualification of RTPP act-2012 & rule 2013 along with bid document, should be signed by the participating bidders before uploading the tender document otherwise the bid of the bidder will be rejected vide office order no D-194 dated 06.09.2022.

6. Eligibility

- i) The bid for this contract will be considered only from those bidders (proprietorship firms, partnership firms, companies, corporations,) who meet requisite qualification criteria prescribed. In case of a J.V. or consortium, all members of the group shall be jointly and severally responsible for the performance of whole contract.
- ii) A Non-Indian firm is permitted to tender only in a consortium arrangement or Joint Venture with their wholly owned Indian Subsidiary Registered in India under Companies Act 1956 or any other Indian firm having minimum participation interest of 26%.
- iii) Bidders shall not have conflict of interest. All bidders to have a conflict of interest in this bid shall be disqualified. Bidders shall be considered to have a conflict of interest if:
 - a) One firm applies for bid both as an individual firm and in a group.
 - b) If bidders in two different applications have controlling shareholders in common.
 - c) Submit more than one application in this bid process.
 - d) If the bidder has participated as a consultant or it has more than 50% stake in consultant engaged in the preparation of the design or technical specification of the works that are subject to this bid.
 - e) A firm which has purchased the bid documents in their name can submit the bid as an individual firm only, no Joint Venture is allowed.
 - f) Bidders must have not been black listed and deregistered or debar (for this period) by any Central/ State Government department or Public Sector Undertaking. Also no work of the bidder must have been rescinded by client after award of contract during last 03 years. The bidder should submit undertaking on Non Judicial stamp of Rs.100/- to this effect in the Performa of **Annexure 2.**
- iv) A firm shall submit only one bid either by himself, or venture, or as a member of consortium. If a firm submits more than one bid by himself, all the bids in which he has participated shall be considered invalid.
- v) All bids submitted shall include the following information.
 - 1) All the bidders shall submit with his bid, general information about the bidder in prescribed Performa of (Annexure 3, page 1 of 2) with full details of his ownership and control and, if the bidder is joint venture or consortium, full details of ownership and control of each member thereof (Annexure 3, page 2 of 2)
 - 2) In case the bidder comprises a joint venture or consortium, following requirements shall also be complied with:
 - a) The JV will have to be formed before submission of the tender and total number of JV partners shall not exceed 2 (Two).
 - b) They must designate lead partner duly authorized by all the members who will represent the J.V. Any of the two partners can be a lead partner. The lead partner shall be nominated as being partner-in-charge and this authorization shall be evidenced by submitting power of attorney signed by the legally authorized signatories of all the partners.

- c) The partner-in- charge (or, the lead partner) shall be authorized to incur liabilities and to receive instructions on the behalf of the partners of the Joint Venture, whether jointly or severely, and entire execution of the contract (including payment) shall be carried out exclusively through the partner- in- charge.
 - d) The share of one of the two partners shall not be less than 26% and rest of the share shall be held by other partner (For example if share of one partner is 26% then for other partner it will be 74%.) The JDA will only send communication to the lead partner, which will be deemed to have been sent to all the J.V. partners. Similarly, any negotiation and / or agreement with the lead partner shall be deemed to have been concluded with all the J.V. partners. All the members of J.V. shall be bound by the said communication and all acts/ deeds of the lead member.
 - e) Any one of the two partners, alone, should fulfill the Technical Criteria laid down in clause 2a & 2b of Special Conditions. Similarly, any one of the two partners, alone, should fulfill the Financial Criteria laid down in clause 2c of Special Conditions. For rest of the eligibility criteria, qualifications of the two partners may be clubbed together.
 - f) The individual partner of J.V. alone or with other partners cannot participate in the same bid.
 - g) Bid capacity is to be calculated by clubbing turn over and work in hand of all the firms of joint venture.
 - h) Attested copy of the MoU / Agreement/ Power of attorney entered into by the joint venture / consortium members duly registered with the appropriate Registrar's Office shall be submitted along with the Technical Bid with intended percentage participation nomination of lead member and division of responsibility to define the work of each member etc.
 - i) All the members of the joint venture/ consortium shall be jointly and severally liable for the execution of the Contract.
 - j) In the event of default by any member of the joint venture/ consortium in the execution of his part of the contract, the partner-in-charge will have the authority to assign the work to any other party acceptable to the employer to ensure the execution of the part of contract.
 - k) If initially the bid has purchased & submitted by the any partner or by the J.V. firm, in case of J.V. bid accepted, the work order will be issued in favour of name of J.V. and the bidder will submit details of JV bank account to which payment is to be deposited by JDA.
 - l) The experience certificate will be issued as per percentage of the shareholders defined in JV agreement of the two partners.
- (V) To qualify for award of contract, the bidders shall submit a written power of attorney authorizing the signatory (ies) of the bid to commit the bidder or each member of the joint venture/ consortium. In case of foreign members, power of attorney(s) and board resolution confirming authority on the persons issuing the power of attorney for such actions, shall be submitted duly registered with the appropriate Registrar's Office and stamped by the Indian Embassy/ High Commission.

- (VI) Cancellation, modification or creation of a document such as power of attorney, partnership deed, constitution of firm etc., which may have bearing on the bid / contract, shall be communicated forthwith in writing by the bidder to the Engineer-in-charge or Employer.
- (VII) The bidder should confirm and declare that in the bid submitted that they, or any associate have not engaged in any fraudulent and corrupt practice and that no agent, middleman, or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award of this contract.
- (VIII) **Joint Venture firm purchase bid document on their joint venture name otherwise bid will be invalid.**

To ensure consistency in the bidding process clarifications/documents which can be sort from bidders after opening of technical bid as RTPP Act/Rules 2012 & 2013.

7. Bid Evaluation Sheet:--

The contractor has to submit on line, duly filled Bid Evaluation Sheet in the prescribed form given as **Schedule-VIII**. For this purpose the bidder should mark page numbers on all the documents being uploaded by him in support of the bid and mention carefully the relevant page number in the Bid Evaluation Sheet. Any unwanted pages should not be uploaded. Only the page number mentioned by the bidder in the respective column of the Bid Evaluation sheet will be considered for evaluation of the bid.



**Executive Engineer Zone-8
JDA, Jaipur**

Schedule – I

FINANCIAL RESOURCES AND CAPABILITY

[Reference clause 3 (a)]

1. Name of Bidder: - M/s.....
2. Total financial turnover achieved by the bidder in the last seven financial years:

S. No.	Year	Turnover
(1)	2025-26 (Current Financial Year)	
(2)	2024-25	
(3)	2023-24	
(4)	2022-23	
(5)	2021-22	
(6)	2020-21	
(7)	2019-20	
(8)	2018-19	

Note: Balance Sheets and Profit & Loss Accounts is to be enclosed by the bidder which is considered by him as per criteria 2 (a).

3. Total financial Turnover projected in the current financial year
4. Has the bidder ever been debarred from bidding for Central Government/State Government/any Government undertaking?
Yes / No, if yes give details.
5. Has bidder ever been declared insolvent?
Yes/No, if yes give details.
6. Name(s) and Address of Branch/(s) for bidder's Bankers.

I/We hereby certify that the above information is correct to the best of my/our knowledge and belief.

Signature of Bidder

Date :

(With Seal wherever applicable)



SCHEDULE – II

[Reference clause 3(b)]

Details of Quantities of work executed during last seven financial years

S. No.	Name of Works (With agreement No. & Date)	Client	Place (district)	Financial Year	Principal Items of work			Page No.
					RCC/PSC /Design Mix CC M35 grade or above	Steel Reinforcemen t/ Structural steel/ PSC Strands	PSC SEGMENTAL BOX GIRDER	

Signature of Bidder

Note: Certificate from concerned Engineer-in-Charge should be enclosed in support and verification of the above statement.



TECHNICAL BID

SCHEDULE – III
[Reference Clause 3(d)]

AFFIDAVIT

I/We Proprietor/Partner/Authorized signatory of
M/s..... under take the oath that I/We will deploy the
machinery and equipment listed below as and when required in the execution of this work.

S. No.	Name of Machinery	Minimum Requirement	availability		
			Owned	Leased	Hired
a)	Piling Equipment Hydraulic Rig (1200mm dia piling)	3			
b)	Fully Automatic and Computerized Batching Plant (One 30 Cum/hr at casing yard and two 30 cum/hr at site) with a Reverse Osmosis Plant of suitable capacity for proper quality of water. One of the plants should also have chiller attachment for hot climate concreting	2			
c)	Concrete Pumps	3			
d)	Cranes 10 T to 20 T capacity	4			
e)	Gantry in casting yard	2			
f)	Pre-casting beds (typical segments and diaphragm segments)	5 of 30 m length			
g)	Launchers for box girders	2 or more			
h)	Launching Truss for lateral segment member	2 set			
i)	Transit Mixtures 6 cum capacity	6			
j)	Trailers for carrying Segments– 75 T capacity	3			
k)	Pre-stressing equipment	4 Sets			
l)	Survey Instruments – Total station with 1 deg, LC (with one Surveyor and one CAD Operator during entire construction period)	3			
m)	Lab Testing equipments-fully equipped for site tests. (Minimum 2 labs are required for site and casting yard) with UTM	As per requirement			
n)	Hydraulic Pile breaker (Splitter) machine	2			
o)	Proklain	2			
p)	Hydra 20 T	3			
q)	JCB	4			
r)	Dumper	6			
s)	Earth Compactor	1			
t)	Crane of minimum capacity 100 T. (Crawler)	2			
u)	Bitumen Batch Mix Plant (capacity 45 tonne)	1			
v)	Paver	1			

I/We hereby certify that the above information is correct to the best of my/our knowledge and belief.

Date:

Signature of Bidder

(With seal)

Note : This self-declaration is mandatory to be signed by the bidder failing which the bid shall summarily be rejected without asking any clarification.

SCHEDULE - V

SCHEDULE - IV

[Reference Clause 3(e)]

**DETAILS OF MAXIMUM VALUE CIVIL ENGINEERING WORKS EXECUTED IN ANY ONE YEAR DURING THE LAST SEVEN YEARS TAKING INTO
ACCOUNT THE COMPLETED AS WELL AS WORKS IN PROGRESS**

S. No.	Name of Works (with agreement No. & Date)	Client	Place (district / state)	Financial Year	Cost of Work as per Work Order	Stipulated date of commencement	Stipulated date of completion	Value of work done during the year

Signature of Bidder

SCHEDULE - V
[Reference Clause 3(f)]

DETAILS OF EXISTING COMMITMENTS & ON GOING WORKS TO BE COMPLETED

S. No.	Name of Works (With agreement No. & Date)	Client	Cost of Work as per Work Order	Stipulated date of commencement	Stipulated date of completion	Value of balance work on date of bid	Likely date of completion of balance work

Signature of Bidder

SCHEDULE - VI
[Reference Clause 3(g)]
DETAILS OF LITIGATION OR ARBITRATION CONTRACTS

S. No.	Name of Works (with agreement No. & Date)	Client	Work Order Amount	Disputed Amount Claimed in Litigation / Arbitration	Date of Raising Disputed Amount	Actual Award Amount, if the case is Decided	Cause of Litigation & matter in Dispute

Signature of Bidder

SCHEDULE –VII

[Reference Clause 3(h)]

BID CAPACITY

Name of Bidder: - _____

1.	A = Maximum value of civil Engineering works Executed in any one year during the last seven Years (Updated to present price level)	_____Lacs	Certified details enclosed at Page No. _____
2.	N = Number of years prescribed for completion of the Work for which bids are invited	2.5	
3.	B = Value, at present price level of existing Commitments and ongoing works to be Completed during the next N Period.	_____Lacs	Certified details enclosed at Page No. _____

Bid Capacity = $A \times N \times 3 - B$

= _____Lacs

Signature of Bidder

ANNEXURE-1

Attested photo of
the bidder

Self Declaration

I/We Proprietor/Partner/
Authorized signatory of M/s..... under
take the oath that the information furnished by me/us in schedule I to VIII of the
assessment Bid for.....
..... is correct to the best
of my/ our knowledge. If any information is found to be incorrect JDA has right to
reject the Bid and to take action against me/us as per rules.

.....
Proprietor/Partner/Authorized signatory
M/s.....
.....
.....
.....

Note:- This Self Declaration is mandatory to be signed by the bidder failing which
the bid shall summarily be rejected without asking any clarification.

(Refer clause 6,(ii),f, of Special Conditions of Contract)

UNDERTAKING FOR NOT BLACKLISTED

(On a Non Judicial Stamp of Rs 100/-)

We do hereby undertake that we have not been Blacklisted and Deregistered or debar (for this period) by any Central/ State Government or Public Sector Undertaking, Autonomous Bodies etc., and also that none of our work has rescinded by the client after award of contract during last 03 years.

Stamp and Signature of Authorized Signatory

Note: The undertaking shall be signed by authorized signatory of the bidder on Non Judicial Stamp of Rs. 100

GENERAL INFORMATION OF TENDERER

ANNEXURE 3

page 1 of 2

Refer clause 6 (iv,1) of Special Conditions of Contract for Pre qualification of contractors.

A. BIDDER INFORMATION SHEET		
BIDDER s Legal Name	Sole Proprietorship Firm/Partnership Firm /Private Limited Company/Public Limited Company/ Joint Venture/Consortium	
In case of single entity, ownership & control of the Tenderer		
In case of JV/Consortium, Legal name of each partner with percentage participation (also Provide information of each member in separate sheet (page 2 of 2)	Legal Name of JV/Consortium member	% participation
Lead member of JV/Consortium,		
Bidder's actual or intended country of constitution		
Bidder's legal address, telephone numbers, fax numbers, e-mail address.		
Bidder's authorized representative or person-in-charge in case of JV/Consortium, (name, designation address)		

SIGNATURE OF AUTHORIZED
SIGNATORY
ON BEHALF OF BIDDER

B. JV/CONSORTIUM MEMBER INFORMATION	
JV/Consortium Member of Legal Name	
Legal status of the JV/Consortium Member	Sole Proprietorship Firm/Partnership Firm /Private Limited Company/Public Limited Company
Ownership & control of the JV/Consortium Member	
JV/Consortium Member country of constitution	
JV/Consortium Member of legal address, telephone numbers, fax numbers, e-mail address)	
JV/Consortium Member's authorized representative (name, designation address)	

ATTACH ATTESTED COPIES OF FOLLOWING ORIGINAL DOCUMENTS

- Document in support of legal status and ownership & control of the bidder or each member in case of JV/Consortium (undertaking for sole proprietorship/ partnership deed/ Memorandum & Articles of Association)
- In case JV/Consortium, submit MoU/Agreement (Registered with the appropriate Registrar's Office) entered into by the joint venture/consortium members, containing intended percentage participation, nomination of Lead Member and division of responsibility to clearly define the work of each member etc.
- Authorization/POA in favor of authorized representative of tenderer to represent the bidder and also in favor of authorized representative of each member in case of JV/Consortium

SIGNATURE OF AUTHORIZED
SIGNATORY
ON BEHALF OF BIDDER

Schedule-VIII

Bid Evaluation Sheet

Name of Work :- Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur.

S. No.	Criteria	Required Qualification	Bidders qualification	Bidders uploaded document Page No.	Remark
1	2	3	4	5	6
1	Copy of GST Reg. Certificate & GST Registration and latest GSTR-3B return for last month from month of floating bids				
2	Copy of Registration certificate	The bidder should have a valid Registration Certificate in AA Category as specified. AA class in JDA or AA class or equivalent class in other department.			
3	a. Proof of Bid Security deposition				
	b. Proof of bidding document cost deposition	Rs. 5000/-			
	c. Proof of RISL fees deposition.	Rs. 2500/-			
4	The bidder should have executed following quantities of work in any one financial year of the last seven financial years. However the bidder may opt current year in the said financial assessment period. (Schedule-II).				
	a.				
	b.				
	c.				
5	(i) The bidder should have completed/executed at least one similar nature work in last seven financial year (including current year, if opted by the bidder) of value not less than 50% (Rs. 109.35 Crore) of the estimated cost of the work (Bid cost) updated to present price level. or (ii) The bidder should have completed/executed at least two similar nature work in last seven financial year (including current year, if opted by the bidder) of				

	value not less than 30% (Rs. 65.61 Crore) of the estimated cost of the work (Bid cost) updated to present price level.				
6	The bidder should have achieved an annual financial turnover of at least 60% of the work (Bid cost) in any one of last seven financial year (including current financial year).				
7	The bidder should give declaration to deploy the machinery and equipment as prescribed in schedule-III, for the execution of this work. Duly Self attested.				

8	Bid Capacity (AxNx3-B) (Schedule III)				
a	A is Maximum value of civil engineering work executed in any one of last 7 financial years. (Schedule IV)				
b	N is number of Years Prescribed for completion of the work. (N=2.5)				
c	B is value at present price level of existing commitments and ongoing. (Schedule V)				
9	Self declaration in support of information furnished by bidder in Annexure-I				
10	Schedule-VI (Details of Litigation).				
11	Signed Annexure "B"(RTPP Act/Rules)				
12	Undertaking for not being blacklisted. (Annexure-2)				

Note:- This sheet must be prepared and submitted by the bidders.

Signature of Bidder with Seal

Annexure-4

Special Conditions of Contract regarding Defect Liability Period (DLP) for Various works costing Rs. 25.00 Lacs and more

1. ROAD WORKS

- 1.1 The Defect Liability Period (DLP) for all Road works excluding patch repair work shall be as per table-1. Road works executed by the Contracting agency shall be maintained by them at their own cost for Schedule as per table-1 (DLP) from the actual date of completion of work as per the clause in the Contract Agreement and Special Condition of Contract.
- 1.2 No extra payment shall be made to the contracting agency on account of maintenance of Road works and removal of defect during Defect Liability Period.
- 1.3 The word “Road Works” means all new Road Works construction, strengthening and renewal works.
- 1.4 The word “Maintenance of Road Works during Defect Liability Period” means
- (i) Routine maintenance of Road Works,
- (ii) To remove the defect as & when appear in part and entire structure of Road Works, in specified time and keeping the Road Surface with good riding quality and
- (iii) Damages due to improper drainage / drains, local flooding, depressions on roads etc.
- 1.5 The contracting agency shall do the routine maintenance of Road works, including pavement, road side and cross drains including surface drains to the required standards and keep the entire road surface and structure in Defect free conditions during the entire period of routine maintenance, which begins at completion of the construction work and ends after Schedule as per table-1.
- 1.6 The routine maintenance shall consist of the routine maintenance operation defined in manual for maintenance of roads of MoRTH and shall be carried out accordingly.

1.7 (a) The routine maintenance activities and their periodicity as per JDA Office order no: JDA/Ex.En.(TA to DirEngg.-I)/2016/D-29 dated 11.03.2016

Table-I

S.No.	Type of work	DLP Period
1	Bridge work	5 Years
2	CD work	5 Years
3	CC road, PQC work	5 Years
4	CC tiles/Kerb/ Medians	5 Years
5	Drains	5 Years
6	Roads	
	(i) Two Layer WBM/GSB	6 Months or one full rainy season whichever is later
	(ii) For Renewal/Strengthening	
	(a) BT upto 30 mm thickness	5 Years
	5 BT above 30 mm to upto 40 mm	5 Years
	(c) BT above 40 mm to upto 90 mm	5 Years
	(d) BT above 90 mm	5 Years
	(iii) New roads	
	(a) BT upto 90 mm	5 Years
	(b) BT more than 90 mm	5 Years
7	Compound wall	5 Years
8	Building work	
	(i) Work pertaining to sanitary works electrical works, Joinery works and painting works.	2 Years
	(ii) Work pertaining to building structure and other civil works.	5 Years
9	Electric work except maintenance	3 Years
10	Sewer/water supply all including STP and water supply related work except maintenance works	3 Years

1.7 (b) The routine maintenance activities and their periodicity

S.No.	Name of Item/Activity	Frequency of operations in one year
1	Restoration of rain cuts and dressing of berms.	Once in a year, generally after rains.
2	Making up of shoulders.	As and when required.
3	Maintenance of Bituminous surface road and/or gravel road/WBM road including filling pot holes and patch repairs etc.	As and when required.
4	Insurance of proper functioning of drains including civil maintenance and desilting of drains. (If constructed by the same Road agency or not)	As and when required.
5	Maintenance of road signs. (If installed by the same Road agency)	Maintenance as and when required. Repainting <u>once in every one and half years.</u>
6	Road Marking, Kerb Stone/Dand. (If done by the same Road agency)	Thermoplastic Paint Maintenance as and when required. Repainting <u>once in every one and half years.</u> Ordinary Paint Maintenance as and when required. Repainting <u>thrice in every years.</u>
7	Damages beyond control of agency.	Road cuts made by various agencies for utility, duly permitted by JDA / JNN will have to be repaired by agency on the same rates of the contract agreement till DLP.

2. General

2.1 Inspection of works during Defect Liability Period

- 2.1.1 The contracting agency shall undertake joint detailed inspection along with Engineer-in-charge/A.En., at least once in three months in case of all Road works. The Engineer-in-charge can reduce this frequency in case of emergency. The Contracting agency shall forward to the Engineer-in-charge the record of inspection and rectification immediately after the joint inspection. The Contracting agency shall pay particulars attention on those road sections, which are likely to be damaged during rainy season.
- 2.1.2 One register has to be maintained by every A.E.n for recording the inspection details of works in his jurisdiction under defect liability period.

2.2 Conditions regarding Security Deposit

2.2.1 **Security for DLP-**

The contracting agency shall have to furnish security deposit (SD) in the form of Bank Guarantee valid from the actual date of completion, which shall be assigned by the Engineer-in-charge.

2.2.2 **Refund of SD –**

The release of SD amount shall be as following table:-

S.No.	Released SD DLP period	1 st year	2 nd year	3 rd year	5 th year
1	Upto 1 year	100 %	40 %	20 %	10 %
2	Upto 2 Year		60 %	20 %	10 %
3	Upto 3 Year			60 %	10 %
4	Upto 4 Year				20 %
5	Upto 5 Year				50 %

Various conditions for managing DLP are as under:-

- At the time of completion of work, final component shall be worked out for each individual item like BT/CC /tiles/drains etc (as per different categories in Table I), DLP shall be operative based upon type of individual item ex:- CC-5 years, BT- 1/2/3/5 years, Drain- 3 years etc.
- Similarly for all new works, these components should be calculated at the time of TS itself, which should be made part of BID document.

- (iii) If any work, amount is less than Rs. 25 lakhs but later on due to extra/excess work, if amount of final work crosses more than Rs. 25 lakhs, DLP shall be operative as per rule for each individual item.
- (iv) Similarly if any work is more than Rs. 25 lakhs but later finalization amount of work is less than Rs. 25 lakhs, DLP should be operative for six months or rainy season whichever is late.
- (v) During DLP period if contractor fails to repair any work even after issue of 7 days written notice, same work shall be got executed by respective Executive Engineer at the contractor's risk and cost. This process shall be applicable throughout the DLP period. After completion of DLP period in such works contractor should be debarred and blacklisted from JDA for three years as per RTPP Rule 2012 and 2013 where he defaults twice in a single agreement or in two different works.
- (vi) Quarterly inspection as per rules shall be carried out and DLP registers shall be maintained by respective Executive Engineers to monitor the DLP repairs.
- (vii) Special and regular inspection shall also be carried out as per order no. JDA/Ex.En& TA to DE-I/ 2014-15/D-223 dated 12.03.2015 and order no. SE (PMGSY) CIRCULAR 2006/D-115 dated 04.05.2006 point no. 3
- (viii) In case JDA feels to take up work on any existing DLP road due to any reason, following procedure should be adopted.
 - (a) At the time of withdrawal total liability of repairs as per DLP conditions to be carried out and contractor shall be asked to complete the same. After completion of assessed repairs DLP period shall be released after deduction amt. as per table III.

% recovery on withdrawal of DLP of work order	1 Year	2 Year	3 Year	4 Year	5 Year
DLP period					
1 Year	1.12	-	-	-	-
2 Year	2.55	1.43	-	-	-
3 Year	4.38	3.26	1.83	-	-
5 Year	9.00	7.88	6.45	4.62	2.47

Note :- Calculation is to be done on quarterly basis.

- (b) In case Contractor fails to carry out these repairs, same shall be carried out at his risk and cost. If the total amt. of such repairs works out to be more than total retained amt. of SD, same shall be recovered from other works and as per PDR rules. The amount as per Table-III is also to be deducted in addition to this amount.
- (c) Based upon type of work, DLP conditions for works to be carried out during DLP period with their frequency of respective type of work shall be prepared by respective SE's after approval of these periods.

2.2.3 Force Majeure

The defect arises due to earthquake, cyclone, and natural calamities shall not be the responsibly of contracting agency.

Signature of Bidder

With full address and Mobile No:



Executive Engineer

Zone-8 JDA, Jaipur

Process for Tender Participation & Depositing Payment on 'Online Tender Participation' Portal of JDA & Bid Submission on 'e-Procurement Portal' of Government of Rajasthan: -

A*Process for Tender Participation & Depositing Payment on 'Online Tender Participation' Portal of JDA

1- Participate in tender

- a) Bidder can access 'Online Tender Participation' Portal of JDA at <https://jda.urban.rajasthan.gov.in/jda> or by Single-Sign-On at <http://service.jaipurjda.org>.
- b) Create user Login with a valid mobile number to register yourself for various Online Services of JDA.
- c) Select 'Proceed as Citizen' and then 'Proceed for Subscription' for 'Tender Online Payment'. The prevailing plan for getting registered for tendering process of JDA is Rs. 500.00 with a validity period of 3 Years (renewable).
- d) After successful payment, re-login and upload required documents for KYC (Know Your Client) compliance as per the type of entity viz. Individuals/ Company/ Partnership Firms/ Trusts & foundations. Besides, Bank Passbook / Cancelled Cheque consisting of Bank Account, IFSC Code is mandatory to be uploaded, to refund the bid security of unsuccessful bidder.
- e) After receiving the payment successfully and approving KYC documents the bidder will be authenticated by JDA for taking part in Tender.

2- Deposit Tender Fee, RISL processing fee and Bid Security (EMD)

- **Option-1:** Payment Gateway (Aggregator)
The facility to make payment through Debit Card, Credit Card, Net banking etc., will be available. User can use this facility from anywhere any time till the closing date & time of bid participation.
- **Option-2:** Electronic Fund Transfer (EFT: NEFT/RTGS)
If the bidder selects payment mode as EFT (NEFT/RTGS), "Paying Slip for EFT (NEFT/RTGS)" will be generated by the system for the complete amount. The payment can be made from any Bank any Branch using this Paying Slip through NEFT/RTGS (Claim against payment made through EFT in any other JDA bank account will not be acceptable and bidder stands disqualified from participation in the bid applied for). After successful transaction through NEFT/RTGS, as per the standard procedures it may take 4 to 24 hours in process of confirmation of EFT through Auto-Process depending on the time of EFT done. Therefore, option to make payment through EFT (NEFT/RTGS) will be available till 48 hours prior to closing date of bid participation.

3- Deposit Bid Security (EMD)

The Bid Security (EMD) can be submitted through Bank Guarantee (BG). Bidder may opt Bank Guarantee (BG) against Bid Security (EMD), for which bidder requires to prepare BG before applying in the tender. The detail of BG requires to be fed on 'Online Tender Participation' Portal of JDA before paying balance amount (Tender Fee + RISL Processing Fee). This balance amount will be paid through Payment Gateway only, option to make balance payment through EFT (RTGS/NEFT) will not be available.

4- Obtain Bid Participation Receipt

After confirming payment, the bidder will get Bid Participation Receipt based on which user will get the payment details along with other details for bidding on e-Procurement portal of GOR.

- In case of BG as the remaining payment will be done through Payment Gateway, on successful transaction the 'Bid Participation Receipt' will be generated on real time basis.
- In case complete payment is done through Payment Gateway, on successful transaction the 'Bid Participation Receipt' will be generated on real time basis.
- In case complete payment is done through EFT (NEFT/RTGS), on confirmation of payment from ICICI Bank (Auto Process) 'Bid Participation Receipt' will be available on Login of Bidder on JDA portal.

B-**Bid Submission on 'e-Procurement Portal' of Government of Rajasthan

- 1- Online e-Bid can be submitted after registration at e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in
- 2- It is mandatory to upload Bid Participation Receipt with the bid submission.
- 3- Details of online payment available on Tender Participation Portal of JDA have to be filled in 'offline payment' section of e-Procurement portal.

Note

- 1- Bidder (authorized signatory) shall submit their offer on-line in electronic formats both for technical and financial proposal.

- 2- In case, any of the bidders fails to pay the Tender Fee, BSD, and RISL Processing Fee, online (subject to confirmation), its Bid shall not be accepted.
- 3- To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Type III) as per Information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e., TCS, Safecrypt, nCode etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC. Also, bidders must register on <http://eproc.rajasthan.gov.in> (bidders already registered on <http://eproc.rajasthan.gov.in> before 30-09-2011 must register again).
- 4- JDA will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed; choking of web site due to heavy load or any other unforeseen problems.
- 5- Bidders are also advised to refer "Bidders Manual Kit" available at eProc website for further details about the e-Tendering process.
- 6- Training for the bidders on the usage of e-Tendering System (eProcurement) is also being arranged by DoIT&C, GoR on a regular basis. Bidders interested in training may contact e-Procurement Cell, DoIT&C for booking the training slot.

Contact No: 0141-4022688 (Help desk 10 am to 6 pm on all working days) e-mail: eproc@rajasthan.gov.in

Address: e-Procurement Cell, JDA, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur

- 7- The procuring entity reserves the complete right to cancel the bid process and reject any or all of the Bids.
- 8- No contractual obligation whatsoever shall arise from the bidding document/ bidding process unless and until a formal contract is signed and executed between the procuring entity and the successful bidder.
- 9- Procurement entity disclaims any factual/ or other errors in the bidding document (the onus is purely on the individual bidders to verify such information) and the information provided therein are intended only to help the bidders to prepare a logical bid-proposal.
- 10- The provisions of RTPPA Act 2012 and Rules thereto shall be applicable for this procurement. Furthermore, in case of any inconsistency in any of the provisions of this bidding document with the RTPPA Act 2012 and Rules thereto, the later shall prevail.



Jaipur Development Authority Jaipur

Name of Work: “Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur.”

VOLUME - I

GENERAL INFORMATION

A handwritten signature in blue ink, appearing to read 'N. L. D.' or similar, is written above the official title.

**Executive Engineer Zone-8
Jaipur Development Authority
Jaipur**

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SECTION – 1

(Instructions to Bidders)

SECTION – 1

INSTRUCTIONS TO BIDDERS

1.1 SCOPE OF WORK

- 1.1.1 **Percentage Rate Bids** are invited from eligible contractors for the
Name of work: - “Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur.”

(Hereinafter referred to as the “Contract Work”).

- 1.1.2 The Work shall include the Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump based on the departmental design and shall include:

a) Construction of Bridge

The structure for Bridge consist of PSC segmental box Girders. The main activities in construction are as follows:

- Confirmatory Survey, true & proper setting out and layout of the work, providing location marks, bench marks.
- Site clearance / earthwork including work in foul conditions & dismantling as required.
- Shifting of sewer line and water supply lines, Electric lines and other services
- Diversion of traffic as required including barricading, traffic calming devices, providing trained manpower for traffic management in entire affected reach of project including coordinating with police & local authorities for the same.
- Pile foundation for the Elevated Road.
- Construction of Elevated Road substructure
- Construction and launching of precast Segmental Elevated Road superstructure
- Fixing of expansion joint and bearings.
- Construction of approach Roads.
- Construction of Reinforced Earth Retaining Wall
- Casting of RCC Crash Barrier with Railings.
- Providing wearing coat.
- Construction and launching of Bow String
- Thermoplastic Road marking work.
- Submission of Bar bending Schedule
- Setting up the QC lab at site.
- Electrification work.
- Construction/ Improvement of junction/ intersection as per design.

b) Miscellaneous

- Submission of monthly progress photograph prints A4 size (2 sets) and soft copy as directed in external hard disks;
- All aspects of quality assurance (including test loading) for various components of the work as specified or as directed;
- Clearing of Site and handing over of the works, as specified or as directed;
- Submission of detailed programme showing the sequence of activities, method of construction, details of constructional plant and equipments, with which the bidder proposes to carry out the entire work, as shown in the relevant drawings and as specified.,
- Detail project planning programme is to be given by using Prima Vera/ MS Project software on fortnightly basis.
- Furnishing of all requisite particulars as stated above, substantiated with detailed design calculation for each constructional stage and its effect on substructure and foundation on the basis of departmental design;
- Any other work required to be carried out to complete the works in all respects in accordance with the provisions of the contract and / or as directed by the Engineer in Charge ensuring structural stability and safety during and after construction even though not specifically mentioned in the contract but reasonably implied as necessary for successful implementation of the contract.

1.2 COST OF BID DOCUMENTS, BID PROCESSING FEE AND BID SECURITY

The bidder shall bear all costs associated with the preparation and submission of the bids for the works and Director (Engineering-II), Jaipur Development Authority will, in no case, be responsible or liable for any such costs, regardless of the conduct or outcome of the bid process.

1.2.1 Process for participation & Depositing Payment Online

Jaipur Development Authority, has decided to receive Bidding document fee, RISL Processing Fee and Bid Security Deposit (BSD) through online mode only for which the bidder has to get registered himself on JDA portal www.jda.rajasthan.gov.in

To participate in the bid, bidder has to be:

1. Registered on JDA website www.jda.rajasthan.gov.in (by depositing Rs.500.00 online, the validity of which remains 3 (three) years.)
For participating in the Bid, the Bidder has to apply for this Bid and pay the bid Document Fee, RISL Processing Fee and Bid Security Deposit online only.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.

Methods for depositing online amount.

- Online through internet Banking, Debit card or Credit Card.
- In case the amount exceeds the online payment limit, the payment may be made through RTGS/NEFT/Transfer in Bank Account Number **675401700518** IFSC Code **ICIC0006754** of ICICI Bank limited, JDA Campus Jaipur.

In Case of RTGS/NEFT/Transfer the bidder is required to deposit the requisite amount in the dedicated bank account number as mentioned above and has to get the UTR/ Reference number from the bank. This number requires to be updated whiling applying the bid on JDA portal.

While participation in the bid, a receipt will be generated through the system showing the submission details as per Annexure-4. The bidder is required to fill the instrument numbers for various heads on e-procurement portal www.eproc.rajasthan.gov.in as mentioned in the receipt.

More details about Registration Process, Terms and Conditions and FAQ along with contact details is available on JDA website www.jaipurjda.org under e-Services>>JDA tender.

NOTE :

JDA will not be responsible for delay in online submission due to any reason. To avoid this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed, chocking of web site due to heavy load or any other unforeseen problems.

1.3 SITE VISIT

- 1.3.1 The bidder shall, prior to submitting his bid for the work, visit and examine the Site of works and its surroundings at his own expense and obtain and ascertain for himself on his own responsibility all information that may be necessary for preparing his bid and entering into a Contract - including, the actual conditions regarding the nature and conditions of site, availability of materials, labour, probable sites for labour camps, stores, etc., and the extent of lead and lift required for the work in complete form over the entire duration of the Contract after taking into consideration local conditions, traffic restrictions, obstructions in work, if any, and allow for all expenses likely to be incurred due to any such conditions, restrictions, obstructions, etc., in the quoted Contract price for the work.
- 1.3.2 A bidder shall be deemed to have full knowledge of the site, whether he inspects it or not, and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
- 1.3.3 The bidder and any of his personnel or agents will be granted permission by the Director (Engineering-II) or his authorized nominee, on receipt of formal

application in respect thereof a week in advance of the proposed date of inspection of site, to enter upon his premises and lands for purpose of such inspection, but only on the express condition that the Bidder, his personnel or agents, will release and indemnify, the Employer and his personnel and agents from and against all liability in respect thereof and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused which, but for the exercise of such permission, would not have arisen.

1.4 CONTENTS OF BID DOCUMENTS

- 1.4.1 The set of Bid Documents issued for the purpose of bidding shall comprise the following :

SECTION	DESCRIPTION
SECTION-1	INSTRUCTIONS TO BIDDERS
SECTION-2	GENERAL CONDITIONS OF CONTRACT
SECTION-3	OTHER CONDITIONS OF CONTRACT
SECTION-4	TECHNICAL SPECIFICATIONS
SECTION-5	FORM OF AGREEMENT
SECTION-6	BANK GAURANTEE
SECTION-7	CONDITIONS OF CONTRACT FOR SAFETY, HEALTH AND ENVIRONMENT (SHE)
SECTION-8	DRAWINGS

- 1.4.2 The bidder is expected to examine carefully all instructions, conditions, forms, terms, and performance specification and drawings in the Bid Documents. Failure to with the requirements of Bid submission shall be at the Bidder's own risk. Pursuant to clause 1.18, bids which are not substantially responsive to the requirements of the Bid documents shall be summarily rejected.
- 1.4.3 At any time prior to the last date for submission of bids, the employer may, for any reason whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bid Documents by the issuance of an Addendum.
- 1.4.4 The Addendum will be prepared in writing and uploaded on E- Tendering portal for information of all prospective Bidder who wish to participate, and will be binding

upon them, irrespective of whether the prospective bidder acknowledge receipt of the same or not.

- 1.4.5. The forms, Bill of Quantities, Performa and schedules provided in these Bid Documents shall be filled without exception (subject to extensions of the schedule in the same format).
- 1.4.6 The bid prepared by the bidder, and all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the English language only. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied with an appropriate translation of pertinent passages in English language. For the purpose of interpretation of the Bid, the English language shall prevail.

1.5 BID PRICES

- 1.5.1 Unless explicitly stated otherwise in the Bid Documents, the contract shall be for the whole work based on the departmental design, Bill of quantities, rates and prices submitted by the Bidder.
- 1.5.2 The Bidder shall fill in **rates on percentage above/below for all items of Schedule G (For BSR items and NON BSR Items)** of works described in the Bill of Quantities in both figures and words. In case, there is any discrepancy in the rates quoted in figures and words, the rate quoted in words will be applicable.

If on check there are discrepancies the following procedure shall be followed:-

- (i) Where there is a difference between the rates in figures and words, lower of the two rates shall be taken as valid and correct rate.
- (ii) When the rate quoted by the contractor in figures and in words tallies, but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount worked out.
- (iii) While quoting rates, if rate/rates against any item or items are found to be omitted, the rate given in the Schedule 'G' by the department for such items will be taken into account while preparing comparative statement and contractor shall be bound to execute such item on 'G' Schedule rates.

In case where percentage is given but the 'above' or 'below' not scored, the bid will be non-responsive.

The Contractor should quote his rates only in one language i.e. either in Hindi or English. Rates should be quoted in figures as well as in words. In case a Contractor has quoted rates in both the languages, and the rates so quoted differ, then the lower of the two shall be treated as the rate quoted by the Contractor.

1.5.3 All duties, taxes, fees and other levies (present and future) payable by the contractor under the Contract, or for any other cause, as on the date thirty days prior to the closing date for submission of bids, shall be included in the total Contract Price submitted by the Bidder and the evaluation and comparison of Bids by the Employer shall be made accordingly.

1.5.4 M/s Thoughts Consultants Jaipur Pvt. Ltd., was engaged by the Employer for consultancy of the project preparation of this work. The said firm or any of its associates or employees shall not be engaged by the Bidder for any assistance in preparation of bid, drawings, Bill of Quantities and any other part of the Bid Documents for this work. The said firm or its associates or employees shall not be engaged or associated by the Contractor in any manner in the preparation of any contractual matters. Non-compliance with the above conditions shall render the bid / contract invalid.

1.6 **BID SECURITY**

1.6.1 Any bid not accompanied by an acceptable form of Bid Security will be summarily rejected by the Employer as non-responsive.

1.6.2 The Bid Security of the unsuccessful Bidder will be discharged/ returned without interest as promptly as possible but not later than sixty days after the expiry of the bid validity prescribed by the Employer.

1.6.3 The Bid Security of the successful Bidder will be discharged without interest upon the Bidder signing the Agreement and furnishing the Bank Guarantee / Surety Bond for the performance of the Contract.

1.6.4 There will be no liability on the part of the JDA towards interest on the Bid Security paid by the Bidder.

1.6.5 The Bid Security shall be forfeited:

- a) If a bidder withdraw his bid during the period of bid validity; or
- b) In the case of a successful Bidder, if he fails or refuses within the specified time limit to :
 - i sign the agreement , or
 - ii furnish the required performance security.

1.6.6. Bid Security shall be accepted through on line mode only.

1.7 **VARIATIONS OR DEVIATIONS IN BID DOCUMENTS**

1.7.1 The Bidder shall submit an offer which complies fully with the basic requirements of the Bid Documents as indicated in Drawings and Specifications.

- 1.7.2 All bidder are cautioned that no conditional offers, variations or deviations by the bidder in respect of any items proposed by the bidder shall be entertained or considered further in the process of bid evaluation. Furthermore, any deviation from contract conditions, specifications, or other requirements stipulated in these Bid Documents shall be summarily rejected as non-responsive.

1.8 VALIDITY OF BID

- 1.8.1 The Bid shall remain valid and open for acceptance for a period of 120 days after the date of opening of bid.
- 1.8.1 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing through post, fax etc. A bidder may refuse the request without forfeiting his Earnest Money. A bidder agreeing to the request will neither be required nor permitted to modify his bid, but will be required to extend the validity of his Earnest Money correspondingly. The provision of Clause 1.6 regarding discharge and forfeiture of earnest money shall continue to apply during the extended period of bid validity.

1.9 FORMAT AND SIGNING OF BIDS

- 1.9.1 If the Bid is made by a proprietary firm, it shall be signed by the proprietor with his full name and the full name of his firm with its current address.
- 1.9.2 If the bid is made by a firm in partnership, it shall be signed by a partner holding the power of Attorney for the firm. A certified copy of the power of Attorney shall accompany the Bid. The Certified copy of the partnership deed, current address of the firm and full name and current address of all the partners of the firm shall also accompany the Bid.
- 1.9.3 If the bid is made by a private limited company or a public limited corporation, it shall be signed by a duly authorized person holding the power of attorney for such limited company or corporation. A certified copy of the Power of Attorney shall accompany the Bid. Such Limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.
- 1.9.4 The bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign the Bidder legally to the contract in all respects. Proof of such authorization shall be furnished in the form of a written

Power of Attorney, duly executed and registered with the appropriate Registrar's Office. This Power of Attorney shall authorize the designated individual to sign any necessary documents on behalf of the owner of Agency, as required. All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.

- 1.9.5 The complete bid shall be without alterations, interlineations or erasures, except those to accord with instructions issued by the Employer or as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by person and persons signing the Bid.

1.10 SEALING AND MARKING OF BIDS

1.10.1 THE BIDDER SHALL SUBMIT THE BID THROUGH E-TENDERING ONLY.

1.11 DEADLINE FOR BID SUBMISSION

- 1.11.1 Bids must be submitted by bidders on E-Tendering portal not later than 6:00 PM **I.S.T on 27.06.2025, and bid shall be opened at 1:00 PM I.S.T. on 03.07.2025 in the** presence of those bidders who may choose to be present. If such last date is declared as a public holiday by the Employer in the Receiving Office, the next official working day would be deemed as the last date for submission and opening of the bids.
- 1.11.2 Any Bid submitted by the bidder without depositing requisite fee on the due date and time will not be opened and shall be treated as non-responsive and thus, rejected.
- 1.11.3 The bidder shall have to submit the original affidavits etc. and other documents uploaded in the Technical Bid as and when demanded by JDA.
- 1.11.14 **There should be a gap of 3 working days, between End Date for Bid Applying, Online Payment & Bid Submission and Bid Opening date. JDA will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed: chocking of web site due to heavy load or any other unforeseen problems.**
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1.12 MODIFICATION AND WITHDRAWAL OF BIDS

- 1.12.1 The Bidder may modify or withdraw his bid after bid submission, provided that the modification or notice of withdrawal is received in writing by the Employer in the office of the Director (Engineering -II), Jaipur Development authority, prior to the prescribed deadline for submission of Bids.
- 1.12.2 The Bidder's modification or notice of withdrawal shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause **1.11** for

submission of Bids, with the inner envelopes additionally marked "MODIFICATION" or "WITHDRAWAL" as appropriate.

- 1.12.3 Modifications to Bid will be permitted only pursuant to Clause **1.13.1** above. Any subsequent set(s) of modifications will be summarily rejected.
- 1.12.4 No Bid shall be modified by the Bidder subsequent to the deadline for submission of the Bids, failing which the Earnest Money Deposit shall stand forfeited.
- 1.12.5 No Bid shall be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of validity of bids specified in the Bid Documents. The withdrawal of bid in any form whatsoever during this interval shall entail the forfeiture of the Earnest Money Deposit pursuant to Clause **1.8**, without any further notice or opportunity to the bidder and without prejudice to any other legal rights and remedies open to the Employer.

1.13 BID OPENING & EVALUATION

- 1.13.1 Bids, including submissions made pursuant to Clause 1.14 shall be opened by the Superintending Engineer- XVII, JDA, Jaipur or his authorized representative on behalf of the Employer, in the presence of such of the Bidder, representatives who choose to attend, at **1:00 PM I.S.T. on 03.07.2025** and at the following address.

Room No. CB-SF-201-A, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur- 302004

The Bidder's representatives who are present shall sign a register giving evidence to their attendance.

- 1.13.2 Bids for which an acceptable Notice of withdrawal had been submitted pursuant to Clause **1.13.1** shall not be opened. The Employer will examine bids to determine whether they are complete, whether the requisite bid securities have been furnished, whether the documents have been properly signed and whether the bids are generally in order.

- 1.13.6 At the Bid Opening the Employer will announce only the Bidders' names, the Bid Prices, written notification of Bid modifications and withdrawals (if any), the deposit of the requisite Earnest Money Deposit, and such other details as the Employer, at his discretion, may consider appropriate.
- 1.13.7 Minutes of the bid opening including the information disclosed to those present in accordance with sub-clause **1.14.3** shall be prepared by the Employer for his own records only and the process of bid opening shall be confidential.
- 1.13.8 After the public opening of bids, information relating to the examination, clarification, evaluation and comparison of bids and recommendations concerning the award of contract shall not be disclosed to bidders or other persons not officially concerned with such process.
- 1.13.9 Any efforts by a bidder to influence the Employer in the process of examination, clarification, evaluation and comparison of bids, and in decisions concerning award of contract, may result in the rejection of the Bidder's bid. Any proved act or attempt by any bidder in breach of the above may immediately entail delisting without prejudice to any other legal rights and remedies available to the Employer.

1.14 CLARIFICATION OF BIDS

- 1.14.1 To assist in the examination, evaluation and comparison of bids, the employer may ask the Bidders individually for clarifications of their bids as per order issued in JDA vide No.-169 dated 21.11.14.

1.15 CORRECTION OF ERRORS

1.15.1 Tenders determined to be substantially responsive will be checked by the Employer for any arithmetical errors in computation and summation. The Employer will correct errors as follows:

- a) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern ;
- b) In case of any discrepancy between the descriptions in the Scope of Work, Specifications, Drawings, Condition of Contract and Bill of Quantities, the following order of preference in descending order of importance, shall prevail :
 - 1. Description of Work
 - 2. Specification
 - 3. Drawings
 - 4. Conditions of Contract
 - 5. Bill of Quantities

1.15.2 The amount in the 'Form of Bid' will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the bidders, shall be considered as binding upon the bidders. If a bidder does not accept the corrected amount of bid, his bid shall be rejected and the tender Earnest Money shall be forfeited.

1.16 EVALUATION AND COMPARISON OF BIDS

1.16.1 The Employer will evaluate and compare only those bids determined to be substantially responsive to the requirements of the Bid Documents in accordance with Clauses **1.15** and **1.16** hereof.

1.16.2 In evaluating bids, the Employer will determine for each bid its Evaluated Bid Price by adjusting the Bid Price by making any corrections for errors in accordance with clause **1.15**, by making an appropriate adjustment for any other applicable or quantifiable variations not reflected in the priced bid in accordance with clause **1.15** and such other factors as the Employer deems necessary.

1.16.3 If the bid of the successful bidder is seriously unbalanced or 'front- loaded' in relation to the Engineer-in-Charge's estimate of the real cost of the work to be performed under the contract (as determined by the Engineer-in-charge) by more than the amount of the performance security, the Employer may require that the amount of the performance security be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of subsequent default of the successful bidder under the Contract.

1.16.4 Variations, deviations and other factors which are in excess of the requirements of the Tender Documents, or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in the tender evaluation.

1.17 AWARD OF CONTRACT CRITERIA

1.17.1 Subject to clause **1.19**, the Employer will award the contract to the bidder whose tender has been determined to be substantially responsive to the Tender Documents and who has offered the lowest Evaluated Tender Price PROVIDED FURTHER t h a t , in the opinion of the Employer, the bidder has the capability and resources to carry out the Contract work effectively.

1.18 EMPLOYER'S RIGHT TO ACCEPT ANY TENDER AND TO REJECT ANY OR ALL TENDERS.

The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject one or all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds of the Employer's action.

1.19 NOTIFICATION OF AWARD OF CONTRACT

1.19.1 Prior to the expiry of the period of tender validity prescribed by the Employer, the Employer will notify the successful bidder by telegram / cable fax or E-mail (and subsequently confirm in writing by Registered Letter) that his tender has been accepted. This letter called "Letter of Acceptance" shall name the sum which the Employer will pay to the Contractor in consideration of the execution, completion and maintenance of the work by the Contractor as prescribed by the Contract (called the "Contract Price").

1.19.2 The Letter of Acceptance will form part of the Contract and agreement executed between the parties in accordance with the Form of Agreement provided in the Bid Documents.

1.19.3 Upon furnishing by the successful bidder of a Performance Security in accordance with the provisions of the special conditions of contract, the Employer will promptly notify the unsuccessful bidders that their bids have been unsuccessful and will discharge / return without interest.

1.20 SIGNING OF AGREEMENT

1.20.1 At the same time as he notifies the successful Bidder that his Bid has been accepted, the Employer will instruct the successful bidder to sign and execute the agreement within fourteen (14) days of issue of the Letter of Acceptance.

1.21 FAILURE TO EXECUTE AGREEMENT

The contractor shall execute the agreement within fourteen (14) days of issue of Letter of Acceptance; failure to do so shall constitute sufficient grounds for the annulment of the award of contract and forfeiture of the Earnest Money Deposit.

SECTION – 2

(General Conditions of Contract)

SECTION - 2

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS

1. The "Contract" means the documents forming the bid and acceptance thereof and the formal agreement executed between the Jaipur Development Authority and the Contractor, together with the documents referred to therein, including these conditions, Notice inviting Bids, Instructions to Bidders, Special Conditions of Contract, Specifications, Drawings and Designs, Tender and other information submitted by the Contractor and instructions issued from time to time by the Engineer-in-charge and all these documents taken together shall be deemed to form one contract and shall be complementary to another.
2. In the contract the following expressions shall, unless the context otherwise requires, have the meanings herein respectively assigned to them :-
 - a) The "WORKS OR WORK" shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by, or by virtue of the contract contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.
 - b) The "SITE" shall mean the land an/or the other places on, into or through which work is to be executed under the contract, or any adjacent land, path or street, through which work is to be executed under the contract, or any adjacent land, path or street, which may be allotted or used for the purpose of carrying out the contract.
 - c) The "CONTRACTOR" shall mean the individual or firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representatives of such individual or the persons composing such firm or company, the successor of such firm or company and the permitted assign of such individual or firm or company.
 - d) The "ENGINEER-IN-CHARGE" shall mean the Executive Engineer In charge of Jaipur Development Authority who shall supervise and be in-charge of the work.
 - e) The "GOVERNMENT","DEPARTMENT" shall mean the Jaipur Development Authority.
 - f) The "Accepting Authority" shall mean Executive Committee of Jaipur Development Authority.

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- g) The "Director" or "Chief Engineer" shall mean The Director (Engineering-II) of Jaipur Development Authority.
 - h) The 'Superintending Engineer' shall mean the Superintending Engineer of Jaipur Development Authority.
 - i) "ESTIMATED COST" shall mean the cost of the work or works as estimated on the basis of the TENDERED rate or rates agreed to between the parties to the contract.
 - j) Where the context so requires, words importing the singular only also include the plural and vice-versa. Any reference to masculine gender shall wherever required include feminine gender and vice versa.
 - k) Headings and marginal notes to these General Conditions of Contract shall not be deemed to form a part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

The clause 23 of contract agreement i.e. standing committee for settlement of disputes is read as: If any question, difference or objection, whatsoever shall arise in any way, in connection with or arising out of this instrument, or the meaning of operation of any part thereof, of the rights, duties or liabilities of either party men, save in so far, as the decision of any such matter, as herein before provided for, and been so decided, every such matter/ constituting a total claim of Rs. 50,000/- or above, whether its decision has been otherwise provided for an whether it has been finally decided accordingly, or whether the rights or obligations of the parities, as the result of such termination, shall be referred for decision to the empowered standing committee, which would consist of the followings:

- (i) Jaipur Development Commissioner, JDA, Jaipur -Chairman
- (ii) Concern Director (Engineering-II), JDA, Jaipur
- (iii) Director (Finance), JDA, Jaipur
- (iv) Director (Law), JDA, Jaipur
- (v) Concern Superintending Engineer, JDA, Jaipur - Member Secretary

The Engineer-in-Charge, on receipt of application along with non-refundable prescribed fee, (the fee would be two percent of the amount in dispute, not exceeding Rs. One lac) from the contractor, shall refer the disputes to the committee within a period of three months from the date of receipt of application.

The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications. Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the Bid Documents. None of these documents shall be used for any purpose other than that of this contract.

Procedure and application form referring cases for settlement by the Standing Committee shall be, as given in form RPWA 90.

AGREEMENT No.

Year 20

..... Circle.

Division

Sub- Division

Name of Work

Name of Contractor

Sanction No. Dt. RS.

Technical Sanction No.

Job No.

(a) Stipulated Date of Start of work

(b) Stipulated Date of Completion of work

(c) Actual Date of Completion

Extension applied on & sanctioned

Vide: C.E./S.E./E.E. No..... Dt..... 200

Details of Documents Page

Page :

(a) Percentage Rate Tender R.P.W.R. 100

(See rule 322 & note 1 below rule 331)

(b) Schedule A to F

(c) Schedule H

(d) Schedule G

(e) Schedule

(f) General Specification and Conditions of Contract

(g) Contractor's Labour Regulations

(h)

(i)

No.

Date :

Copy forwarded to:

1. Director (Eng)/(Finance), JDA, Jaipur

2. Additional Chief Engineer, JDA, Jaipur

3. Additional Director (Revenue)/CAO, JDA, Jaipur

4. The Assistant Engineer / JEN

5. Auditor

6. Shri Contractor

7. M/s

Amended up to _____ Effective from _____

CONTRACT FOR WORK

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works, proposed for execution by Contract, will be notified in a form of invitation to tender pasted on public places and on a board hung up in the office of and signed by the JDA or other duly authorized Engineer.

The form of invitation to bid will state the work to be carried out, as well as the date of submitting and opening of bids and the time allowed for carrying out the work, also the amount of Earnest Money to be deposited with the bid and the amount of the Performance Guarantee and/or Security Deposit to be deposited by the successful bidder and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and estimated rates/scheduled rates and any other documents required in connection with the work signed for the purpose of identification by the Executive Engineer shall be open for inspection by the Contractor at the office of the JDA or other duly authorized Engineer during office hours.

2. In the event of the bid being submitted by a firm, it must be signed separately by each partner, thereof, or in the event of the absence of any partner, it must be signed on his behalf, by a person holding a power of Attorney, authorizing to do so. Such power of Attorney will be submitted with the bid and it must disclose that the firm, is duly registered under the Indian Partnership Act, by submitting the copy of the registration certificate.
3. Receipts for payments, made on account of a work then executed, by a firm must also be signed by the several partners, except where the contractors are described in their bid as a firm, in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for the firm.
4. Any person, who submits percentage rate bid, shall fill up the usual printed form stating at how much percent above or below the rates specified in Schedule G. he is willing to undertake the work. Only one rate of percentage, more or less, on all the estimated rates/scheduled rates shall be mentioned. Tenders, which propose any alteration in the work, specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort will be liable to rejection. No single bid shall include more than one work, but Contractors, who wish to bid for two or more works, shall submit a separate bid for each work. Bids shall have the name and number of work, to which they refer, written outside the envelope.

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5. The JDA or other duly authorized Engineer will open the bids in the presence of any, contractor (s) or their authorized representatives who may be present at the time, and will announce and enter the rates/amounts of all bids in the Register of Opening of Bids, (Form RPWA 20A). In the event of the bid being accepted, a receipt for the Earnest Money deposited shall be given to the Contractors, who shall sign copies of the specifications and other documents mentioned in Rule 1. In the event of a bid being rejected, the Earnest Money forwarded with such unaccepted bids shall be returned to the Contractor making the same.
 6. The JDA or other duly authorized Engineer shall have the right of rejecting all or any of the bids without assigning any reason.
 7. The receipt of an Accountant, Cashier or any other official, not authorized to receive such amount, will not be considered as an acknowledgement of payment to the JDA or other duly authorized Engineer.
 8. The memorandum of work tendered for, memorandum of materials and tools and plant to be supplied by the Department and their rates, shall be filled in and completed in the office of the JDA or duly authorized Engineer before the tender form is issued.
 9. If it is found that the bid is not submitted in proper manner, or contains too many corrections and or unreasonable rates or amounts, it would be open for the Engineer-in-charge not to consider the bid, forfeit the amount of earnest money and/ or de-list the contractor.
 10. The bidder shall sign a declaration under the Official Secrets Act for maintaining secrecy of the bid documents, drawing or other records connected with the work given to him in form given below. The unsuccessful bidders shall return all the drawings given to them.

Declaration: -

"I / We hereby declare that I/We shall treat the tender documents, drawings and other records, connected with the work, as secret confidential documents, and shall not communicate information derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the same."

11. Any percentage rate bid containing Item-wise rates, and any item rate bid containing percentage rate below or above estimated/scheduled rates, will be summarily rejected. However, if a bidder voluntarily offers a rebate for payment within a stipulated period, this may be considered.
12. On acceptance of the bid, the name of the accredited representative (s) of the Contractor (with a photograph and signature attested), who would be responsible for

-
- Taking instruction from the Engineer in charge, shall be communicated to the Engineer-in-charge.
13. GST or any other tax on materials, or Income Tax in respect of the contract shall be governed by Clause 36 A, B, C D and E of the Conditions of Contract. Deduction of Income Tax at source will be made as per provisions of the Income Tax Act, in force from time to time.
 14. The bid to work shall not be witnessed by a Contractor or Contractors who himself/themselves has/have bided or who may and has/have bided for the same work. Failure to observe the secrecy of bids will render bid of the contractors, bidding as well as witnessing the bid, liable to summary rejection.
 15. If on check, there are some discrepancies, the following procedure shall be followed:-
 - (i) Where there is a difference between the rates in figures and words, lower of the two rates shall be taken as valid and correct rate.
 - (ii) When the rate quoted by the contractor in figures and in words tallies, but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount worked out.
 - (iii) While quoting rates, if rate/rates against any item or items are found to be omitted, the rate given in the Schedule 'G' by the department for such items will be taken into account while preparing comparative statement and contractor shall be bound to execute such item on 'G' schedule rates.
 - (iv) In case where percentage is given but the 'above' or 'below' not scored, the bid will be non-responsive.
 16. The Contractor shall comply with the provisions of the Apprenticeship Act, 1961, and the rules and orders issued, there under, from time to time. If he fails to do so, his failure will be a breach of the contract and the original sanctioning authority in his discretion may cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of violations by him of the provisions of the Act.
 17. The Contractor shall read the specifications and study the working drawings carefully before submitting the bid.
 18. The site for execution of the work will be made available as soon as the work is awarded. In case, it is not possible for the Department to make the entire site available on the award of the work, the Contractor shall arrange his working programmer accordingly. No claim/whatsoever (in terms of cash compensation) , for not giving the site in full on award of the work or for giving the site gradually in parts will be tenable. The contractor may satisfy himself regarding site, acquisition of land, approach road etc. However , if delay in work occurs due to handing over the site in parts, it shall be compensated in terms of extension of time and that too incorporate to clause 2 & 3 of condition of contract.

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19. The bid documents show already the specific terms and conditions on which bids are required by the Government. Hence, all bids should be in strict conformity with the bid documents and should be fulfilled in, wherever necessary, and initiated. Incomplete bids are liable to be rejected. The terms and conditions of the bid documents are firm; as such conditional bids are liable to be rejected.
20. The bidder, while submitting bid, must provide adequate information regarding his financial, technical and organizational capacity and working experience to execute the work of the nature and magnitude.
21. The JDA or other duly authorized Engineer reserves the right to ask for submission of samples as in respect of materials for which the bidder has quoted his rates before the bid can be considered for acceptance. If the bidder, who is called upon, to do so, does not submit within seven days of written order to do so, the Engineer-in Charge shall be at liberty to forfeit the said earnest money absolutely.
22. The Contractor shall submit the list of the works, which are in hand (progress). In the following form :

Name of work	Name and particular of the Sub Division/Division, Where work is being executed	Amount of work	Position of works in progress	Remarks
1	2	3	4	5

23. The Contractor should quote his rates only in one language i.e. either in Hindi or English. Rates should be quoted in figures as well as in words. In case a Contractor has quoted rates in both the languages, and the rates so quoted differ, then the lower of the two shall be treated as the rate quoted by the Contractor.
24. All additions, deletions, corrections and overwriting, must be serially numbered and attested by the Contractor at every page, so also by the officer opening the tenders, so as to make further disputes impossible on this score.
25. After acceptance of the bid, the Contractor or all partners (in the case of partnership firm) will append photograph and signatures duly attested, at the time of execution of Agreement.
26. If any contractor, who having submitted a bid does not execute the agreement or start the work or does not complete the work and the work has to be put to re-bidding, he shall stand debarred from participating in such re-bidding in addition to forfeiture of

Earnest Money/Security Deposit/Performance Guarantee and other action under agreement.

27. The bid documents shall be issued to those contractors only having valid enlistment as on the date of issue of documents.
28. (a) If a bidder reduces the rates voluntarily after opening of the tenders/negotiations, his offer shall stand cancelled automatically, his earnest money shall be forfeited and action for debarring him from business shall be taken as per enlistment rules.
(b) If a non-bidder offers lower rates after opening of tenders, action for debarring him from business shall be taken as per enlistment rules.
29. Contractors shall submit only unconditional tenders. Conditional bids are liable to be rejected summarily.

Bid for works

I/ We hereby tender for the execution for the Jaipur Development Commissioner of Jaipur Development Authority of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates, (in figures) % (As well as in words)

..... percent below/above
The amount, entered in the schedule G in all respects in accordance with the specifications, designs, drawings and instructions in writing referred to in Rule 1 in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I / We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools & plant, conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

Memorandum

General description of work: - **“Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur.”**

- (a) **Estimated cost Rs. 218,70,25,235.00**
- (b) **Earnest money Rs. 4,37,40,505.00 @ 2% for enlisted contractors outside the JDA and Rs. 1,09,35,126.00 @ 0.5% for contractors registered in JDA.**
- (c) **Performance Guarantee & Security Deposit :**

-
- (i) The security deposit @10% of the gross amount of the running bill shall deduct from each running bill and shall be refunded as per rules on completions of the contract as per terms and condition. However the amount of security deposit deducted from running bills shall not be converted into any mode of securities bank guarantee, FDR etc. The earnest money deposited shall however be adjusted while deducting security deposit from first running bill of the contractor. There will be no maximum limit of security deposit.

However, a contractor may elect to deposit of full amount of 10% security deposit in the shape of bank guarantee or any acceptable form of security before or at the time of executing agreement. In that case earnest money may be refunded only after deposition of full 10% as above. However, in case during execution, cost of works exceeds as shown at the time of depositing 10% as above, balance security deposit shall be deducted from the "Running Account Bills".

- (ii) Bank Guarantee shall in all cases be payable at the head quarter of the Division or the nearest District Headquarters.
- (d) **Time allowed for the completion of work (to be reckoned from the 10th day after the date of written order to commence the work) is 30 Months.** Should this bid be accepted in whole or In Part, I/We hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto and of the Notice Inviting Bid, or in default thereof, to forfeit and pay to the Jaipur Development Commissioner of Jaipur Development Authority of Rajasthan or his successors in office, the sum of money mentioned in the said conditions.
- (e) A sum of Rs. **Rs. 4,37,40,505.00 @2% for enlisted contractors outside the JDA and**
- (f) **Rs. 1,09,35,126.00 @ 0.5% for contractors registered in JDA** is forwarded herewith in the form of Cash, Bank Draft, Bankers Cheque as Earnest Money. This amount of earnest money shall absolutely be forfeited to the Jaipur Development Commissioner of Jaipur Development Authority or his successor in his office without prejudice to any other right or remedies of Jaipur Development Commissioner of Jaipur Development Authority or his successor in his office, should. I/ We fail to commence the work specified in the above memorandum. Signature of Witness
Witness's Address & Occupation

Signature of Witness
Witness's address & occupation

Signature of Contractor
Address of Contractor

Date : The above bid is hereby accepted by me on behalf of the Jaipur Development Commissioner of Jaipur Development Authority.

Executive Engineer Zone-8

CONDITIONS OF CONTRACT

Clause 1: Security Deposit:

The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completions of the contract as per terms and conditions. The earnest money deposited shall however be adjusted while deducting security deposit from first running bill of the contractor. There will be no maximum limit of security deposit.

A contractor may however, elect to furnish bank guarantee or any acceptable form of security for an amount equal to the full amount of security deposit @ 10% of the work order before or at the time of executing the agreement. In that case, earnest money may be refunded only after furnishing of the bank guarantee as above. During the execution for the work or after completion of the work also a contractor may replace the security deposit by furnishing bank guarantee for an equal amount. However during execution of the work if cost of work exceeds as shown at the time of furnishing bank guarantee, balance security deposit shall be deducted from the "Running Account Bills".

All compensation or other sums of money payable by the Contractor to Jaipur Development Authority under the terms of his contract may be deducted from or paid by the sale of a sufficient part of his Performance Guarantee and/or Security Deposit, or from interest arising therefrom, or from any sums, which may be due or may become due to the Contractor by the JDA on any account whatsoever, and in the event of his Security Deposit being reduced by reason of any such deduction or sale as aforesaid, the Contractor shall within ten days thereafter, make good in cash or Bank Guarantee of Nationalized/Scheduled Bank, as aforesaid, any sum or sums which may have been deducted from or raised by sale of his Performance Guarantee and / or Security Deposit or any part thereof.

In case of Bank Guarantee of any Nationalized/Scheduled Bank is furnished by the Contractor to the Jaipur Development Authority, as part of the Security Deposit/Performance Guarantee and the bank goes into liquidation or, for any reason, is unable to make payment against the said Bank Guarantee, the loss caused thereby shall fall on the Contractor and the Contractor shall forthwith, on demand, furnish additional security to the Jaipur Development Authority to make good the deficit.

The liability or obligation of the bank under the Guarantee Bond shall not be affected or suspended by any dispute between the Engineer-in-charge and the Contractor, and the payment, under the Guarantee Bond by the bank to the Jaipur Development Authority shall not wait till disputes are decided. The bank shall pay the amount under the Guarantee, without any demur, merely on a demand from the Jaipur Development Authority stating that the amount claimed is required to meet the recoveries due or likely to be due from the Contractor. The demand, so made, shall be conclusive as regards, to amount due and payable by the bank, under the

guarantee limited to the amount specified in the guarantee Bond. The guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

The Bank Guarantee shall remain valid up to the specified date unless extended on demand by the Engineer-in-charge, which shall include the period of completion of the contract and the defect removal period as per terms or the Agreement, Bank's liability shall, stand automatically discharged unless a claim in writing is lodged with the Bank within the period stated in the Bank Guarantee including the extended period. After satisfactory completion of the contract and clearance of all dues by the Contractor, the Director (Engineering)-II or duly authorized Engineer will discharge the Bank Guarantee after expiry of the original or the extended period, as the case may be. In case the date of expiry of the Bank Guarantee is a holiday, it will be deemed to expire on the close of the next working day.

Jaipur Development Authority is not concerned with any interest accruing to the Contractor. On any form of Security (primary or collateral) lodged by him with the bank or any sums payable to sureties obtained by the Bank as counter guarantee to secure its own position. These will be the matters between the Bank and the Contractor.

Clause 2: Compensation for delay:

The time allowed for carrying out the work, as entered in the tender, shall be strictly observed by the Contractor and shall be reckoned from the 10th day after the date of written order to commence the work given to the Contractor. If the contractor does not commence the work within the period specified in the work order, he shall stand liable for the forfeiture of the amount of Earnest Money, Performance Guarantee and Security Deposit. Besides, appropriate action may be taken by the Engineer-in-charge/competent authority to debar him from taking part in future bids for a specified period or black list him. The work shall, throughout the stipulated period of completion of the contract, be proceeded with all due diligence, time being essence of the contract, on the part of the Contractor. To ensure good progress during the execution of work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month (save for special jobs), to complete 1/8th of the whole of the work before 1/4th of the whole time allowed under the contract has elapsed, 3/8th of the work before 1/2 of such time has elapsed and 3/4th of the work before 3/4 of such time has elapsed. If the contractor fails to complete the work in accordance with this time schedule in terms of cost in money, and the delay in execution of work is attributable to the contractor, the contractor shall be liable to pay compensation to the Jaipur Development Authority at every time span as below: -

A.	Time Span of full stipulated period	1/4th (.....days)	1/2th (.....days)	3/4th (.....days)	Full (.....days)
B.	Work to be completed in terms or money.	1/8th (Rs)	3/8th (Rs)	3/4th (Rs)	Full (Rs)
C.	Compensation payable by the contractor for delay at the stage of :	2.5% of Scheduled work remained unexecuted on the last day of (1/4) time span.	5% of Scheduled work remained unexecuted on the last day of (1/2) time span.	7.5% of Scheduled work remained unexecuted on the last day of (3/4) time span.	10% of Scheduled work remained unexecuted on the last day of contracted full period.

Note: In case delayed period over a particular span is stilt up and is jointly attributable to government and contractor, the competent authority may reduce the compensation in proportion of delay attributable to government over entire delayed over that span after clubbing up the split delays attributable to government and this reduced compensation would be application over the entire delayed period without paying any escalation.

Following illustration is given.

(i) First time span is of 6 months, delay is of 30 days which is split over as under:-

5 days (attributable to government) + 5 days (attributable to contractor) + 5 days (attributable to government) + 5 days (attributable to contractor) + 5 days (attributable to government) + 5 days (attributable to contractor) Total delay is thus clubbed to 15 days (attributable to government and 15 days (attributable to contractor).

Total normal compensation of 30 days as per clause 2 of agreement is 2.5% which can be reduced as $2.5 \times 15/30 = 1.25\%$ over 30 days without any escalation by competent authority.]

Note : The compensation, levied as above, shall be recoverable from the Running Account Bill to be paid immediately after the concerned time span. Total compensation for delays shall not exceed 10 percent of the total value of the work.

The contractor shall, further, be found to carry out the work in accordance with the date and quantity entered the progress statement attached to the bid.

In case the delay in execution of work is attributable to the contractor, then span wise compensation as laid down in this clause shall be mandatory. However, in case the slow progress in one time span is covered up within original stipulated period, then the amount of such compensation levied earlier shall be refunded. The Price escalation, if any, admissible under clause 45 of Conditions of Contract would be admissible only on such rates and cost of work, as

would be admissible if work would have been carried out in that particular time span. The Engineer-in-charge shall review the progress achieved in every time span, and grant stage wise extension in case of slow progress with compensation, if the delay is attributable to contractor, otherwise without compensation.

However, if for any special job, a time schedule has been submitted by the Contractor before execution of the agreement and it is entered in agreement as well as same has been accepted by the Engineer-in charge, the Contractor shall complete the work within the said time schedule. In the event of the Contractor failing to comply with this condition, he shall be liable to pay compensation as prescribed in forgoing paragraph of this clause provided that the entire amount of compensation to be levied under the provisions of this Clause shall not exceed 10% of the value of the contract. While granting extension in time attributable to the Jaipur Development Authority reasons shall be recorded for each delay.

Clause 3: Risk & Cost Clause:

The Engineer-in-charge or the Competent Authority defined under rules may, without prejudice to his rights against the Contractor, in respect of any delay or interior workmanship or otherwise, or to any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this contract or otherwise, and whether the date for completion has or has not elapsed, by notice in writing, absolutely determine the contract in any of the following cases :-

- (i) If Contractor having been given by the Engineer-in-charge, a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper of un-workman like manner, shall omit to comply with the requirements of such notice for a period of seven days, thereafter, or if the Contractor shall delay or suspend the execution of the work so that either in the judgment of the Engineer-in-charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion of he has already, failed to complete the work by that date.
- (ii) If the Contractor, being a company, shall pass a resolution or the Court shall make an order that the company shall be wound up or if a receiver or a manager, on behalf of a creditor, shall be appointed or if circumstances shall arise, which entitle the Court or Creditor to appoint a receiver or a manager or which entitle the Court to make a winding up order.
- (iii) If the Contractor commits breach of any of the terms and conditions of this contract.
- (iv) If the contractor commits any acts mentioned in clause 19 hereof.

When the contractor has made himself liable for action under any of the cases aforesaid. The Engineer in-charge on behalf of the Jaipur Development Commissioner of Jaipur Development Authority shall have powers.

- (a) To determine or rescind the contract as aforesaid of which determination or rescission notice in writing to the contractor under the hand of the Engineer in charge shall be conclusive evidence upon such determination or rescission, the earnest money, full security deposit of the contract and performance guarantee of the contractor shall be liable to be forfeited and shall be absolutely at the disposals of Jaipur Development Authority.
- (b) To employ labour paid by the department and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Engineer in charge shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract. The certificate of the divisional officer as to the value of the work done, shall be final and conclusive evidence against the contractor provided always that action under the sub clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred the department are less than amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.
- (c) After giving notice to the contractor to measure up the work of the contractor and to take such part thereof, as shall be unexecuted out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Engineer-in-charge shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Jaipur Development Authority under this contract on any other account. Whatsoever, or from his earnest money, security deposit, performance guarantee, enlistment security or the proceeds of sales thereof, or a sufficient part thereof as the case may be. In the event of any one or more of the above courses being adopted by the engineer in charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract. And, in case action is taken under any of provisions aforesaid, the contractor shall not be execution of the work or entitled to recover or be paid, any work sum for any work thereof or actually performed under this contract unless and until the Engineer in charge has certified in writing, the

performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

Clause 4: Contractor remains liable to pay compensation, if action not taken under clause 3:

- (i) In any case in which any of the powers conferred by clause 3 hereof, shall have become exercisable and the same shall have not been exercised the non-exercise, thereof, shall not constitute waiver of any of the conditions thereof, and such power shall not with starting, be exercisable in the event of any future case of default by the contractor for which, by any clause or clauses hereof, he is declared liable to pay compensation amounting to the whole of his security deposit/performance guarantee/Earnest money/Enlistment security and the liability of the contractor for past and future compensation shall remain unaffected.

Powers to take possession of or require removal, sale of contractor's plant.

- (ii) In the event of the Engineer in charge putting in force, powers vested in him under the preceding clause 3, he may, if he so desires, take possession of all or any tools, plants, materials and stores, in or upon the works or the site, thereof, or belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account, at the contract rates or, in case of these not being applicable, at current market rates, to be certified by the JDA or duly authorized Engineer (whose certificate, thereof, shall be final and conclusive) otherwise the Engineer in charge may give notice in writing to the contractor or his clerk of the works, foreman or other authorized agent require him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any requisition, the JDA or other duly authorized Engineer may remove them at the contractors expenses by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the JDA or other duly authorized Engineers, as to the expense of any such removal, and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause 5: Extension of Time:

If the contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds he shall apply in writing to the Engineer in charge within 30 days of the date of the hindrance, on account of which he desires such extension as aforesaid and the authority competent to grant extension under the rule/delegation of powers or other duly authorized Engineer shall, if in his opinion (which shall be final) reasonable grounds be shown therefore, authorize such extension of time if any as may, in his opinion be necessary or proper, if the period of completion of contractor expires before the expiry of the period of one month provided in this clause, the application for extension shall be made before the expiry of the period stipulated for completion of contract the

competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finally of work. Such extensions shall be granted in accordance with provisions under clause (2) of this agreement.

Clause 5 A: Monthly returns of extra claims:

Contractor has to submit a return every month for any work claimed as extra. The contractor shall deliver the return in the office of the executive engineer and obtain receipt number of the receipt register of the day on or before 10th day of every month during the continuance of the work covered by this contract a return showing details of any work claimed as extra by the contractor, which value shall be based upon the rates and prices mentioned in the contractor or in the schedule of rates in force in the district for the time being. The contractor shall be deemed to have waived all claims not included in such return and will have no right to enforce any such claims not included, whatsoever be the circumstance.

Clause 6: Final certificate:

On completion of the work, the contractor shall send a registered notice to the Engineer in charge giving the date of completion and sending a copy of it to the officer accepting the contractor on behalf of the J.D.C. and shall request Engineer In-Charge to give him a certificate of completion but no such certificate shall be given nor shall the work be considered to be complete unit/until the contractor shall have removed from the site on which the work shall be executed all scaffolding surplus materials and rubbish and cleared off the dirt from all wood work doors walls floors or other parts of any building in upon or about which the work is to be executed or of which he may have possession for the execution thereof he had filled up the pits. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding surplus materials and rubbish and clearing off dirt and filling of pits on or before the date fixed for completion of the work, the Engineer-in-Charge may, at the expenses of the contractor, remove such scaffolding, surplus materials and the rubbish and dispose of the same, as he thinks fit, and clean off such dirt and fill the pit, as aforesaid and the contractor shall forthwith pay the amount of all expense so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof. On completion, the work shall be measured by the Engineer in charge himself or through his subordinates whose measurements shall be binding and conclusive against the contractor. Provided that if subsequent to the taking of measurements by the subordinate as aforesaid, the Engineer in charge had reason to believe that the measurements taken by his subordinates are not correct the engineer in charge shall have the power to cancel the measurements already taken by his subordinates and acknowledged by the contractor and to take measurements again after giving reasonable notice to the contractor and such pre-measurement shall be binding on the contractor.

Within ten/thirty days of the receipt of the notice Engineer in charge shall inspect the work and if there is no visible defects on the face of the work shall give the contractor, a

certificate of completion. If the Engineer in charge finds that the work has been fully completed. It shall be mentioned in the certificate so granted. If on the other hand, it is found that there are certain visible defects to be removed the certificate to be granted by Engineer in charge shall specifically mention the details of the visible defects along with the estimate of the cost for removing these defects. The final certificate of work shall be given after the visible defects pointed out as above have been removed. Ten days will apply to works at the headquarters of Engineer-in-charge and thirty days for works at other place.

Clause: 7: Payment on intermediate certificate to be regarded as advance:

No Payment shall be made for works estimated to cost less than rupees twenty five thousand till after the whole of the works shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than Rupees twenty five thousand the contractor for shall on submitting the bill therefore, be entitled to receive a monthly payment proportionate to the part thereof then approved and passed by the engineer in charge, whose certificate of such approval and passing of sum so payable shall be final and conclusive. Running Account bill shall be paid within 15 days from presentation, but all such intermediate payment shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad unsound and imperfect or unskillful work to be removed and taken away and re-constructed or re-erected, or considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claim nor shall it conclude determine or effect in any way the powers of the Engineer -in-charge under these conditions or any of them to final settlement and adjustment of the accounts or otherwise or in any other way vary of effect the contract. The final bill shall be made/submitted by the Contractor within one month of the date fixed for completion of the work otherwise the Engineer-in-charge's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on all parties.

Clause 7 A: Time Limit for Payments of Final Bills:

The final bill shall be paid within 3 months on presentation by the contractor after issuance of final completion certificate in accordance with clause 6 of the conditions of contract. If, there shall be any dispute about any item(s) of the work, then the undisputed item(s) only, shall be paid within the said period of 3 months if a final bill (which contains no disputed item or disputed amount of any item) is not paid within the period of 3 months from presentation of final bill or 6 months from the date of receipt of registered notice regarding completion of work in accordance with clause 6 of the conditions of the contract, the defects, if any shall be brought to the notice of the higher authority. The period of 3 months shall commence from the date of rectification of the defects. The higher authority shall ensure that in no case final bill should be left unpaid after 9 months from the receipt of registered notice regarding completion of work. The contractor shall submit a memorandum of the disputed items along with justification in support within 30 days from the disallowance thereof, and if he fail, to do so, his claims shall be deemed to have been fully waived and absolutely extinguished.

Clause 8: Bills to be submitted monthly:

A bill shall be submitted by the Contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, as far as admissible, authorized or paid, if possible, before the expiry of ten days from the presentation of the bill. If the Contractor does not submit the bill within the time fixed, as aforesaid, the Engineer-in-charge may depute a subordinate to measure up to said work in the presence of the Contractor, whose signature in the Measurement Book will be sufficient warrant and the Engineer-in-charge may prepare a bill from such Measurement, Book, which shall be binding on the Contractor in all respects.

Clause 8 A: Contractor to be given time to file objection to the Measurements recorded by the Department: -

Before taking any measurement of any work, as have been referred to in preceding Clauses 6, 7 & 8, the Engineer-in-charge or a subordinate, deputed by him, shall give reasonable notice to the Contractor. If the Contractor fails to be present at the time of taking measurements after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Engineer-in-charge, then in any such event, the measurements taken by the Engineer-in-charge or by the subordinates deputed by him, as the case may be, shall be final and binding on the Contractor and the Contractor shall have no right to dispute the same.

Clause 8 B: Recovery of cost of preparation of the Bill:

In case of contractors of class "A" and "AA" do not submit the bill with time fixed, the Engineer-in-charge may prepare the bill as per provision of clause 8 of the conditions of contract but deduction @ 0.5% of amount of such a bill shall be made and credited to the general revenue on account of preparation of bill.

Clause 9: Bills to be on printed forms:

The Contractor shall submit all bills on the printed forms, to be had on application, at the office of the Engineer-in-charge and the charges in the bills shall always be entered at the rates specified in the bid or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the bid, at the rates hereinafter provided for such work.

Clause 9 A: Payments of Contractor's Bills to Banks:

Payments due to the Contractor may if so desired by him, be made to his Bank instead of direct to him, provided that the contractor has furnished to the Engineer-in-charge (i) an authorization in the form of a legally valid document, such as a Power of Attorney conferring authority on the Bank to receive payments, and (ii) his own acceptance of the correctness of the account made out, as being due, to him, by Government, or his signature on the bill or other claim preferred against Jaipur Development Authority before settlement by the Engineer-in-charge of the account or claim, by payment to the Bank. While the receipt given by such bank

shall constitute a full and sufficient discharge for the payment, the Contractor should, whenever possible, present his bill duly receipted and discharged through his Banker. Nothing, herein contained, shall operate to create in favour of the Bank any rights vis-à-vis the Jaipur Development Commissioner of Jaipur Development Authority.

Clause 10: Stores supplied by Jaipur Development Authority: -

If the specification of estimate of the work provides for the use of any special description of material, to be supplied from Engineer-in-charge's stores, or if, it is required that contractor shall use certain stores to be provided by the Engineer-in-charge specified in the schedule or memorandum hereto annexed, the Contractor shall be bound to procure and shall be supplied such materials and stores as are, for time to time, required to be used by him for the purpose of the contract only, and the value of the full quantity of materials and stores, so supplied; at the rate specified in the said schedule or memorandum, may be set off or which may be deducted from any sum, then due or thereafter become due, to the contractor under the contract or otherwise or against or from the performance Guarantee and or Security Deposit or the proceeds of sale, if the same is held in Jaipur Development Authority securities, the same or a sufficient portion thereof being in this case, sold for this purpose. All materials supplied to the Contractor, either from departmental stores or with the assistance of Government, shall remain the absolute property of Government. The Contractor shall be the trustee of the Stores/Materials, so supplied/procured and these shall not, on any account, be removed from the site of work and shall be all times open to inspection by the Engineer-In-charge. Any such material unused and in perfectly good condition at the time of completion or determination or rescinding of the contract, shall be returned to the Divisional Officer's Stores. If by a notice in writing under his hand, he shall so require, and if on service of such notice, the contractor fails to return the materials so required he shall be liable to pay the price of such materials in accordance with the provision of Clause 10B in bid. But the Contractor shall not be entitled to return any such materials, unless with such consent, and shall have no claim for compensation on account of any such materials, so supplied to him as a foresaid being unused by him, or for any wastage in or damage to any such materials. For the stores returned by the Contractors, he shall be paid for at the price originally charged excluding storage charges, in case of material supplied from departmental stores and actual cost including freight, cartage, taxes etc. paid by the contractor, in case of supplies received with the assistance of Government, which, however, should in no case exceed market rate prevailing at the time the materials are taken back. The decision of the Engineer-in charge as to the price of the stores returned keeping in view its condition etc, shall be final and conclusive. In the event of breach of the aforesaid condition, the Contractor shall in addition to throwing himself open in account for contravention of the terms of the license or permit and/or for criminal breach of trust, pay to the Government, all advantages or profits resulting, or which in the usual course, would result to him by reason of such breach. Provided that the contractor shall, in no case be entitled to any compensation or damage on account of any delay in supply thereof, all or any such materials and stores.

Clause 10A: Rejection of materials procured by the contractor:

The Engineer-in charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and, in case of default, the Engineer-in-charge shall be at liberty to employ other person (s) to remove the same without being answerable or accountable for any loss of damage, that may happen or arise to such materials to substituted thereof, and in case of default, Engineer-in charge may cause the same to be supplied and all costs. Which may attend such removal and substitution, are to be born by the contractor.

Clause 10B: Penal rate in case of excess consumption:

The contractor shall also be charged for the materials consumed in excess of the requirements calculated on the basis of standard consumption approved by the department at double of the issue rate including storage and supervision charge or market rate, whichever is higher. A Material supply and consumption statement in prescribed Form RPWA35A shall be submitted with every Running Account Bill, distinguishing material supplied by the Government and the material procured by the Contractor himself. The recovery for such material shall be made from Running Account Bill next after the consumption and shall not be referred certificate of such nature shall be given in each running Account Bill.

Clause 10 C: Hire of Plant and Machinery:

Special Plant and Machinery, required for execution of the work may be issued to the contractor, if available, on the rates of hire charges and other terms and condition as per departmental Rules, as schedule annexed to these conditions. Rates of such Plant & machinery shall be got revised periodically so as to bring them at par with market rate:

Clause 11: Works to be executed in accordance with specifications, Drawings, Orders, etc.

The Contractor shall execute the whole and every part of the work in the most substantial and satisfactory manner and both as regards materials and otherwise in every respect in strict accordance with the Specification. The Contractor shall also conform exactly fully and faithfully to the designs, drawings and instructions in writing relating to the work assigned by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access at such office or on the site of the work for the purpose of inspection during office hours and contractor shall, if he so require, be entitled, at his own expense, to make or cause to be made copies of specifications and of all such designs, drawings and instructions, as aforesaid. A certificate of executing works as per approved design and specifications etc. shall be given on each Running Account.

These specifications of work, material, methodology of execution, drawings and designs shall be signed by the contractor and executive Engineer while executing agreement and shall form part of agreement.

Clause 12:

The Engineer-in-charge shall have power to make any alteration, omission or additions to or substitutions for the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-In-Charge and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified, as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineer-in-charge shall be conclusive as to such proportion. The rates for such additional altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order.

- (i) If the rate for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- (ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, such rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- (iii) If the rates for the altered, additional or substituted work cannot be determined in the manner specified in the sub-clause (i) to (ii) above, then the rates for such composite work items shall be worked out on the basis of the concerned Schedule of Rates of the Districts / Area specified above minus / plus the percentage which the total tendered amount bears to the estimated cost of the entire work put to bid. Provided always that if the rates for a particular part of parts of the item is not in the Schedule of Rates, the rate for such part or parts will be determined by the Engineer-in-Charge on the basis of the prevailing market rates when the work was done.
- (iv) If the rates for the altered, additional or substituted work item cannot be determined in the manner specified in sub-clauses (i) to (iii) above, then the contractor shall within 7 days of the date of receipt of order to carry out the work, inform the Engineer-in-Charge of the rates which it is his intention to charge for which class of work supported by analysis of the rate or rates claimed and the Engineer-in-Charge shall determine the rates or rates on the basis of prevailing market rates, and pay the contractor accordingly. However, the Engineer-in-Charge by notice in writing will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates on items failing under the clause.

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- (v) Except in case of items relating to foundations, provisions contained sub-clauses (i) to (iv) above shall not apply to contract or substituted items as individually exceed the percentage set out in the bid documents under Clause 12.A.

For the purpose of operation of Clause 12(v) the following works shall be treated as work relating to foundations:-

- (a) For buildings, compound wall, plinth level or 1.2 meters (4 ft.) above ground level whichever is lower, excluding items above flooring and D.P.C. but including base concrete below floors.
- (b) For abutments, piers, retaining wall of culverts and bridges, walls of water reservoir and the bed of floor level.
- (c) For retaining walls, where floor levels is not determinate 1.2 meters above the average ground level or bed level.
- (d) For roads, all items of excavation and filling including treatment of sub base and soiling work.
- (e) For water supply lines, sewer lines underground storm water drains and similar work all items of work below ground level except items of pipe work for proper masonry work.
- (f) For open storm water drains, all items of work except lining of drains.
- (g) Any other items of similar nature which Engineer-in-charge may decide relating to foundation.

The rate of any such work, except the items relating to foundations, which is in excess of the deviation limit, shall be determined in accordance with the provisions contained in Clause 12A.

Clause 12A:

The quantum of additional work for each item shall not exceed 50% of the original quantity given in the agreement and the total value of additional work shall not exceed 50% of the total contract value, unless otherwise mutually agreed by the Engineer-in-charge and the Contractor. The limit shall not be applicable on items relating to foundation work which shall be executed as per original rates of provision of clause 12(i) to (iv).

In case of contract substituted items or additional items, which results in exceeding the deviation limit laid down in this clause except items relating to foundation work. Which the contractor is required to do under Clause 12 above, the contractor shall within 7 days from the receipt of order, claim revision of the rate supported by proper analysis in respect of such items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the bid for the main work or can be derived in accordance with the provision of sub clause (ii) of Clause 12 and the Engineer-in-charge, may revise their rates having derived in

according with the provision of sub-clause may revise their rates having regard to prevailing market rates and the contractor shall be paid in accordance with the rates so fixed. The Engineer-in-charge may revise their rates having regard to the prevailing market rates and the contractor shall be paid in accordance with rates so fixed. The Engineer-in-charge shall be at liberty to cancel his order to carry out such increased quantities of work by giving notice in writing to the contractor and arrange to carry out in such manner, as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items failing under this clause.

All the provisions of the preceding paragraph shall equally apply to decrease in rates of items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the bid for the main work or can be derived in accordance with the provisions of sub-clause (ii) of the preceding clause 12 and the Engineer-in-charge may revise such rates having regard to the prevailing market rates unless otherwise mutually agreed by the engineer-in-charge and the contractor.

Clause 13: No compensation for alteration in or restriction of work to be carried out:

If at any time after the commencement of the work the Jaipur Development Authority shall, for any reason, whatsoever, not require the whole work, thereof, as specified in the bid, to be carried out, the Engineer-in-charge shall give notice, in writing of the fact to the contractor, who shall have no claim to any payments or compensation, whatsoever, on account of any profit or advantage, which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out. Neither, shall he have any claim for compensation by reason of alterations having been made in the original specifications, drawings and design and instructions, which shall involve any curtailment of the work as originally contemplated. Provided, that the contractor shall be paid the charges for the cartage only, of materials actually brought to the site of the work by him for bonafide use and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof, and taken them back by the contractor provided, however that the Engineer-in-charge shall have, in all such cases, the option of taking over all or any such materials at their purchase price or at local market rates whichever may be less. In the case the option of taking over all or any such materials at their purchase price or at local market rates whichever may be less. In the case of such stores, having been issued from Jaipur Development Authority stores, charges recovered, including storage charges, shall be refunded after taking into consideration any deduction for claim on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of the Engineer in Charge shall be final.

Clause 14: Action and compensation payable in case of bad work:

If, it shall appear to the JDA or any authorized authority or the Engineer-in-Charge or his subordinates in charge of the work, or to the committee of retired officers / officers appointed by the Jaipur Development Authority for the purpose that any work has been executed with unsound, imperfect or unskillful workmanship, prior with material of any inferior description, or

that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted, or otherwise not in accordance with contract, the contractor shall be demand in writing from the Engineer in charge, specifically the work / materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, will rectify or remove and reconstruct the work, so specified, in whole or in part, as the case may be, remove the materials or articles, so specialties and provide other proper and suitable materials or articles at his own cost and in the event of his failing to do so, within a period to be specified by the Engineer-in-charge in his demand, as aforesaid, then the contractor shall be liable to pay compensation, at the rate of one percent on the bided amount of work for every week not exceeding ten percent, while his failure to do so shall continue, and in the case of any such failure, the Engineer - in - Charge may rectify or remove and re-execute the work or remove and replace within others, the materials or articles or articles complained of as the case may be, at the risk and expense, in all respects of the contractor.

Clause 15: Work to be open to inspection: Contractor or his responsible agent to be present.

All work, under or in course of execution or executed in pursuance of the contract, shall at all times, be open to inspection and supervisor of the Engineer-in-charge and his superior officers e.g. Superintending Engineer, Additional JDA, Chief Technical Engineer, JDA, and his subordinates and any other authorized agency of the Jaipur Development Authority and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer in charge in or his subordinate and any other authorized agency of Jaipur Development Authority or committee of retired officers / officers appointed by the Jaipur Development Authority for the purpose to visit the works shall have been given to the Contractor, either himself be present to receive orders and instructions or have a responsible agent, duly accredited in writing, present for the purpose. Orders given to the Contractor agent shall be considered to have the same force as if they had been given to the contractor himself.

Clause 16: Notice to be given before any work is covered up:

The Contractor shall give not less than 7 days' notice, in writing, to the Engineer-in-Charge of the work, before covering up or otherwise placing beyond the reach of measurement, any work in order that they same may be measured and correct dimensions thereof, be taken before the same is so covered up or placed beyond the reach of measurement and shall no cover up or place beyond the reach of measurement any work without the consent in writing of the Engineer-in-charge of the work and if, any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the Contractor's expenses or in default, thereof, no payment or allowance shall be made for such work, or for the materials, with which the same was executed.

Clause 17: Contractor liable for damage done and for imperfections:

If the Contractor of his work people or servants shall break, deface, injure or destroy any part of a building in which they may be working or any building, road, fence, enclosure or cultivated ground continuous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work. While in progress, from any cause, whatsoever, or any imperfections become apparent in it, within a period specified in clause 37, after a certificate, final or otherwise of its completion, shall have been given by the Engineer-in-charge, may cause the same to be made good by other workmen and deduct the expense (of which the certificate of the Engineer-in-charge shall be final) from any sums that may be then, or at any time thereafter, may become due to the contractor, or from his security deposit, or the proceeds of sale thereof, or of a sufficient portion thereof.

Clause 18: Contractor to supply Plant, Ladders, Scaffolding etc.

The contractor shall arrange and supply, at his own cost, all material (except such special materials, if any, as may, in accordance with the contract, be supplied from the Engineer-in-charge's stores), plants, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether original, altered, or substituted, and whether included in the specification or other documents, forming part of the contract, or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge, as to any matter as to which, under the conditions, he is entitled to be satisfied of which he is entitled to require, together with carriage thereof, to and from the work. The contractor shall also arrange and supply, without charge, the requisite number of persons with the means and material necessary of the purpose of setting out work and counting, weighing and assisting, in the measurement or examination at any time and from time to time of the work, or materials. Failing his so doing, the same may be provided by the Engineer-in-charge at the expenses of the Contractor, and the expenses maybe deducted from any money due to the Contractor under the contract, or from his performance Guarantee and / or security deposit or the proceeds of sale thereof, or a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall be bound to bear the expenses of

difference of every suit, action or other proceeding at law, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs, which may be awarded in any such suit, action proceedings to any such person or which may, with the consent of the Contractor be paid to compromise any claim by any such person.

Clause 19: Work not to be sub-let contract may be rescinded and security deposit and performance forfeited for sub-letting, bribing or if contractor becomes insolvent.

The contract shall not be assigned or sublet without the written approval of the JDA, and if the contractor shall assign or sublet his contract or attempt so to do, or become insolvent, or commence any insolvency proceedings or make any composition with his creditors, or attempt to so to do, or if any bribe, gratuity, gift, loan, requisite reward or advantage, pecuniary or otherwise, shall either, directly or indirectly, be given promised or offered by the Contractor or any of his servants or agents, to any public officer or person, in the employ of Government, in any way relating to his office or employment, or if any such officer or person shall become, in any way, directly or indirectly interested in the contract, the JDA may thereupon, by notice, in writing rescind the contract and the performance guarantee and security deposit of the contractor shall, thereupon, stand forfeited and be absolutely at the disposal of Jaipur Development Authority and the same consequences shall ensue as, if the contract had been rescinded under clause 3 thereof, and in addition the contractor shall not be entitled to recover or be paid for any work therefore, actually performed under the contract.

Clause 20: Sums payable by way of compensation to be considered as reasonable compensation without reference to actual loss:

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Jaipur Development Authority without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

Clause 21: Changes in Constitution of firm:

Where the Contractor is partnership firm, the previous approval, in writing, of the Engineer-in-charge shall be obtained before business any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern, such approval, as aforesaid, shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the work thereby undertaken by the contractor. If, previous approval, as aforesaid, is not obtained, the contract shall be deemed to have been assigned in contravention of clause 19 thereof, and the same action may be taken and the same consequence shall ensue, as provided in the said clause 19.

Clause 22: Work to be under direction of Engineer-in-charge

All the works, to be executed under the contract, shall be executed under the direction and subject to the approval. In all respect, of the Engineer-in-charge of the Jaipur Development Authority for the time being, who shall be entitled to direct, of what point or points and in what manner, they are to be commenced and from time to time carried on.

Clause 23: Standing committee for Settlement of disputes:

If any question, difference or objection, whatsoever shall arise in any way, in connection with or arising out of this instrument, or the meaning of operation of any part thereof, or the rights, duties or liabilities of either party then, save in so far, as the decision of any such matter, as herein before provided for, has been so decided, every such matter constituting a total claim of Rs. 50000/- or above, whether its decision has been otherwise provided for and whether it has been finally decided accordingly, or whether the contract should be terminated or has been rightly terminated and as regards the rights or obligations of the parties, as the result of such termination, shall be referred for decision to the Empowered Standing Committee, which would consist of the followings:-

1. Jaipur Development Commissioner, JDA, Jaipur -Chairman
2. Director (Engineering)-II, JDA, Jaipur
3. Director (Finance), JDA, Jaipur
4. Director (Law), JDA, Jaipur
5. Superintending Engineer, JDA, Jaipur - Member Secretary

The Engineer-in-charge, on receipt of application along with non-refundable prescribed fee, (the fee would be two percent of the amount in dispute, not exceeding Rs. one lac) from the contractor, shall refer the disputes to the committee within a period of three months from the date of receipt of application.

The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications. Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the Bid Documents. None of these documents shall be used for any purpose other than that of this contract.

Procedure and application form referring cases for settlement by the Standing Committee shall be, as given in form RPWA 90.

Clause 23 A: Contractor to indemnify for infringement of Patent or design.

Contractor shall fully indemnify the Jaipur Development Authority against any action, claim or proceeding, relating to infringement or use of any patent or design or any alleged patent or design, rights, and shall pay any royalties, which may be payable in respect of any articles or part thereof included in the contract, in the event of any, claims made under or action brought against Government. In respect of any such matters, as aforesaid, the contractor shall be immediately, noticed thereof, and the contractor shall be at liberty at his own expense, to settle any dispute or to conduct any litigation, that may arise there from provided that the contractor shall not be liable to indemnify the Jaipur Development Authority, if the infringement of the patent or design or any alleged patent, or design, right is the direct result of an order passed by the Engineer-in-charge in his behalf.

Clause 24: Imported Store articles to be obtained from Government:

The contractor shall obtain form the stores of the Engineer-in-charge, all imported store articles, which may be required for the work or any part thereof, or in making up articles required thereof, or in connection therewith, unless he has obtained permission in writing, from the Engineer-in-charge, to obtain such stores an articles from elsewhere. The value of such stores and articles, as may be supplied to the contractor by the Engineer-in-charge, will be debited to the contractor, in his account, at the rates shown in the schedule attached to the contract, and if they are not entered in the schedule, they will be debited at cost price, which for the purposes of this contract, shall include the cost of carriage and all other expenses, whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid plus storage charges.

Clause 25: Lump sums in estimates:

When the estimate on which a bid is made includes lump sums, in respect of parts of the work, the contractor shall be entitled to payment in respect of the item of work involved, or the part of the work in question at the same rates, as are payable under the contract for such items or if the part of the work in question is not, in the opinion of the Engineer-in-charge capable of measurement, in Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive with regard to any sum or sums payable to him under the provisions of this clause.

Clause 26: Action where no Specification:

In case of any class of work for which there is no such specification as is mentioned in rule 1, such work shall be carried out in accordance with the detailed specification of the department and also in accordance with the instructions and requirement of the Engineer-in-charge.

Clause 27: Definition of work;

The expression "Work" or "Works" where used in these conditions, shall unless there be something either in subject or context, repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed, whether temporary or permanent, and whether original, altered, substituted or additional.

Clause 27 A: Definition of Engineer-in-charge.

The term :Engineer-in-charge" means the Executive Engineer, who shall supervise, and be in charge of the work, and who shall sign the contract on behalf of the Jaipur Development Commissioner of Jaipur Development Authority.

Clause 28:

It cannot be guaranteed that the work will be started immediately after the bids have been received. No claims for increase of rate will be entered, if the bids for starting work are delayed.

Clause 29: Payments at reduced rates on account of items of work not accepted and not completed to be at the discretion of the Engineer-in-charge.

The rates for several items of works, estimated to cost more than Rs.1000/- agreed within, will be valid only when the item concerned is accepted, as having been completed fully in accordance with the sanctioned specifications. In cases, where the items of work are not accepted, as so completed, the Engineer-in-charge may make payment on account of such items, at such reduced rates as he considers reasonable, in the preparation of final or on account bills, and his decision in the matter shall be final and binding.

Clause 29A: Payments at part rates:

The rates for several items of works may be paid at part rates provisionally in running bills in proportion to the quantum of items executed at the discretion of Engineer-in-charge. In case of item rates, if the rate quoted for certain items are very high in comparison to the average / overall bid premium, then the payment at running stages shall not be made more than the average sanctioned premium. The deferred payment, will however be released after successful completion of the work.

Clause 30: Contractor's percentage, whether applied to net or gross amount of bills:

The percentage referred to in the "Bid of Works" will be deducted / added from / to the gross amount of the bill before deducting the value of any stock issued.

Clause 31: Contractor to adhere to labour laws / regulation:

The contractor shall adhere to the requirements of the Workmen's Compensation Act and Labour Legislation in force from time to time and be responsible for and shall pay any compensation to his workmen which would be payable for injuries under the workmen Compensation Act, hereinafter called the said Act. If such compensation to his workmen which would be payable for injuries under the Workmen's Compensation Act, hereinafter called the said Act. If such compensation is paid by the State as Principal employer under sub Section (1) of section 12 of the said Act, on behalf of the contractor it shall be recoverable by the State from the Contractor under sub section (2) of the said section. Such compensation shall be recovered in the manner laid down in clause I of the conditions of contract.

Note: All Contractors with Government shall require registration of workers under the Building & other Construction Workers (Regulation of Employment & Conditions of Services) Act, 1996 and extension of benefit to such workers under the Act. Deductions of cess at source will be made as per provisions of the said Act, in force from time to time.]

Clause 32: Withdrawal of work from the Contractor:

If the Engineer-in-charge shall at any time and for any reasons, whatsoever, including inability to maintain prorate progress, think any portion of the work should not be executed or should be withdrawn from the contractor, he may, by notice in writing to that effect require the contractor not to execute the portion of the work specified in the notice or may withdraw from the contractor for the portion of work, so specified, and the contractor shall not be entitled to any compensation, by reason of such portion of work having been withdraw from him. The Engineer-in-charge may supplement the work by engaging another agency to execute such portion of the work at the cost of the original contractor, without prejudice to his rights under Clause 2. He shall also be competent to levy compensation for delay in progress. The recovery of excess cost shall be made from next available running bill or any other claim and shall not be deferred.

Clause 33: The contract includes clearance, leveling and dressing of site within a distance of 15 meters of the structure / building on all sides except where the building adjoins another building.

Clause 34: Project Works:

The contractor shall arrange to protect, at his own cost, in an adequate manner, all cut stone work and other work requiring protection and to maintain such protection, as long as work is in progress. He shall remove and replace this protection, as required by the Engineer-in-charge, from time to time. Any damage to the work, so protected, no matter how it may be caused, shall be made good by the contractor free of cost.

All templates, forms, moulds, centering, false works and models, which in the opinion of the Engineer-in-charge are necessary for the proper and workman like execution of the work, shall be provided by the Contractor free of cost.

Clause 35: Contractor liable for settlement of claims caused by his delays:

If the progress of the work has fallen so much in arrears as to prevent other contractors on the work, from carrying out their part of the work within the stipulated time, he will be liable for settlement of any claim, put in by any of these contractors for the expenses of keeping their labour unemployed, to the extent considered reasonable by the Engineer-in-charge.

Clause 36A: The liability, if any, on account of quarry fees, royalties, octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.

Clause 36B:

The cost of all water connections, necessary for execution of work, and the cost of water consumed and hire charges of meters and the cost of electricity consumed in connection the execution of work, shall be paid by the Contractor except where other specifically indicated.

Clause 36C: Payment of any Taxes:

Royalty or other tax on materials, issued in the process of fulfilling contract payable to the Jaipur Development Authority under rules in force will be paid by the Contractor himself.

Clause 36D:

In respect of goods and materials procured by the Contractor for use in works under the contract, sales tax will be paid by the contractor, himself. But in respect of all such goods manufactured and supplied by the Contractor and works executed under the contract, the responsibility of payment of Sales tax would be that of the Engineer-in-charge.

Clause 36 E :

If any rates of Tax are increased or decreased, a new tax is introduced in India only. an existing Tax is abolished, or any change in interpretation or application of any Tax resulting from a change or Introduction in India only due to any National or State Statute, Ordinance, Decree or other law or any regulation or bye-law of any local or other duly constituted authority in India only. in the course of performance of contract, which was or will be assessed on the Contractor, in connection with the performance of the Contract, an equitable adjustment of the Contract price shall be made to fully take into account any such change by addition to the Contract Price or deduction there from, as the case may be.

However, these adjustments would be restricted to direct transactions between the Owner and Contractor only those items which are included in bid. Further, no adjustment of the Contract Price shall be made on account of variation in deemed export benefits, if any, Any increase or decrease which is included in price variation formula incorporated in the contract shall not be accounted for this purpose.

Such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time.

Clause 37: Refund of Performance Guarantee and Security Deposit:

The performance Guarantee and / or security deposit will be refunded after the expiry of the period, as prescribed below:-

- (a) In case of contracts relating to hiring of trucks and other 'T&P' transportation including loading, unloading of materials, the amount of performance guarantee / security deposit is refundable along with the final bill.
- (b) Supplies of material: As per provision of the G.F. &A.R.
- (c) Ordinary repair: 3 months after completion of the work provided the final bill has been paid.
- (d) Original works / special repairs / renewal works: Security deposit will be refunded Six months after completion except in case of works, such as building works, bridge works, cross drainage work, Dams, canals water supply and sewerage schemes (except where provided otherwise in any specified case) etc., the Performance Guarantee / Security Deposit will be refunded 6 months after completion or expiry of one full rainy season, or after expiry of defect liability period as defined in the special condition of agreement whichever is later, provided the final bill has been paid.

(Regarding "refund of performance guarantee and security deposit").

"In case of road, bridge and CD works (original/special, repairs/renewals). The defect Liability period shall be five years after completion of works".

(e) In case of JDA original works/special repairs works costing more than ` 10.00 lacs, partial amount of Security Deposit will be refunded during the defect liability period @ 10% of SD amount after lapse of one year of completion and thereafter 10% of original amount of SD at the end of each subsequent year. The remaining amount of SD be refunded after the expiry of defect liability period.

Clause 38: Fair Wage Clause:

- (a) The Contractor shall pay not less than fair wages / minimum wages to laborious engaged by him on the work as revised from time to time by the Jaipur Development Authority but the Jaipur Development Authority shall not be liable to pay anything extra for it except as stipulated in price escalation clause (clause 45) of the agreement.

Explanation: Fair wage means minimum wages for time or piece work, fixed or revised, by the State Govt. the Minimum Wages Act. 1948.

- (b) The Contractor shall, notwithstanding the provisions of any contract to the country, cause to be paid fair wages to labourers indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work as if the labourers have been immediately or directly employed by him.
- (c) In respect of all labourers immediately or directly employed on the work, for the purpose of the contractor's part of this agreement, the Contractor shall comply with or cause to be complied with the Public Works Department Contractors Labour Regulations made, or that may be made by the Government, from time to time. With regard to payment of wages, wages period, deductions from wages, recovery of wages not paid, and unauthorized deductions, maintenance of wages register, wages card, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and other matters of a like nature.
- (d) The Engineer-in-charge shall have the right to deduct from the money due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers, by reasons of non-fulfillment of the conditions of the contract, for the benefit of the worker or workers, non-payment of wages or of deductions made therefrom, which are not justified by the terms of the contract, or as a result of non - observance of the aforesaid regulations.

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- (e) Vis-à-vis the Jaipur Development Authority of Rajasthan, the Contractor shall be primarily liable for all payments to be made and for the observance of the regulations aforesaid, without prejudice to his right to claim indemnify from his sub-contractors.
 - (f) The regulations, aforesaid, shall be deemed to be part of this contract and any breach, thereof, shall be deemed to be breach of the contract.

Clause 39: Contractor to engage technical staff:

The contractor shall engage the technical staff as follows, on the contract works.

- a) Project manager/Bridge Engineer- He should be a graduate engineer having overall experience of not less than 15 years out of which 10 years' experience should be of Bridge works. If the contractor fails to appoint such project manager, Rs. 1,00,000/- (Rupees One Lakh only) per month will be deducted.
- b) Senior Site Engineer- One graduate engineer having experience of 10 years out of which 5 years' experience should be of Bridge works. If the contractor fails to appoint senior site engineer, Rs. 50,000/- (Rupees Fifty Thousand) per month will be deducted.
- c) Site Engineer- One graduate/diploma engineer having experience of 05 years. If the contractor fails to appoint such site engineer, Rs. 25,000/- (Rupees Twenty Five Thousand) per month will be deducted.
- d) Quantity Surveyor- One diploma engineer having experience of 02 years. If the contractor fails to appoint such quantity surveyor, Rs. 20,000/- (Rupees Twenty Thousand) per month will be deducted.
- e) However, in the event of non-appointment of such technical personnel's, JDA may engage such technical personnel and actual salary will be deducted in addition to the deductible amount mentioned in clause 39 (a), (b), (c) & (d). The contractor, before appointing these technical personnel will have to get the CV approved by the JDA.

The technical staff should be available at site, whenever required by Engineer-in-charge to take instructions.

Clause 39A: The contractor shall comply with the provisions of the Apprenticeship Act, 1961, and the Rules and orders issued, there-under, from time to time. If he fails to do so, his failure will be a breach of contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of said Act.

Clause 40: Safety of Works: The Contractor shall follow the safety code. The contractor shall be fully responsible for safety of works at site taking note of all the necessary provisions as per Employer's conditions of contract for Safety, Health and Environment Manual (SHE Manual)

available at Section 7, which shall be binding on the contractor. The contractor's price shall be inclusive of all the necessary costs to meet the prescribed safety standards. In the case the contractor fails in the above, the Employer may provide necessary arrangements and recover the cost from contractor.

Clause 41: Near Relatives barred from tendering: The contractor shall not be permitted to bid for works, in same Circle, in which his near relative is posted as Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons, who are working with him in any capacity or are subsequently employed by him and who are near relative to any gazetted officer in the organization / Department. Any breach of this condition by the contractor would render him liable to be removed from the approval list of contractors of the Department. If such facts is noticed (a) before sanction of bid, his offer shall be declared invalid and earnest money shall be forfeited, (b) after sanction of the bid then bid sanctioning authority may at his discretion forfeit his earnest money, performance guarantee, security deposit and enlistment deposit and the work / remaining work may allot to any registered contractor on the same rates as per rules.

Note : By the term 'near relative' is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles and cousins and their corresponding in laws.

Clause 42: Retired Gazetted Officers barred for 2 years: No Engineer of Gazetted rank or other Gazetted officer, employed in Engineering or Administrative duties in an Engineering Department of the Jaipur Development Authority, is allowed to work as a contractor for a period of 2 years, of his retirement from Jaipur Development Authority Service without the previous permission of Jaipur Development Authority. The contract is liable to be cancelled, if either the contractor or any of his employee found, at any time, to be such a person, who had not obtained the permission from as aforesaid before submission of the bid or engagement in the contractors service as the case may be.

Clause 43: Quality Control

The Jaipur Development Authority shall have right to exercise proper quality Control measures. The contractor shall provide all assistance to conduct such tests.

Clause 43A:

The work whether fully constructed or not and all materials machinery tools and plant scaffolding temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer in charge and a certificate from him to effect obtained.

Clause 44: death of Contractor:

Without prejudice to any of the rights or remedies under the contract, if the contractor dies, the legal heirs of the contractor or the JDA or duly authorized Engineer shall have the option of terminating the contract without any compensation.

Clause 45: Price variations Clause:

If during the progress of the contract of value exceeding Rs. 50.00 lacs (accepted tendered amount minus cost of material supplied by the department) and where stipulated completion period is more than 3 months (both the conditions should be fulfilled). The price of any materials/ bitumen / diesel / petrol / cement and steel incorporated in the works (not being materials to be supplied by the department) and / or wages of labour increases or decreases, as compared to the price and / or wages prevailing at the last date of submission of bids., the amount payable to contractors for the work shall be adjusted for increase or decrease in the rates of materials (excepting those materials supplied by the department)/ labour / bitumen diesel / petrol / cement and steel.

Increase or decrease in the cost of labour / material / bitumen / cement / diesel and petrol shall be calculated and petrol shall be calculated quarterly in accordance with the following formula.

(a) Labour :

$$V_L = 0.75 \times \frac{P_L}{100} \times R \frac{(I_{L1} - I_{L0})}{I_{L0}}$$

V_L = Increase or decrease in the cost of work during the quarter under consideration due to change in rates for labour.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in the clause.

I_{L0} = The average consumer price index for industrial workers (whole-sale prices) for the quarter in which bids were opened / negotiated (as published in Reserve Bank of India Journal / labour Bureau Shimla, for the area).

I_{L1} = The average consumer price index for industrial workers (whole-sales-price) for the quarter of calendar year under consideration (as published in Reserve Bank of India Journal / labour Bureau Shimla, for the area).

P_L = Percent of Labour components.

Note: In case of revision of minimum wages by the Jaipur Development Authority or other competent authority, nothing extra would be payable except the price escalation permissible under this clause.

(B) Material (excluding material supplied by the department)

$$V_M = 0.75 \times \frac{P_M}{100} \times R \frac{(L_{MI} - L_{M0})}{L_{M0}}$$

V_M = Increase or decrease in the cost during the quarter under consideration due to change in the rates of material.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

L_{M0} = The average wholesale price index (all commodities) for the quarter in which bid were opened / negotiated (as published in Reserve Bank of India Journal / Economic Advisor to Government of India, Ministry of Industries, for the area).

L_{M1} = The average wholesale price index (all commodities) for the quarter under consideration (as published in Reserve Bank of India Journal / Economic Adviser to Government of India. Ministry of Industries, for the area).

P_M = Percentage of material component (excluding materials supplied for the Department).

(c) Bitumen

$$V_b = 0.85 \times \frac{P_b}{100} \times R \frac{(B_1 - B_0)}{B_0}$$

V_b = Increase or decrease in the cost of the work during the month under consideration due to changes in the rate for bitumen.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of material supplied by the department and excluding other items as mentioned in this clause.

B_0 = The official retail price of bitumen at the IOC depot it nearest center on the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bitumen of IOC depot it nearest center for the 15 day of the month under consideration.

P_b = Percentage of bitumen component of the work.

(D) Petroleum

$$V_1 = \frac{0.75 \times P_1 \times R (F_1 - F_0)}{100 F_0}$$

V_1 = Increase or decrease in the cost of work during the month under consideration due to change in the rate for fuel and lubricants.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

F_0 = The average wholesale price index of high speed diesel (HSD) as published by the Economic Advisor to the Government of India, Ministry of Industry on the day of opening of bid / negotiation.

F_1 = The average wholesale price index HSD for the quarter under consideration as published weekly by the Economic Advisor to the Govt. of India, Ministry of Industry for the quarter under consideration.

P_1 = Percentage of fuel and lubricants component excluding fuel and lubricants supplied by the Department (Specified in the sanctioned estimate for the work).

P = Percentage of fuel and lubricants component excluding fuel and lubricants supplied by the Department (Specified in the sanctioned estimate for the work).

R = Total work done during the quarter as prescribed under this clause.

Note: For application of this clause price of HSD is chosen to indicate fuel and lubricant component.

(e) Cement

$$V_c = \frac{0.75 \times P_c \times R (L_{C1} - L_{CO})}{100 L_{CO}}$$

V_c = Increase or decrease in the cost of the work during the quarter under consideration due to change in the rates of cement.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of cement supplied by the department and excluding other items as mentioned in this clause.

L_{CO} = The average wholesale price index for the quarter in which bids were opened / negotiated (as published by the Economic Adviser to Government of India, Ministry of Industries).

L_{CI} = The average wholesale price index for the quarter under consideration (as published by the Economic Adviser to Government of India, Ministry of Industries).

P_C = Percentage of cement components (excluding cement supplied by the Department).

(F) Steel

$$V_S = \frac{0.75 \times P_C \times R (L_{S1} - L_{SO})}{100 L_{SO}}$$

V_S = Increase or decrease in the cost of the work during the quarter under consideration due to change in the rates of steel.

R = The Value of the work done in rupees during the quarter under consideration excluding the cost of steel supplied by the department and excluding other items as mentioned in this clause.

L_{SO} = The average wholesale price index for the quarter in which bids were opened/negotiated (as published by the Economic Adviser to Government of India, Ministry of Industries).- For steel Rods

L_{S1} = The average wholesale price index for the quarter under consideration (as published by the Economic Adviser to Government of India, Ministry of Industries). - For steel Rods

Clause 45A: Price Variation in installation of elevators supply/installation of Centrally Air Conditioning and Central Evaporation Cooling Works.

In all cases of contracts for installation of elevators, supply/installation of Central Air Conditioning and Central Evaporation Cooling Works, the Price quoted shall be based on the Indian Electrical and Electronic Manufacturers Association (IEEMA) price variation clause based on the cost of raw materials/components and labour cost as on the date of quotation/bid and the same is decided to be related to wholesale price index number of metal products and All India Average consumer price index number of industrial workers as specified below. In case of any variation in these index numbers the prices shall be adjustment up or down in accordance with following formula:

$$P = P_0 \left\{ \frac{15+55 MP}{100 MP_0} + \frac{W_o(D)}{W_o} + 15 \frac{W_o(I)}{W_o} \right\}$$

Where:

P = Price payable as adjusted in accordance with the price variation formula.

P_0 = Price quoted/confirmed

M_{p0} = Wholesale Price Index Number for metal products as published by the office of the Economic Adviser, Ministry of Industry, Government of India, in their weekly bulleting, Revised Index Number of Wholesale Price (Base 1981-82 =100 for the week ending first Saturday of the relevant calendar month). The relevant month shall be that in which price was offered or negotiated whichever is later.

W_0 = All India Average Consumer Price Index Number for Industrial Workers (Base : 1982 = 100), as published by Labour Bureau, Ministry of Labour, Government of India, for relevant calendar Month. The relevant Month shall be that in which price was offered or negotiated whichever is later.

M_p = Wholesale Price Index Number of Metal Products as published by the office of Economic Adviser, Ministry of Industry, Government of India, in their weekly bulletin Revised index Number of wholesale price (Base : 1981-82 = 100). The applicable wholesale Price Index Number for Metal Products as pre-availing on 1st Saturday of the Month covering the date FOUR months price to the date of delivery and would be as published by IEEMA.

$W_{O(1)}$ = All India Average Consumer Price Index Number for Industrial workers (Base : 1982 = 100) as published by Labour Bureau, Ministry of Labour, Government of India. The applicable All India Consumer Price Index Number of Industrial workers prevailing for the FOUR months prior to the date of completion of installation/Progress parts of installation and would be as published by IEEMA. The date of delivery shall be the date on which the manufactured material is actually supplied at site. The data of completion of installation (or progress part of installation shall be the date on which the work is notified as being completed and is available for inspection/duly tested). In the absence of such notification, the date of completion is not intimated, such completion shall be considered by the Engineer-in-charge which shall be final.

Note-1 The wholesale price index number for metal products is published weekly by the office of the Economic Adviser, but if there are any changes, the same are incorporated in the issue appearing in the following week. For the purpose of this price variation clause, the final index figures shall apply.

Note- 2 The sole purpose of the above stipulation is to arrive at the entire contract under the various situations. The above stipulation does not indicate any intentions to sell materials under this contact as movables.

Note- 3 The indices MP & Work are regularly published by IEEMA in monthly basic price circulars based on information bulletins from the authorities mentioned. These will be used for determining price variation and only IEEMA circulars will be shown as evidence, if required.

GENERAL CONDITIONS FOR ADMISSIBILITY OF ESCALATION

1. The exact percentage of labour/material (excluding materials to be supplied by the department /battements/diesel and petrol compensate and labour component for the work shall be approved by the authority while sanctioning the detailed estimates.
2. The breakup of components of labour/materials (excluding materials to be supplied by the department) bitumen/diesel and petrol as indicated in clause 45 have been pre-determined as follows:

(a)	Labour	-	16.39 Percent
(b)	Material	-	11.60 Percent
(c)	Bitumen	-	02.50 Percent
(d)	Petroleum	-	08.91 Percent
(e)	Cement	-	11.13 Percent
(f)	Steel Reinforcement	-	49.47 Percent
	Total	-	100%

3. While allowing price escalation the following shall be deducted from the value of the work done (a) cost of material supplied by the department (b) cost of services rendered as per clause 34 (c) of secured Advance/any advance added earlier but deducted, now after work is measured (d) cost of extra items, the rates for which have been worked out based on market rates/ mutually agreed rates.
4. The first statement escalation shall be prepared at the end of three months in which the work was awarded and the work done from the date of start to the end of this period shall be taken into account. For subsequent statement cost of work done during every quarter shall be taken into account. At the completion of work the work done during the last quarter of fraction thereof shall be taken into account.
5. For the purpose of reckoning the work done during any period the bills prepared during the period shall be considered. The dates of recording measurements in the Measurement book by the Assistant Engineer shall be the guiding factor to decide the bills relevant to any period. The date of completion as finally recorded by the competent authority in the measurement Book shall be the criterion.
6. The index relevant to any quarter for which such compensation is paid shall be the arithmetical average of the indices relevant of the calendar month.
7. Price adjustment clause shall be applicable only the work that is carried out within the stipulated time or extension thereof as are not attributable to the contractor.
8. If during the progress in respect of contract works stipulated to cost Rs. 50 lacs or less the value of work actually done excluding cost of Material supplied by the

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- Department exceeds Rs. 50 lacs and completion period is more than 3 months then escalation would be payable only in respect of value of work in excess over Rs. 50 lac from the date of satisfying both the conditions.
9. Where originally stipulated period is 3 months or less but actual period of execution exceeds beyond 3 months on account of reasons not attributable to contractor escalation amount would be payable only in respect of extended period if amount of work is more than Rs. 50 lacs.
 10. In case the contractor does not make prorata progress in the first or another time span and the short fall in progress is covered up by him during subsequent time span within original stipulated period then the price escalation of such work expected to be done in the previous time span shall be notionally given based upon the price index of that quarter in which such work was required to be done.
 11. No claims for price adjustment other than those provided herein shall be entertained.
 12. If the period of completion including extended period attributable to Jaipur Development Authority exceeds twelve months but cost does not exceeds more than Rs. 50 lacs no escalation is admissible.
 13. Similarly if cost of works increases more than Rs. 50 lacs but completion period including extended period attributable to Jaipur Development Authority is less than 3 months no escalation is admissible.
 14. No provisional escalation is payable on the basis of indices of the previous quarter in absence of non pub location of indices in concede quarter by the RBI.
 15. Escalation is always payable quarterly and no provisional escalation is payable monthly or fortnightly.
 16. In case at the time of executing agreement both the conditions (completion period 3 months and amount of work Rs. 50 lacs for admissibility of price escalation are not fulfilled and subsequently due to additional work and extension of time attributable to Jaipur Development Authority both the conditions become fulfilled in that case the escalation shall be payable from the date of satisfying both the conditions and only for work done beyond Rs. 50 lacs and in period of work beyond 3 months.
 17. The contractor shall for the purpose of this conditions keep such books of account and other documents as are necessary to show the amount of any increase climbed or reduction available and shall allow inspection of the same by a duly authorized representative of Jaipur Development Authority and further shall at the request of the Engineer in charge furnish verified in such a manner as the Engineer in charge may require any documents so kept and such other information as the Engineer in charge may require.

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18. Price variation clause shall be applicable in case of lump sum contracts estimated to more than Rs. 100 crore with stipulated completion period of more than 18 months.
 19. The component of operation and maintenance (O&M) cost included in the contract price shall not be subject to price variations. The price may be adjusted by the use of prescribed formula (or formulae) which breaks down the total price into components.
 20. The amount of price variation in case of lump sum contracts will be made by adding or deducting, as the case may be, from the payments made at the stages of work specified in the contract document.]

Clause 46 Force Majeure:

Neither party shall be liable to each other for any loss or damage occasioned by or arising out of acts of God such as unprecedented floods volcanic eruptions earthquake or other invasion of nature and other acts.

Clause 47: General discrepancies and errors:

In case of percentage rate bids if there is any typographical or clerical error in the rates shown by the Department in the “G” schedule the rates as given in the basic schedule of Rates of the Department of the area shall be taken as correct.

Clause 48: Post payment audit & technical examination:

The Jaipur Development Authority shall have right to cause an audit and technical examination of the works, and the final bills of the contractor, including all supporting vouches, abstracts etc., to be made within 2 years after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been over paid in respect of any work done by the contractor under the contract or any work claimed by him to have been done by him under the contract and found not to have been executed below specifications, the contractor shall be liable to refund the amount of over payment and it shall be lawful for Department in recover the same from him in the manner prescribed in clause 50 or in any other manner legally permissible and if it is found that the contract was paid less than what due to him under the contract in respect of any work executed by him under it the amount of such under payment shall be duly paid by the Jaipur Development Authority to the contractor.

Clause 48A: Pre check or post check of Bills:

The Jaipur Development Authority shall have right to provide a system of pre-check of contractor bills by specified organization and payment by an Engineer or an accounts officer/Sr. Accounts Officer/Chief Accounts Officer/ Financial advisor as the Jaipur Development Authority may in its absolute discretion prescribe any overpayments/excess payments detected as a result of such pre-check or post check of contractor's bills can be recovered from the contractor's bills in the manner herein before provided and the contractor will refund such over/excess payments.

Clause 48 B: Check Measurements:

The department reserves to itself the right to prescribe a scale of check measurement of work in general or specific scale for specific works or by other special orders (about which the decision of the department shall be final) checking of measurement by superior officer shall supersede measurements by the subordinate officer and the former will become the basis of the payment. Any over/excess payment detected as a result of such check measurement or otherwise at any stage up to the date completion and the defect removal period specified elsewhere in this contract shall be recoverable from the contractor as any other dues payable to the government.

Clause 49: Dismantled Materials:

The Contractor in course of the work should understand that all materials e.g. bricks still and other obtainable in the work by dismantling etc. will be considered as the property of the Jaipur Development Authority and will be disposed off to the best advantage of the Jaipur Development Authority as per directions of the Engineer in-charge.

Clause 50: Recovery from contractors:

Whenever any claim against the contractor for the payment of a sum of money arises out of or under the contract the Department shall be entitled to recover such sum by appropriating in part or whole of the performance guarantee and/or security deposit. Security Deposit at the time of enlistment of the contractor. In the event of the security being insufficient or if no security has been taken then the balance or the total sum recoverable, as the case may be shall be deducted from any sum then due or which at any time thereafter may become due to the contractor, under this or any other contract with the Jaipur Development Commissioner of Jaipur Development Authority of Rajasthan should this sum be not sufficient to cover the full amount recoverable the contractor shall pay to the department on demand the balance remaining dues.

The department shall further have the right to affect such recoveries under public Demands recovery Act.

Clause 51: Jurisdiction Court:

In the event of any dispute arising between the parties hereto in respect of any of the matters comprised in this agreement the same shall be settled by a competent court having jurisdiction over the place where agreement is executed and by no other court after completion of proceeding under clause 23 of this contract.

Schedule of Material to be supplied by the Department if available

(Referred is in Clause 10)

S.No.	Particulars	Quantity	Rates		Place of Delivery
			Unit	Rupees	
1	NIL	NIL		NIL	

Schedule of Machinery /T&P to be supplied by the Department:

The following Machinery/ T & P shall be supplied by the Department if available to the contractor on hire as per rules of the Department for supply for machinery /T& P to the contractors on hire charges (Referred to in Clause 10 C)

S.No.	Item	Rate (Rs.)	Place of Delivery Return
1	NIL	NIL	

Progress Statements referred to in clause 2 of conditions of contract.

Name of work	Date from which the work should be commenced	Date by which the work should be completed	Monthly rate of progress
1	2	3	4

The contractor has been informed that his bid has been accepted.

Dated

Signature of Engineer-In-Charge

Dated.....

Signature of Contractor

Notes: For Filling in the Progress Statement Form

1. Columns 2,3 and 4 must be initialed and dated by the contractor
2. Column 4 must be initialed and dated by the JDA or other duly authorized Engineer also.
3. The date in column 2 correspond to the date on which the order to commence work is given to the contractor read with clause 2 of the conditions of contract.
4. The date in column 3 must correspond to the period stated in sub clause (e) of the Memorandum below bid for works:
5. Column 4 this will ordinarily be worked out proportionately thus for example if ` 240000/- is the cost of whole or portion of work bided for and six months period of completion then the monthly rate of progress should be Rs. 4000. If necessary quantities may also be specified in this column at the discretion of the JDA.
6. The certificate as to intimation of acceptance of bid printed at the foot of the form must be signed and dated both by the Director (Engineering)-II or other duly authorized Engineer and the contractor.

ANNEXURE TO APPENDIX XI
RAJASTHAN PUBLIC WORKS DEPARTMENT CONTRACTORS
LABOUR REGULATIONS

1. **Short Title:** These Regulations may be called "The Rajasthan Public Works Department Contractor's-Labour Regulations."
2. **Definition :** In these Regulations unless otherwise expressed or indicated, the following works and expressions shall have the meaning hereby assigned to them respectively, that is to say -
 - (i) **"Labour"** means works employed by a Rajasthan P.W. Department contractor directly or indirectly through a sub-contractor or other person by an agent on his behalf.
 - (ii) **"Fair Wage"** means minimum wages for time or piece work fixed or revised by the State Government under the Minimum Wages Act, 1948.
 - (iii) **"Contractor"** shall include every person whether sub-contractor or headman or Agent employing labour on the work taken on contract.
 - (iv) **"Wages"** shall have the same meaning as defined in the Payment of Wages Act and includes time and piece, rate wages.
3. **Display of Notice regarding wages etc.:** The contractor shall (a) before he commences his work on contract, display and in conspicuous place on the work notices in English and the correctly maintain in Hindi by the majority of the workers giving the rate of wages which have been certified by the Executive, Engineer, the Superintending Engineer, the Chief Engineer or Labour Commissioner as fair wages and the hours of works for which such wages are earned, and (b) such a copy of such notices to the Certifying Officers.
4. **Payment of Wages :**
 - (i) Wages due to every worker shall be paid to him direct.
 - (ii) All wages shall be paid in current coin or currency or in both.
5. **Fixation of wage periods :**
 - (i) The contractor shall fix the wage periods in respect of which the wages shall be payable.
 - (ii) No wage period shall exceed one month.
- (iii) Wages of every workman employed on the contract shall be paid before the expiry of ten days after the last day of the wage period in respect of which the wages are payable.
- (iv) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the day succeeding the one on which his employment is terminated.

-
- (v) All payments of the wages shall be made on a working day except when the work is completed before the expiry of the wage period, in which case, final payments shall be made within 48 hours of the last working day.

Note: The term "working day" means a day on which labour is employed in progress.

6. Wage Book and Wage Slips etc.

- (i) The contractor shall maintain a Wage Book of each worker in such form as may be convenient but the same shall include the following particulars :-
- (a) Rate of daily or monthly wages.
 - (b) Nature of work on which employed.
 - (c) Total number of days worked during each wage period.
 - (d) Total amount payable for the work during each wage period.
 - (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made.
 - (f) Wages actually paid for each wage period.
- (ii) The contractor shall also maintain a wage slip for each worker employed on the work.
- (iii) The Executive Engineer may grant an exemption from the maintenance of the wage books and wages slips to a contractor who, in his opinion, may not directly or indirectly employ more than 50 persons on the work.

7. Fines and deductions which may be made from wages:

- (i) The wages of a worker shall be paid to him without any deductions of any kind except those authorized, namely the following:
- (a) Fines
 - (b) Deductions for absence from duty i.e. from the place or places where, by the terms of his employment, he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - (c) Deductions for damages to or loss of goods expressly entrusted to the employed person for custody or for loss or any other deductions of money, which he is required to account where such damages or losses are directly attributable to his neglect or default.

The Rajasthan Government may, from time to time, allow deductions other than those specified in clause I above.

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- (ii) No fines shall be imposed on a worker and on deduction for damage or loss shall be made until worker has been given an opportunity or showing cause against each fine or deductions.
 - iii. The total amount of fines, which may be imposed in any one wage period on a worker, shall not exceed an amount equal to three paise in rupee of the wage payable to him in respect of that wage period.
 - iv. No fine imposed on any worker shall be recovered from him by installments or after expiry of 60 days from the date on which it was imposed.
8. **Register of fines etc. :** The contractor shall maintain a register of fines and of all deductions for damage or loss. Such register shall mention the reasons for which fine was imposed of deduction for damage or loss was made. The Contractor shall maintain both in English and local Indian Language a list approved by the labour Commissioner clearly stating the acts and omission for which penalty or fine may be imposed on a workman and display it in a good condition in conspicuous place on the work.
9. **Preservation of Register:** The wage register, the wage card and the register of fines deduction required to be maintained under these regulations, shall be preserved for 12 months after the date or the 1st entry made in them.
10. **Powers of Labour Welfare Officer to make investigation of enquiry:** The Labour Welfare Officer or any other person, authorized by the State Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and provisions of the regulations. He shall investigate into any complaint regarding default made by the Contractor of Sub-Contractor in regard to such provisions.
11. **Report of Labour Welfare Officer:** The Labour Welfare Officer or other person, authorized as a aforesaid, shall submit a report of the result of his investigation or enquiry to the Executive Engineer concerned indicating the extent, if any to which the defaults has been committed with a note that necessary deductions from the contractors bill be made and the wage and other dues be paid to the labour concerned in case an appeal is made by contractor under clause 12 of these regulations, actual payment to Labours will be made by the Executive Engineer after the Labour Commissioner had given decision on such appeal.
12. **Appeal against the decision of labour Welfare Officers:** Any person aggrieved by the decision and recommendation of the Labour Officer or other persons, so authorised, and may appeal against. Such decision to the Labour Commissioner within 30 days from the date do decision forwarding simultaneously a copy of his appeal to Executive Engineer concerned but subject to such appeal the decision of the Officer shall be final and binding upon the contractor.

12-A. No Party shall be allowed to be represented by a lawyer during any investigation enquiry appeal or any other proceedings

13. Inspection of Wage Books and Slips: The contractor shall allow inspection of the wage books and wage slips and register of fines and deductions to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Welfare Officer or any other person authorized by the State Government on his behalf.

14. Submission of Returns: The contractor shall submit periodical returns as may be specified from time to time.

15. Amendments: The Jaipur Development Authority may from time to time add to or amend these regulations and on any questions as to the application interpretation effect of these regulations the decision of the Labour commissioner to the Jaipur Development Authority or any other person authorized by the State Jaipur Development Authority in that behalf shall be final.

Progress Statement referred to in Clause 3 of Conditions of Contract.

Name of works	Date from which the work should be commenced	Date by which the work should be completed	Monthly rate of progress
1	2	3	4

The contractor has been informed that this bid has been accepted.

Date :



Sig. Engineer in charge

Date:

Sig. Contractor

NOTES FOR FILLING IN THE PROGRESS STATEMENT FROM THE LAST PAGE

1. Columns 2,3 and 4 must be signed and dated by the contractor,
2. Column 4 must be signed and dated by the Director (Engineering) or other duly authorized Engineer also.
3. The date in column 2 should correspond to the date on which the order to commence works is given to the contractor specified in line 3 clause 2 page 3 of the conditions or contract.
4. The date in column 3 must correspond to the period stated in clause (f) page 2 of the bid.
5. Column 4. This will ordinarily be worked out proportionately thus, for example, if ` 240000/- is the cost of the whole or portion of work bided for and six months period of completion then the monthly rate of progress should be Rs. 4000. If necessary, quantities may also be specified in this column at the discretion of the JDA.
6. The certificate as to intimation acceptance of bid printed at the foot of the form must be signed and dated both by the JDA or other duly authorized Engineer and the Contractor.

**SCHEDULE OF FAIR WAGE TO BE GIVEN BY EXECUTIVE ENGINEER LIST OF
ACTS AND COMMISSION FOR WHICH FINE CAN BE IMPOSED**

- (1) Willful insubordination or disobediences whether alone or combination with another.
- (2) The fraud or dishonesty in connection with the contractors business or property of the Rajasthan P.W.D. / JDA.
- (3) Taking or giving bribes or any illegal gratification
- (4) Habitual late attendance
- (5) Drunkenness fighting not or disorderly or indecent behavior
- (6) Habitual negligence
- (7) Smoking near or around the area where combustible or other materials are stocked
- (8) Habitual indiscipline
- (9) Causing damage work in progress or to property of the Rajasthan P.W.D./ JDA or the contractor
- (10) Sleeping on duty
- (11) Malingering or sowing down work.
- (12) Giving of false information regarding name age father's name
- (13) Habitual loss of wage cards supplied by the employers
- (14) Un-authorized use of employer's property or manufacturing or making of unauthorized articles at the work place.
- (15) Bad workmanship in construction and maintenance by skilled workers is not approved by the department and for which contractors are compelled to undertake rectification.
- (16) Making false complaints and/or misleading statement
- (17) Engaging in trade within the premises of the establishment
- (18) Any delinquency of business affairs of the employers
- (19) Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.
- (20) Holding meeting inside the premises without previous sanction of the employer
- (21) Threatening or intimidating any workman or employee during the working hours within the premises.

(Signature of contractor)


(Signature of Engineer)



STATEMENT OF PAYMENT & RECOVERIES TO BE ATTACHED WITH THE AGREEMENT OF WORKS

S.No.	Gross amt. of Bill	Progressive total amt. of Bills	Recoveries									Net Amt.	C.B.Vr. No. & Date	Date rates of	
			Materials T&P	Quantity Hours	Amount	S.D.	Income tax deduction	GST	Roya lty	Other Recoveries	Total Recoveri es			D.A. O	E.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Signature of Bidder

SECTION – 3

(OTHER CONDITIONS OF CONTRACT)

SECTION - 3

OTHER CONDITIONS OF CONTRACT

3.1 GENERAL

3.1.1 THESE OTHER CONDITIONS OF CONTRACT' (OCC) SHALL BE APPLICABLE TO THIS BID IN AMPLIFICATION/MODIFICATION OF THE 'GENERAL CONDITIONS OF CONTRACT'(GCC).

3.1.2 In case any clause provided in GCC is modified/amplified in OCC, then provision in OCC will be binding and will prevail over the corresponding provisions in GCC.

3.1.3 The Contractor shall carry out the Works based on the following:

- (i) Rajasthan PWD Standard Specifications (Civil works)
- (ii) MORT&H/IRC Specifications (latest revision) wherever applicable
- (iii) Indian Electric Rules 1956, Indian Electric Act 1910 and Rajasthan PWD specifications for electrical works or as specified in this document as directed by employer/engineer.

Any item not covered by the aforementioned documents shall be covered by CPWD specifications.

The attention of the contractor is drawn to those clauses of codes, which require supporting specification either by the engineer or by mutual agreement between the Contractor and Employer. In such cases, it is the responsibility of the Contractor to seek clarification on any uncertainty and obtain prior approval of the Engineer before taking up the supply/construction. In absence of such prior clarification, the Engineer's choice/design will be final and binding on the Contractor without involving separately any additional payment.

The latest edition of all Specifications / Standards till 30 (Thirty) days before the final date of submission of the bid, shall be adopted.

3.2 SCOPE OF WORK AND DEVIATIONS

3.2.1 Scope of work would be as specified under Instructions to Bidders (Section- 1 of Bid Documents).

3.2.2 The Contractor is not to vary or deviate from the drawings/specifications/stipulations as submitted by contractor and finally approved by Jaipur Development Authority(JDA) for execution, conditions of bid documents or instructions to execute work of any kind, whatsoever, unless so authorized by the Engineer-in-charge (E.I.C.) in writing. If, compliance with the E.I.C's aforesaid order involves extra work and/or expense beyond that is involved in the execution of the contract work, then unless the same were issued in consequence of some breach of this contract on part of the Contractor(s), the latter

shall be entitled to be paid the price of the said work to be valued as provided in 'GCC'.

- 3.2.3 The several documents forming the contract are to be taken as mutually explanatory to one another, detailed drawings being followed in preference to small scale drawings and figured dimensions in preference to the measured ones.
- 3.2.4 The right to carry out the work either in conformity with or in a manner entirely different from the terms of these Bid Documents that may be considered the most suitable before or subsequent to the receipt of bids due to exigencies of work is reserved with the EIC.
- 3.2.5 It shall be the responsibility of the Contractor to promptly bring to the notice of E.I.C. any error or discrepancy in the Contract Documents and obtain his orders thereon. Only stated dimensions are to be taken and not those obtained by scaling drawings. In case any feature of the work is not fully described and set forth in the drawings and specifications, the Contractor shall forthwith apply to the EIC for further instructions, drawings and specifications.
- 3.2.6 In case of errors, omission and/or disagreement between written and scaled dimension in the drawings and between the drawings and specifications, the following principles shall be followed.
 - a) As between the written description or written dimension in the drawing and the corresponding one in the specification, the former shall apply.
 - b) The drawing on a large scale shall take precedence over that on a smaller scale, and
 - c) Drawing approved as construction drawing from time to time shall supersede corresponding drawing previously approved.

3.3 RATES AND OTHER FINANCIAL CONDITIONS

- 3.3.1 The rate quoted in the bid must be for the finished work as per the drawings and specifications and unless clearly specified otherwise, shall be inclusive of all expenses for the proper and entire completion of work and shall be inclusive of all labour, material and other inputs, taxes, duties and levies including sales tax, municipal taxes, local taxes, octroi, all royalties, patent rights, other incidental charges etc. The rate offered shall be final and no claim whatsoever on any account shall be entertained.

- 3.3.2 **GST Registration Certificate & GST Registration and latest GSTR-3B return for last moth from month of floating bids **should be attached.****

3.3.3 Insurance

3.3.3.1 Requirements

Before commencing execution of works, it shall be mandatory for the contractor to obtain at his own cost insurance cover to meet the cost of compensation to be paid by the contractor for any accidents/incidents pertaining to J.D.A staff, site execution staff, labour, materials, plant and third party damages etc., under the

following requirements:

Contractor's all risk and Third Party Cover.

- a. Liability under the Workmen's Compensation Act, 1923, Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act 1970.
- b. Accidents to staff, Engineer, Supervisors and others who are not governed by Workmen's Compensation Act.
- c. Damage to Material, Machinery and works due to fire, theft etc.
- d. Any other risk may be specified in the Special Conditions of Contract.

3.3.3.2 Insurance policy in joint names of Contractor and Employer

The policy referred to under sub-clause 3.3.3.1 above shall be obtained in the joint names of the contractor and the employer and shall inter-alia provide coverage against the following, arising out or in connection with execution of works, their maintenance and performance of the contract.

- Loss of life or injury involving public, employee of the contractor, or that of Employer or Engineer, labour etc.
- Injury, loss or damages to works or property belonging to public, Government Bodies, Local Authorities, utility organizations, contractors, employers or others etc.

3.3.3.3 Currency of Insurance Policy

The policies shall remain in force throughout the period of execution of the works and till the expiry of the maintenance period. The contractor shall, submit to the Engineer or his representative the copies of various insurance policies obtained by him as also the rates of premium and the receipts for premium paid by him to ensure that the policies indeed continue to be in force.

3.3.3.4 Deduction of Income Tax (TDS)

Deduction towards income tax and any other tax shall be made at source from each on account bill by the employer as per rules of Central Govt./ State Govt.

3.3.4 Release of Security Deposit

Release of Security Deposit shall be affected as follows:

The Security Deposit amount shall become due and shall be paid to the contractor after expiry of Defect Liability Period of work as per the Special Condition of Contract regarding Defect Liability Period, except for expansion joints, bearing & R.E. wall for which the liability period shall be 10 years. The Security Deposit of Rs. 15.00 Lacs shall be kept withheld against, guarantee period / DLP of expansion joints, bearings and RE wall and shall remain valid throughout the guarantee period, however bidder should also submit a return guarantee for minimum ten years for expansion joint, bearings and RE wall.

Provided always that, no 'Security Deposit' amount shall become due nor payable to the contractor unless all the stipulations of the contract have been fulfilled by the contractor and all claims and demands made by the employer for and in respect of damage or loss by, from or in consequence of the works have been finally satisfied.

3.4 SETTING OUT

3.4.1 The Contractor(s) is/are to set out the whole of the work in conjunction with an officer to be deputed by the EIC and during the progress of the work to amend on the requisition of the EIC any errors which may arise therein and provide all the necessary labour materials and equipments for so doing. The contractor(s) is/are to provide all tools, plant, machinery, labour and materials (with the exceptions noted in the relevant clauses for issue of departmental materials as per schedule attached) which may be necessary and required for the work. All materials and workmanship shall conform to the relevant specifications mentioned in the bid documents.

3.5 SITE AND CONTRACTOR'S OFFICE

3.5.1 The Contractor shall set up an office in Jaipur in case he does not have one already, for planning and co-ordination of the present bid/contract. He shall furnish to the Employer postal address of the same.

3.5.1.1 The Contractor shall also have an office at site and shall furnish to the Employer/E.I.C. the postal address of his site office.

3.5.1.2 The contractor shall provide and maintain at the work site, an air conditioned site office for Employer's engineering staff, of floor area not less than 45 Sq M with three rooms of adequate size reasonably well furnished with furniture, computer monitoring system with operating system software and latest (authenticated) working software like Auto Cad, Primavera / MS project MS word, MS Excel, etc, and coloured multi functional printer (MFP) A-3size printer. The site office shall also be equipped with 5G broadband connection (speed not less than 300 mbps), with attached toilet and wash and ward and one attendant. The contractor shall also arrange all necessary IRC codes, IS codes MoRTH Specifications and other technical literature, etc as directed by EIC of latest version in soft copies as well as hard copies, in the site office. The contractor shall bear the monthly cost of electricity, water consumption, broadband, stationary and other consumables of the site office. Nothing extra shall be payable on this account and the bided cost of contract shall be deemed to include in the cost for the main works. In case of non satisfaction of the services being provided or maintained a maximum deduction of Rs. 50,000.00 per month will be made by the EIC.

3.5.1.3 Any notice or instructions to be given to the Contractor under the terms of the contract shall be deemed to have been served on him if it has been delivered to his authorized agent or representative at site, or if it has been sent by registered post to the site office or to the address of the firm last provided by the Contractor.

- 1.5.1.4 The contractor shall provide and maintain, hard top passenger jeeps c.g. Mahindra Bolero or equivalent make for Employer's engineering staff for project related travelling in Jaipur in accordance with Clause 124 of MORTH Specifications, IV Revision. At least one such vehicle shall be provided at all times day and night as required by the Engineer-in-charge and/or their staff Nothing extra shall be paid for such provision of vehicle. In case of non-provided a maximum deduction of Rs. 50,000 per month will be made by EIC.

3.5.2 Use and Care of Site

- 3.5.2.1 The Contractor shall not demolish, remove or alter structure or other facilities on the site without prior approval of the EIC.
- 3.5.2.2 All garbage shall be burnt or removed from the site as it accumulates. All surface and sub soil drains shall be maintained in clean, sound and satisfactory state of performance.

3.5.3 Materials, tools and plants.

- 3.5.3.1 The Contractor shall supply at his own cost all materials, plants, tools, appliances, implements, ladders, tackle, scaffolding and temporary works or any other item required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract referred to in these conditions or not, which may be necessary for the purpose of satisfying or complying with the requirements of the EIC to any matter as to which under these conditions he is entitled to be satisfied or which he is entitled to require together with carriage thereof to and from the work. Materials so supplied shall have the approval of EIC before being used on the works. All the rejected materials shall be removed at once from the site of work at the Contractor's own cost.

3.5.4 Storage of Materials

- 3.5.4.1 Materials required for the work whether purchased by the contractor or supplied by the Employer shall be stored by the Contractor only at places, in standard profiles and in the manner approved by the EIC. The Contractor shall construct suitable godowns at the site of work for safety against damage due to sun, rain, dampness, fire, theft etc. Storage of cement at site of work shall be at Contractor's expense and risk. In the event of any damage occurring to cement due to faulty storage in Contractor's sheds, or on account of negligence on his part, such damage shall be the liability of the Contractor.

3.5.4.2 Safety of materials

Storage and safe custody of materials shall be the responsibility of the Contractor. He shall employ necessary watch and ward establishment for that purpose and no extra claim whatsoever shall be entertained on this account.

3.5.5 Supply of water and electric power

- 3.5.5.1 The contractor shall have to make his own arrangement for water supply and electric power necessary for the work. Any recommendatory letters to the concerned department shall be issued by the JDA for this purpose if requested by the contractor. However, JDA shall not be responsible for any delay in getting the required supply and no claim on this account will be acceptable by JDA.

3.5.5.2 Electric supply, charges and precautions

The electric connections shall be obtained by the contractor for use for the work under the contract subject to the following conditions:-

- a) The charges pertaining to electric supply including installation of temporary connection including the cost of making electric sub-station if needed, laying cables wherever necessary upto the meter from the relevant electricity supply authority pole and from meter upto actual consumption point and the cost of electricity shall be borne by the Contractor. The Contractor shall also bear the entire cost of connection charges in case electric connection is discontinued by the electric supply authority.
- b) It will be the responsibility of the Contractor to make necessary arrangements for the illumination to be provided on the main road in the work area. The Contractor shall make his own arrangement for any further requirements in respect of illumination at site of work. No claim whatsoever on this ground shall be entertained and the Contractor shall bear the full expenses in respect of the same.
- c) The Contractor shall at all times observe the Indian Electricity Rules and any other rules/bye laws applicable at the time and any damage/penalty on

account of violation of any of the rules/bye laws shall be responsibility of the Contractor.

- d) The Employer shall in no way be responsible for any delay in getting the electric connection and no claim on this account whatsoever, shall be entertained. It should be clearly understood that the Contractor has to make his own arrangement for use before the electric connection is made available and also to be used as a stand-by arrangement in case of power failure etc. or in the case of disconnection of electric supply by electric supply authority for any reason.
- e) It shall be mandatory for contractor to provide safety light during night for safe movement of traffic and provide follow safety instruction provided in IRC code for safety in construction zone.

3.6 ACCESS ROADS AND HAUL ROADS

- 3.6.1 Existing public roads may be used by the Contractor to carry out construction activities with prior approval of the competent authority. The Contractor shall pay all statutory vehicle licenses and permit fees for the use of public roads.
- 3.6.2 The Contractor shall indemnify the Employer against all claims for damage to any road or bridge caused by movement of his traffic, including such claims as may be made directly against the Employer and shall negotiate and pay all claims arising out of such damage.
- 3.6.3 No extra payment will be made for construction and maintenance of any temporary haul roads including any special protection or strengthening required and all cost of such works shall be deemed to have been included in the cost quoted by the Contractor.

3.7.1 SAFETY, LIGHTING AND FIRE PREVENTION

Safety of Workers

- 3.7.1 The Safety Code annexed to the General Conditions of Contract supplemented by the other instructions by the EIC and Conditions of Contract for Safety, Health and Environment (SHE) as per Section 7, shall be strictly followed. All the safety procedures as per law of the land shall be binding on the Contractor.
- 3.7.2 Over and above the provisions made in Safety Code included in GCC and Conditions of Contract for Safety, Health and Environment (SHE), the following will also be applicable.
- 3.7.3 In respect of all workmen directly employed on the work for the performance of the Contractor's part of this agreement, the Contractor shall at his expense arrange for the safety provisions as per Indian Standard Safety Codes given below and shall at his own expense provide for all facilities in connection therewith. In case the Contractor fails to make arrangements, and provide necessary facilities as aforesaid, he shall be liable to pay penalty prescribed under relevant clauses of

these bid documents for each default and in addition the EIC shall be at liberty to make arrangement and provide facilities as aforesaid and recover the cost incurred on that account from the contractor and no claims whatsoever shall be entertained.

1. IS 3696 (Part I); Safety Code for Scaffolds and Ladders.
 2. IS 3696 (Part II); Safety Code for Scaffolds and Ladders Part II.
 3. IS 3764, Safety Code for excavation work.
 4. IS 4081 , Safety Code for blasting and drilling operations
 5. IS 4138, Safety Code for working in compressed air.
 6. IS 5121; Safety Code for piling and other deep foundations.
 7. IS 5121, Safety Code construction involving use of hot bituminous materials.
 8. IS 7293, Safety Code for working with construction machinery.
 9. IS 7969, Safety Code for storage and handling of building materials.
 10. IRC safety code for construction zone IRC(SP) 55 2001
 11. Any other code and/or as per directions of EIC.
12. The contractor shall be responsible for providing following services/ measures for which no extra payment shall be made as per directions of Engineer In charge.
- (a) The contractor shall take all necessary precautions for excavation of required depth up to 6.0 m for construction and simultaneously to maintain the service road carriageway uninterrupted for all direction traffic throughout construction period. He should also give his methodology of carrying out the construction, list of equipment and procedure to be followed without delaying the project. The methodology shall only be adopted after approval from Engineer In charge. The contractor should cover all the expenses due to methodology adopted and construction difficulties in the quoted rates.
 - (b) Contractor has to divert and manage traffic by deploying marshals with reflective shirts, torch/reflective sticks. In the absence of marshals JDA shall deploy the marshals at market rate and recovery from the contractor will be done at double the rate paid from his running payments. The open excavation shall be done taking proper care for land sliding as per IS Code 3764 and other. Slope shall be limited to space available at site at least 2 lanes should be available for either side traffic such arrangement as approved by Engineer In charge shall be done by contractor at his own cost.
 - (c) In case of any lapse , if found in barricading the site of work then, agency will be liable for penalty @ Rs. 10000/-per day (Rs. Ten Thousand per day) till the rectification of the same as per directions of Engineer In charge in construction area. The contractor shall enclose the area completely. The steel plates should have the Name of Agency, Name of Client and “Construction in Progress” duly written as approved by Engineer In charge.

- (d) The contractor shall construct and maintain the 2 lane diversion road with bituminous surface road for bridge work for smooth movement of all traffic during construction period. No cost will be payable for this diversion work.
- (e) The contractor shall be responsible for immediately removing the accident vehicle/ material by mobile crane for least hindrance to the traffic in construction area and to arrange the ambulance as per requirement immediately.
- (f) The contractor shall take all necessary measures for the safety of traffic and the workers during construction and provide, erect and maintain such barricades including signs, markings, flags, lights and flagmen as necessary, all around the excavation/construction area and at such intermediate points, as directed by the EIC including the proper identification of the construction areas. He shall be responsible for all damages and accidents on account of construction and other relevant activities. Nothing extra shall be paid on account of above.

The temporary warning signs/lamps shall be installed at all barricades during the hours of darkness and kept lit there at all times during these hours and nothing shall be paid extra on this account. However, traffic police signals shall not be the responsibility of the contractor.

- (g) The contractor will be responsible for following all the norms, instructions mentioned in Safety Codes of IS/ BS or other for every construction activity, heavy machines including operator and technical staff. In case of any casualty JDA will not be responsible for negligence of contractor. He will appoint safety induction officer having minimum qualification, Diploma in such field with minimum 5 years experience in similar nature of works.

- (h) Nothing extra will be paid on account of Dewatering.

3.7.4 a. NIGHT WORK

- i. For completing the work in time, the Contractor might be required to work in two or more shifts (including night work) and no claim whatsoever shall be entertained on this account, notwithstanding the fact that the Contractor will have to pay to the labour and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amounts for any other reason.
- ii. Night working shall be resorted to only with prior approval of the EIC. Sufficient lighting and safety arrangements shall be made by the Contractor at no extra cost.
- iii. The Contractor shall provide and maintain adequate firefighting equipment and take adequate fire protection measures for the safety to all personnel and temporary and permanent workers and shall take action to prevent damage or destruction by fire of trees, shrubs and grass. All existing rules and laws of land in respect of fire prevention shall be binding on the Contractor.

- iv. No extra payment shall be made for the provision of temporary lighting and fire prevention measures and entire cost of all such works shall be deemed to have been included in cost tendered by the Contractor as accepted by JDA.

b. SECURITY MEASURES

Security arrangement for the work shall be adequate conforming to IS Codes, applicable rules and laws of the land. The contractor shall be held responsible for the action or inaction on the part of his staff and employees and also those of any approved sub-contractor. The Contractor shall also provide and maintain adequate security personnel on continuous basis for ensuring security of the works for duration of contract.

The requirement of security measures to be taken by the Contractor shall include, but not be limited to maintenance of law and order at site, provision of all lighting, guards, flagmen and all other measures necessary for protection of works within the colonies, camps and elsewhere at site, all materials delivered to the site and all persons employed in connection with the work continuously throughout working and non-working periods including nights, Sundays and holidays for the duration of the contract. In close proximity of traffic corridors where public are likely to come close to the work area, suitable barriers/fencing as directed by EIC shall be provided.

c. ANCILLARY AND TEMPORARY WORKS

- i. The contractor's proposals for execution of all ancillary and temporary works shall be in conformity with the proposals submitted along with the Tender and modification thereto as approved by the EIC.
- ii. The Contractor shall submit drawings, supporting design calculations when called for by the EIC and other relevant details of all such work to the EIC for approval well before he desires to commence such works. Approval by the EIC of any such proposal shall not relieve the Contractor of his responsibility.
- iii. No extra payment shall be made for complying with the provisions of this clause. The cost of the same shall be deemed to be included in the Tendered Cost as accepted by the Employer.

d. ECOLOGICAL BALANCE

- i. The Contractor shall maintain the ecological balance by preventing deforestation, water pollution and defacing of natural landscape. The Contractor shall so conduct his construction operations as to prevent any destruction, scarring or defacing of natural surroundings in the vicinity of work or damage to any tree, shrub or water course unless any of the same is specifically required to be cleared or removed for construction purposes. Such removal shall only be done with prior approval of EIC who may require the contractor to do compensatory plantation at his cost.
- ii. No separate payment shall be made for complying with provisions of this clause and all costs shall be deemed to have been included in the Tendered Cost as accepted by the Employer.

- iii. The Contractor shall make his own arrangement for the disposal of the spoils from the works to such place where the same shall not cause nuisance and shall be acceptable to the authorities concerned.

e. SERVICES

- i. Underground and overhead services are likely to be met with during construction. These are to be protected against damage by the Contractor at his own cost.
- ii. The contractor shall not have any claim in case of delay in shifting of services or removal of obstructions. However, suitable extension of time shall be granted by Engineer-in-charge for such delays proportionately. Shifting charges shall be met by the Employer.
- iii. No extra payment will be made to the contractor for damage caused by rains, floods, earthquake, fire, accidents and other natural calamities during the execution of work.

f. PROGRESS & PROJECT MONITORING

(Amplification of clause 2 of GCC)

- i. After the work order issued by JDA, the contractor shall submit within 7 days the complete detailed work programme mentioning Key Dates for the mile stones defined in section 3.12.2.2. and got it approved by JDA, failing which JDA may fix key dates at its own which shall be binding to the contractor and shall be applicable for deduction of liquidated damages as mentioned in clause 3.12.2.2. The contractor shall also submit monthly programme in the first week of every month to the EIC an up to date primavera/ MS project hard copy detail showing changes and covering backlog of previous month, if any, in planning or scheduling and reflecting the project status as at the end of previous month. If the contractor fails to submit the proper work program within first week of the month, penal deduction of Rs. 5,000.00 (Rupees Five Thousand) per day will be made.
- ii. Whenever the contractor proposes to change the construction programme he shall immediately advise the EIC in writing and, if the EIC considers the change a major one, the contractor shall submit a revised programme for approval.
- iii. If the contractor falls behind the approved construction programme, he shall, within fourteen days of the date of such default, submit for approval a revision of the construction programme showing the proposed measures, including augmentation of plant, labour and material resources to complete the works on time.
- iv. Whenever required by the Engineer, the contractor shall also prepare and submit system-wise network in a similar manner after award of the work. These networks will be computerized to generate the following reports :-
 - System-wise Activity List for the next two months.
 - Criticality report.

- Hold up and Slippage Report.

a) i) **Master Control Network**

Master Control Network shall give details of broad scheduling, major milestones, and critical path and provide a control for the overall project implementation. This network plan shall be used for joint monitoring of the project schedule by the EIC and the Contractor.

Detailed Network Plan shall be prepared by the Contractor for each and every activity within the same time frame and in the same sequence as indicated in the master work plan.

- b) If so required by the EIC, the Contractor shall select PC-based broad planning and control software on which the two networks shall be implemented. Software selected shall be such that it should be possible to monitor the project programme continuously and obtain periodical reports in the form of GANTT chart and/or PERT chart. The contractor shall supply one licensed copy of the software selected along with the Master Control Network and Detailed Network Plan free of cost and load it on the PC system of the EIC so that uniform monitoring of the project is done and any slippages are identified well in time and corrective action taken.
- v. The following reports in agreed formats and frequency shall be submitted by the Contractor at his own cost.
 - Progress Reports.
 - Material Status Reports
 - Equipment and Manpower Deployment Reports.
 - Any other reports desired by the Employer or the Engineer
- vi. The EIC's monitoring team will have access to all the data/information of the contractor, required for the assessment of the progress and monitoring. If necessary, the monitoring team will visit the Contractor's works in order to assess the details of critical activities.
- vii. The Employer or the EIC will hold periodical Progress Status Review Meeting. The Contractor shall depute his Engineers/Managers at appropriate level as decided by the EIC to attend the Review Meeting.
- viii. Progress photographs of the major events shall be submitted by the Contractor along with the Progress Reports. No extra payment will be made for supply of progress photographs. Video recording of the progress of works shall be maintained from beginning till completion of work as directly by the EIC and two copies of Video Cassettes shall be submitted at no extra cost to the Employer.
- ix. Contractor shall provide additional inputs whenever the PERT-CPM diagram indicates a possible slippage in the completion schedule. Such additional inputs may require supplementing of equipment, personnel, work in excess of

the normal work per day, work in excess of the normal work per week or other resources.

- x. No separate payment shall be made for the requirement under this clause and the same shall be deemed to be included in the Tendered Cost as accepted by the Employer.

g. RIGHT OF WAY

- i. Right of way to the work site will be provided to the contractor. The contractor shall prepare at his own cost approach road to the site of work. The Employer reserves the right to make use of the service road for themselves, all other connected agencies in the area as and when necessary without any payment to the contractor. If the contractor wishes to use the existing roads, he may do so after taking permission from competent authority and after due strengthening of such roads to take any anticipated heaviest traffic at their own cost as may be required by the authority.
- ii. The contractor shall plan transportation of construction materials, components and equipments over public roads in accordance with traffic regulations as applicable at the time and without causing any obstruction to other traffic or causing accident. No claim whatsoever will be entertained on this account.
- iii. All arrangements for maintenance of traffic diversion including traffic signals/regulations during construction and maintenance period shall be considered as incidental to the work and contractor's responsibility and nothing extra shall be payable in this respect.
- iv. The contractor shall take all necessary measures for the safety of traffic and the workers during construction and provide, erect and maintain such barricades including signs, markings, flags, lights and flagmen as necessary, all around the excavation/construction area and at such intermediate points, as directed by the EIC including the proper identification of the construction areas. He shall be responsible for all damages and accidents on account of construction and other relevant activities. Nothing extra shall be paid on account of above.
- v. The temporary warning signs/lamps shall be installed at all barricades during the hours of darkness and kept lit there at all times during these hours and nothing shall be paid extra on this account. However, traffic police signals shall not be the responsibility of the contractor.

h. CORPORATE SOCIAL RESPONSIBILITY (CSR)

The contractor shall construct one toilet block including all civil, water supply, and sanitary works and electrical installation (covered area 15SqM approx.) duly finished in all respect in the nearby Government School or any other location at his own cost as per direction of Engineer-in charge. Cost to be incurred on this account will be deemed to be included in the cost of main work and no

extra payment on this account will be made. However in the event of non-execution of this work proportionate amount of Rs. 10.00 lacs will be deducted.

3.8 TIME MANAGEMENT

3.8.1 Commencement of Work

The Contractor shall commence the Works on the date specified in the Letter of Acceptance or if no date is specified in the Letter of Acceptance, on the date specified in an instruction in writing to that effect from the Engineer. Thereafter the Contractor shall proceed with due diligence, without delay, and in accordance with the programme or any revised or modified programme of the Works. Time will be the essence of Contract and time for Completion shall run from the date the Contractor is to commence the Works under this Clause.

3.8.2 Programme of Work

For this, Clause 3.7.4.f may be referred.

3.8.3 Handing over, Possession and Use of Site

3.8.3.1 No land belonging to or in the possession of the Employer shall be occupied by the Contractor without the permission of the Engineer or the Employer. The Contractor shall not use, or allow the Site to be used for any purpose other than that of executing the Works.

3.8.3.2 The Employer shall give the Contractor, right to or right of access to or possession of all or parts of Site as the case may be from time to time as stated to in the Contract and as conforming with the requirement of the programme of the Work.

3.8.3.3 If the Contractor suffers delay or incur extra cost due to failure by the Employer to give such possession within such time, then the Contractor shall be entitled to extension of time if Completion will be delayed due to this. No extra payment shall be payable to the Contractor in this regard.

3.8.4 Access To Site of Work

3.8.4.1 Access for Engineer

The Contractor shall allow the Engineer or the Engineer's Representative, at all times access to the Site, and to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where Materials or plant are being manufactured, fabricated and/or assembled for the Works. The Contractor shall ensure that sub Contracts if any shall contain provisions entitling the Engineer or any person authorized by him to have such access.

3.8.4.2 Access Road and Way Leaves

Providing access roads/ way leaves to the Site will be Contractor's responsibility.

3.9 Time for Completion

Time is the essence of Contract and will remain so at all times during the pendency of the Contract including the extended period of Contract. The Contractor shall ensure defect free completion of the whole of the Works and/or parts thereof before the same is taken over by the Employer.

3.10 Delay

3.10.1 Failure or delay by the Employer or the Engineer, to hand over to the Contractor the Site necessary for execution of Works, or any part of the Works, or to give necessary notice to commence the Works, or to provide necessary Drawings or instructions or clarifications or to supply any material, plant or machinery, which under the Contract, is the responsibility of the Employer, shall in no way affect or vitiate the Contract or alter the character thereof; or entitle the Contractor to damages or compensation thereof but in any such case, the Engineer shall extend the time period for the completion of the Contract, as in his opinion is / are reasonable.

3.10.2 In case of delay on the part of the Contractor, the Contractor shall be liable to pay liquidated damages in addition to any other compensation for the damages suffered by the Employer. This is without prejudice to the right of the Employer to rescind the Contract.

3.11 Extension of Time for Completion not on Contractor's fault

The time within which, the Works or any phase or part of the work is to be completed, may be extended by the Engineer by such further period of time as may reasonably reflect delay in completion of Works notwithstanding due diligence and the taking of all reasonable steps by the Contractor to avoid or reduce such delay, caused by any of the following events

- (i) "Force Majeure" referred to in **Clause 46.0**
- (ii) The issue of any instruction or major Variation by the Engineer
- (iii) The Contractor not being given possession of or access to the Site or any part thereof in accordance with the Contract
- (iv) Instruction of the Engineer to suspend the Works and the Contractor not being in default as to reasons of suspension.
- (v) Acts or omissions of Other Contractors in executing work not forming part of this Contract and on whose performance, the performance of the Contractor necessarily depends.
- (vi) Any act of prevention or Breach of Contract by the Employer and not mentioned in this Clause
- (vii) Any order of Court restraining the performance of the Contract in full or in any part thereof
- (viii) Any other event or occurrence which, according to the Employer is not due to the Contractor's failure or fault, and is beyond his control

However, the Contractor shall not be entitled to any extension of time where the instructions or acts of the Employer or the Engineer are necessitated by or intended to cure any default of or breach of Contract by the Contractor. If the Contractor considers himself to be entitled to an extension of time for Completion,

he shall give notice to the Engineer of such intention as soon as possible and in any event within 28 days of the start of the event giving rise to the delay, together with any notice required by the Contract and relevant to such Clause.

3.12 Extension of Time for Delay due to Contractor and Liquidated Damage

3.12.1 Extension of Time for Delays due to Contractor

If the delay in the completion of the whole Works or a portion of the Works, for which an earlier completion period is stipulated, is due to the Contractor's failure or fault, and the Engineer is of the view that the remaining Works or the portions of Works can be completed by the Contractor in a reasonable and acceptable short time, then, the Engineer may allow the Contractor extension or further extension of time at its discretion with or without liquidated damages, for completion, as he may decide.

3.12.2 Liquidated Damages

3.12.2.1 In case the Engineer decides to extend the Contract with liquidated damages for delays due to Contractor, in that case without prejudice to any other right or remedy available to the Employer, the liquidated damages shall be levied as per clause 3.12.2.2.

The decision of the Engineer as to the Liquidated Damages payable by the Contractor under this Clause shall be final and binding. For submission of detailed work programme, key dates etc, Clause 3.7.4.f. may be referred.

3.12.2.2 The intermediate mile stones are identified as below.

For Viaduct

1. Foundations
2. Substructure.
3. Casting of PSC SEGMENTAL BOX GIRDER in Casting Yard.
4. RE wall panel casting.
5. Placing of PSC SEGMENTAL BOX GIRDER in position.
6. Bow String Girder

- Liquidated damages for not achieving key dates will be levied separately and it shall be Rs. 1,00,000.00 (Rupees One Lacs) per day for each key date.
- Liquidated damages for not achieving key dates will be levied separately and it shall be Rs. 1,00,000.00 (Rupees One Lacs) per week for each key date.
- Liquidated damages for mobilizing less number of Piling Rig Machines as stipulated in Schedule will be levied @ Rs.60,00,000.00 (Rupees sixty Lacs) per piling rig mobilized less beyond the key date.
- Liquidated damage for installing less number of casting beds for Segments in the casting yard @Rs.36,00,000.00 (Rupees thirty six lacs) per bed mobilized less beyond the key date.

These liquidated damages shall not relieve the contractor from his obligation to complete the

works or from any other of his obligations and liabilities under this contract.

These liquidated damages levied shall be clubbed / included in liquidated damages as per clause 2 of GCC. However the total liquidated damages will not exceed 10 % of the final bill amount

3.13 Rate of Progress

If for any reason which does not entitle the Contractor to an extension of time, the rate of progress of the Works is at any time, in the opinion of the Engineer too slow to ensure timely completion of the Works or any part thereof, the Engineer may so notify the Contractor in writing. The Contractor shall thereupon take such steps as are necessary or in default of taking such steps, shall take such steps as the Engineer may reasonably instruct to expedite progress so as to complete the Works or any part thereof within date of Completion. The Contractor shall not be entitled to any additional payment for taking such steps.

If any step taken by the Contractor in meeting his obligations under this Sub clause cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor and shall be deducted by the Employer from any monies due, or become to the Contractor.

3.14 Suspension

3.14 .1 Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During suspension, the Contractor will protect, store and secure such part or whole of the Works against any deterioration, loss or damage.

3.14.2 Consequences of Suspension

The Contractor shall not be entitled to extra cost (if any), incurred by him, during the period of suspension of work, if such suspension is

- a. provided for in the Contract, or
- b. necessary for proper execution of Works or by reasons of weather condition or by some default on the part of the Contractor, or
- c. necessary for the safety of Works or any part thereof or
- d. necessary for the safety of adjoining public or other property or safety of the public or workmen or those who have to be at the Site or
- e. to ensure safety and to avoid disruption of traffic and utilities, as also to permit fast repairs and restoration of any damaged utilities,

3.15 TERMINATION OF CONTRACT

3.15.1 Termination for Employer's Convenience

- (i) The Employer may terminate the Contract by giving notice to the Contractor with effect from the date stated in the notice, for its convenience and without need to give reasons.
- (ii) The Contractor must comply with the instructions of the Employer to wind down and stop work and the Contractor must leave the Site by the date stated in the termination notice and remove all Temporary Works it has brought on to the Site except for those items identified in the termination notice as to be retained on the Site.
- (iii) The contractor shall not be entitled for extra cost.

3.15.2 Termination for Default of Employer: DELETED

3.15.3 Rescission Of Contract Due to Death of Contractor / Partner

If the Contractor is an individual or a sole proprietary concern, and the Contractor dies, or if the Contractor is a partnership concern and one of the partners dies, in that case unless the Employer is satisfied that the legal representative of the individual Contractor or of the sole proprietor, , or in the case of a partnership firm, all surviving partners, are capable of carrying out and completing the Contract, the Employer shall be entitled to rescind the Contract as to its incomplete part. The Engineer's decision in this regard will be final and binding on the parties. In that event, the Employer shall not be liable to pay any compensation to the legal heirs of the deceased Contractor and / or to the surviving partners of the Contractor's firm, on account of such cancellation of Contract. Provided further that the legal representatives of the Deceased Contractor the surviving partners, shall also not be liable to pay any damages, to the Employer, in respect of incomplete part of the Contract. Any liability incurred by the deceased Contractor, or by the deceased partner of the Contracting firm, shall be recovered from the legal representatives of the deceased Contractor or from the surviving partners of the said Contracting firm as the case may be

3.15.4 Termination of Contract Due To Contractor's Default

3.15.4.1 Notice to Correct

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and remedy it within a specified reasonable time as the Engineer may deem reasonable.

3.15.4.2 Conditions Leading To Termination Of Contract

The Employer shall be entitled to terminate the Contract if the Contractor or any one of its constituents,

- a) fails to comply with a notice under Sub clause 3.15.4.1
- b) abandons or repudiates the Contract
- c) without reasonable excuse fails to commence the Works in accordance with the Contract
- d) sub Contracts the whole of the Works or assigns the Contract without Approval of the Employer
- e) becomes bankrupt or insolvent or goes into liquidation except voluntary liquidation for the purpose of amalgamation or reconstruction
- f) persistently disregards instructions of the Engineer or contravenes any provisions of the Contract, or
- g) fails to adhere to the agreed programme of work by margin of 10% of the stipulated period or 21 days, whichever is earlier, or fails to complete the Works or parts of the Works within the stipulated or extended period of completion, or is unlikely to complete the whole Work or part thereof within time because of poor record of progress; or
- h) fails to remove Materials from the Site, or pull down and replace work, after receiving notice from the Engineer to the effect that the said Materials or Works have been condemned or rejected, or
- i) fails to take steps to employ competent and/or additional staff and labour, or
- j) fails to afford the Engineer or his representative proper facilities for inspecting the Works or any part thereof, or
- k) indulges in corrupt or fraudulent practices as explained in Clause 3.16.1 (a) (ii)

In any one these events or circumstances, the Employer may upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. The Employer shall give a 2 days' notice to the Contractor towards the end of this 14 day period following which the Contractor shall remove all his plants and Machinery from the Site within these two days failing which Liquidated Damages shall be levied on the Contractor. However, in case of sub-paragraph (e) or (i), the Employer may by notice terminate the Contract immediately.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer under the Contract.

After termination, the Employer may complete the Works and/ arrange for any other entities to do so at the risk and cost of the Contractor. The Employer and his entities may then use, the roads, the Contractor's documents and his design document made by or on behalf of the Contractor.

On termination of Contract due to Contractor's default, the Employer shall be entitled to

- a. forfeit the whole or such portion of the Performance Security amount as he may consider fit, and
- b. recover from the Contractor the cost of carrying out the balance work in excess of the sum which he would have been paid according to the certificate of the Engineer, if the Works had been carried out and completed by the Contractor under the terms of Contract. Such certificate shall be final and binding upon the Contractor. The amount to be recovered may be deducted by the Employer from any monies then due or which, at any time thereafter, may become due to the Contractor alone or jointly under this or any other Contract or otherwise.

3.15.4.3 Non-exercise of power not to constitute waiver

Provided always that in case any of the powers conferred upon the Employer by **Sub-clause 3.15.4.1** and **Sub-clause 3.15.4.2** above, shall have become exercisable, and the same may not have been exercised, the non-exercise thereof shall not constitute waiver of any of the conditions thereof.

3.16 CORRUPT OR FRAUDULENT PRACTICES

3.16.1 The Employer requires that the Bidders/Contractors observe the highest standards of ethics during

Tendering and execution of this Contract. In pursuance with this policy, the Employer:

- a. defines, for the purpose of these provisions, the terms set forth below as follows:
 - (i) “Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to Employer, Engineer or any of their employees, influence in the procurement process or in Contract execution; and
 - (ii) “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- b. Will reject the Tender for the work or rescinds the Contract if the Employer determines that the Bidder/Contractor has engaged in corrupt or fraudulent practices.
- c. Will declare a Contractor ineligible, either indefinitely or for a stated period of time, to be awarded a Contract/s if he at any time determines that the Contractor has engaged in corrupt or fraudulent practices in competing for, or in executing the Contract.



SECTION – 4

TECHNICAL SPECIFICATIONS

PREAMBLE

TECHNICAL SPECIFICATIONS.

1.1.1 General

The Technical specifications covering the materials and the workmanship aspects as well as method of measurements and payments are included in this section. These specifications cover the items of civil and non-civil works coming under scope of this document. All work shall be carried out in conformity with the same. These specifications are not intended to cover the minute details. The works shall be executed in accordance with good practices followed for achieving high standards of workmanship, thus ensuring safety and durability of the construction. All codes and standards referred to in these specifications shall be the latest thereof, unless otherwise stated.

1.1.2 Inclusive Documents

The provisions of special conditions of contract, those specified elsewhere in the bid document, as well as execution drawings and notes, or other specifications issued in writing by the Engineer shall form part of the technical specifications of this project.

The attention of the contractor is drawn to those clauses of codes which require supporting specification by the Engineer. In such cases, it is the responsibility of the bidder /contractor to seek clarification on any uncertainty and obtain prior approval of the Engineer before taking up the supply/construction. In absence of such prior clarification, the Engineer's choice/design will be final and binding on the contractor without involving separately any additional payment.

1.1.3 Measurement and Payment

The methods of measurement and payment shall be as described under various items and in the Bill of Quantities. Where specific definitions are not given, the methods described in B.I.S. Code/MoRTH/IRC will be followed. Should there be any detail of construction or materials which has not been referred to in the Specification or in the Bill of Quantities and Drawings but the necessity for which may be implied or inferred there from, or which is usual or essential to the completion of the work in the trades, the same shall be deemed to be included in the rates and prices entered by the contractor in the Bill of Quantities.

1.1.4 Defective Works

All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost. In the event of such

works being accepted by carrying out repairs etc., as specified by the Engineer, the cost of repairs will be borne by the contractor.

In the event of the work being accepted by a given 'Design Concession' arising out of but not limited by a given under sizing, under strength, shift in location and alignment etc., and accepting design stress in members which are higher than those provided for in the original design or by accepting materials not fully meeting the specifications etc., the bidder will be paid for the works actually carried out by him at suitably reduced rate of the bid rates for the portion of the work thus accepted.

2 Summary of Work

The work under construction package involves, “**Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur**” including its approach, and other ancillary works.

2.1 Scope of Work

The work under this contract shall be carried out in accordance with the document constituting the contract and shall consist of various salient items as generally described below.

2.1.1 Bridge works

- Site clearance
- True and proper setting out and layout of the work, providing location marks, bench marks, preparation of reports and plans
- Providing bored cast-in-situ piles including testing piles.
- Constructing new four Lane Bridge on pile foundation, RCC substructure and PSC superstructure as decided by the Engineer In charge.
- Pre-stressed Superstructure (PSC Segmental Box Girder) as directed by Engineer In charge and all specification shall followed as MORTH / IRC and accepted international practice.
- RCC retaining walls or RE wall for approaches.
- Providing Kerbs, railings and drainage spouts.
- Providing expansion joints and construction joint,
- Providing bituminous wearing coat/ mastic wearing coat.
- Construction and launching of Bow String Girder
- Construction of drain & utility shifting.
- Electrification & signages works.
- Any other item of work as may be required to be carried out for

completing the bridge works including all incidental works in all respects in accordance with the provisions of the contract.

2.1.2 Road Work

The roadwork to be carried out under the contract consists of the Following:

- Site Clearance
- True and proper setting out and layout of the works, providing location marks, benchmarks, preparation of report and plans.
- Construction of road including excavation, construction of embankment and sub-grade, construction of carriage way, service road, shoulders and medians, provision of drainage, turning and retaining walls.
- Dismantling of existing flexible pavement up to sub-grade/ embankment level and construction of new pavements or constructing overlay over the existing pavements as shown in drawings.
- Improvements of existing junctions and construction of new junctions , if any, as per drawings.
- Provision of road signs, markings, delineators, kilometer stones, hectometer stones boundary stones, railings, etc. on road.
- Provision of road markings with Thermoplastic paint as shown in drawings.
- Maintenance of existing Works
- Any other item of work as may be required for completing the road works including all incidental works in all respects in accordance with the provisions of the contract.
- Providing suitable drainage in service roads.
- Electrification on service on service road as well as on new bridge and Limited Height Subways.

Brief information included in contract Package is given below.

- The work shall be executed based on BOQ given in tender.
- Dewatering if any.
- Other Miscellaneous works as per site requirement.
- The contractor has to get necessary permission/ NOC from road and other concerned regulatory authorities for block and working in such locations.

- Day to day cleaning of worksite and adjacent roads throughout the execution period. Nothing extra shall be paid on this account.
- Clearing of site and handing over of all the works, as specified or as directed.
- All aspects of quality assurance, including testing of materials and other components of the work, as specified or as directed.
- Maintenance of the completed work during the period as specified.
- Any other item of work as may be required to be carried out for completing the works of specified length including all necessary interfaces works with system-wide Contractors in all respects in accordance with the provisions of the Contract and/or to ensure the structural stability and safety during and after construction.
- Works to be performed shall also include all general works preparatory to the construction and works of any kind necessary for the due and satisfactory construction, completion and maintenance of the works to the intent and meaning of the drawings adopted and technical specifications, to best Engineering standards and orders that may be issued by the Engineer from time to time.
- Compliance by the agency with all Conditions of Contract, supply of all materials, apparatus, plants, equipment, tools, fuel, water, strutting, timbering, transport, offices, stores, workshop, staff, labour and the provision of proper and sufficient protective works, diversion, temporary fencing, lighting and watching required for the safety of the public and protection of works on adjoining land; first-aid equipment, sanitary accommodation for the staff and workmen, effecting and maintenance of all insurances, the payment of all wages, salaries, fees, royalties, duties or the other charges arising out of the execution of works and the regular clearance of rubbish, clearing up, leaving the site perfect and tidy on completion.

Notes:-

- 1) Back filling of area to be done with proper compaction with earth/sand up to plinth level wherever required.
- 2) There is possibility of some of the items not getting mentioned in the above list of works. Contractors are requested to go through the tender drawings also in details as the works mentioned above as well as indicated in the tender drawings would be considered inclusive in the scope of work. Some of the major utilities cannot be diverted. Contractor shall take into consideration the existence of these utilities and work at these locations accordingly shall be planned.

- 3) The work is to be designed constructed and maintained as per relevant codes, specifications, Special Specifications and drawings and/or as directed by the Engineer In charge.
- 4) The work content shall also include but not limited to the following:
 - The construction of structures will have to be planned in such a manner that they do not obstruct or interfere with the existing roads and other utilities. Where work is required to be carried out at locations adjacent to such roads, utilities, structures, monuments etc. suitable safety and protection arrangements will have to be ensured for which nothing extra will be payable. It should be ensured that no damage is caused to any such element and Engineer/ Employer shall be indemnified against such damage at no extra cost.
 - The Contractor has to ensure cleanliness of the roads and footpaths by deploying man power for the same. The Contractor shall have to ensure proper booming, cleaning and washing of roads and walkways at regular interval or as and when required or directed throughout the entire stretch. Nothing extra shall be payable on this account.
 - **Barricading:** The contractor shall have to provide temporary boundary wall/ barricading as per tender drawing at all the land to be used for Construction Subway, store, site office, casting yard etc. The barricading of same will be paid as per BOQ. Other requirements of Safety, Health & Environment as specified in condition of contract on SHE version is included in quoted price.
 - Tree cutting & transplanting, after getting permission of forest department / nodal agencies. The payment of the same shall be made as per schedule.

2.1.3 Others - General

- All aspects of quality control and quality assurance of Works including documentation.
- Providing measures for prevention or mitigation of negative environmental impacts due to construction activities.
- Provision and maintenance of fully furnished and equipped site offices for Engineer; Employer and their staff as per provisions of Contract.
- Provision of laboratory for testing, including the supply of equipment and consumables;
- Supply of colour record photographs and video cassettes of

important activities of the work;

- Handing over of the works on completion after due site clearance
- Submission of as built drawings and other related documents in six copies (hard and soft).
- Rectification of the defects in the completed works during the defect liability period;
- Execution of any other item of work for the construction and completion of the Works in accordance with the provisions of Contract including all incidental items as well as preparation and submittal of reports, plans as required.
- During the period of the contract the right of way and all existing roads shall be kept open for traffic and maintained in a safe and usable condition. Residents along and adjacent to the works are to be provided with safe convenient access to their properties at all times. Traffic control and traffic diversions shall be used as necessary to protect the works and maintenance will be carried out as directed by the Engineer and provided in the contract.
- Construction of service roads improvement junction, electrification and shifting of utilities, provision signal and sign boards.
- Construction of diversion and its maintenance of the diversion as per the direction of the Engineer in Charge at the cost of the contractor.

2.2 Site Information

2.2.1 Location

The project site is located in the city of Jaipur, Rajasthan.

The proposed Construction of Elevated road from Sanganer Flyover to near Malpura gate via Choradiya petrol pump In Zone 8 JDA Jaipur

2.2.2 Geotechnical Information

More detailed information can be referred in the offices of Engineer/Employer

2.2.3 Seismic Zone

Project area is in the seismic zone II as per IRC:6.

2.2.4 Climate

Maximum temperature is 45 degree centigrade in summer season while minimum temperature is around 6 degrees centigrade in winter season.

Site information given above and provided elsewhere is given in good faith by the employer. The contractor shall satisfy himself regarding all aspects of site conditions and collect all site information necessary for the construction and completion of the works.

2.3 Survey and Investigations

As part of the planning and design carried out in connection with production of these bid documents comprehensive topographical field surveys and geotechnical investigations were carried out.

The geotechnical investigations are completed. The geotechnical results from the geotechnical investigations are presented in the geotechnical report. This report will provide information about the existing soil conditions.

The topographic survey report and geotechnical report can be referred to in the office of the executive engineer.

Any additional survey and soil investigation required for any purpose shall be done without any extra cost.

2.4 Land for Contractor's facilities

The employer shall provide the right of way of the road works and other appurtenant works to the contractor. However, the contractor shall have to make his own arrangements for the land required by him for borrow areas, quarries, site offices, testing labs, labour camps, stores, plants and casting yards etc.

2.5 Safety of the existing structure and water supply/drainage work/ electric/ telephone line/ sewerage lines.

The contractor shall have the full responsibility to ensure the safety of the existing structures. Contractor shall be fully responsible and liable to repair any damaged caused to the existing structures (existing bridge foundation) during the execution of construction work for new bridge at his own cost and no amount shall be paid extra. The rates quoted by the contractor shall be deemed included in the unit price of the respective items.

List of suppliers as submitted to the engineer shall be approved by the Engineer Incharge after award of work. However, the supplier may be liable to be changed if engineer feels necessary at any later stage.

The contractor shall submit the work methodology to the Engineer Incharge. Contractor shall not be allowed to change construction methodology as suggested in the contract drawing. However, if contractor feels or like to change the construction methodology, it shall be done by the contractor at his own cost.

3 GENERAL REQUIREMENTS

The specification for works shall be in two parts, Technical Specifications and Supplementary Technical Specifications, which shall be read together: In the absence of any definite provision on any particular issue in the Specifications, the work shall be carried out in accordance with Special Specifications to be prepared by Contractor and approved by Engineer. Such Special Specification shall be based on technical literature comprising national MoRTH/(IRC and IS) and international specifications and good engineering practice. In case of any dispute, the decision of the Engineer shall be final and binding on the Contractor.

3.1 GENERAL TECHNICAL SPECIFICATIONS_____

Part I - General Technical Specifications

This part shall comprise the “Specifications for Road and Bridge Works” (Fifth Revision), 2013 along with other addendum Corrigendum issued up to 28 days before the final dated of submission of the bid, issued by the Ministry of Road Transport & Highways, Government of India, and published by the Indian Road Congress (IRC), Jamnagar House, New Delhi - 110 011, with a cross reference to relevant Bureau of Indian Standards (BIS) for materials for other aspects not covered by the IRC, all deemed to be bound into this document.

Part II - Supplementary Technical Specifications

The Supplementary Technical Specifications shall comprise various Amendments/ Modification/ Additions to the “SPECIFICATION FOR ROAD AND BRIDGE WORKS” referred to in Part I above and additional specifications for particular items of work not already covered in Part I.

If a particular clause or a part thereof in "SPECIFICATION FOR ROAD AND BRIDGE WORKS" referred to under Part I above, is amended/modified/ substituted/added upon, and incorporated under Part II, referred to above, the Amendment/Modification/ Substitution/Addition to the relevant Clause or part of the Clause shall prevail.

When an amended/modified/substituted/added clause supersedes a Clause or part thereof in the said Specifications, then any reference to the Clause shall be deemed to refer to the amended/modified/substituted/added Clause or part thereof.

Insofar as amended/modified/substituted/added Clause may come in conflict or be inconsistent with any of the provisions of the said Specifications under reference, the amended/modified/ substituted/added Clause shall always prevail.

The Additional Specifications shall comprise specifications for particular item of works not already covered in Part I.

Amendments, modifications, substitutions, additions have been made to the following clauses of specifications for Road and Bridge Works (Fourth Revision).

3.2 Specifications for Road & Bridge Works by Ministry of Surface Transport (MOST), Govt. of India

Unless specifically mentioned otherwise hereafter or/and directed by the Engineer-in-charge to do so, all the civil engineering works shall be carried out in accordance with the provisions of the "Specifications for Road and Bridge Works (Fifth Revision), called MOST Specifications hereinafter published at New Delhi in 2013, or the latest version available, by Indian Roads Congress on behalf of MOST.

3.3.1 MATERIALS AND TEST STANDARDS

3.3.1 Testing

The Contractor shall set up a field laboratory with necessary equipment's for testing of water, aggregates, cement and concrete used in the construction as per requirements of the relevant specifications. The testing of all materials shall be carried out by the Engineer-in-charge or his representative for which the contractor shall make all the necessary arrangements and bear the entire cost.

Tests which cannot be carried out in the field laboratory shall be sent for testing by the contractor to any NABL accredited or recognized laboratory/testing establishment approved by the Engineer-in-charge.

The cost of making any and all the Tests shall be borne by the Contractor if such Test is clearly intended by or provided for in the Contract.

The following instruments / apparatus (but not the least), are required in the field laboratory.

1. Digital Compression testing Machine 2000 KN Capacity electrically operated.
2. Vicat Needle Apparatus with dashpot.
3. Concrete soundness test hammer.
4. Cement autoclave.
5. Cube Moulds (ISI Marked) of different sizes.
6. Aggregate Crushing Value.
7. Aggregate impact value test apparatus.
8. Sieve Shaker.
9. Sieves of different sizes (ISI Marked).
10. Flakiness index test apparatus.
11. Proctor Compaction Apparatus.
12. Bitumen extraction test.

However, as per the site requirement EIC may direct the contractor to arrange some additional testing apparatus required in the field laboratory which are not included in the above mentioned list, at his own cost. Then the cost of such Test shall be borne by the Employer. If, however, the Test shows the workmanship or Materials not to be in accordance with the Contract, then the cost of such Test will be borne by the Contractor

The contractor shall appoint separate engineer(Degree holder) of experience not less than 5 years for quality control and site laboratory who shall provide all assistance to JDA to conduct such tests. The salary/ waged of such engineer shall be deemed to be included in the cost of work and no extra payment shall be made on this account. In case of not appointing separate engineer by the contractor the JDA may appoint such engineer at its own and actual wages/ salary be deducted from the due payments of contractor

3.3.2 Sampling of Materials

Samples provided to the Engineer-in-charge for retention are to be in labeled boxes suitable for storage. Materials or workmanship not corresponding in character and quality with the approved samples will be rejected by the Engineer-in-charge or his representative and shall be removed from site as directed by the Engineer-in-charge or his representative at the contractor's cost.

Samples required for approval and testing must be supplied well in advance to allow for testing and approval. Delay to works arising from the late submission of samples will not be acceptable as a reason for delay in the completion of the work.

3.4 CONSTRUCTION EQUIPMENT

3.4.1 Tolerance

The contractor shall ensure that the major plant and equipment proposed to be deployed on the work shall meet the performance criteria specified herein. The contractor shall be required to give trial runs of these equipments for establishing their capabilities to achieve the laid down specification and tolerance to the satisfaction of the Engineer-in-charge before commencement of the work. All these equipments provided shall be of proven efficiency and shall be maintained at all time.

3.4.2 Batching Equipment

For individual batches the following tolerances shall apply based on the required weight of material.

	Percentage
Cement	: ± 1
Aggregate	: ± 2
Water	: ± 1

Notwithstanding above tolerances the construction and accuracy of equipment shall conform to IS: 2722, except that an accuracy off 0.4% over the entire range of equipment will be required.

3.4.3 Batch Type Concrete Mixer

The mixer shall be tested under normal working conditions in accordance with the method specified in IS: 4634 with a view to checking its ability to mix the ingredients to obtain a concrete of desired uniformity. The conformity of mixed concrete shall be evaluated by fixing the percentage variation in quantity of cement, fine aggregate and coarse aggregate in a freshly mixed batch of concrete.

The percentage variation between the quantities of cement, fine aggregate and coarse aggregates (as found by weighing in water) in the two halves of a batch and the average of the two halves of the batch shall not be more than the following limits:

Cement	:	8%
Fine Aggregate	:	6%
Coarse aggregate	:	5%

3.4.4 Concrete Transit Mixers

The mixer shall conform to IS: 5892 and be tested under normal working condition in accordance with the method specified in IS:4634. The tolerance limits for the variation between quantities of cement, fine aggregate and coarse aggregates shall be same as for batch type concrete mixer.

Competent authority shall have the right to determine whether all or any of the materials offered or delivered for use in the works are suitable for the purpose.

3.5 SETTING OUT

The works unless otherwise specified, shall be set symmetrical to the centre line of the bridge as shown on the drawings and design.

Reference pillars shall be established by the contractor at his own cost after carrying out the necessary survey with reference to the said drawings.

The centre line of the bridge shall be extended on both ends to at least 60.0 m and the centre line pillars located not less than 3.0 m from the two ends of the bridge. These shall be so located that they are in no way disturbed during flood or during the period of construction.

The reference pillars shall be connected with some permanent features on the site that they can be correctly relocated in case they get disturbed during the construction period.

For the layout work and establishing the centre line of the bridge, only steel tape shall be utilized throughout the work and where work is done by traversing, the traverse shall be closed. In case of minor errors these shall be corrected by interpolation of the layout and the centre line pillars got approved by the Engineer-in-charge.

3.6 MATERIALS FOR STRUCTURE

General

All the basic construction materials viz. cement, aggregates (coarse and fine both), reinforcement and water to be used in works shall be procured from sources approved by the Engineer-in-charge. Unless otherwise mentioned in these specifications the contractor shall identify the sources of basic materials and propose the same for approval after satisfying himself about the quality and quantity required for the work.

3.6.2 Cement

Ordinary Portland Cement (OPC) 43 grade conforming to IS: 8112 shall be used throughout construction. Cement shall be procured from reputed manufacturers who have requisite infrastructure for conducting various tests for the conformance to chemical and physical requirements specified in IS: 269. The frequency of such tests in manufacturer's laboratory shall be as per IS: 3535. Since a very good degree of quality control is desired at works, fresh cement from a single source shall be procured unless alternative source is approved by the Engineer-in-charge in writing. The make and quality of cement to be used in the work shall be subject to the approval of Engineer-in-Charge. Along with each lot of cement delivered to site a certificate from the manufacturer shall be forwarded, to the effect that the cement was tested and analyzed in accordance with the methods given in IS:4031 and IS:4032. The test results shall be included in the manufacturer's certificate.

Notwithstanding manufacturer's certificate the Engineer-in-charge if so desired may ask for retesting of cement at site or through any other recognized and approved

laboratory. The cost of additional tests and samples shall be borne by the contractor.

3.6.3 Coarse Aggregate

Coarse aggregates shall consist of naturally occurring crushed stones. The aggregates shall be hard, strong, dense, durable, clear and free from veins and adherent coating, and free from injurious amounts of disintegrated pieces, alkali, vegetable matter and other deleterious substances. The presence of flaky, scoriaceous and elongated pieces shall be avoided. The coarse aggregates which conform requirement as per the relevant IS code may only be considered for approval by the Engineer-in-charge:

Aggregate shall be supplied in single sizes. The nominal maximum size of aggregate to be used in work shall be 20mm. The other requirements for coarse aggregates shall be as per IS:383.

While submitting samples of aggregates for approval the contractor shall furnish following information pertaining to the aggregates:

Source of supply, that is, precise location of source from where the materials were procured.

Trade group of principal rock type present.

Presence of reactive minerals.

Physical characteristics.

Specific gravity.

Moisture content

Absorption value.

Aggregate crushing value.

Abrasion value

Presence of deleterious materials.

Potential reactivity of aggregate.

The tests carried out for the above shall be done in accordance with the methods specified in IS:2386.

The contractor shall satisfy himself that the material complies with the requirement of IS:383 and shall furnish a certificate to this effect to the Engineer-in-charge whenever asked for. In case the aggregates tested do not comply with any requirement of the IS standards the source for the same shall be rejected. No further samples from the rejected source shall be considered for approval. The Engineer-in-charge shall have full liberty of getting the material tested independently through recognized agency. The Contractor shall supply free of charge the material required for tests and bear all expenses for such tests.

3.6.4 Fine Aggregate

The quality, tests and acceptance criteria for fine aggregates shall be same as mentioned for the coarse aggregates. The fine aggregates shall conform to Zone II of Table 4 of IS:383.

3.7 STEEL

3.7.1 Steel reinforcement

High strength deformed steel bars of TMT 500D grade shall be used and shall comply with the provisions of IS: 1786(Latest revision) For each batch of steel delivered to site the contractor shall supply the Engineer-in-charge with manufacturer's certificate stating the process of manufacture and also the test sheets signed by the manufacturer giving the result of each mechanical test and the chemical composition.

3.8 WATER

Water to be used for mixing and curing shall be clear and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other substances that may be deleterious to concrete or steel. Potable water is generally considered satisfactory for mixing concrete. The maximum permissible limits for solids shall be as given below:

- Organic : 300 mg/l
- Inorganic : 3000 mg/l
- Sulphates (as SO₄) : 500 mg/l
- Chlorides (as Cl) : 1000 mg/l for reinforced concrete
250 mg/l for prestressed concrete
- Suspended matter : 2000 mg/l
- pH : < 6

3.9 STORAGE OF MATERIALS

All materials shall be placed at site in a proper way so as to prevent their deterioration or intrusion of foreign matter and to ensure their satisfactory quality and fitness for the work. The storage space must also permit easy inspection, removal and re-storage of the materials. Materials though stored in approved godown must be subjected to acceptance test prior to their immediate use.

The cement shall be stored in a suitable weather-tight building to protect it from dampness and minimize warehouse deterioration. Each consignment of cement shall be stored separately so that it may be readily identified and inspected. Cement shall be used in the sequence in which it is delivered at site.

The contractor shall prepare and maintain proper records on site in respect of the delivery, handling, storage and use of cement and shall be made available for inspection by Engineer-in-charge at any time.

The cement more than 3 to 4 months old shall invariably be tested at contractor's cost to ascertain that it satisfies the acceptability requirements.

3.10 FORMWORK AND SURFACE FINISH FOR STRUCTURES

3.10.1 Construction Operation

Only rigid steel forms shall be used unless otherwise approved by the Engineer-in-charge. Formwork shall include all temporary or permanent forms of moulds required for forming the concrete which is cast-in-situ, together with all temporary construction required for their support.

The chamfers, beveled edges and mouldings shall be made in the formwork itself. Opening for fixtures and other fittings connected with services shall be provided in the shuttering as directed by the Engineer-in-charge.

3.10.2 Formed surfaces and finish

The formwork shall be made as to produce a finished concrete true to shape, lines, levels, plumb and dimensions as shown on the drawings, subject to the following tolerances unless otherwise specified in these documents or drawings or as directed by the Engineer-in-charge.

- | | | |
|----|---------------------|---|
| a) | Sectional dimension | + 5 mm |
| b) | Plumb | + 1 in 1000 of height |
| c) | Levels | + 3 mm before any deflection has taken place. |

Tolerances given above are specified for local aberrations in the finished concrete surface and should not be taken as tolerance for the entire structure taken as a whole or for the setting and alignment of formwork, which should be as accurate as possible to the entire satisfaction of the Engineer-in-charge. Errors if noticed in any lift/tilt of the structure after stripping of forms, shall be corrected in the subsequent work to bring back the surface of the structure to its true alignment.

3.11 PREPARATION OF FORMWORK BEFORE CONCRETING

3.11.1 Special Provisions

Wherever the concreting in narrow members is required to be carried out within shutters of considerable depth, temporary openings in the sides of the shutters shall, if so directed by the Engineer-in-charge, be provided to facilitate the pouring and consolidation of the concrete. Small temporary openings shall be

provided as necessary at the bottom of shutters of walls and deep beams to permit the expulsion of rubbish etc.

Formation of blotches and stains due to detachment of formwork panel from the concrete when adjacent portion in the same lift is still adhering, shall not be allowed to occur, and for this purpose, all shutters shall be struck off at the same time.

3.12 STEEL REINFORCEMENT FOR STRUCTURE

3.12.1 General

Steel reinforcement shall be stored in such a way as to avoid distortion and to prevent deterioration by corrosion. When directed by the Engineer-in-charge, the reinforcing bars shall be given a cement wash before stacking to prevent scales and rust.

The reinforcement bars bent and fixed in position shall be free from rust or scales, chloride contamination and other corrosion products. Effective methods of cleaning such as sand blasting will have to be used so that the steel is free from rust, scales and contamination.

3.12.2 Bending of Reinforcement

Bending of reinforcement shall be done as per Bar Bending Schedule to be prepared and got approved by the contractor prior to commencement of work.

3.12.3 Placing of reinforcement

Reinforcement left projecting from newly placed concrete shall be supported in such a way that there is no sag or risk or damage to the newly placed concrete. The projecting bars which are likely to be exposed for a long time shall be protected by a thick coat of neat cement grout. These shall be thoroughly cleaned and wire brushed before depositing fresh concrete around it.

3.13 CEMENT CONCRETE FOR STRUCTURES

3.13.1 Grade of concrete

Only design mix concrete shall be used in the work. The design mix concrete shall have the minimum compressive strength of 150 mm cubes at 28 days according to the denomination of the grade the concrete e.g. M 35 grade concrete shall have the minimum characteristic compressive strength of 35 Mpa.

3.13.2 Design mix concrete

The determination of the cement, aggregates and water to attain the strength specified in clause 5.11.1 above shall be made by designing the concrete mix in accordance with IS: 10262. The trial mixes for mix design shall be prepared with approved aggregates, cement and water.

Coarse aggregates of different sizes shall be combined in suitable proportion so as to result in an overall grading conforming to IS : 383.

Minimum six cubes shall be prepared from each trial mix for testing compressive strength at 28 days. Based upon the successful preliminary crushing and workability tests, the contractor shall submit mix proposals to the Engineer-in-charge who will have the right to accept any trial mix. The strength tests for concrete shall be done in accordance with IS : 516. All preliminary tests, approval, etc. shall be got done in advance by the contractor prior to commencement of actual work at site. Failure on the part of the contractor to do so and consequent delay in completion of the works will not entitle him for any compensation whatsoever, either financially or by way of extension of time.

3.13.3 General

In proportioning concrete the quantity of both cement and aggregates shall be determined by weight. The cement shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean and serviceable condition. The amount of mixing water shall be adjusted to compensate for moisture content in both coarse and fine aggregates. The moisture content in both coarse and fine aggregates shall be determined in accordance with IS : 2386(Part-III). Suitable adjustments shall also be made in the weights of aggregates to allow for the variation in weight of aggregates due to variation in moisture content.

3.13.4 Production of concrete

The concrete shall be produced in a central batching and mixing plant producing at least 30 cum mixed concrete per hour. The batching plant shall be either fully or semi-automatic type. A semi-automatic batcher shall be charged by devices which are separately actuated manually to allow the material to be weighed but which are actuated automatically when the designated weight of each material has been reached. Automatic batcher shall be charged by devices which, when actuated by a single starter switch will automatically started when the designated weight of each material has been reached inter locked. A batching plant essentially consists of the following components.

- Storage bins for different sizes of aggregates and cement.
- Batching equipment
- Mixers
- Central panels
- Material feeding and elevating arrangements.

The compartments of storage bins shall be approximately of equal size. The cement compartment shall be centrally located in the batching plant. It shall be water-tight and provided with necessary air vent, aeration fittings for proper flow

of cement, emergency cement cut off gate. The aggregate and sand shall be charged by power operated centrally revolving chute. The entire plant from mixer floor upward shall be enclosed and insulated. The batch bins shall be constructed so as to be self-cleansing during drawdown. The batch bins shall be general conform to the requirement of clause 4.0 of IS:4925.

The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, sand, individual size of coarse aggregates, etc.

3.13.5 Mixing concrete

The concrete shall be mixed in power driven free fall tilting type mixer fitted with abrasion resistant replaceable liners and blades. The concrete shall be mixed for 1½ to 2½ minutes in the mixer depending upon the capacity of mixer. These mixing periods are based on standard speed of rotation of mixer and of the introduction of materials including water into the mixer. Mixing time shall be increased if and when charging and mixing operations fail to produce a concrete batch of uniform composition and consistency. The mixer in the batching plant shall be so arranged that mixing action in the mixers can be observed from the operator's station. The mixer shall be equipped with a mechanically or electrically operated timing, signaling and metering device which will indicate and assure completion of the required mixing period. The mixer shall have all other components as specified in IS:4925.

3.13.6 Transportation, placing and compaction of concrete

Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps. In case the concrete is proposed to be transported by transit mixer it shall not be less than 4 rev/min of the drum or greater than a speed resulting in a peripheral velocity of the drum 70 m/min at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev/min nor more than 6 rev/min of the drum. The number of revolutions of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev/min and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirement shall conform to IS:5892.

In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a plug. The operator shall ensure that some concrete is always there in the pump receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.

Except where otherwise agreed to by the Engineer-in-charge, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450 mm. Unless agreed to by the Engineer, concrete shall not be dropped into place from a height exceeding 2 m. In order to avoid such situations chutes shall be used. The chutes shall be kept clean and used in such a way as to avoid segregation. Slope of the chute shall be so adjusted that concrete flows without the use of excessive quantity of water. The delivery end of chute shall be as close as possible to the point of deposit. The chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside the formwork. The concrete shall be compacted by using immersion type vibrators. When the concrete is being continuously deposited to a uniform depth along a member, vibrator shall not be operated within one meter of free end of the advancing concrete. Every effort shall be made to keep the surface of the previously placed layer of concrete alive so that the succeeding layer can be amalgamated with it by the vibration process. In case the concrete in underlying layer has hardened to such an extent that it cannot be penetrated by the vibrator but is still fresh (that is, just after initial set), unimposed bond shall be achieved between the top and underlying layer by first satisfying the lower layer before the new concrete is placed by systematically and thoroughly vibrating the new concrete. The points of insertion of vibrator in the concrete shall be so spaced that the range of action overlap to some extent and the freshly filled concrete is sufficiently consolidated at all locations. The spacing between the dipping positions of vibrator shall be maintained uniformly throughout the surface of concrete so that concrete is uniformly vibrated. The vibrating head shall be regularly and uniformly inserted in the concrete so that it penetrates of its own accord and shall be withdrawn slowly whilst running so as to allow redistribution of concrete in its way and allow the concrete to flow back into the hole behind the vibrator. The vibrator head shall be kept in one position till the concrete within its influence is completely consolidated. Vibration shall be continued until the coarse aggregate particles have blended into the surface but have not disappeared. The contractor shall keep one additional vibrator in serviceable condition to be used in the event of breakdowns.

The vibrator head shall not be brought more than 200 mm near to the formwork as this may cause formation of water stagnations. The formwork shall be strong and great care shall be exercised in its assembly. It shall be designed to take up increased pressure of concrete and pressure variations caused in the neighbourhood of vibrating head which may result in excessive local stress on the formwork. The joints of the formwork shall be made and maintained tight and close enough to prevent the squeezing out of grout or sucking in of air during vibration. The formwork to receive concrete shall be cleaned and made free from standing water, dust, etc.

In case the reinforcement has mild scales or dirt the same shall be cleaned by wire brushes. No concrete shall be placed in any part of the structure until the approval of Engineer-in-charge has been obtained. If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again from the Engineer-in-charge. Concreting shall be done continuously over the area between construction joints. Fresh concrete shall not be placed against concrete which has been in position for more than 30 minutes unless a proper construction joint is formed. When concreting has to be resumed on a surface which has hardened, it shall be roughened, swept, clean, thoroughly wetted and covered with a 13 mm thick layer of mortar composed of cement and sand in same ratio as in the concrete mix itself. This 13 mm layer of mortar shall be freshly mixed and placed immediately before placing of new concrete.

Where concrete has not fully hardened, all laitance shall be removed by scrubbing the net surface with wire or bristle brushes. Care shall be taken to avoid dislodgement of particles of coarse aggregate. The surface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. The first layer of concrete to be placed on this surface shall not exceed 150 mm in thickness and shall be well rammed against old work. Particular attention shall be given to corners and close spots.

3.14 : VARIOUS CLAUSES OF MoRTH

Sl. Nr.	Section Nr.	Section Title	Clause (Morth V TH Revision)
1.	100	General	102, 105, 106, 107, 108, 111, 112, 114, 115, 121, and 126
2.	200	Site Clearance	201 and 202
3.	300	Earthwork, Erosion Control and drainage.	301, 305, 306 and 309
4.	400	Granular Sub-Bases	401
5.	600	Concrete Pavement	601,602and 603.
6.	800	Traffic Signs, Markings and other Road Appurtenances	801, 803 and 804

Sl. Nr.	Section Nr.	Section Title	Clause (Morth V TH Revision)
7.	900	Quality Control for Road works	901, 903
8.	1000	Materials for Structures	1002, 1006, 1007, 1008, 1009, 1012, 1013, 1014 and 1015
9.	1100	Pile Foundations	1101, 1103, 1104, 1107, 1113, 1115, 1118 & 1119
10.	1500	Form work	1501, 1502, 1503, 1504, 1506, 1508, 1509, 1510 & 1513
11.	1600	Steel Reinforcement (untensioned)	1602, 1604, 1605, 1606 & 1607
12.	1700	Structural Concrete	1703, 1704, 1705, 1707, 1709, 1710, 1712, 1713 & 1715
13.	2200	Substructure	2204, 2210
14.	2300	Superstructure	2305, 2306
15.	2600	Expansion Joints	2601, 2606 and 2609
16.	2700	Wearing Coat & Appurtenances	2702, 2703, 2706 and 2709
17.	3000	Maintenance of roads	3001, 3002, 3004 and 3005
18.	2000	Bearings	2005
19.	1800	Prestressing	1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808

Additional Specifications

The Clauses A-1 to A-7 have been added to the "SPECIFICATIONS FOR ROAD AND BRIDGE WORKS" -2013.

CLAUSE A-1 PLANTATION OF TREES AND HEDGES

CLAUSE A-2 LEVELLING AND GRADING ROAD SIDE LAND

CLAUSE A-3 UTILITY DUCTS

CLAUSE A-4 SPECIFICATIONS FOR SCARIFICATION OF

**EXISTING PAVEMENT AND PROVIDING
OVERLAY WITH GRANULAR BASE/DBM.**

**CLAUSE A-5 REFLECTIVE PAVEMENT MARKERS (ROAD
STUDS)**

**CLAUSE A-6 CURING USING LIQUID MEMBRANE FORMING
COMPOUND**

CLAUSE A-7 PAVEMENT QUALITY CONCRETE

In the absence of any definite provisions on any particular issue in the aforesaid Specifications, reference may be made to the latest codes and specifications of IRC and BIS in that order. Where even these are silent, the construction and completion of the works shall conform to sound engineering practice as approved by the Engineer and in case of any dispute arising out of the interpretation of the above, the decision of the Engineer shall be final and binding on the Contractor.

However, work shall be executed as per latest edition of MoRTH. Where any specification of MoRTH/ IRC/ BIS are silent then best international practice shall be followed including BRITISH / AASTHO Standards.

SECTION – 5

(FORM OF AGREEMENT)

SECTION -5

FORM OF AGREEMENT

This AGREEMENT is made on day of 2025 between (Name of Employer) (Mailing Address of Employer) hereinafter called "the Employer", of the one part (Name of Contractor) (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed viz. (brief description work)..... and has by Letter of Acceptance dated (Date of letter of acceptance) accepted Bid by the Contractor for the execution completion and maintenance of such works. NOW THIS AGREEMENT WITNESSED AS FOLLOWS.

In this Agreement words and expressions shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to.

The following documents shall be deemed to form and be read and construed as parts of the agreement viz:.

- a) The Letter of Acceptance.
- b) Instructions to Bidders (Section -1).
- c) General Conditions of Contract (Section – 2).
- d) Other Conditions of Contract (Section - 3).
- e) Technical Specification (Section – 4).
- f) Form of Agreement (Section – 5)
- g) Bank Guarantee (Section – 6)
- h) G-Schedule (Section – 7)
- i) Drawings (Section – 8)
3. The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies shall take precedence in the order set out above.
4. In consideration of the payment to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute, complete and maintain the works in conformity in all respects with the provisions of the Contract.
5. The employer thereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the work of Contract Price at the time and in the manner prescribed by the Contract.

IN WITNESS whereof the parties have caused their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year first above written, SIGNED SEALED AND DELIVERED by the.

Said
(Name)
on behalf of the Contractor

Said
(Name)
on behalf of the Contractor

In the presence of :

In the presence of :

Name:

Name:

Address

Address

This form is included in the bid documents only for the information of the bidders. Only the successful bids will in due course be required to complete the form.

SECTION – 6

(Form of Bank Guarantee)

Specified Bank Guarantee Performa for Bid Security

Section - 6

Form of (Bank Guarantee) -En cashable at the branch of the bank in Jaipur City.

To
Secretary,
Jaipur Development Authority,
Jaipur

Sub:

Bank Guarantee No. _____ dated _____ for [amount of Security in figures] [in words] on behalf of _____ [Name of the Bidder] against Bid _____ Security _____ for the.....
.....**JDA Jaipur** WHEREAS,
.....[name of Bidder with address] (**hereinafter called “the Bidder”**) has submitted his Bid dated for the work of(here in after called “ the Bid ”).

KNOW ALL PEOPLE by these presents that we _____
_____(Name of Bank) of having our registered office at _____[name of country] having our registered office at _____(hereinafter called “the Bank”) are bound unto Secretary, Jaipur Development Authority. (Hereinafter called “the Employer”) in the sum of Rupees _____**[Amount of Security in figures]** _____(in words) only for which payment will and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

That on demand of JDA , this Bank Guarantee is cashable at the following branch in Jaipur City.

1. Name of Bank:
2. Name of the branch with branch code:
3. Address:
4. E-Mail Id:
5. Telephone No.
6. Fax No.:

SEALED with the Common Seal of the said Bank this _____day of _____of 20__.

THE CONDITIONS of this obligation are:

- (1) if the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid;
- (2) if the Bidder refuses to accept the correction of errors in his bid;
- (3) If the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity;
 - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;

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

This Guarantee will remain in force up to and including the date 90 days after the date of expiration of the Bid Validity, as stated in the Instructions to Bidders, or any such extension thereto as may be agreed by the Bidder, a notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank no later than the above date.

The amount covered under the above Bank Guarantee shall be automatically credited in the accounts of JDA in ICICI Bank, JDA Campus, Jaipur through **IFSC code No ICIC0006754. Bank Account No. 675401700518** on the date of expiry or its validity, unless the agencies get it re-validated well before its expiry date or produce NOC from JDA in writing for its release.

Date _____ Signature of the Bank _____

Witness _____ Seal _____

[Signature, Name, and Address]

[Note: To be furnished on appropriate non-judicial stamps & should be valid for the next 7 months (210 Days) from the bid opening date]

Annexure-2B

Specified Bank Guarantee Performa for Performance Security

Section - 6

Form of (Bank Guarantee) -En cashable at the branch of the bank in Jaipur City.

To
Secretary,
Jaipur Development Authority,
Jaipur

Sub:.....

Bank Guarantee No. _____ dated _____ for [amount of Security in figures] [in words] on behalf of _____ [Name of the Bidder] against Performance _____ Security _____ for the.....

..... **JDA Jaipur** WHEREAS, _____ [name of Bidder with address] (**hereinafter called “the Bidder”**) has submitted his Bid dated for the work of (herein after called “ the Bid ”).

KNOW ALL PEOPLE by these presents that we _____
_____ (Name of Bank) of having our registered office at _____ [name of country] having our registered office at _____ (hereinafter called “the Bank”) are bound unto Secretary, Jaipur Development Authority. (Hereinafter called “the Employer”) in the sum of Rupees _____ [**Amount of Security in figures**] _____ (in words) only for which payment will and truly to be made to the said Employer, the Bank binds itself, its successors, and assigns by these presents.

That on demand of JDA, this Bank Guarantee is cashable at the following branch in Jaipur City.

1. Name of Bank:
2. Name of the branch with branch code:
3. Address:
4. E-Mail Id:
5. Telephone No.
6. Fax No.:

SEALED with the Common Seal of the said Bank this _____ day of _____ of 20____.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand within valid period of this guarantee.

This Guarantee will remain in force up to and including the date 90 days after the date of DLP Period, as stated in the Instructions to Bidders, or any such extension thereto as may be agreed by the Bidder, a notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank no later than the above date.

The amount covered under the above Bank Guarantee shall be automatically credited to the accounts of JDA in ICICI Bank, JDA Campus, Jaipur through **IFSC code No ICIC0006754. Bank Account No. 675401700518** on the date of expiry or its validity, unless the agencies get it re-validated well before its expiry date or produce NOC from JDA in writing for its release.

Date_____Signature of the Bank_____

Witness_____Seal _____

[Signature, Name and Address]

[Note: To be furnished on appropriate non-judicial stamps.]

SECTION – 7

**(SAFETY, HEALTH and
ENVIRONMENT MANAGEMENT
CLAUSE)**

LABOUR SAFETY PROVISIONS

- 1.0 Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and hand holds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
- 2.0 Scaffolding or staging more than 3.6m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3.0 Working platforms, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more that 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width & should be suitable fastened as described in (2.0) above.
- 4.0 Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).
- 5.0 Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11.5") for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm (1 ft.) of length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of the work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the Contractor, be paid to compensate any claim by any such person.
- 6.0 **EXCAVATION AND TRENCHING**
All trenches, 1.2mts. (four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100 feet) in length or fraction thereof, ladder shall be extended from bottom of the trench to at least 90cm (3feet) above the surface of the ground. The side of the trenches, which are 1.5 m. (5feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger or sides to collapsing. The excavated materials shall not be placed within 1.5m (5 feet) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

- 7.0 Demolition - Before any demolition work is commenced and also during the progress of the work following precautions shall be observed:
- 7.1 All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- 7.2 No electric cable or apparatus which is likely to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
- 7.3 All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.
- 8.0 All necessary personal safety equipments as considered adequate by the Engineer-in-charge should be kept available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate step to ensure proper use of equipment by those concerned. The following safety equipment shall be invariably provided.
- 8.1 Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- 8.2 Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eye shall be provided with protective goggles.
- 8.3 Those engaged in welding works shall be provided with welders protective eye shields.
- 8.4 Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe interval.
- 8.5 When workers are employed for works in sewers and manholes, which are in active use, the Contractors shall ensure that the manhole covers are opened and ventilated at-least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident the public. In addition, the contractor shall ensure that the following safety measures are adhered to:
- a. Entry for workers into the sewer line shall not be allowed except under supervision of the JE or any other higher officer.
 - b. At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manholes for working inside.
 - c. Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes color in the presence of such gases and gives indication of their presence.
 - d. Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.

- e. Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - f. The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
 - g. No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - h. The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - i. Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-In-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
 - j. Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
 - k. Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air-blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at-least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
 - l. The workers engaged for cleaning the manholes / sewers should be properly trained before allowing to work in the manhole.
 - m. The workers shall be provided with Gumboots or non-sparking shoes, bump helmets and gloves non sparking tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - n. Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o. If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p. The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-In-charge regarding the steps to be taken in this regard in an individual case will be final.
- 8.6 The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions should be taken.
- 8.6.1 No paint containing lead or lead products shall be used except in the form of
paste or readymade paint.

- 8.6.2 Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- 8.6.3 Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
- 8.6.4.1 a) White lead, sulphate or lead work products containing those pigments shall not be used in painting operation except in the form of paste or of paints ready for use.
- b) Measures shall be taken whenever required in order to prevent danger arising from the application of paint in the form of spray.
- c) Measures shall be taken, whenever practicable to prevent danger arising out of dust caused by dry rubbing down and scrapping.
- 8.6.4.2 a) adequate facilities shall be provided to enable working painter to wash during and on cessation of work.
- b) Suitable arrangements shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- 8.6.4.3 a) Cases of lead poisoning and of suspected lead poisoning shall be notified and shall be subsequently verified by a medical man appointed by the competent authorities of J.D.A.
- b) The J.D.A may require when necessary a medical examination of workers.
- c) Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 9.0 When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment for all injuries likely to be sustained during the course of the work.
- 10.0 Use of hoisting machines and tackle including their attachment encourage and supports shall conform to the following standard of conditions.
- 10.1 a) these shall be of good mechanical construction, sound material and adequate strength and free from patent, defects and shall be kept in good working order.
- b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- 10.2 Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding, winch or giving signals to operator.
- 10.3 In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each

safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this clause shall be loaded beyond the safe working load except for the purpose of testing.

- 10.4 In case of J.D.A machines, the safe working load shall be notified by the Engineer-in-Charge. As regards Contractor's machines the Contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get verified by the Engineer-in-Charge.
- 11.0 Motors gearing, transmission electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguard. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary be provided. The worker should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.
- 12.0 All scaffold, ladders, and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 13.0 These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety codes shall be named therein by the contractor.
- 14.0 To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the Contractor shall be open to inspection by J.D.A Official or their representatives.
- 15.0 Notwithstanding the above Clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

1.0 APPLICATION

These rules shall apply to all building and construction works in which 20 (twenty) or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contractor work is in progress.

2.0 DEFINITION

Work place means a place where twenty or more workers are ordinarily employed or are proposed to be employed in connection with construction work on any day during the period during which the contract work is in progress.

3.0 FIRST-AID FACILITIES

3.1 At every work place first aid facilities shall be provided and maintained, so as to be easily accessible during working hours, First-Aid boxes at the rate of not less than one box per 150 contract labour or part thereof ordinarily employed.

3.2 The First-Aid boxes shall be distinctly marked with a red cross on white background and shall contain the following equipments:

3.2.1 a) For work places in which number of contract labour employed does not exceed 50, Each First-Aid box shall contain the following equipments:

- i. Small sterilized dressings.
- ii. Medium size sterilized dressings. iii.

Large size sterilized dressings.

- iv. Large sterilized burn dressings.
- v. 1 (30 ml) bottle containing a two percent alcoholic solution of iodine.
- vi. 1 (30 ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
- vii. 1 snakebite lancet.
- viii. 1 (30 gms) bottle of potassium permanganate crystals. ix.

1 pair of scissors.

x. 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advise Service & Labour Institute, Government of India.

xi. 1 bottle containing 100 tablets (each of 5 grams) of aspirin. xii.

Ointment for burns.

xiii. A bottle of suitable surgical antiseptic solution.

- 3.2.2 For work places in which the number of contract labour exceed 50. Each First-Aid box shall contain the following equipments:
- i) 12 small sterilized dressings.
 - ii) 6 medium size sterilized dressings.
 - iii) 6 large size sterilized dressings.
 - iv) 6 large size sterilized burn dressings.
 - v) 6 (15 gms) packet sterilized cotton wool.
 - vi) 1 (60 ml.) bottle containing a two percent iodine alcoholic solution.
 - vii) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - viii) 1 - roll of adhesive plaster.
 - ix) 1 snake - bite lancet.
 - x) 1 (30 gms.) Bottle of potassium permanganate crystals.
 - xi) 1 pair of scissors.
 - xii) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
 - xiii) A bottle containing 100 tablets (each of 5 grams) of aspirin.
 - xiv) Ointment for burns.
 - xv) A bottle of suitable surgical antiseptic solution.
- 3.3 Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- 3.4 Nothing except the prescribed contents shall be kept in the First Aid box.
- 3.5 The First Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- 3.6 A person in charge of the First-Aid box shall be a person trained in First-Aid treatment in work places where the number of labour employed is 150 or more.
- 3.7 In work places where the number of labour employed is 500 or more and hospital facilities are not available within easy distance of the works, first-Aid Posts shall be established and run by a trained Compounder. The Compounder shall be on duty and shall be available at all hours when the workers are at work.
- 3.8 Where work places are situated in places, which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or persons suddenly taken ill to the nearest hospital.
- 4.0 DRINKING WATER**
- 4.1 In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.

- 4.2 Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- 4.3 Every water supply of storage shall be at a distance of not less than 50 feet from any latrines drain or other source of pollution, where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water-proof.
- 4.4 A reliable pump shall be fitted to each covered well, trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5.0 WASHING FACILITIES

- 5.1 In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of labour employed herein.
- 5.2 Separate and adequate screening facilities shall be provided for the use of male and female workers.
- 5.3 Such facilities shall be conveniently accessible and shall be kept clean and hygienic condition.

6.0 LATRINES AND URINALS

- 6.1 Latrines shall be provided in every work place on the following scale, namely:
- a) Where females are employed there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.
- Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be, upto the first 100, and one for every 50 thereafter.
- 6.2 Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- 6.3 Construction of Latrines: The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrine shall not be a standard lower than bore-hole system.
- 6.4 (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women only" as the case may be.
- (b) The notice shall also bear the figure of man or of a woman, as the case may be.
- 6.5 There shall be at least one urinal for male workers up to 50 and one for female workers up to 50 employed at a time. Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereof, thereafter.

6.6 a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

b) Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health Authorities.

6.7 Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

6.8 Disposal of Excreta

Unless otherwise arranged for by the local sanitary authority arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternatively, excreta may be disposed off by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or for refuse and then covering it with a layer of earth for fortnight (when it will turn into manure).

6.9 The Contractor shall, at his own expense, carry out all instruction issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the Contractor's workmen or employees on the site. The Contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such work on his behalf.

7.0 PROVISION OF SHELTER DURING REST

At every place, there shall be provided, free of cost, four suitable sheds, two for males and the other two for rest separately for the women labour. The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm. per head.

Provided that the Engineer-in-Charges may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8.0 CRECHES

8.1 A every work place, at which 20 or more women workers are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedrooms.

The rooms shall be constructed on standard not lower than the following:

i) Thatched roof

ii) Mud floor and walls.

iii) Planks spread over the mud floor and covered with matting

8.2 The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

8.3 The Contractor shall supply adequate number of toys and games in the playroom and sufficient number of cots and beddings in the bed-room.

- 8.4 The Contractor shall provide one Ayaa to look after the children in the crèche when the number of women workers does not exceed 50; and two when, the number of women workers exceed 50.
- 8.5 The use of the rooms/earmarked as creches shall be restricted to children, their attendant and mother of the children.

9.0 CANTEENS

- 9.1 In every work place where the work regarding the employment of contract labour is likely to continue for six months and wherein contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the Contractor for the use of such labour.
- 9.2 The canteen shall be maintained by the Contractor in an efficient manner.
- 9.3 The canteen shall consist of at least a dining hall, kitchen, and storeroom, pantry and washing places separately for workers and utensils.
- 9.4 The canteen shall be sufficiently lighted at all times when any person has access to it.

- 9.5 The floor shall be made of smooth and impervious material and inside walls shall be lime washed or colour washed at least once in each year.

Provided that the inside walls of the kitchen shall be lime-washed every four months.

- 9.6 The premises of the canteen shall be maintained in a clean and sanitary condition.
- 9.7 Waste Water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- 9.8 Suitable arrangements shall be made for the collection and disposal of garbage.
- 9.9 The dining hall shall accommodate at a time 30 persons of the labour working at time.
- 9.10 The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chair shall not be less than one square metre per dinner to be accommodated.
- 9.11 a) A portion of the dining hall, and service counter shall be partitioned off and reserved for women workers in proportion to their number.
- b) Washing places for women shall be separate and screened to secure privacy.
- 9.12 Sufficient tables, stool, chairs or benches shall be available for the number of dinners to be accommodated.
- 9.13.1 a) There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment necessary for the efficient running of the canteen.
- b) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition.
- 9.13.2 a) Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
- b) A service counter, if provided, shall have top of smooth and impervious material.

- c) Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.
- 9.14 The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the labour.
- 9.15 The charge for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit' No loss' and shall be conspicuously displayed in the canteen.
- 9.16 In arriving at price of food stuffs, and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely:
- a) The rent of land building;
 - b) The depreciation and maintenance charges for the building and equipment provided for the canteen;
 - c) The cost of purchase, repair and replacement of equipment including furniture, crockery, cutlery and utensils;
 - d) The water charges and other charges incurred for lighting and ventilation;
 - e) The interest and amounts spent on the provision and maintenance and equipment provided for in the canteen;
- 9.17 The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10.0 ANTI MALARIAL PRECAUTIONS

The Contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrows pits which may have been dug by him.

11.0 AMENDMENTS

J.D.A may from time to time, add to or amend these rules and issue such directions as it may consider necessary for the purpose of removing any difficulty which may arise in the administration hereof.

CONTRACTOR'S LABOUR REGULATIONS

1.0 SHORT TITLE

These regulations may be called the Contractor "Labour Regulations".

2.0 Definitions

2.1 "Workman" means any person employed by the J.D.A or its Contractor directly or indirectly through a sub-contractor, with or without the knowledge, of the J.D.A to do any skilled, semi-skilled, un-skilled, manual, supervisory, technical or clerical work for hire or reward, whether, the terms of employment are expressed or implied but does not include any person-

a)	Who is employed mainly in a managerial or administrative capacity; or
b)	Who being employed in a supervisory capacity draws wages exceeding Rupees Two Thousand Five hundred per person or exercises either by the nature of the duties attached to the office or by reason of powers vested to him, functions mainly of managerial nature.
c)	Who is an out worker, that is to say, a person to whom any articles or materials are given out by or on behalf of the principal employer to be made up cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purpose of the trade or business of the principal employer and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

2.2 "Fair Wages" means wages whether for time or piece work fixed and notified under the provisions of the minimum Wages Act from time to time.

2.3 "Contractor" shall include every person who undertake to produce a given result other than a mere supply of goods or articles of manufacture through labour or who supplies labour for any work and includes a sub-contractor.

2.4 "Wages" shall have the same meaning as defined in the Payment of Wages Act.

2.4.1 Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

2.4.2 When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week he shall be paid overtime for the extra hours put in by him at double the ordinary rate of wages.

2.4.3.1 Every worker shall be given a weekly holiday on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time, irrespective of whether such worker is governed by the Minimum Wages Act or not.

2.4.3.2 Whether the Minimum Wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

- 2.4.3.3 Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substitute holiday to him for the whole day on one of the five days immediately before or after the normal weekly holidays and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

3.0 DISPLAY OF NOTICE REGARDING-WAGES, ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers, giving the minimum rates of wages fixed under the Minimum Wages Act, the actual wages being paid, the hours of work for which such wages are earned, wage period, dates of payment of wages and other relevant information as per Appendix 'A'.

4.0 PAYMENT OF WAGES

- 4.1 The contractor shall fix wage periods in respect of which wages shall be payable.
- 4.2 No wage period shall exceed one month.
- 4.3 The wages of every person employed as labour in an establishment or by a contractor where less than one thousand, such persons are employed shall be paid before the expiry of the seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- 4.4 Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- 4.5 All payments of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- 4.6 Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- 4.7 All wages shall be paid in current coin or currency or in both.
- 4.8 Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- 4.9 A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgment.
- 4.10 It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Engineer or any other authorized representatives of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- 4.11 The contractor shall obtain from the Engineer or any other authorized representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:

"Certified that the amount shown in column No. 14(net Amount paid) has been paid to the workmen concerned in my presence on..... at.....".

5.0 FINES AND DEDUCTIONS, WHICH MAY BE MADE FROM WAGES

5.1 The wages of a worker shall be paid to him without any deduction of any kind except the following –

a)	Fines
b)	Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
c)	Deduction for damage to or loss of goods expressly entrusted to the employed persons for custody, or from loss of money or any other deduction which he is required to account where such damage or loss is directly attributable to his neglect or default.
d)	Deduction for recovery of advances or for adjustment of over payment of wages, advances granted shall be entered in a register.
e)	Any other deduction, which the Central Government may from time to time allow.

5.2 No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved by the Chief Labour Commissioner.

NOTE: An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-I.

5.3 No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.

5.4 The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a Rupee of the total wages, payable to him in respect of that wage period.

5.5 No fine imposed on any worker shall be recovered from him in installment, or after the expiry of sixty days from the date on which it was imposed.

5.6 Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6.0 LABOUR RECORDS

6.1 The contractor shall maintain a "Register of persons employed" on work on contract in form XIII of the CL (R&A) Central Rules 1971 (Appendix-B).

6.2 The contractor shall maintain a "Muster Roll" register in respect of all workmen employed by him on the work under contract in from XVI of the CL (R&A) Rules 1971 (Appendix-C).

6.3 The contractor shall maintain a "Wage Register" in respect of all workmen employed by him on the work in form (Appendix-D).

6.4 Register of accidents - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:

- a) Full particulars of the labourers who met with accident.
- b) Rate of wages
- c) Sex
- d) Age
- e) Nature of accident and cause of accident.
- f) Time and date of accident.
- g) Date and time when he/she admitted in Hospital
- h) Date of discharge from the Hospital
- i) Period of treatment and result of treatment
- j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
- k) Claim required to be paid under Workmen's Compensation Act.
- l) Date of payment of compensation.
- m) Amount paid with details of the person to whom the same was paid.
- n) Authority by whom the compensation was assessed.
- o) Remarks.

6.5 Register of Fines - The contractor shall maintain a "Register of Fines" in the form (Appendix-H).

The contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts and Omission for which fines can be imposed (Appendix-I).

6.6 Register of Deductions – The contractor shall maintain a "Register of Deductions" for damage or loss in form (Appendix-J).

6.7 Register of Advances – The contractor shall maintain a "Register of Advances" in form (Appendix-K).

6.8 Register of Overtime - The contractor shall maintain a "Register of Overtime" in form (Appendix-L).

7.0 ATTENDANCE CARD-CUM WAGE SLIP:

7.1 The contractor shall issue an attendance card-cum-wage slip to each workman employed by him in the specimen form at (Appendix-E).

7.2 The card shall be valid for each wage period.

7.3 The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.

- 7.4 The card shall remain in possession of the worker during the wage period under reference.
- 7.5 The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- 7.6 The contractor shall obtain the signature or thump impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

8.0 EMPLOYMENT CARD

The contractor shall issue an Employment Card in form to each worker within three days of the employment of the worker (Appendix-F).

9.0 SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a service certificate in form Appendix-G.

10.0 PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 and 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge, Labour Officer.

11.0 POWER OF LABOUR OFFICERS TO MAKE INVESTIGATIONS INQUIRY

The Labour Officer or any other person authorized by J.D.A on its behalf shall have power to make inquiry with a view to ascertaining and enforcing due and proper observance of the Fair Wage Clauses and the Provisions of Regulations. He shall investigate into any complaint regarding the default made by the contractor or sub-contractor in regard to such provision.

12.0 INSPECTION OF BOOK AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour officer or any other person, authorized by the Central Government on his behalf.

13.0 SUBMISSION OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

14.0 AMENDMENTS

The J.D.A may from time to time, add or amend the regulations and on any question as to the application, interpretation or effect of these regulations the decision of the Zonal Chief concerned shall be final.

PENALTY

1.0 Charges to be recovered from contractor for unsafe act or condition

- 1.1 JDA has built an image of safety conscious organisation meticulously over a period of many years. Any reportable accident (fatality / injury) results in loss of life and/or property damage. These accidents not only result in loss of life but also damage the reputation of JDA. Most of the accidents are avoidable and caused preliminary due to contractors' negligence. Hence JDA shall recover the cost of damages from the contractors for every reportable incident (fatality / injury).
- 1.2 In addition every JDA work site is exposed to public scrutiny as the work is executed just on the right-of-way. Any unsafe act / unsafe condition observed by public further damage our reputation. Because of the non-voluntary compliance of contractors to the condition of contract on SHE and project SHE manual, JDA has been forced to establish safety-enforcing organization. The cost of established such organization is to be recovered from contractors for all observed safety violations at sites.
- 1.3 The following table indicates the Safety, Health and Environment violation (unsafe act / unsafe condition) and charges to be recovered from contractors subject to a maximum limit @ 0.1% of the contract value in addition to all other penalties / compensation./ liquidated damages.

S.N.	TOPIC	UNSAFE ACT/UNSAFE CONDITION	DEDUCTABLE AMOUNT
1.	Injury and Incidence reporting	i) Fatal accidents ii) Injury accident iii) Abnormal delay in reporting accidents or will full suppression of information about any accidents / dangerous occurrence	i. Rs.1,00,000 for every fatality ii. Rs.15,000 for first grievously injured person and Rs.25,000 for every subsequent grievously injured person iii. Rs.75,000 for first violation and Rs.1,00,000 for subsequent violations
2.	Housekeeping	i) Housekeeping maintenance register not properly maintained up to date ii) Surrounding areas of drinking water tanks / taps not hygienically cleaned / maintained iii) Office, stores, toilet / urinals not properly cleaned and maintained. iv) Required dustbins at appropriate places not provided / not cleaned. v) Stairways, gangways, passageways blocked. vi) Lumber with protruding nails left as such vii) Openings unprotected	Rs.2,000 per single violation.

		viii) Excavated earth not removed within a reasonable time. ix) Truck carrying excavated earth not covered / tyres not cleaned. x) Vehicles / equipments parked / placed on roads obstructing free flow of traffic xi) Unused surplus cables / steel scraps lying scattered xii) Wooden scraps, empty wooden cable drums lying scattered xiii) Water stagnation leading to mosquito breeding	
3.	Working at Height / Ladders and Scaffolds	i) Not using or anchoring Safety Belt ii) Not using Safety Net iii) Absence of life line or anchorage point to anchor safety belt iv) Using Bamboo ladders v) Painting of ladders vi) Improper usage (less than 1m extension above landing point, not maintaining 1:4 ratio) vii) Aluminium ladders without base rubber bush viii) Usage of broken / weak ladders ix) Usage of re-bar welded ladders x) Improper guardrail, toe board, barriers and other means of collective protection xi) Improper working platform xii) Working at unprotected fragile surface xiii) Working at unprotected edges	Rs.5,000 per single violation.
4.	Lifting appliances and gear	i) Non availability of fitness certificate. ii) Documents not displayed on the machine or not available with the operator. iii) Maximum Safe Working Load not written on the machine. iv) Automatic safe load indicator not provided or not in working condition. v) Age of the operator less than 21 years or without any license. vi) Person riding on crane. vii) Creating more noise and smoke viii) Absence of portable fire extinguisher in driver cabin ix) Fail to guard hoist platform	Rs.5,000 per single violation.

		x) No fencing of hoist rope movement area. xi) Hoist platform not in the horizontal position.	
5.	Site Electrical safety	i) Exposed electric lines (fermentative damage) and circuits in the workplace. ii) Inserting of bare wires into the socket iii) Improper grounding for the electrical appliances iv) Electrical cables running on the ground	Rs.5,000 per single violation.
6.	Gas Cutting	i) Wrong colour coding of cylinder. ii) Cylinders not stored in upright position. iii) Fail to put cylinders in a cylinder trolley. iv) Damaged hose. v) Using domestic LPG cylinders vi) Fail to store cylinder 6.6m away from fire prone materials vii) Fail to use hose clamps viii) Fire extinguisher not placed in the vicinity during operation	Rs.5,000 per single violation.
7.	Welding	i) Voltmeter and Ammeter not working ii) Improper grounding and return path. iii) Damaged welding cable iv) Bare openings in the cable. v) Non-availability of separate switch in the transformer vi) Non-availability of main switch control to switch off power to the welding unit. vii) Usage of reinforcement rod as return conductor viii) Damaged holder ix) Fire extinguisher not placed in the vicinity during operation	Rs.5,000 per single violation.
8.	Fire precaution	i) Smoking and open flames in fire prone area ii) Using more than 24V portable electrical appliances in the fire prone area iii) Not proper ventilation in cylinder storage area. iv) Absence of fire extinguishers v) Fire extinguishers not refilled once in a year. vi) Fire extinguisher placed in a not easily	Rs.2,000 per single violation.

		accessible location	
9.	Traffic Management	a) Barricades i) Not Cleaned ii) Not in alignment iii) Not numbered iv) Not painted v) Red lights / reflectors not working vi) Damages not repaired vii) Not secured properly viii) Barricade inspector not employed ix) Protruding parts / portions repaired x) Barricades maintaining register not properly maintained up to date	Rs.2,000 per single violation.
		b) Contractor Vehicles i) Over loading of vehicles ii) Unfit drivers or operators iii) Unlicensed vehicles iv) Absence of traffic marshals v) Absence of reversing alarm vi) Absence of fog light (at winter) vii) Power / hand brakes not in working condition.	Rs.2000 per single violation.
10.	PPE	i) Not having ii) Not wearing (or) using and kept it elsewhere iii) Using damaged one iv) Using wrong type v) Using wrong color helmet or helmet without logo vi) Using for other operation (e.g. Using safety helmet for storing materials or carrying water from one place to other)	Rs.500 per single violation
11.	Occupational Health	i) Fail to conduct Medical examination to workers ii) Workers not having ID card iii) Inadequate number of toilets iv) Toilets not cleaned properly v) Absence of water facilities for toilets and washing places vi) Absence of drinking water vii) Absence of first-aid person in work site. viii) Absence or inadequacy of first-aid box. ix) Smoking inside the construction site	Rs.1,000 per single violation.

		x) Drink and drive or work xi) Excessive noise and vibration	
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Appendix - 'A'

LABOUR BOARD

Name of work

Name of Contractor

Address of Contractor

Name and Address of Unit

Name of Labour Enforcement Officer

Address of Labour Enforcement Officer

Date:

S. No.	Category	Minimum wage fixed	Actual wages paid	Number present	Remarks

Weekly Holiday

Wage Period

Date of Payment of wages

Working hours

Rest interval

FORM 13

See rule 75

REGISTER OF WORKMEN EMPLOYED BY CONTRACTOR

Name and Address of Contractor

Name and Address of Establishment in
under which contract is carried on

Nature and location of work

Name & Address of Principal Employer

Sl. No.	Name and surname of workman	Age & sex	Father's Husbands Name	Nature of employment / designation	Permanent home address of the workman (village and Tehsil Taluk and District)	Local address
1.	2.	3.	4.	5.	6.	7.

Date of commencement of Employment	Signature or thumb impression of the workman	Date of termination of employment	Reasons for termination	Remarks
1.	2.	3.	4.	5.

FORM XVI

(See Rule 78(2) (193)

MUSTER ROLL

Name and address of contractor

Name and address of establishment in/under
which contract is carried on

Nature and location of work

Name and Address of Principal Employer

For the month / fortnight

Appendix - 'C'

S. No.	Name of the workman	Sex	Father's/ Husband's Name	Dates					Remarks
1.	2.	3.	4.	5.					6.
				1	2	3	4	5	

FORM XVII (See Rule)

78(2) (03) REGISTER OF

WAGES

Name and address of contractor

Name and address of establishment in/under
which contract is carried on

Nature and location of work

Name and Address of Principal Employer

Wage period: per month/ fortnightly

S. No.	Name of Workman	Serial No. in the register of workman	Designation nature of work done	Nos. of days worked	Units of work done	Daily rate of wages/ piece rate	Basic Wages
1.	2.	3.	4.	5.	6.	7.	8.

Dearness allowance	Overtime	Other cash payments (Nature of payments to be indicated)	Total	Deduction if any (indicate nature)	Net Amt paid	Signature thumb impression of the workman	Initial contractor or his representative
9.	10.	11.	12.	13.	14.	15.	16.

FORM XIX

[SEE RULE 78 (2) (B)]

W A G E S L I P

Name and address of contractor

Name and Father's/Husband/s Name of workman

Nature and location of work

For the Week/Fortnight/Month ending

1. No. of days worked
2. No. of Units worked in case of piece rate workers
3. Rate of daily wags/piece rate
4. Amount of overtime wages
5. Gross wages payable
6. Deductions if any
7. Net amount of wages paid

Sign of the Contractor

WAGE CARD

Wage Card No.

Name and address of Contractor

Date of Issue

Nature of work with location

Designation

Name of workman

Month/Fortnight

Rate of Wages

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

26 27 28 29 30 31

Morning

Rate

Evening

Amount

Initial

Received from

the sum of Rs.

On account
of my wagon.

Signature

The wage card is valid for one month from the date of issue.

FORM XIV

(See Rule 76)

EMPLOYMENT CARD

Name and address of contractor

Name and address of establishment under which
The contract is carried out

Nature and location of work

Name and address of Principal Employer

1. Name of the workman
2. S. Name in the register of workman employed
3. Nature of Employment/Designation
4. Wage rate (with
particulars of unit in
case of piece work)
5. Wage Period
6. Tenure of employment
7. Remarks

Signature of Contractor

Form XV
(See Rule 77)
(SERVICE CERTIFICATE)

Name and address of contractor Nature and

location of work Name and address of

workman Age or date of birth Identification

Marks Father's/Husbands Name

Name and address of establishment in under which contract is
carried on

Name and address of Principal Employer

S. No.	Total period of which employed		Nature of work	Rate of wages (with particular s of unit In case of piece work)	Remarks
	From	To			
1.	2.	3.	4.	5.	6.

Signature

Form XII**[See Rule 78 (2) (d)]****REGISTER OF FINES**

Name and address of contractor

Name and address of establishment in/ under which contract
is carried on

Nature and location of work

Name and address of workman

Name and address of Principal Employer

S. No.	Name of workman	Father's/Husband Name	Designation/nature of employment	Act/Omission for which fine imposed	Date of offence
1.	2.	3.	4.	5.	6.

Whether workman showed cause against fine	Name of person in whose presence employees explanation was heard	Wage period and wages payable	Amount of fine Imposed	Date on which fine realized	Remarks
7.	8.	9.	10.	11.	12.

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule of Labour Regulations, to be displayed prominently at the site of work both in English and local language.

1. Willful insubordination or disobedience, whether alone or in combination with other.
2. Theft, fraud or dishonestly in connection with contractors beside a business or property of J.D.A
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance.
5. Drunk-ness fighting riotous or disorderly or indifferent behaviour.
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked.
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of the J.D.A or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving the false information regarding name, age, fathers name etc.
13. Habitual loss of wage cards supplied by the employer.
14. Unauthorized use of employers property of manufacturing or making of unauthorized articles at the work place.
15. Bad workmanship in construction and maintenance by skilled workers, which is not approved by the J.D.A for which the contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishment.
18. Any unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employee during the working hours within the premises

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**Form
XX**

[See Rule 78 (2)
(d)]

REGISTER OF DEDUCTION FOR DAMAGES OR LOSS

Name and address of contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of Principal Employer

S. No.	Name of workman	Father's/Husband Name	Designation/ nature of employment	Particulars of damage of loss	Date of damage/loss
1.	2.	3.	4.	5.	6.

				Date of recovery		
Whether workman showed cause against deductions	Name of person in whose presence employees explanation was heard	Amount of deduction Imposed	No. of installment	First insta- llment	Last Insta- llment	Remarks
7.	8.	9.	10.	11.	12.	13.

Form XXII

(See Rule 78(2))

REGISTER OF ADVANCES

Name and address of contractor

Name and address of establishment in/ under which contract
is carried on

Nature and location of work

Name and address of Principal Employer

S. No.	Name of workman	Father's/ Husband's Name	Designation/ nature of employment	Wages period and wages payable	Date and amount of advance given
1.	2.	3.	4.	5.	6.

Purpose / for which advance made	No. of installments by which advance is to be paid	Date and amount of each installment repaid	Date on which last installment was repaid	Remarks
7.	8.	9.	10.	11.

**Form XXIII [See Rule
78(2) (e)] REGISTER OF
OVERTIME**

Name and address of contractor

Name and address of establishment in/ under which
contract is carried on

Nature and location of work

Name and address of Principal Employer

S. No.	Name of workman	Father's/ Husband's Name	Sex	Designation/ nature of employment	Date on which overtime worked
1.	2.	3.	4.	5.	6.

Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earning	Rate on which overtime wages paid	Remarks
7	8	9	10	11	12



SECTION – 8

(GAD)



राजस्थान सरकार
वित्त (सामान्य वित्तीय एवं लेखा नियम) विभाग



No. F.3 (2) FD/GF&AR/2020

Jaipur, dated: 16.06.2022

ORDER

In supersession of all previous instructions/orders issued by FD regarding Mobilization Advance, the Governor is pleased to order that the following amendment is hereby made in the Public Works Financial & Accounts Rules, Part-I :-

After the existing Rule 435, a new Rule 435A shall be added, as under :-

"Rule 435A.

1.1 Mobilization Advance: In respect of works costing more than Rs. 50.00 Crore (Rs. Fifty Crore) only the department will, if provided in bidding document and requested by the Contractor to make mobilization advance, payment to the Contractor (at 9% per annum interest compounded annually basis) to assist in defraying the initial expenses that necessarily be incurred by the Contractor for mobilization. The total of such advance payments and the number & timing of installments is stated here under-

The total amount of Advance shall not be more than 10% of the Capital work. Payment of Mobilization Advance shall be made in two equal installments, out of these first installment shall not be more than 5% of the Capital work and on compliance of the requisite conditions as stated in the bidding document, the remaining amount of 5% of Capital work shall be in second installment.

1.2 Release of Mobilization Advance: On recommendation of the Engineer-in-charge, Mobilization Advance shall be released, as follows:

- (i) Execution of the Agreement by the parties thereto,
- (ii) Submission by the Contractor of an unconditional and irrecoverable bank guarantee in amounts and currencies equal to the advance payment being requested. Such bank guarantee shall be issued either by a Nationalized or Scheduled Bank as declared by the RBI, should be encashable in Rajasthan and

Sanjay

acceptable to the Department. The guarantee shall remain effective until the full recovery of the advance payment with total interest payable thereon. If the advance payment has not been repaid by the date 28 days prior to expiry date of B.G. the contractor shall extend the validity of B.G. until the advance payment has been repaid.

- (iii) The mobilization advance payments shall be made in two installments as stated above, subject to the conditions described below. The advance payments shall be used by the Contractor exclusively for mobilization expenses, as per the programme approved by the Engineer-in-charge.
- (iv) For this purpose, the Contractor shall open a dedicated Contract Bank Account in a bank located at divisional office headquarter or in case of non-functioning of bank's branch at divisional office headquarter than at the nearest place to divisional office headquarter in Rajasthan and the Department will transfer or deposit the advance payments directly into the aforesaid dedicated Bank Account of the Contractor. The Contractor will not be permitted to use these funds for any purpose other than for expenditures under the Contract and the Department will be entitled to verify that the transactions from this account are used exclusively for the purposes for which they are intended. In case the advance payment is not utilized by the Contractor as per the approved programme and within the stipulated period to the satisfaction of the Engineer-in-charge, default proceedings as per the relevant clause of Contract, shall be initiated against the Contractor.

1.2.1 Release of First Installment: The Department will make, payment of the first installment of the mobilization advance only after the Contractor has fulfilled the following conditions :-

- (a) Contractor has executed the agreement with department.
- (b) Requisite Bank Guarantee has been deposited by the contractor.
- (c) Established the dedicated Contract Bank Account.
- (d) Any other condition mentioned in bid document in order to release installment.

1.2.2 Release of Second Installment: After the first installment of the advance payment has been utilized as per the approved programme, substantiated by relevant documents and to the satisfaction of the Engineer-in-charge, the Contractor may then apply for the second installment after complying the conditions stated in the bid. The Department will make payment of the second installment after the Contractor has successfully fulfilled the following conditions:

- Instant*
- (a) Actual deployment of (i) such Personnel (ii) Machinery and Equipment, as per the approved deployment schedules, if stated in bid document.
 - (b) Established the fully furnished Site Office(s), if stated in bid document.
 - (c) Established and staffed, with qualified personnel, completely equipped testing laboratory(s) at Site for quality control purposes, if stated in bid document.
 - (d) Placed confirmed orders for supply of major items of material and equipment, which is to be incorporated into the Permanent works as per the approved procurement schedule, if stated in bid document.
 - (e) Commenced construction work at the site in accordance with the approved construction program, if stated in bid document.
 - (f) The second Installment of Mobilization Advance would be released after submission of utilization certificate by contractor for the first Installment of advance released earlier.
 - (g) Requisite Bank Guarantee has been deposited.
 - (h) Any other condition mentioned in bid document in order to release second installment.

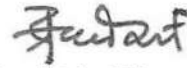
1.3 Schedule of Re-payment of Mobilization Advance: The Advance Payment shall be repaid through percentage from the running bill as under :-

- (a) deductions shall commence in the first running bill.

: 4 :

- (b) deductions shall be made at the rate of 15% (fifteen percent) of each running bill until such time as the advance payment has been repaid along with interest thereon; provided that the advance payment shall be completely repaid prior to the time when 75% (seventy five percent) of Payment of works or 13 months from the date of first installment of Advance, whichever is earlier."

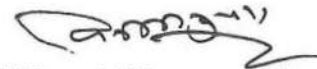
By Order,



(Sudhir Kumar Sharma)
Secretary to Government
Finance (Budget) Department

Copy forwarded for information and necessary action to:

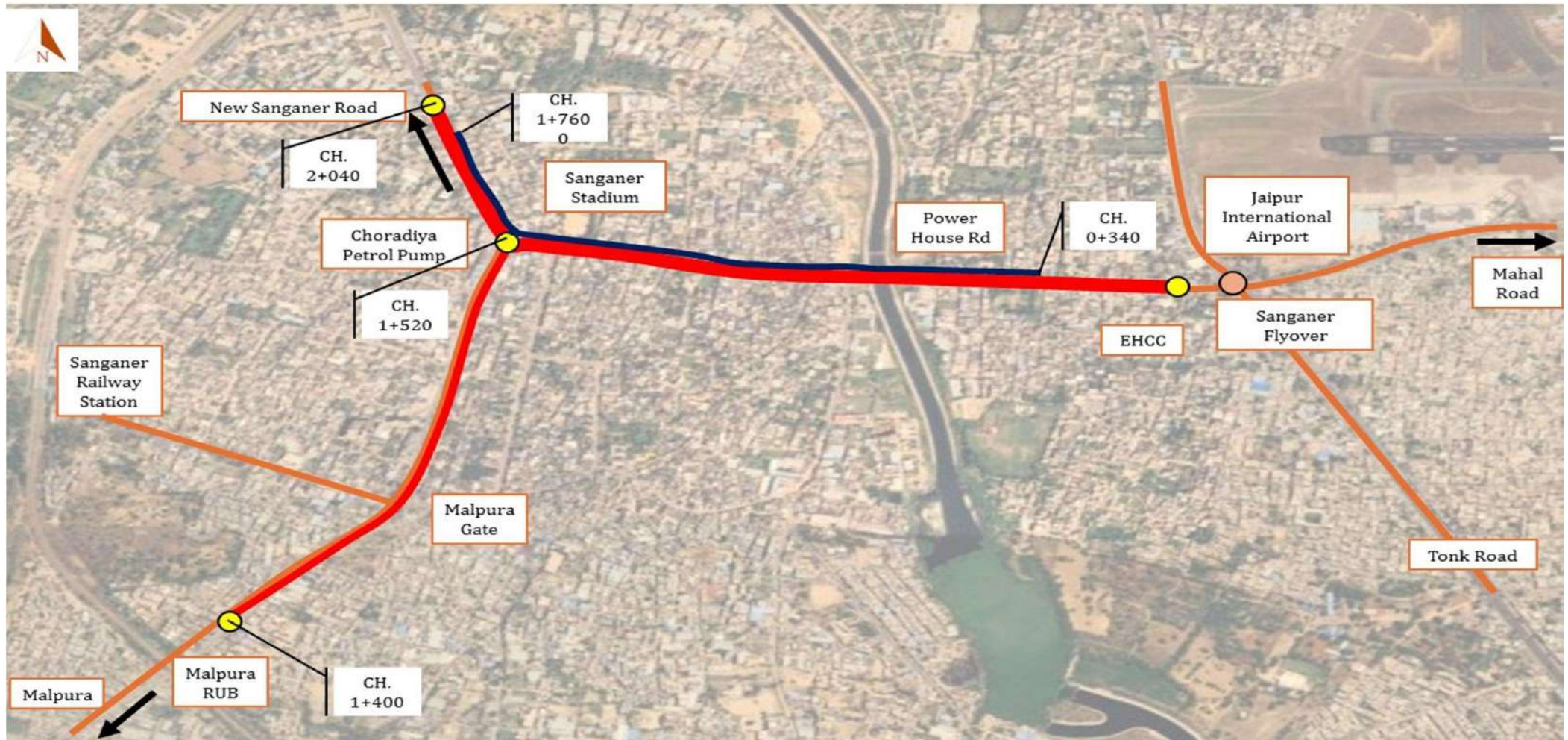
1. Principal Secretary to H.E. Governor.
2. Principal Secretary, Hon'ble Chief Minister, Rajasthan.
3. All Special Assistants/Private Secretaries to Ministers/State Ministers.
4. Principal Accountant General (A&E/Audit) Rajasthan, Jaipur.
5. All Addl.Chief Secretaries/Principal Secretaries/Secretaries, Rajasthan.
6. Sr. Dy.Secretary to Chief Secretary, Rajasthan.
7. Principal Chief Conservator of Forests (HoFF) Rajasthan.
8. Director, Treasuries and Accounts/Inspection/Local Fund Audit, Rajasthan.
9. All Chief Engineer, PWD/WRD/PHED/RWSSMB/GWD/IGNP/CAD, Rajasthan.
10. All FA/CAO, RWSSMB/PWD/WRD/PHED/GWD/IGNP/CAD/Forest Department, Rajasthan.
11. All Treasury Officers/Sub-Treasury Officers, Rajasthan.
12. All Sections of Finance Department.
13. Technical Director, Finance Department to upload this order on FD website.
14. Guard File.



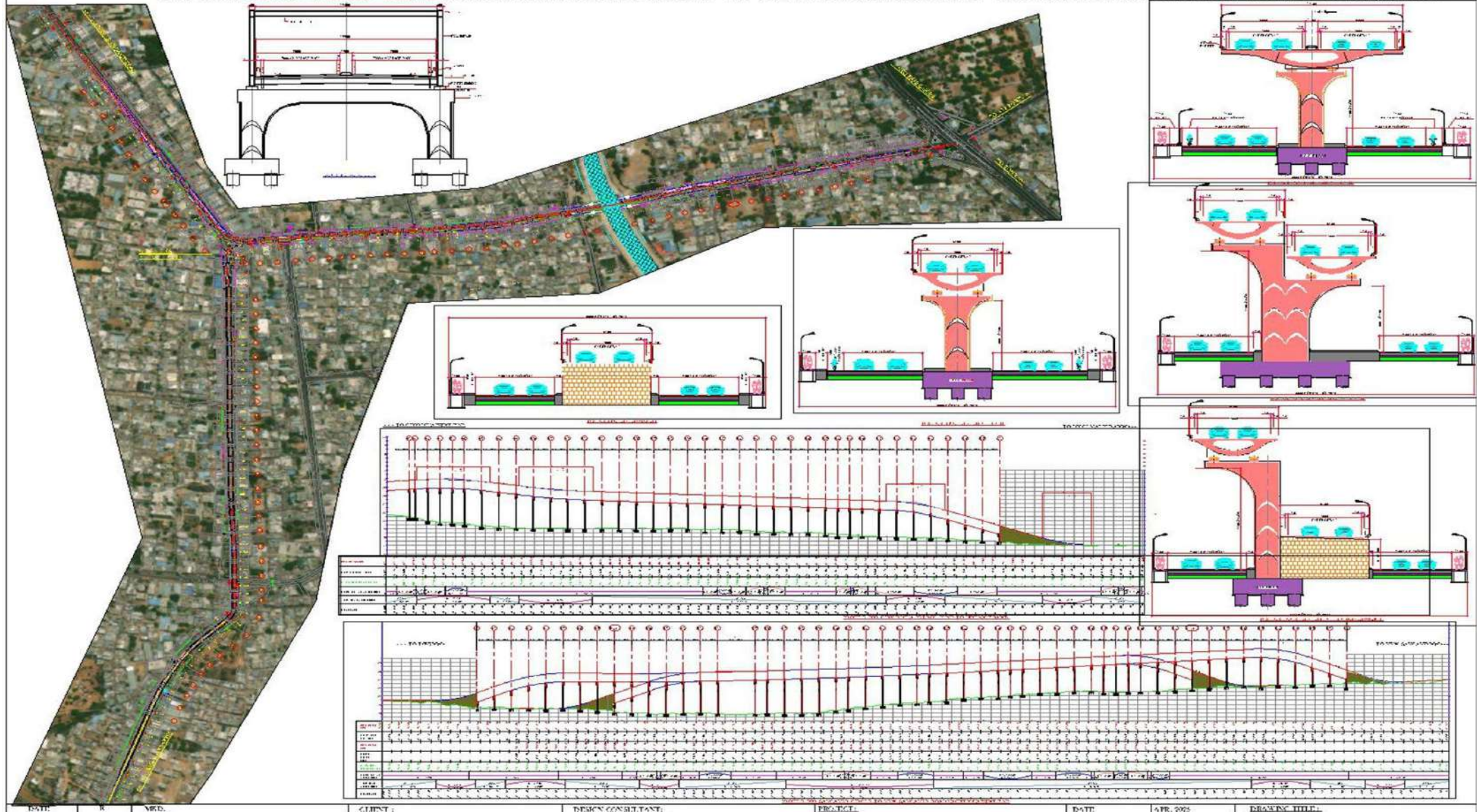
(Vimal Kumar Gupta)
Joint Secretary to Government

(PWF&AR-89/2022)

Google map



CONSTRUCTION OF ELEVATED ROAD FROM SANGNER FLYOVER TO NEAR MALPURA GATE VIA CHORADIYA PETROL PUMP IN ZONE - 8 JDA, JAIPUR



JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

No. JDA/Ex.En. (TA to Dir. Engg.-I)/2016/D-29

Dated: 11/3/2016

Office Order

Subject: - DLP period for various type of works.

As per the decision taken in the 201st meeting of Executive Committee held on 23.02.2016 w.r.t. agenda no. 201:22, DLP period of various natures of works amounting more than Rs. 25 lakhs has been revised as per following time periods based on nature of works.

This order will supersede the earlier orders issued in this regard i.e. order No. JDA/TA to D(E)/2010-11/D-317 dated 28.04.2011 including Special Condition No. 2.2.2 & 2.2.3 of Annexure-I related to SD refund & forfeiture (other Special Condition of annexure-I of this order will remain valid) and order No. JDA/Ex.En.(Pr.-5 & TA)/2013/D-43 dated 27.02.2013 and also all pertaining orders, in contract agreements or in PWF&AR having DLP period different than what is being enforced through this present order for concerned type of work.

Table-I

S.No.	Type of Work	Existing DLP Period	As per approved in E.C. held on 23.02.2016
1.	Bridge Work	3 years	5 Years
2.	CD Work	3 years	5 Years
3.	CC Road, PQC Work	3 years	5 Years
4.	CC tiles/Kerbs/medians	3 years	5 years
5.	Drains	6 months	3 years
6.	Roads		
	(i) Two layer WBM/CSB	3 years	6 Months or one full rainy season whichever is later
	(ii) For Renewal/Strengthening		
	(a) BT upto 30 mm thickness	3 years	1 year
	(b) BT above 30 mm to upto 40 mm	3 years	2 years
	(c) BT above 40 mm to upto 90 mm	3 years	3 years
	(d) ET Above 90 mm	3 years	5 years
	(iii) New Roads		
	(a) BT upto 90 mm	3 years	3 years
	(b) BT more than 90 mm	3 years	5 years
7.	Compound wall	6 months	3 years
8.	Buildings work		
	(i) Work pertaining to Sanitary works electrical works, joinery works and painting works.	6 months	2 years
	(ii) Work pertaining to Building structure and other civil works.	6 months	5 years
9.	Electric work except maintenance	6 months	3 years
10.	Sewer/Water supply all including STP and water supply related work except maintenance works.	6 months	3 years <i>ly</i>

The release of SD amount shall be as per following table:-

Table-II

S. No.	Released SD DLP period	1 st year	2 nd year	3 rd year	5 th year
1.	Upto 1 year	100%	40%	20% ✓	10%
2.	Upto 2 year		60%	20% ✓	10%
3.	Upto 3 year			60% ✓	10%
4.	Upto 4 year				20%
5.	Upto 5 year				50%

Various conditions for managing DLP are as under:-

- (i) At the time of completion of work, final component shall be worked out for each individual item like BT/CC/tiles/drains etc (as per different categories in Table I), DLP shall be operative based upon type of individual item ex:- CC-5 years, BT- 1/2/3/5 years, Drain- 3 years etc.
- (ii) Similarly for all new works, these components should be calculated at the time of TS itself, which should be made part of BID document.
- (iii) If any work, amount is less than Rs. 25 lakhs but later on due to extra/excess work, if amount of final work crosses more than Rs. 25 lakhs, DLP shall be operative as per rule for each individual item.
- (iv) Similarly if any work is more than Rs. 25 lakhs but after finalization amount of work is less than Rs. 25 lakhs, DLP should be operative for six months or rainy season whichever is late.
- (v) During DLP period if contractor fails to repair any work even after issue of 7 days written notice, same work shall be got executed by respective Executive Engineer at the Contractor's risk and cost. This process shall be applicable throughout the DLP period. After completion of DLP period in such works contractor should be debarred and blacklisted from JDA for three years as per RTPP Rule 2012 and 2013 where he defaults twice in a single agreement or in two different works.
- (vi) Quarterly Inspection as per rules shall be carried out and DLP registers shall be maintained by respective Executive Engineers to monitor the DLP repairs.
- (vii) Special and regular inspection shall also be carried out as per order no. JDA/Ex.En & TA to DE-I/2014-15/D-223 dated 12.03.2015 and order no. SE (PMGSY) CIRCULAR 2006/D-115 dated 04.05.2006 Point no. 3.
- (viii) In case JDA feels to take up work on any existing DLP road due to any reason, following procedure should be adopted:
 - (a) At the time of withdrawal total liability of repairs as per DLP conditions to be carried out and contractor shall be asked to complete the same. After completion of assessed repairs DLP period shall be released after deduction amt. as per table III.

Table-III

% Recovery on Withdrawal of DLP, of work order DLP period	1 year	2 year	3 year	4 year	5 year
1 year	1.12	-	-	-	-
2 year	2.55	1.43	-	-	-
3 year	4.38	3.26	1.83	-	-
5 year	9	7.88	6.45	4.62	2.47

Note:- Calculation is to be done on quarterly basis.

(b) In case Contractor fails to carry out these repairs, same shall be carried out at his risk and cost. If the total amt. of such repairs works out to be more than total retained amt. of SD, same shall be recovered from other works and as per PDR rules. The amount as per Table III is also to be deducted in addition to this amount.

(ix) Based upon type of work, DLP conditions for works to be carried out during DLP period with their frequency of respective type of work shall be prepared by respective SE's after approval of these periods.

This order shall come in force with immediate effect and will be applicable on all new works whose NIB is to be called.

Sd/-
Director (Engineering-I)
JDA, Jaipur

Copy to following for information and necessary action:-

1. PS to IDC, JDA, Jaipur.
2. PS to Secretary, JDA, Jaipur.
3. Director Engineer I/II, JDA, Jaipur.
4. Director (Fin.), JDA, Jaipur.
5. C.E, JDA, Jaipur.
6. All Add. Chief Engineers, JDA, Jaipur.
7. All Superintendent Engineers, JDA, Jaipur.
8. OSD (RM), JDA, Jaipur.
9. Additional Director (REV.&DP.)
10. CAO (P&A) JDA, Jaipur.
11. Sr. Horticulturist, JDA, Jaipur.
12. All Executive Engineer, JDA, Jaipur.
13. DD (E&B) JDA, Jaipur.
14. All AOs, JDA, Jaipur.
15. All AAOs, JDA, Jaipur.
16. System Analyst
17. All Contractors' Association, JDA, Jaipur.
18. Guard file

Sd/-
S.E. & TA to Dir. (Engg-I)
JDA, Jaipur

Jaipur Development Authority, Jaipur

Office Order

No. : JDA/IT(1074501)/E-Services/2015-16/D-399

Dated: 4-10-2016

Subject: Payment mechanism for participating in tender.

Jaipur Development Authority has decided to receive Earnest Money Deposit (EMD) (Bid Security), Tender Fee and RISL processing fee online through JDA Portal. The bid security options available in tender for participants are as mentioned below:

A. Payment Options:

Option-1: Bank Guarantee (BG) against EMD / Bid Security

Bidder may opt Bank Guarantee (BG) against EMD (Bid Security), for which bidder requires to prepare BG before applying in the tender. The details of BG requires to be fed on JDA portal before paying balance amount (Tender Fee + RISL Processing Fee). This amount will be paid through **Payment Gateway only**, option to make balance payment through EFT (RTGS/NEFT) will not be available.

If bidder does not opt for BG against EMD, options of making complete payment through Payment Gateway or through EFT (NEFT / RTGS) will be available.

Option-2: Electronic Fund Transfer (EFT: NEFT/RTGS)

If the bidder selects payment mode as EFT (NEFT/RTGS), "Paying Slip for EFT (NEFT/RTGS)" will be generated by the system for the complete amount. The payment can be made from **any Bank any Branch** using this Paying Slip through NEFT/RTGS (Claim against payment made through EFT in any other JDA bank account will not be acceptable and bidder stands disqualified from participation in the bid applied for). After successful transaction through NEFT/RTGS, as per the standard procedures it may take 4 to 24 hours in process of confirmation of EFT through Auto-Process depending on the time of EFT done. Therefore, option to make payment through EFT (NEFT/RTGS) will be available till 2 days prior to closing date of bid participation.

Option-3: Payment Gateway (Aggregator)

The facility to make payment through Debit Card, Credit Card, Net banking etc., will be available. User can use this facility from **anywhere any time** till the closing date & time of bid participation.

B. Bid Participation Receipt

After confirming payment, the bidder will get Bid Participation Receipt on the basis of which user will get the payment details along with other details for bidding on e-Procurement portal of GOR.

- In case of BG as the remaining payment will be done through Payment Gateway, on successful transaction the "**Bid Participation Receipt**" will be generated on real time basis.

Page 1 of 2

- In case complete payment is done through Payment Gateway, on successful transaction the **"Bid Participation Receipt"** will be generated on real time basis.
- In case complete payment is done through EFT (NEFT/RTGS), on confirmation of payment from ICICI Bank (Auto Process) **"Bid Participation Receipt"** will be available on Login of Bidder on JDA portal.

This payment mechanism will come into force w.e.f 15/10/2016. Thereafter, old payment mechanism related to NEFT/ RTGS in which the bidder makes direct payment without **"Paying Slip for EFT (NEFT/RTGS)"** in JDA's bank account will be discontinued.

All procuring entities are hereby directed to clearly mention this procedure in NIB document.


(Pawan Arora)
Secretary

Copy for information and further necessary action to:

1. P.S. to JDC, JDA, Jaipur.
2. P.S. to Secretary, Secretary, JDA, Jaipur.
3. Director (Law / Finance / Town Planning / Engineering-I / Engineering-II), JDA, Jaipur.
4. All Additional Chief Engineer _____, JDA, Jaipur
5. DC (Administration)/DC(Store)/DC (Vehicle), JDA, Jaipur
6. System Analyst, JDA, Jaipur
7. Analyst-cum-Programmer, JDA to ensure integration of software w.e.f 01/10/2016.
8. All Xen _____, JDA, Jaipur.
9. Officer-in-charge, SPPP Portal, Jaipur.
10. OSD (Public Relation) / PRO, JDA, Jaipur.


(Brijesh Kishore Sharma)
OSD (RM)

जयपुर विकास प्राधिकरण, जयपुर

क्रमांक :- F-()JDA/Sr.Ao.works-II/2017/D-

172

दिनांक :-

12.7.17

आदेश

1 जुलाई 2017 से भारत सरकार के नोटिफिकेशन द्वारा GST लागू होने के कारण व्यक्तियों/फर्म/कम्पनी/संस्था/टेकेदार के निर्माण/सिविल आपूर्ति/सेवाओं इत्यादि के कार्यों के प्राधिकरण द्वारा बिल भुगतान किये जाने के लिये प्राधिकरण कर सलाहकार चार्टर्ड एकाउन्टेन्ट से प्राप्त हुई राय के क्रम में निम्नांकित प्रमाण पत्र/शपथ पत्र/Invoice बिलों के साथ प्रस्तुत किया जाना सुनिश्चित करावे :-

1. व्यक्ति/फर्म/कम्पनी/संस्था/टेकेदार का GST के अन्तर्गत रजिस्ट्रेशन प्रमाण पत्र की स्व:प्रमाणित फोटो प्रति।
2. व्यक्ति/फर्म/कम्पनी/संस्था/टेकेदार का GST के रजिस्ट्रेशन नहीं होने के स्थिति में स्व:प्रमाणित शपथ पत्र।
3. अप्रजिकृत व्यक्ति/फर्म/कम्पनी/संस्था/टेकेदार के बिलों के भुगतान की स्थिति में मासिक टैक्स Invoice भुगतान-अधिकारी द्वारा मासिक आधार पर उसी माह के अंत में तैयार करवाया जाना सुनिश्चित किया जावेगा।
4. आपूर्ति एवं सेवा के विरुद्ध भुगतान बिलों में Vat/Service Tax चार्ज होने (Vat/Service Tax होने) पर (दिनांक 30.06.17 तक आपूर्ति एवं Invoice जारी करने पर) Taxable Invoice नहीं बनाया जावेगा एवं इनका भुगतान पूर्वानुसार (01.07.2017 से पूर्व निहित प्रक्रिया अनुसार) किया जाना सुनिश्चित करावे।

स्पष्टीकरण :- दिनांक 30.06.17 तक सामान की आपूर्ति के बिलों में Vat Invoice होने पर या अन्यथा होने पर इनका भुगतान पूर्वानुसार 01.07.2017 से पूर्व निहित प्रक्रिया अनुसार किया जावेगा।

संलग्न :- GST रेट तथा HSN/SAC CODE की फोटो प्रति

(बृजेश किशोर शर्मा)
निदेशक(वित्त)

प्रतिलिपि निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु :-

1. वरिष्ठ निजी सचिव, आयुक्त, जविप्रा, जयपुर।
2. वरिष्ठ निजी सचिव, सचिव, जविप्रा, जयपुर।
3. निदेशक (वित्त/विवि/अभियंत्रिकी-प्रथम व द्वितीय/आयोजना/परियोजना, जविप्रा, जयपुर।
4. अतिरिक्त आयुक्त(प्रशासन/पूर्व/पश्चिम/एल.पी.सी./भूमि), जविप्रा, जयपुर।
5. संयुक्त आयुक्त(सिस्टम मैनेजमेन्ट/संसाधन एवं समन्वय), जविप्रा, जयपुर।
6. विशेषाधिकारी(संसाधन विकास), जविप्रा, जयपुर।
7. अतिरिक्त निदेशक(राजस्व एवं सम्पत्ति निस्तारण), जविप्रा, जयपुर।
8. समस्त जोन उपायुक्तगण जविप्रा, जयपुर।
9. मुख्य लेखाधिकारी(पी. एण्ड ए.), जविप्रा, जयपुर।
10. उपनिदेशक(व्यय एवं बजट), जविप्रा, जयपुर।
11. वरिष्ठ लेखाधिकारी(निर्माण-प्रथम/द्वितीय/आर.सी.आर./पेंशन/नीलामी), जविप्रा, जयपुर।
12. सिस्टम एनालिस्ट, जविप्रा, जयपुर को प्रेषित कर लेख है कि सिस्टम में GST नम्बर सम्मिलित करने एवं Tax Invoice बनाने की प्रक्रिया तैयार करावे।
13. उप रजिस्ट्रार(सहकारिता), जविप्रा, जयपुर।
14. अविशेषी अभियन्ता जोन जविप्रा, जयपुर।
15. वरिष्ठ उद्यानविज्ञ, जविप्रा, जयपुर।
16. लेखाधिकारी (भुगतान/योजना/निर्माण)/सहायक लेखाधिकारी, जविप्रा, जयपुर।
17. प्रभारी अधिकारी, नागरिक सेवाकेन्द्र, जविप्रा, जयपुर।
18. सलाहकार(जनसम्पर्क), जविप्रा, जयपुर।
19. रोकडियी(निर्माण/सिविल/भूमि आवृत्ति), जविप्रा, जयपुर।
20. रसित पत्रावली

अति.निदेशक(रा.एवं स.नि.)



 सत्यमेव जयते	राजस्थान राजपत्र	RAJASTHAN GAZETTE
	विशेषांक	Extraordinary
	साधिकार प्रकाशित	Published by Authority
	आश्विन 30, शुक्रवार, शाके 1943-अक्टूबर 22, 2021 <i>Asvina 30, Friday, Saka 1943- October 22, 2021</i>	

भाग 4 (ग)

उप-खण्ड (I)

राज्य सरकार तथा अन्य राज्य-प्राधिकारियों द्वारा जारी किये गये (सामान्य आदेशों, उप-विधियों आदि को सम्मिलित करते हुए) सामान्य कानूनी नियम।

FINANCE (G&T) DEPARTMENT

NOTIFICATION

Jaipur, October 22, 2021

G.S.R.364 .-In exercise of the powers conferred by section 55 of the Rajasthan Transparency in Public Procurement Act, 2012 (Act No. 21 of 2012), the State Government hereby makes the following rules further to amend the Rajasthan Transparency in Public Procurement Rules, 2013, namely:-

1. Short title and commencement.- (1) These rules may be called the Rajasthan Transparency in Public Procurement (Fourth Amendment) Rules, 2021.

(2) They shall come into force from the date of their publication in the Official Gazette.

2. Insertion of new rule 75A.- After the existing rule 75 and before the existing rule 76 of the Rajasthan Transparency in Public Procurement Rules, 2013, the following new rule 75A shall be inserted, namely:-

"75A. Additional Performance Security.- (1) In addition to Performance Security as specified in rule 75, an Additional Performance Security shall also be taken from the successful bidder in case of unbalanced bid. The Additional Performance Security shall be equal to fifty percent of Unbalanced Bid Amount. The Additional Performance Security shall be deposited in lump sum by the successful bidder before execution of Agreement. The Additional Performance Security shall be deposited through e-Grass, Demand Draft, Banker's Cheque, Government Securities or Bank Guarantee.

Explanation : For the purpose of this rule,-

- Unbalanced Bid means any bid below more than fifteen percent of Estimated Bid Value.
- Estimated Bid Value means value of subject matter of procurement mention in bidding documents by the Procuring Entity.
- Unbalanced Bid Amount means positive difference of eighty five percent of Estimated Bid Value minus Bid Amount Quoted by the bidder.



(2) The Additional Performance Security shall be refunded to the contractor after satisfactory completion of the entire work. The Additional Performance Security shall be forfeited by the Procuring Entity when work is not completed within stipulated period by the contractor. Provision for 'Unbalanced Bid' and 'Additional Performance Security' shall be mentioned in the Bidding Documents by the Procuring Entity."

[No. F.2(1)FD/G&T(SPFC)/2017]

By Order of the Governor,

Vimal Kumar Gupta,
Joint Secretary to the Government.

राज्य केन्द्रीय मुद्रणालय, जयपुर।



जयपुर विकास प्राधिकरण, जयपुर

www.jda.urban.rajjasthan.gov.in

क्रमांक जविप्रा/अधि. अभि./त.स.नि.अ.-1/2021/डी-75

दिनांक :- 26/8/2021

To

Contractor's Association
Jaipur Development Authority
Jaipur.

जयपुर विकास प्राधिकरण में विभिन्न कार्यों हेतु कार्यों की प्रकृति के अनुसार निविदाएं, कार्यालय आदेश क्रमांक JDA/Ex.En. (TA to Dir.Engg.-I)/2014-15/D-202 Dated:16.02.2015 द्वारा एकल बिड व Two bid में invite की जाती है। निविदाओं के evaluation के दौरान प्रायः यह देखा जाता है कि निविदाकर्ता द्वारा निविदा प्रपत्र में अंकित दिशानिर्देशों के अनुसार प्रस्तुत किए गये आवश्यक दस्तावेज या तो अधूरे होते हैं या चाहे गये प्रफोर्मा प्रपत्र के अनुसार नहीं आवेदित किए जाते हैं। इस कारण से कई बार निविदाएं छोटी-छोटी गलतियों की वजह से निरस्त हो जाती हैं या Particular bidder disqualify हो जाते हैं। कुछ सामान्य गलतियां निम्नानुसार हैं:-

1. Schedule 1 to 4 को नहीं भरना।
2. RTPP प्रपत्र A,B,C,D को नहीं भरना व हस्ताक्षर नहीं करना।
3. निविदा दस्तावेज विभिन्न दस्तावेजों पर स्वयं के या नोटेरी के हस्ताक्षर नहीं होना।
4. रजिस्ट्रेशन की प्रति नहीं लगाना।
5. EMD Receipt नहीं लगाना।
6. Work performance certificate नहीं लगाना।
7. Non Judicial Stamp पर दी जाने वाली सूचनाएं सामान्य प्रष्ठ पर देना।
8. Two bid निविदाओं में वर्ष वार कार्य की मात्राएं एवं राशि नहीं देना।
9. अनावश्यक दस्तावेज उपलब्ध कराना।
10. Online bidding के लिए आवश्यक विभिन्न शुल्क जमा नहीं कराना।
11. GST Clearance Certificate नहीं लगा होना।
12. Certificate having quantities financial year wise should not be missing.
13. Certificate of maximum value of similar nature work executed in any one last financial year out of last five financial year.
14. Annual turn over certificate by CA नहीं लगाना।
15. मशीनरी की details संलग्न नहीं करना।
16. Bid Fee, Bid Processing Fee, Tax Clearance Certificate should not be missing.
17. Completion certificate of required similar nature component is to be enclosed.
18. Litigation History Should be enclosed.
19. Information regarding existing commitments and ongoing works should be enclosed.

इस सम्बन्ध में सभी निविदाताओं को सूचित किया जाता है कि निविदाएं जमा करने से पहले निविदा प्रपत्र में अंकित व चाहि गयी सूचनाएं उचित तरीके से भर कर ही निविदा प्रस्तुत करें जिससे अनावश्यक रूप से निविदा निरस्तीकरण से बचा जा सके। त्रुटीपूर्ण निविदा की स्थिति में निविदाता स्वयं ही जिम्मेदार होंगे।

(3/8)
अधीक्षक अभियन्ता एवं
तक.सहा. निदे. (अभि.-प्रथम)
जविप्रा, जयपुर

रामकिशोरव्यासभवन, इन्दिरासर्किल, जवाहरलालनेहरूमार्ग, जयपुर-302004

दूरभाष:- ईपीबीएक्स - +91-141-2569696 एक्सटेंशन: (7209); फेक्स- +91-141-2574555

e-Mail : (sudhirsharma.jda@rajasthan.gov.in)

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जयपुर विकास प्राधिकरण, जयपुर

www.jda.urban.rajasthan.gov.in

क्रमांक जविप्रा/अधि. अभि./त.स.नि.अ.-1/2021/डी-75

दिनांक :- 26/8/2021

प्रतिलिपि निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है:-

1. निजी सचिव, आयुक्त, जविप्रा, जयपुर।
2. निजी सचिव, सचिव, जविप्रा, जयपुर।
3. निदेशक (अभियांत्रिकी-प्रथम/द्वितीय/वित्त), जविप्रा, जयपुर।
4. समस्त अतिरिक्त मुख्य अभियन्ता, जविप्रा, जयपुर।
5. समस्त अधीक्षण अभियन्ता, जविप्रा, जयपुर।
6. समस्त अधिशाषी अभियन्ता, जविप्रा, जयपुर।
7. रक्षित पत्रावली।

अधिशाषी अभियन्ता एवं
तक.सहा. निदे. (अभि.-प्रथम)
जविप्रा, जयपुर

रामकिशोरव्यासभवन, इन्दिरासर्किल, जवाहरलालनेहरुमार्ग, जयपुर-302004

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	राजस्थान राजपत्र	RAJASTHAN GAZETTE
	विशेषांक	Extraordinary
	साधिकार प्रकाशित	Published by Authority
	पौष 22, बुधवार, शाके 1943-जनवरी 12, 2022 <i>Pousa 22, Wednesday, Saka 1943- January 12, 2022</i>	

भाग 4 (ग)

उप-खण्ड (I)

राज्य सरकार तथा अन्य राज्य-प्राधिकारियों द्वारा जारी किये गये (सामान्य आदेशों, उप-विधियों आदि को सम्मिलित करते हुए) सामान्य कानूनी नियम।

FINANCE (G&T) DEPARTMENT

NOTIFICATION

Jaipur, January 12, 2022

G.S.R.398 .-In exercise of the powers conferred by section 55 of the Rajasthan Transparency in Public Procurement Act, 2012 (Act No. 21 of 2012), the State Government hereby makes the following rules further to amend the Rajasthan Transparency in Public Procurement Rules, 2013, namely:-

1. Short title and commencement.- (1) These rules may be called the Rajasthan Transparency in Public Procurement (Amendment) Rules, 2022.

(2) They shall come into force from the date of their publication in the Official Gazette.

2. Amendment of rule 75.- In rule 75 of the said rules,-

- in proviso to sub-rule (2), for the existing expression "31.12.2021", the expression "31.03.2023" shall be substituted; and
- in proviso to clause (f) of sub-rule (3), for the existing expression "31.12.2021", the expression "31.03.2023" shall be substituted.

[No. F.2(1)FD/G&T(SPFC)/2017]

By Order of the Governor,

Vimal Kumar Gupta,
Joint Secretary to the Government.

1936

Government Central Press, Jaipur.



JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

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No. JDA/ E.E. & (TA to Dir. Engg.-I)/2022/D-194

Dated: - 6/9/2022

Office Order

In the standard bid document (Two bid system) of JDA, Clause 5: Rejection of Bids, subclause (iii) shall be replaced and read as under with immediate effect:-

S.N.	Provision as per standard Bid document	As per GoR orders F.8(15)Fin/SPFC/2020 dated 17.05.2022
1.	"If all the copies enclosed in support and affidavit is not duly attested by notary public/gazetted officer/Self (as per order No F 14(22)JDA/Estt./2014 Dated 01.01.2015) then bid of the bidder is to be rejected."	The Bidder shall prepare bid in the digital/electronic mode for uploading on e-Procurement portal in the format/type of file specified in evaluation and Qualification criteria 'All the documents uploaded, should be digitally signed with the DSC of authorized signatory, deemed as all the pages of the uploaded documents are signed'.

The following additional condition should be added in the standard Bid document (Two Bid system)

1. The Affidavits and Annexure 'B': be enclosed by the bidder regarding Qualification of RTPP Act-2012 & Rule-2013 along with Bid document, should be signed by the participating bidders before uploading the tender document otherwise the Bid of the bidder will be rejected.
2. In case of single Bid system Annexure 'B': be enclosed by the bidder regarding Qualification of RTPP Act-2012 & Rule-2013 along with Bid document, should be signed by the participating bidders before uploading the tender document otherwise the Bid of the bidder will be rejected.

This will be enforced with immediate effect.


 Director Engineering-I
 JDA, Jaipur

Copy to:-

1. Director (Engineering-I/II/III/IV), JDA, Jaipur.
2. Director (Finance), JDA, Jaipur.
3. C.F. JDA, Jaipur.
4. All Additional Chief Engineers, JDA, Jaipur.
5. All Superintending Engineers, JDA, Jaipur.
6. All Executive Engineers, JDA, Jaipur for include this in every bid instead of previous condition.
7. O.S.D. (RM)/A.D.R., JDA, Jaipur.
8. Sr. Horticulture, JDA, Jaipur.
9. Sr. A.O., JDA, Jaipur.


 Director Engineering-I
 JDA, Jaipur

C:\Users\Admin\Desktop\Office Order Letter Head-English UO Note 2022.docx

Ram Kishor Vyas Bhawan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur-302004
 Direct Line- {+91-141-2563234} : EPABX - +91-141-2569696 Extn : {7203} : Fax - +91-141-2574555

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JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

No. JDA/Ex.En. (IA to Dir. Engg.-I)/2015-16/D- 274

Dated: 31/6/15

Office Order

Subject:- Amendments in provisions of tendering for single bid and two bid systems.

As per the decision taken in the 195th meeting of Executive Committee held on 22.05.2015 w.r.t. agenda no. 195:18 part 'A' related to amendments in provisions of tendering for joint venture. Following decision has been taken :-

Joint Venture limit and conditions

Procedure	Existing Procedures available due to issuance of order vide JDA/Ex.En-Pr 5& TA/2013/11-43 dated 27/02/2013	As per approve in E.C. held on 22.05.2015
Joint Venture	अधिकांश में निविदा में Joint Venture हेतु कोई स्पष्ट मापदण्ड नहीं है। वर्तमान परिधि में 300 करोड़ रुपये से अधिक की निविदा में Joint Venture लागू किया जाता है। इसके अलावा Joint Venture विशिष्ट प्रकृति के कार्य में ही समान स्वीकृति उपलब्ध लागू किया जाएगा, जिसकी लागत 300 करोड़ रुपये से कम भी हो सकती है।	The revision in Joint Venture limit from Rs. 3.00 crore. to Rs. 10.00 crores and its conditions were approved. It was also decided that in case joint venture is invited for works costing less than Rs. 10.00 crores, a committee comprising of Director (Engg.), Director (Finance) and Additional Chief Engineer (concerned) be authorized to give necessary approval for the same.

This order shall come in force with immediate effect and henceforth will be applicable on all the bids being issued after issuing of this order.

Conditions of Joint venture shall be as follows:-

In case the bidder comprises a joint venture or consortium, following requirements shall also be complied with:-

- The total number of J.V. partners shall not exceed 2 (Two). They must designate lead partner duly authorized by all the members who will represent the J.V. Any of the two partners can be lead partner. The lead partner shall be nominated as being partner-in-charge and this authorization shall be evidenced by submitting power of attorney signed by the legally authorized signatories of all the partners.
- The partner-in-charge (or, the lead partner) shall be authorized to incur liabilities and to receive instructions on the behalf of the partners of the Joint Venture, whether jointly or separately, and entire execution of the contract (including payment) shall be carried out exclusively through the partner-in-charge.
- The share of one of the two partners shall not be less than 26% and rest of the share shall be held by other partner (For example if share of one partner is 26% then for other partner it will be 74%). The JDA will only send communication to the lead partner, which will be deemed to have been sent to all the J.V. partners. Similarly, any negotiation and / or agreement with the lead partner shall be deemed to have been concluded with all the J.V. partners. All the members of J.V. shall be bound by the said communication and all acts/deeds of the lead member.
- Any one of the two partners, alone, should fulfill the Technical Criteria. Similarly, any one of the two partners, alone, should fulfill the Financial Criteria. For rest of the eligibility criteria, qualifications of the two partners may be clubbed together.
- The individual partner of J.V. alone or with other partners cannot participate in the same bid.
- Bid capacity is to be calculated by clubbing turn over and work in hand of all the joint venture firms.

3. Attested copy of the MoU/Agreement/power of attorney entered into by the joint venture/consortium members duly notarized, shall be submitted along with the bid with intended percentage participation nomination of lead member and division of responsibility to clearly define the work of each member etc.
 - h. All the members of the joint venture/consortium shall be jointly and severally liable for the execution of the Contract.
 - i. In the event of default by any member of the joint venture/ consortium in the execution of his part of the contract, the partner-in-charge will have the authority to assign the work to any other party acceptable to the employer to ensure the execution of the part of contract.
 - j. If initially the bid has purchased and submitted by the any partner or by the JV firm, in case of JV bid accepted the work order will be issued in favour of name of JV and the bidder will submit details of JV bank account to which payment is to be deposited by JDA.
 - k. The experience certificate will be issued as per percentage of the shareholders defined in the JV agreement of the two partners.
- Any change in these conditions can be made after due approval from competent authority i.e. EC.

SD -
Director (Engineering-I)
JDA, Jaipur

Copy to following for information and necessary action:-

1. P.O. to JDC, JDA, Jaipur.
2. L.O. to Secretary, JDA, Jaipur.
3. Director Engineer I/II, JDA, Jaipur.
4. Director (Engrg.), JDA, Jaipur.
5. C.E., JDA, Jaipur.
6. All Add. Chief Engineers, JDA, Jaipur.
7. All Superintendent Engineers, JDA, Jaipur.
8. OSD (RM), JDA, Jaipur.
9. Additional Director (REV.&DP.)
10. CAO (P&A) JDA, Jaipur.
11. Sr. Horticulturist, JDA, Jaipur.
12. All Executive Engineer, JDA, Jaipur.
13. DD (L&B) JDA, Jaipur.
14. All AOs, JDA, Jaipur.
15. All AACOs, JDA, Jaipur.
16. System Analyst
17. All Contractors' Association, JDA, Jaipur.
18. Guard file

Sd/-
S.E. & TA to Dir. (Engg.-I)
JDA, Jaipur

JAIPUR DEVELOPMENT AUTHORITY,JAIPUR

Name of work - Construction of Elevated Road From Sanganer flyover to near Malpura Gate via Choradiya Petrol Pump in Zone-8 JDA Jaipur

G-Schedule

S.No.	Particulars	Unit	Qty	Rate	Amount
1	Dismantling of Flexible Pavements Dismantling of Flexible Pavements and disposal of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per MoRD Specification Clause 202 By Manual Means Granular Courses	Cum	3674.45	198.00	727540.70
2	Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per MoRD Specification Clause 202 By Mechanical Means Bituminous Courses	Cum	2449.63	115.20	282197.61
3	Earth work in excavation in foundation, trenches etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/ foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level. In all types soils/ saturated soil such as moorum, sand, sandy silt, clay, black cotton soil, kankar, etc. Depth upto 1.5m	Cum	20177.674	169.00	3410026.91
4	Add extra for over all depth of excavation above 1.5 m and upto 3.0 m over item no 4.9.1.1	Cum	4359.514	25.50	111167.61
5	CARRIAGE OF MATERIALS (By Mechanical Means) Remarks : The rates will be applicable to net quantities after deduction of percentage for voids mentioned in the specification under subhead "Carriage of Materials" Carriage of Materials by mechanical transport including loading, unloading and stacking :: Earth ,Rate for Lead 5 Km	Cum	32901.754	88.98	2927598.07
6	Providing, laying and compacting plain/ reinforced cement concrete of specified grade in foundation/ leveling course/ pile cap using concrete mixer and vibrater complete including cost of form work, as per drawing and technical specifications and as per clause 1100, 1500,1700,2100 of MoRT&H specification including all scaffolding material, labour, machinery. PCC Grade M-15	Cum	1117.254	3840.00	4290255.36
7	Bored cast-in-situ R.C.C. pile with design mix concrete using batching plant, transit mixer and concrete pump, excluding reinforcement complete as per drawing and technical specifications and removal of excavated earth with all lifts and lead upto 1000 m. as per clause 1100, 1600 & 1700 of MoRT&H Specification including all material, labour and machinery. 1200 mm dia pile,RCC Grade M -35 (Design mix)	Mtr	19725.000	9850.00	194291250.00
8	Providing, laying and compacting design mix plain/ reinforced cement concrete of specified grade in foundation/ leveling course/ pile cap using batching plant, transit mixer and concrete pump and vibrater including cost of form work, complete as per drawing and technical specifications as per clause 1100, 1500,1700,2100 of MoRT&H specification including all material, labour, machinery, and maintenance of diversion , RCC Grade M -35	Cum	11762.820	5100.00	59990382.00
9	Providing, laying and compacting design mix plain/ reinforced cement concrete of specified grade in foundation/ leveling course/ pile cap using batching plant, transit mixer and concrete pump and vibrater including cost of form work, complete as per drawing and technical specifications as per clause 1100, 1500,1700,2100 of MoRT&H specification including all material, labour, machinery, and maintenance of diversion RCC Grade M -25	Cum	1125.000	5010.00	5636250.00
10	Providing and laying TMT bar reinforcement at any level in foundation/ pile/ pile cap complete as per drawing and clause 1600 of MoRT&H Specification including all material, labour and machinery.	Tonne	4909.244	64600.00	317137162.40
11	Providing structural steel liner upto 10mm thickness for curbs, steining for wells and piles including fabricating and setting out as per detailed drawing as per clause 1200 & 1900 of MoRT&H specification including all material, labour and machinery.	Tonne	216.000	71600.00	15465600.00
12	Providing and laying structural plain/ reinforced cement concrete (design mix) of specified grade in substructure at all levels using batching plant, transit mixer, concrete pump and vibrater including cost of form work complete as per drawing and clause 1500, 1700 and 2200 of MoRT&H specification including all scaffolding, material, labour, machinery etc. RCC Grade M -40	Cum	8293.407	5620.00	46608947.34
13	Providing and laying structural plain/ reinforced cement concrete (design mix) of specified grade in substructure at all levels using batching plant, transit mixer, concrete pump and vibrater including cost of form work complete as per drawing and clause 1500, 1700 and 2200 of MoRT&H specification including all scaffolding, material, labour, machinery etc. RCC Grade M -25	Cum	519.750	5460.00	2837835.00
14	Supplying, fitting and placing TMT bar reinforcement in sub tonne structure/ superstructure at all level complete as per drawing and clause 1600 & 2200 of MoRT&H Specification including all material, labour, machinery etc.	Tonne	7945.508	65700.00	522019875.60

S.No.	Particulars	Unit	Qty	Rate	Amount
15	Supplying, fitting and fixing in position true to line and level POT-PTFE bearing consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel/fabricated structural steel, metal and elastomer elements to be as per IRC: 83 part-I & II respectively and other parts conforming to BS: 5400, section 9.1 & 9.2 and clause 2006 of MoRT&H Specifications complete as per drawing and approved technical specifications and as per clause 2000 & 2200 of MoRT&H Specification including all scaffolding, material, labour, machinery etc.	Tonne	156600.000	308.00	48232800.00
16	Providing and laying structural reinforced/ prestressed cement concrete (design mix) of specified grade using batching plant, transit mixer, concrete pump and vibrator in superstructure at all levels including cost of steel form work complete as per clause 1500, 1600 and 1700 of MoRT&H specification including all scaffolding, material, labour, machinery etc. RCC/PSC Grade M -50 For box girder/ voided slab and balanced cantilever	cum	28680.512	7830.00	224568408.96
17	Providing and laying structural reinforced/ prestressed cement concrete (design mix) of specified grade using batching plant, transit mixer, concrete pump and vibrator in superstructure at all levels including cost of steel form work complete as per clause 1500, 1600 and 1700 of MoRT&H specification including all scaffolding, material, labour, machinery etc. RCC/PSC Grade M -40,For solid slab superstructure	Cum	353.316	6160.00	2176426.56
18	"Fabrication, Welding, Riveting, bolting by HSFG bolts wherever required, supply, transportation to site, Assembling, Launching, Erecting of steel girder spans as per drawings and specifications approved by Railway and department for composite construction i.e. (Steel +RCC) of superstructure of the Road Over Bridge with contractor's own mild steel conforming to IS: 2062 Grade 250(B) with all welds, rivets, nuts bolts rivet materials, weld materials, HSFG bolts, service bolts, with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per where necessary in proper level and alignment and as per technical specifications etc. with contractor's own materials, fabrication, machinery, templates, fixtures, equipments tools and plants, transportation to site, skilled/ unskilled labour, excise duty., Octroi, sales tax and other taxes, all leads and lifts, descent, loading, unloading, crossing one or more Railway track if required etc. complete and as per technical specifications. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before their assembly. The structural steel to be used should be manufactured by SAIL/ RINL/ ISCO/ ESSAR/ JINDAL only. For Painting prior approval for superior brand/ make of the paint should be taken from engineer in charge." "The rate shall be inclusive of supply, erection and dismantling of staging and scaffolding and other temporary arrangements required for the purpose of assembly, erection and launching of girders. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before/after their assembly." "Metalising girder/ girder component such as cross girder, top chord hannels, bracing etc of BG new steel girder as directed by engineer with epoxy paint spray not less than two layers after preparing surface by sand/grit blasting as per provision laid in Appendix VI of IRS B-1179 code (latest alteration) including one coat wash primer one coat epoxy zinc prime primer and two coat of epoxy paint with approved paint conforming to IS specification for fabrication & erection of steel girder bridges (IS B 1 170) as corrected up to date	kg	883040.000	136.00	120093440.00
19	Add extra over item of Composite steel girder (RUIDP SOR itemno.14.16) for Using IS:2062 Grade 350(B) grade steel instead of IS:2062 Grade 250(B)	kg	883040.000	6.00	5298240.00
20	Erection/Launching of precast Girders/precast box Girders on place by suitable method as per approved by Engineer Incharge. The detailed methodology to be submitted by agency including transportation of the girder from the casting / stacking yard, lifting of the girder. The rate includes the cost of operation of Launching equipments and it's appurtenances, secondary cranes required, and TPS Beams etc complete.	Cum	28478.500	6718.00	191318563.00
21	Providing and laying High tensile steel wires/ strands at any level including all accessories for stressing, stressing operations and grouting complete as per drawing, technical specification and as per clause 1800 of MoRT&H Specification.	Tonne	761.238	147900.00	112587100.20
22	Providing and laying structural Reinforced cement concrete (design mix) of specified grade using batching plant, transit mixer, concrete pump and vibrator in approach slab, friction slab, edge beam, footpath and kerb as per approved drawing and specification as directed by the Engineer as per clause 1500 & 1700 of MoRT&H specification including all scaffolding, material, labour, machinery etc RCC M-35	Cum	1017.275	6340.00	6449523.50
23	Providing, laying and fixing of strip seal expansion joint catering to maximum horizontal movement upto 70 mm complete as per approved drawings and as per clause 2600 of MoRT&H specifications to be installed by manufacturer's authorized representative ensuring to compliance to manufacturer's instruction for installation including preparing the edges of bridge, welding to exposed reinforcement, concreting with design mix of grade of bridge or M-35 whichever is richer including all material, labour, machinery etc complete.	R Mtr	1086.400	9060.00	9842784.00
24	Providing and constructing of Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with specified grade concrete using batching plant, transit mixer, concrete pump and vibrator with 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design and dimensions in the approved drawing and at locations directed by the Engineer, all as specified as per clause 809 of MoRT&H specification including all material, labour scaffolding etc. RCC M-40	cum	2426.110	6170.00	14969098.70
25	Providing and fixing G.I. Pipes railing of 80 mm dia. (Class B) over brackets of 16 mm thick MS plate with 200 mm at bottom & 120 mm at top with 200 mm height welded to 16 mm thick MS Plates of size 200 X 175 anchored with 400 mm long 4-12 mm dia. steel bars at the top of RCC crash barrier @ 1.0m c/c including fixing arrangement as per the drawing, clause 800 of MoRTH specification and as per the direction of the Engineer.	R Mtr	7826.160	1170.00	9156607.20

S.No.	Particulars	Unit	Qty	Rate	Amount
26	Non destructive Integrated testing of cast-in-situ pile using pile deriving analyzer or equivalent as detailed in specification and as approved by Engineer.	Each	789.000	1650.00	1301850.00
27	Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC/Railway codes with contractor's labour, deflection measuring instruments, loading materials, recoding and analyzing the load testing results including all lead & lift, etc. complete as required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges /loading material etc. The load shall be 1.25 times the stipulated design load Based on Design load & not span (Load = 200 T) For span design load upto 100 MT.	Per test	4.000	220000.00	880000.00
28	Extra for increase of 100 MT or part thereof in the span load capacity upto 800 MT.	Per 100 T Per test	4.000	27500.00	110000.00
29	Providing, fixing, maintaining, shifting & refixing, barricading of minimum 2.0 mtr height at stipulated active site of the same project site, made with angle iron frame of 50x50x5mm and GI sheet of 0.63mm thick including primer painted initially, painting, lettering & border with reflective paint at the time of every shifting, traffic diversion arrangement, safety guard, suitable lightning arrangement during night, complete in all respect till completion of the project as per technical specification and direction of Engineer-In-charge and same shall be possessed by the contractor after completion of the Project.Payment under this item will be released (1) 50% At the time of Providing new barricading at the time of start of project at location and plan as approved by the Engineer & certification (2) 50% After completion of project including shifting re-erecting and maintaining the barricading in position, during entire construction tenure with requisite manpower /flagman etc. complete for guiding traffic and safety etc and dismantling after completion of project.	sqm	5200.000	2650.00	13780000.00
30	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion pressure distributor at the rate of 0.30 to 0.35 kg per sqm on the prepared non-bituminous surfaces (cement concrete pavement) cleaned with Hydraulic broom as per MoRD Specification Clause 503	sqm	34250.000	12.60	431550.00
31	Low porosity Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per MoRD Specification Clause 502	sqm	15406.900	31.50	485317.35
32	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & cleaned with Hydraulic broom as per MoRD Specification Clause 503.	sqm	15406.900	10.80	166394.52
33	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.20 to 0.25 kg per sqm on the prepared bituminous surface cleaned with Hydraulic broom as per MoRD Specification Clause 503	sqm	116993.500	9.00	1052941.50
34	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared dry and hungry bituminous surface cleaned with Hydraulic broom as per MoRD Specification Clause 503.	sqm	61455.000	10.80	663714.00
35	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H Specifications Clause 507 complete in all respects. For Grading II (19 mm nominal size) In MT	Tonne	5869.860	2722.50	15980693.85
36	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H Specifications Clause 507 complete in all respects. For Grading I (40 mm nominal size) In MT	Tonne	814.387	2511.00	2044925.76
37	Providing and laying 25 mm thick bitumen mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500-29 (including cost of anti-stripping compound wherever required) @ 14-17% (by weight) as per job mix formula, coarse aggregate as per Table 500-32, fine aggregate as per Table 500-31 and lime stone powder as filler, prepared by using mastic cooker and laid to required level and grade after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size @ 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 degree Centigrade, protruding 1 mm to 4 mm over mastic surface, all complete including all material, labour, machinery, lighting, guarding and maintenance of diversion complete as per clause 515 of MoRT&H specification.	sqm	44013.500	544.00	23943344.00

S.No.	Particulars	Unit	Qty	Rate	Amount
38	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT & H Specifications Clause 509 complete in all respects for Grading-II (13 mm nominal size) Bitumen (VG-30)	Tonne	10143.493	2934.00	29761008.46
39	Designing, providing and erection of Precast RCC fascia panels of thickness 180mm made with M-35 Grade concrete batching plant, transit mixer, concrete pump and vibrater for retaining plant, transit mixer, concrete pump and vibrater for retaining earth with all elements and accessories including reinforcing element, complete as per approved drawing and clause 3100 of MoRT&H specifications including all material, labour, machinery etc. (Scope of work includes designing, getting approval, casting in yard including reinforcement, curing, storing, transporting, lifting, placing in position, erection with all necessary fasteners etc complete)	sqm	6902.500	4620.00	31889550.00
40	Providing, placing and compacting to desired density approved backfill material in layers as per approved methodology including testing for reinforced fill portion and random fill portion in the approaches between the Reinforced Soil (RS) Wall panels as per approved drawings as per clause 3103 of MoRT&H specification The soil should be predominately coarse grained not more than 10% of particle should pass 75 micron sieve The item shall be measured and paid for the finished volume of backfill and sub-grade placed in position excluding the volume of filter media at base and behind the RS walls.	Cum	18159.898	383.00	6955240.93
41	Providing and laying of Filter media with granular requirements laid down in clause 2504.2.2. of MoRT&H specifications with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and technical specification including all material, labour, machinery as per clause 710.1.4 of IRC:78 and clause 2200 of MoRT&H specification.	Cum	4614.000	1150.00	5306100.00
42	Providing and fixing steel gate, 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	kg	10000.000	66.60	666000.00
43	Construction of embankment with approved material obtained from borrow pit with all lifts and leads, transporting to site, spreading, grading to required slope and compacting by vibratory roller 8-10 tonne to meet requirement of table 300-2 including cost of compensation for earth taken from private land complete as per MoRT&H specification clause 305. (Lead taken upto 5 km)	Cum	2203.450	196.00	431876.20
44	Construction of granular sub-base by providing well graded material, spreading in uniform layers with Tractor Mount Grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per MoRD Specification Clause 401. For Grading I Material	Cum	3081.380	400.50	1234092.69
45	Wet Mix Macadam Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and MoRD Specification Clause 406. By Mechanical Means with 1 km lead	Cum	3940.625	1071.00	4220409.38
46	Pavement milling (cold planning, asphalt milling, or profiling) of existing all kinds of bituminous surfaces (Mastic, DBM, BC, SDBC, SMA, PMC etc.) with specially designed equipment up to the specified depth of bituminous layer as per designed level & grade, including disposal of milling material with all lead (minimum 20 km from site) and lift complete as per specification. The surface shall be free of bumps, ruts, and other imperfections including the arrangement of traffic diversion if required. Milling material recovered, shall be loaded directly onto trucks/trolleys from the milling machine & shall be the property of the contractor. The milled road surface shall be swept clean prior to opening to traffic. The milling machine is power-operated, self-propelled, and self-sufficient in power, traction, and stability to remove a thickness of BT surface to a specified depth. The machine should be able to provide a specified depth. The machine should be able to provide a uniform profile and cross slope, and capable of accurately and automatically establishing profile grades along each edge of the machine by referencing from the existing pavement without damaging the bottom CC surface if any. The machine should have an automatic system for controlling grade elevation and cross slope etc.	Cum	5768.200	900.00	5191380.00
47	Providing and laying marking of center line and stop line etc surface, including reflectorising glass beads @ 250 gms per sqm area with special applicator machine, as per IRC:35 including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control involved. The finished surface to be level, uniform and free from streaks and holes as per clause 803 of MoRT&H Specification including all material, labour, machinery, lighting, guarding and maintenance of diversion.	sqm	4761.321	803.00	3823340.76

S.No.	Particulars	Unit	Qty	Rate	Amount
48	Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 3 metre long and size 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including all material, labour. 90 cm equilateral triangle	Each	80.000	4130.00	330400.00
49	Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 3 metre long and size 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including all material, labour. 60 cm circular	Each	30.000	3660.00	109800.00
50	Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 3 metre long and size 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including all material, labour. 90 cm high octagon	Each	20.000	6390.00	127800.00
51	Providing and erecting direction and place identification retro- reflectorised sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting 2 mm thick framed to angle iron 40x40x5mm with area exceeding 0.9 sqm supported on two nos mild steel angle iron post 75 mm x 75 mm x 6 mm, firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including all material, labour.	sqm	150.000	9650.00	1447500.00
52	Supplying & Installation of Solar Raised Pavement Markers made of polycarbonate molded body with circular shape, solar powered, LED self illumination in active mode, 360 degree illumination and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face in passive mode. The marker shall support a load of 20000 kg jested in accordance to ASTM D 4280. The marker should be resistant to dust and water ingress according to IP 65 standards and should withstand temperatures in the range of 0C to 70 C. Color of lighting could be provided in red or yellow (amber) as per requirement and typical frequency of blinking is 1 Hz. There should be current losses of less than 20 micro-amperes at 2.4 V in sleep-charging mode to enhance the life of the marker and a full charge should provide for a minimum autonomy of 50 hours. The height, width and length of the marker shall not be less than 10 mm X 100 mm X 100 mm. Also the surface diameter of the marker shall not be less than 100 mm respectively. The weight of the marker shall not exceed 0.5 Kilograms. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacture's recommendation and complete as directed by the engineer. (manufactured from 3M or equivalent)	Each	350.000	2151.00	752850.00
53	Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings.	Each	40.000	1080.00	43200.00
54	Providing and fixing "SWISS" type bollard 134cm height made out of 1.25mm thick M.S. sheet welded in conical section having upper dia 15cm and lower dia 20cm with another attachment of mandatory 7mm thick plate and fixed with the help of 7cm long, 30cm dia chrome plated MS tube, this part is fixed on the body with another attachment of a cap 30x7cm, whole body is painted in black stove enamel and mandatory plate in azure blue with one compulsory keep left arrow with 10mm border reflective strip each of 7.5cm on body complete in all respect including all material, labour, diversion.	Each	22.000	1480.00	32560.00
55	Providing and fixing SWISS type hazard marker made out of 2mm thick M.S. sheet size of box is 15x15cm with hold fast at bottom whole body is painted in white stoving enamel paint with white/ high intensity grade prismatic type sheeting on all four side complete in all respect including all material, labour, and diversion	Each	50.000	679.00	33950.00
56	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	kg	12500.000	88.50	1106250.00
57	SITC of Crystal control Solar Road warning Blinker system with solar panel module with 300mm LED Module of minimum 190 Nos., Blinker Units, Charging circuit, suitable SMF Rechargeable Battery (12 Volt), including wiring, connections etc. complete in all respect	Each	20.000	13100.00	262000.00
58	Providing & fixing Dual directional reflective cat eye of aluminum casted stud 100*100*20mm having plastic ABS strip/containing 43x2=86 mini retro-reflective glass beads of color white/red/yellow a side provided with steel zinc plated nail of dia 12mm of length 120mm OR shank for fixing to road by hammering. Also use vicro, 3m epoxy	Each	5000.000	198.00	990000.00

S.No.	Particulars	Unit	Qty	Rate	Amount
59	Providing cutting, hoisting and fixing in position including fabrication of 4mm thick aluminium composite panel sheet (ACP) made of two aluminium sheet of 0.50mm thick each having a distance of 3.00mm filled with rubber polymer to the entire satisfaction of engineer in charge confirming to various concerned ASTM standards includes nuts and bolts/ riveting	Each	95.000	1180.00	112100.00
60	Supplying and fixing of micro prismatic retro reflective sheeting confirming to type XI of ASTM D4956, shall be pressure fixed to the full face of the ACP sheet as back ground sheet (in approved colour) and the top layer will be overlaid with electro cut transparent film of approved make and colour to create the desired road sign including cutting, cleaning and pasting etc. Complete as per design, drawing and direction of engineer in charge. (Payment shall be made for flat area of sheet), Make 3M/Avery Dennison or equivalent as approved by EIC, Confirming to type XI of ASTM D4956	Each	95.000	4620.00	438900.00
61	Providing at site, lowering & laying in trenches, aligning & jointing of RCC pipes NP3 class (with s/s ends) IS: 458 - 1988 (amended up to date) marked and pipes 900 mm manufactured through vertical casting process at all depths with Rubber gaskets (EPDM/SBR) for sewer lines as per IS: 5382 (including cost of Rubber gaskets, lubricants) as per drawing, sectional hydro testing of the sewer pipe line (including cost and conveyance of water to site for testing) etc., complete as per specification and / or as directed by Engineer. Note : E/w to be measured and paid separately	R Mtr	300.000	5020.00	1506000.00
62	Painting two coats on specified surface with synthetic enamel paint of approved brand and shade, after thorough cleaning and necessary filling to give even shade as per clause 803 of MoRT&H Specification including all material, labour. On new plastered concrete surface	sqm	19057.520	83.00	1581774.16
63	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade. New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. Over and including base coat of water proofing cement paint applied @ 2.20 kg/ 10 sqm).	sqm	77645.520	90.50	7026919.56
64	Providing, laying and jointing of 200 mm diameter RCC S&S NP-4 pipes ISI Marked conforming to IS:458:1988 (Amended up to date) with anticorrosive bitumenastic paint of approved brand (2 or more coats) and make shalimar or equivalent) with ISI marked rubber ring/gasket lubricant etc including P/1 10 cm thick and 46 cm wide granular bedding with graded hard crusher broken stone aggregate 20 mm (nominal size) bedding and haunching upto 1/4 of outer diameter of pipe of sewer and laying RCC S&S pipes confirming to IS: 783: 1995 (Amended up to date) with hydraulic testing of sewer line including cost of water and equipment required for testing. The work includes earth work in all type of soil such as murrum, sand, sandy silt, black cotton soil, hard soil, kankar etc. including disposing off surplus excavated material within a lead of 50 meter including cost of close timbering beyond 1.50 meter average invert depth, shoring and strutting and refilling of trenches with excavated material, watering and ramming in layers as per PWD specifications complete in all respect and as per direction of Engineer-in-charge for following average invert depths: At av. Depth 3.0 meter [From 3.00 m to 3.29 m]	R Mtr	300.000	731.00	219300.00
65	Providing Laying and Jointing of 250mm dia RCC S&S Class NP-2 ISI marked pipe with anti corrosive bitumen paint of approved brand (two or more coats) (IS458:1988) amended upto date) approved make with ISI marked rubberring /gasket lubricants etc. with 10 cm thick and 45 cm wide plain cement concrete 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size) bedding and haunching up to ¼ of outer dia of pipe of sewer and laying RCC S&S pipes conforming to IS:783-1995 (Amended upto date) with hydraulic testing of sewer line including cost of water and equipment for testing. The work includes earthwork in all types of soil such as murrum, sand, silt, black cotton soil, kankar etc. disposing off surplus excavated material within a lead of 50 meter including cost of close timbering shoring & strutting and then refilling of trenches with excavated material, watering and ramming barricading along trenches as per drawings & specification complete in all respect and as per direction of Engineer incharge for following average invert depths. At av. Depth 3.0 meter [From 3.00 m to 3.29 m]	R Mtr	300.000	729.00	218700.00
66	Providing Laying and Jointing of 250mm dia RCC S&S Class NP-2 ISI marked pipe with anti corrosive bitumen paint of approved brand (two or more coats) (IS458:1988) amended upto date) approved make with ISI marked rubberring /gasket lubricants etc. with 10 cm thick and 45 cm wide plain cement concrete 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size) bedding and haunching up to ¼ of outer dia of pipe of sewer and laying RCC S&S pipes conforming to IS:783-1995 (Amended upto date) with hydraulic testing of sewer line including cost of water and equipment for testing. The work includes earthwork in all types of soil such as murrum, sand, silt, black cotton soil, kankar etc. disposing off surplus excavated material within a lead of 50 meter including cost of close timbering shoring & strutting and then refilling of trenches with excavated material, watering and ramming barricading along trenches as per drawings & specification complete in all respect and as per direction of Engineer incharge for following average invert depths. At av. Depth 3.3 meter [From 3.30 m to 3.59 m]	R Mtr	300.000	789.00	236700.00

S.No.	Particulars	Unit	Qty	Rate	Amount
67	Earth work for Sewer line and Manhole in excavation in foundation, trenches manholes, road side chambers etc. including dressing of sides and ramming of bottoms, including getting out the excavated material, refilling after laying pipe/ foundation and disposal of surplus excavated material at a lead upto 50m suitable site as per direction of Engineer for following depths, below natural ground / Road top level including allowances for any additional excavation beyond the drawings (measurements for payment to be as per standard drawings), re-handling of material/earth to complete the task. In all types soils/ saturated soil such as moorum, sand, sandy silt, clay, black cotton soil, kankar, etc. Depth upto 1.5 m	Cum	2880.000	203.00	584640.00
68	Add extra for over all depth of excavation above 1.5 m and upto 3.0 m over item no 4.9.1.1	Cum	1080.000	30.50	32940.00
69	Add extra for over all depth of excavation above 3.0 m and upto 4.5 m over item no 17.1.1.1	Cum	1080.000	65.50	70740.00
70	Providing and fixing CLOSE timbering in trenches of sewer line and manholes including strutting, shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered) for following depth below NGL. Depth more than 3.0 m and upto 6.0 m	sqm	900.000	123.00	110700.00
71	Providing and laying granular bedding in layers of not more than 15cm thick, for bedding having width = outer dia of pipe (Bc) + 500mm, thickness below pipe = 0.25Bc or 100mm (whichever is higher), haunching = 0.5Bc and reinforced cement concrete M15 grade (using mechanical concrete mixer) with 1% steel reinforcement) using 20mm graded hard crusher broken stone aggregate to cover pipe having width = outer dia of pipe (Bc) + 200mm or 1.25Bc (whichever is higher), thickness over pipe = 0.25Bc or 100mm (whichever is higher) for all type of pipes of following sizes, including reinforcement, compaction, curing, form work, etc complete as per drawing and/ or as directed by Engineer. 900 mm diameter	R Mtr	300.000	6520.00	1956000.00
72	Supplying & fixing 560mm dia SFRC manhole frame & cover as per IS : 12592-2002 in existing manholes including grouting the frame in PCC M-15 complete in all respect as directed by the Engineer. EHD-35	Each	10.000	2187.00	21870.00
73	Constructing of RCC M-20 grade cast-in-situ circular manhole chamber for 900 mm & 1000 mm internal dia pipe size up to invert depth from 1.80 meter and above. Manhole chamber having 2000 mm internal diameter including required excavation of earth in all types of soils such as murrum, sand, silt, black cotton soil, hard soil, kanker and sinking of chamber silt, black cotton soil, hard soil, kanker and sinking of chamber etc. disposing of surplus excavated material within a lead of 500 meter. The work includes laying of 300 mm thick Cement Concrete in M-20 grade in 2500 mm diameter bedding in foundation, M-20 cement concrete for benching and channel portion and RCC wall in thickness of 150 mm. The work also includes RCC M20 for 250 mm thick cover slab with vata in CM1:1 around pipe entering and leaving the manhole, including form work, curing, watering, hydro testing of manhole, conveyance & cost of water, dewatering etc. complete job as per detailed specifications, drawings and directions of Engineer-in-charge, for following average invert depths: Note: Steel, foot steps & SFRC manhole frame with cover shall be paid separately as per actual. At av. Depth 3.3 meter [From 3.30 m to 3.59 m]	Each	10.000	39953.00	399530.00
74	Providing, fixing and constructing of pre-cast RCC M-40 grade circular manholes with internal dia 1.5m and up to specified depth having pre-cast RCC M-40 grade circular manhole cover frame (ID 0.56m, OD 0.86m, height 0.20m), conical piece (top ID 0.56m, bottom ID 1.5m, vertical height 1.105m, wall thickness 125mm) having steel reinforcement in all pieces of manhole @ not less than 80 kg per cum of concrete. The work includes laying of 150mm thick plain cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size) 2100 mm dia bedding in foundation, providing and laying of plain cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate) in channel & circular starter base wall up to 50 mm above outer dia of sewer pipe and the work includes P&F pre-cast reinforced cement concrete eccentric conical piece fitted with heavy duty SFRC ring & cover and fixing of Ferro-cement foot steps and sealing of all joints with cement mortar 1:1 complete job as per detailed specifications, drawings and directions of Engineer-In charge. Note:- Excavation of earth work and road cutting for manhole will be measured and paid separately.	Each	30.000	17946.00	538380.00
75	Providing and fixing of reinforced Ferro-Cement drain covers designed for 'AA' class loading duly marked on cover with adequate steel reinforcement having thickness 75mm to 150mm anti corrosive bitumen painted M.S. plate , Rim and M.S. lifting hooks, Admixtures like plasticizer, bond improving compound, shrinkage, resistance compound, abrasion resistant Standard Size 1500x600mm for span 701 to 1200mm	Each	90.000	1500.00	135000.00
76	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per MoRD Specification Clause 302.3	cum	6600.000	26.10	172260.00
77	Providing and fixing pre-cast RCC M-40 grade circular ring of dia 1.5m, height 300/225/ 150 mm as per drawing and direction of Engineer.	R Mtr	90.000	8541.00	768690.00

S.No.	Particulars	Unit	Qty	Rate	Amount
78	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. Thermo-mechanically Treated bars (Conforming of relevent IS code	kg	3500.000	62.10	217350.00
79	Providing and fixing reinforced concrete precast kerb stone or dand R.Mtr of M-20 grade cement concrete 120 cm long having 4 Nos. bars of 8 mm dia hysd and stirrups 6 Nos of 6 mm dia as per IS with in built provision of interlocking of jointing and lifting compaction of reinforced concrete by mechanical and table vibrators jointing at site with cement mortar 1:4 complete in all respect as directed by Engineer incharge on: 100 mm thick cement concrete 1:4:8 (1 Cement : 4 Coarse sand : 8 stone aggregate 20 mm thick nominal size) including excavation of earth and cutting of BT road cutting of WBM road etc. and disposal of surplus material with all lead and lift. The size of kerb shall be (11.5+16.5)/2*30+(16.5*7.5)	R Mtr	8000.000	617.00	4936000.00
80	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical specifications and as per direction of Engineer. 150mm	R Mtr	1000.000	1440.00	1440000.00
81	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical specifications and as per direction of Engineer. 200mm	R Mtr	400.000	2160.00	864000.00
82	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical specifications and as per direction of Engineer. 250mm	R Mtr	400.000	2390.00	956000.00
83	Providing, lowering, laying in trenches, aligning, fixing in position and jointing Ductile Iron (DI) ISI marked K-7 grade S&S pipes as per IS:8329-2000 (amended upto date), with internal cement mortar lining for potable water with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 (excluding special accessories) complete including all material, labour, hydraulic testing and commissioning as per Technical specifications and as per direction of Engineer. 300mm	R Mtr	200.000	3010.00	602000.00
84	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/ depths S&S standard specials with rubber ring (EPDM/SBR) joints as per IS: 5382-1985 such as tees, bends, tapers, caps etc. within trenches in DI pipe line complete including all material, labour, testing and commissioning along with pipe line as per Technical Specifications and as per direction of Engineer.Specials S&S DI K-7 Upto 300mm	kg	5000.000	131.00	655000.00
85	Providing and erecting Drainage Spouts with 0.15m long GI pipe 150mm dia and GI bolt 10mm dia with Galvanised MS flat clamp complete as per drawing and Technical specification as per clause 2705 of MoRT&H specifications including all material, labour, machinery etc.	Each	1282.000	862.00	1105084.00
86	P&F rigid PVC Pipe (IS:4985 mark) class II/ (4 Kg. /Cm2.) approved quality /make including joining the pipe with solvent cement rubber ring and lubricant. 160 mm dia	R Mtr	11000.000	225.00	2475000.00
	Electrical				
87	P/Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand,1IInd class bricks covering, refilling earth,compaction of earth, making necessary connection, testing etc. as required of size. 10.0 Sq.mm Group-1 2 core	R Mtr	29300.000	136.00	3984800.00
88	P/Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand,1IInd class bricks covering, refilling earth,compaction of earth, making necessary connection, testing etc. as required of size. 16.0 Sq.mm Group-1 4 core	R Mtr	23000.000	175.00	4025000.00
89	P/Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand,1IInd class bricks covering, refilling earth,compaction of earth, making necessary connection, testing etc. as required of size. 185.0 Sq.mm Group-1 3.5 core	R Mtr	7500.000	834.00	6255000.00
90	P/Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand,1IInd class bricks covering, refilling earth,compaction of earth, making necessary connection, testing etc. as required of size. 300.0 Sq.mm Group-1 3.5 core	R Mtr	1500.000	1240.00	1860000.00

S.No.	Particulars	Unit	Qty	Rate	Amount
91	P/Laying XLPE insulated / P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor Armoured of IS:7098-I/1554-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size. 25.0 Sq.mm Group-1 3.5 core	R Mtr	4250.000	209.00	888250.00
92	Supplying and making one end termination with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size. 3.5 x 185.0 sq.mm	Per Set	200.000	395.00	79000.00
93	Supplying and making one end termination with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size. 2 x 10.0 sq.mm	Per Set	695.000	55.00	38225.00
94	Supplying and making one end termination with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size. 3.5 x 25.0 sq.mm	Per Set	17.000	114.00	1938.00
95	Supplying and making one end termination with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size. 4 x 16.0 sq.mm	Per Set	208.000	108.00	22464.00
96	P & Laying XLPE insulated IS:7098/II/85 of approved make H.T.cable for working voltage 11 K.V.Earthed direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size. 3 core 70.0 Sq.mm	R Mtr	1000.000	765.00	765000.00
97	P & Laying XLPE insulated IS:7098/II/85 of approved make H.T.cable for working voltage 11 K.V.Earthed direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size.3 core 185.0 Sq.mm	R Mtr	3500.000	1280.00	4480000.00
98	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Indoor 3 core 70/95 Sq.mm	Per Set	10.000	3050.00	30500.00
99	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Indoor 3 core 120/150/185/225 Sq.mm	Per Set	87.000	3265.00	284055.00
100	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Outdoor 3 core 70/95 Sq.mm	Per Set	10.000	3250.00	32500.00
101	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Outdoor 3 core 120/150/185/225 Sq.mm	Per Set	30.000	3465.00	103950.00
102	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Straight Through 3 core 70/95 Sq.mm	Per Set	15.000	7250.00	108750.00
103	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of approved make suitable for XLPE insulated 11 KV cable, with required components, preperation of cable ends,testing etc. as required of following sizes . Straight Through 3 core 120/150/185/225 Sq.mm	Per Set	45.000	8160.00	367200.00

S.No.	Particulars	Unit	Qty	Rate	Amount
104	Providing and laying under ground cable IS:7098 Part-II as per JVVNL specifications enclosed and of approved make suitable for working voltage upto and including 33 KV in aluminium conductors XLPE armoured category-I including excavation of 30cm x 150cm size trench as per IS:1255, 24cm thick under layer, refill earth in the remaining portion, making necessary connections including testing etc. as required of size given below and providing & making heat shrinkable type indoor/outdoor/straight through terminations for 33 KV XLPE cables with required components. Preparation of cable ends, testing etc. as required. laying of cables 3 core 300Sq.mm	R.Mtr.	2800.000	2560.00	7168000.00
105	Providing and laying under ground cable IS:7098 Part-II as per JVVNL specifications enclosed and of approved make suitable for working voltage upto and including 33 KV in aluminium conductors XLPE armoured category-I including excavation of 30cm x 150cm size trench as per IS:1255, 24cm thick under layer, refill earth in the remaining portion, making necessary connections including testing etc. as required of size given below and providing & making heat shrinkable type indoor/outdoor/straight through terminations for 33 KV XLPE cables with required components. Preparation of cable ends, testing etc. as required. Outdoor terminations 3 core 240/300/400 Sq.mm	Per Set	10.000	7490.00	74900.00
106	Providing and laying under ground cable IS:7098 Part-II as per JVVNL specifications enclosed and of approved make suitable for working voltage upto and including 33 KV in aluminium conductors XLPE armoured category-I including excavation of 30cm x 150cm size trench as per IS:1255, 24cm thick under layer, refill earth in the remaining portion, making necessary connections including testing etc. as required of size given below and providing & making heat shrinkable type indoor/outdoor/straight through terminations for 33 KV XLPE cables with required components. Preparation of cable ends, testing etc. as required. Straight through Jointing 3 core 240/300/400 Sq.mm	Per Set	35.000	22400.00	784000.00
107	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required. 8 SWG G.I. Wire	R.Mtr.	1264.000	8.00	10112.00
108	S & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. 25mm x 6mm G.I. Strip	R.Mtr.	555.000	100.00	55500.00
109	Providing and fixing of single pole mounted structure set for isolator as per Discom specification complete in all respect with nuts and bolts as required MS flat 50 x 6mm, MS angle 65 x 65 x6mm, MS channel 100 x 50 x 6mm. (Excluding cost of pole).	Each	2.000	2390.00	4780.00
110	supply and installation of spike of M.S rod 20mm dia 3.0 mrt long for earthing of (tower/pole) drive into earth by mechanical means structure connecting the spike with cross arm top hamper PCC pole, lattices tower toearth etc. complete as per techinalspecification of DISCOM.	Each	455.000	650.00	295750.00
111	Fabrication supply and erection of new 11 KV line poles structures with all necessary required items for stringing the ACSR conductors insulators, V - cross arms, chakri, top hamper, brackets, stay and other items including reconnection of existing service lines of service connections. Lattice tower - 12.5 mtr height weight 520kg each	Each	2.000	25000.00	50000.00
112	Supply & fixing of 33 KV off load type gang operated 3 Pole horizontal type switch rating 800 A, 3- phase, central post rotating double break isolator complete with MS hardwares, copper moving & fixed contacts assembly of 9 Nos. Post Insulators conforming to IS-5350 Part III and IS-2544 with GI pipe of suitable length for operation.	Each	2.000	41100.00	82200.00
113	S & Laying following size' B ' class G.I. Pipe confirming to IS : 1239 P - 1 (1990) with accessories for laying earth conductor/strip / cable in ground /surface /recess as required 125 mm dia. Complete Rate group-I	R Mtr	1500.000	740.00	1110000.00
114	SITC of Cutting back up surface up to 2 Mtr. Depth by digging by Bogi including all layers of crust for laying pipe line etc. and making good to original condition (excluding cost of bitumen)	R Mtr	21200.000	288.00	6105600.00
115	Supply and fixing of pillar box made of 2 mm thick powder coated CRCA sheet of 415 volts 3 phase 4 wire triple pole and neutral type, complete in all respect as required. Including knife switch of 400 amp. rating , HRC fuses with copper one piece U contacts base, brass studs and nuts, copper busbar for main and interconnection,MS angle frame of 50 x 50 x 6 mm grouted with C.C. of M-10 grade to achieve the height of 1.5 feet above the road level suitable for four outgoing. Complete Rate Group 1	Each	15.000	34000.00	510000.00
116	Supply & fabrication steel structure with MS channel / angle / joist / ISMB / sheet etc. including welding, rivetting, cutting, nut & bolt , Painting etc. as required. Complete Rate Group-I	kg	11250.000	67.20	756000.00
117	P & F paper phenolic resin bonded laminates confirming to IS : 2036 - 1995 for boxes/ frames including making holes for switches etc, with brass screws, washers/ zinc plated nut and bolts as required. 6.4 mm thick Complete Rate Group 1	sqm	69.375	712.80	49450.50
118	Supplying and drawing FR PVC insulated & unsheathed flexible copper conductor ISI marked (IS:694) of 1.1 kV grade and approved make in existing surface or recessed conduit/casing capping including making connections etc. as required. Group-1 2 x 2.5 sq. mm. + 1x1.5sqmm	Mtr	6950.000	48.00	333600.00

S.No.	Particulars	Unit	Qty	Rate	Amount
119	P & F in position frame made out of M.S. angle (riveted or welded) finished with two coats of red oxide and enamel paint of following sizes as required. 50mm x 50mm x 6mm	Mtr	555.000	299.00	165945.00
120	P&F 240/415 V MCB of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS 8828(1996)/ conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required. Single pole MCB Group-1 6 A to 32 A rating	Each	1390.000	233.00	323870.00
121	P&F 240/415 V MCB of breaking capacity not less than 10 KA (B/ C/ D tripping characteristic) ISI marked IS 8828(1996)/ conforming to IEC 60898 in existing board/sheets including making connections with lugs, testing etc. as required. Four pole MCB Group-1 40 A 63 A rating	Each	208.000	1530.00	318240.00
122	SITC of wall/free standing floor mounted dust and vermin proof compartmentalised cubical panel made out of CRCA sheet, required hardware, duly painted by two coats of zinc/red oxide primer followed by Powder coated / epoxy / PU painted with phosphatisation in grey or required shade after rinsing. The panel having PU/Neoprene rubber gasket of not less than 3mm thickness, separate detachable, gland plate M.S. base channel, hinged door with locking arrangement for equipment/switchgear. Thickness of sheet shall not be less than 1.6mm up to 600mm length/width of any compartment and be of 2.0mm above 600mm. Load bearing structure shall be of 2.0mm thick sheet supported by base M.S. channel if required. Side walls and cable alley compartments having bolted type doors with detachable extension type structure (only outer area on all sides shall be measured and panel to be fabricated from CPRI approved fabricator).	sqm	451.000	2560.00	1154560.00
123	Supplying and fixing of Aluminium / Copper bus bar by means of SMC / DMC type insulator, high tensile nuts and bolts spring washers in existing panel including bending , cutting in required shape and size and colour coding with heat shrinkable PVC sleeves. Electrolytic grade aluminium bus bar	kg	139.000	350.00	48650.00
124	SF of 240/220 V, LED (22.5 mm dia) Pilot lamp with integral circuit, terminal block, including connection etc. as required. Red/yellow/Green colour	Each	51.000	150.00	7650.00
125	P & F of ac operated heavy duty 230 /440 Volt power contactor conforming to IS:13947-4-1/IEC:947-4-1having provision of mechanical interlocking, Din rail mounting type including making connections, testing etc. as required. 4 pole AC 1 Rating contactors,46 to 60 Amp	Each	17.000	3450.00	58650.00
126	P&F of mechanical / digital time switch having following day / week programme and minimum 100 hours reserve and AC1 rating of 16-20 amperes including making connection, programming etc. as required One day & week reserve (digital type)	Each	17.000	5750.00	97750.00
127	Supply and erection of Octagonal pole of following length and dimension as per table E-20 with base plate on the cement concrete foundation of M-15 grade (1:1.5:3) with the help of anchor bolts of grade 6.8 (IS 1367 P III). The pole shall be made of S-355JO grade steel sheet , folded lengthwise to obtained Octagonal shape, having single longitudinal seam weld and hot dipped galvanised internally & externally in accordance with IS 2629. The pole shall have a weather proof flush door and locking arrangements. The complete work shall be supervised and certified by the manufacturers for satisfactory supply, erection, testing and commissioning.(SEE TABLE) Group-1 8 Mtr.	Each	695.000	12900.00	8965500.00
128	Supply, Erection and Fixing of hot dipped galvanised Overhang (60 X 3.25 mm) with cap (250 x 137.9 x 4.05 mm) over the existing poles Single arm overhang	Each	998.000	935.00	933130.00
129	P/ F IP-65/ IP-66 protected street light luminaries on existing bracket. Fixture made from powder coated single piece pressure die cast aluminum housing with heat dissipation fins on housing with high power LEDs of CREE/ NICHIA/ OSRAM/ PHILIPS make. Diffuser / glass cover for ensuring IP-65 protection for lamp and control gear compartment, system lumen output of 1500—8500 high power LED. Integrated driver shall be high efficiency having efficiency more than 85 % and in compliance to IEC standards. System life of 25000 burning hours with 70 % of initial lumens maintained . Fixture shall be in CE compliance.IP-65 protected LED street light luminaries ,LED street light fixture 80-90 watt	Each	695.000	23000.00	15985000.00
130	S & Laying following size ' A' class G.I. Pipe with accessories for laying earth conductor/strip in ground/surface/recess as required 40 mm dia.	R Mtr	1180.000	274.00	323320.00
131	SITC of 11 KV, 400/630 A, 20kA / 3 sec, Out door, Extensible type Ring main unit (RMU) in suitable RCC foundation with 2 no. Load break switch & 1 no. VCB / SF6 circuit breaker with over load, Earth fault, short circuit relay, copper bus bar, earthing switch, mechanical ON / OFF / Earth indication, Voltage presence indicator, Ring core protection CT 2.5 VA, 10P10 as per transformer rating, Shunt trip coil, Anti reflex operating handle, right angle boots etc. as required. Complete Rate Group-1	Each	29.000	331648.00	9617792.00
132	P / L of Double wall corrugated HDPE pipe confirming to IS : 14930 P - 1 & 2 with HDPE Coupler at 1 mtr. Depth below the ground for laying cable including making the trench and back filling , compaction of earth as required of Gemini or IS:14930 marked make. Outer Dia. / Inner dia. 90 / 76 mm,Complete Rate	R Mtr	6500.000	120.00	780000.00

S.No.	Particulars	Unit	Qty	Rate	Amount
133	SITC of quick make and quick break 3 pole current limiting MCCB having following current rating, short circuit breaking capacity at 440/415 V, 50 Hz; O/L & S/C settings and conforming to IS 60947-2 / IEC 60947-2 with front face and centralised adjustable, line load interchangeability, having positive isolation capability, provision for UVR , shunt trip , earth fault trip, push (test) to trip, including making connections with lugs & spreaders, etc. as required. up to 100 Amp , 10 kA, fixed O/L & S/C setting ,Complete Rate Group 1	Each	17.000	1385.60	23555.20
134	Providing, fixing, testing and commissioning of LT Distributionbox with HR fuse/MCCB type weather proof box of size 650x500x250mm, made out of smoke grey colour sheet moduling compound (S.M.C. Electrical grade 3) confirming IS 13410 amended upto date, front and back both side openable completely hinged door with doors shall be centrally closed triple position locking arrangement and shall be operational with common handle from outside the door and base of box to avoid penetration of dust and ingress of water. Rubber gasket shall be fitted with suitable adhesive. The enclosure shall be anti corrosive, dust & rust proof. Vermin & water proof, ultra-violet stabilized cable termination arrangement & necessary fixing arrangement shall be provided with fuse link in spare should be invariably provided with each box comparing of as per following with embossed JVVNL/JDA with month & year of manufacturing. a. Switch disconnector 250 AMP TP b. HRC Fuse base made of DMC 250 Amp c. HRC Fuse link 250 Amp d. Copper wire PVC insulated 50 Sq.mm 4 Core e. Aluminium bus bar insulated with DMC/SMC f. Top and Base made of SMC g. MS Angle Frame for Box 50x50x6mm h. Copper Lugs 50 Sq.mm i. M10 grade Nominal Mix 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size). j. The above item are inclusive of cost of safety measures as per codal provision during erection/execution.	Each	120.000	17820.00	2138400.00
Total					2187025234.54


 Executive Engineer-8
 JDA, Jaipur.

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

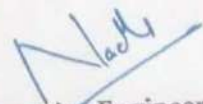
Name of work :-Construction of Elevated Road From Sanganer flyover to near Malpura Gate
via Choradiya Petrol Pump in Zone-8 JDA Jaipur

Factor for Price Escalation

Labour (P_1)	16.39%
Cement (P_c)	11.13%
Steel (P_s)	49.47%
Bitumen - (P_b)	2.50%
POL-P	8.91%
Other materials (P_m)	11.60%
Total	100.00%


J.E.N.
JDA,Jaipur


~~A.E.N.~~
~~JDA,Jaipur~~


Executive Engineer
JDA,Jaipur


Supdt. Engineer
JDA,Jaipur

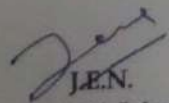
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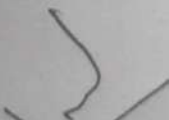
JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

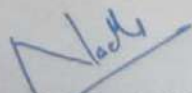
Name of work :-Construction of Elevated Road From Sanganer flyover to near Malpura Gate
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JDA,Jaipur

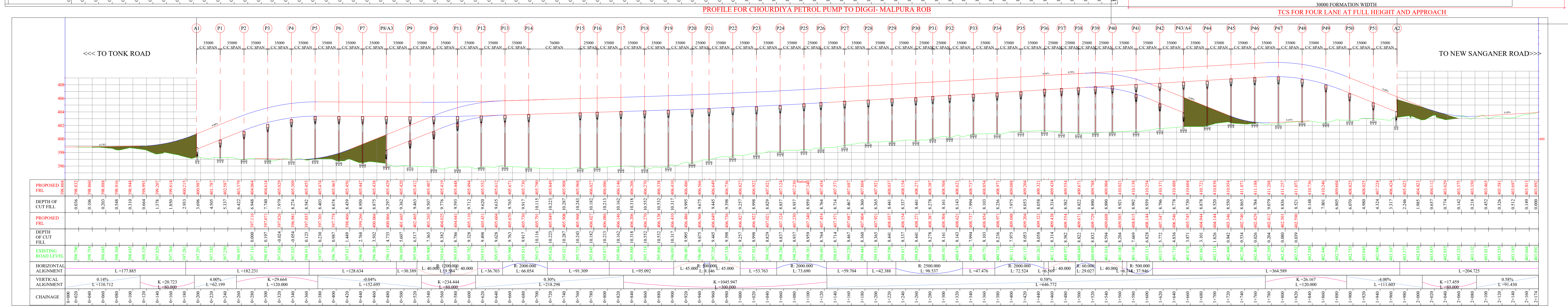
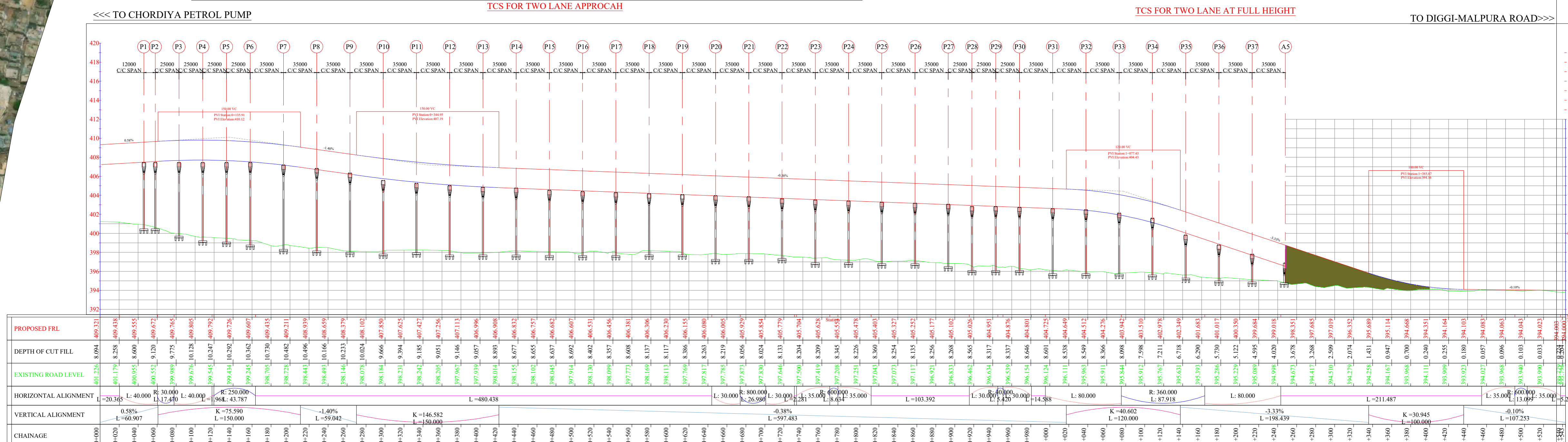
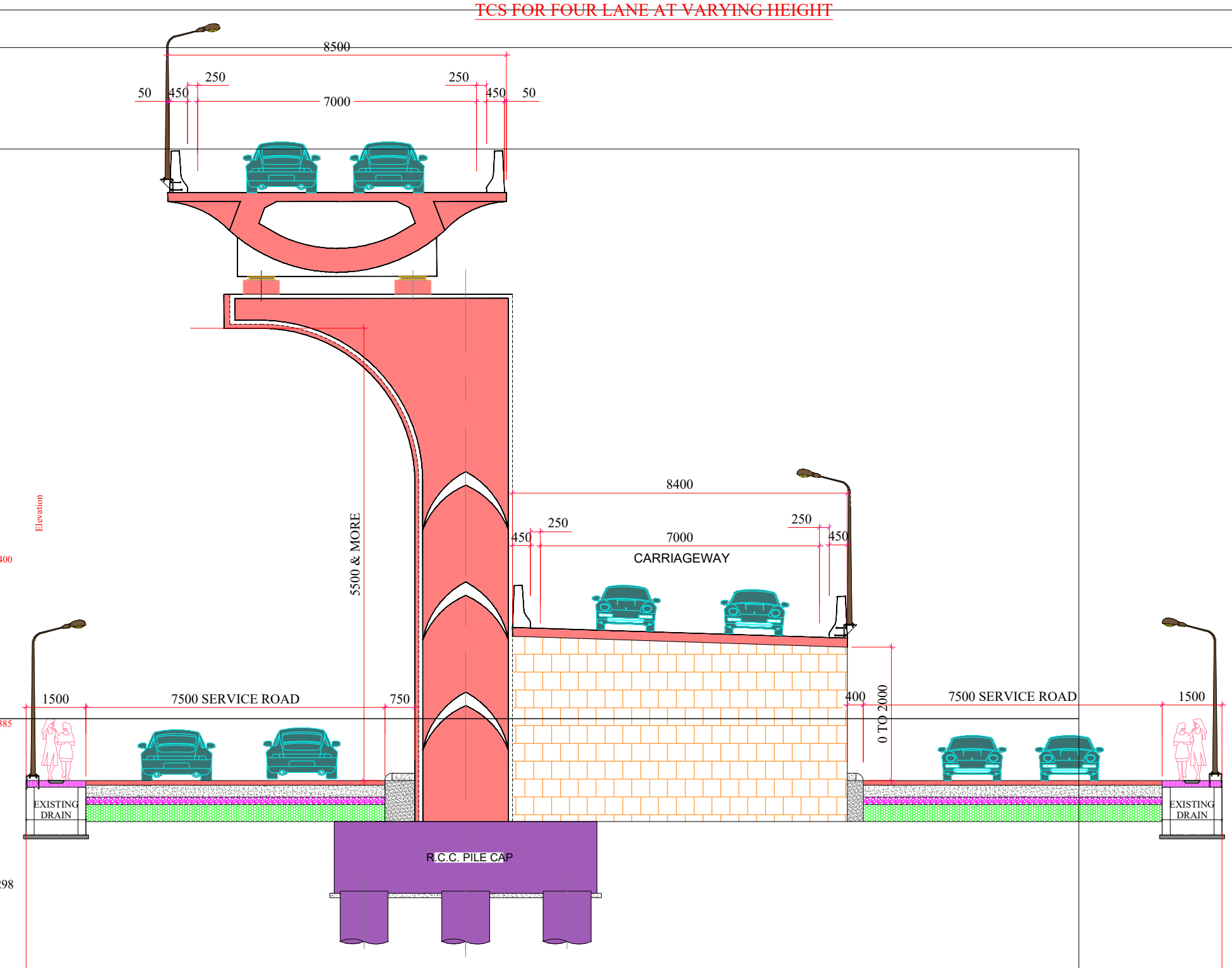
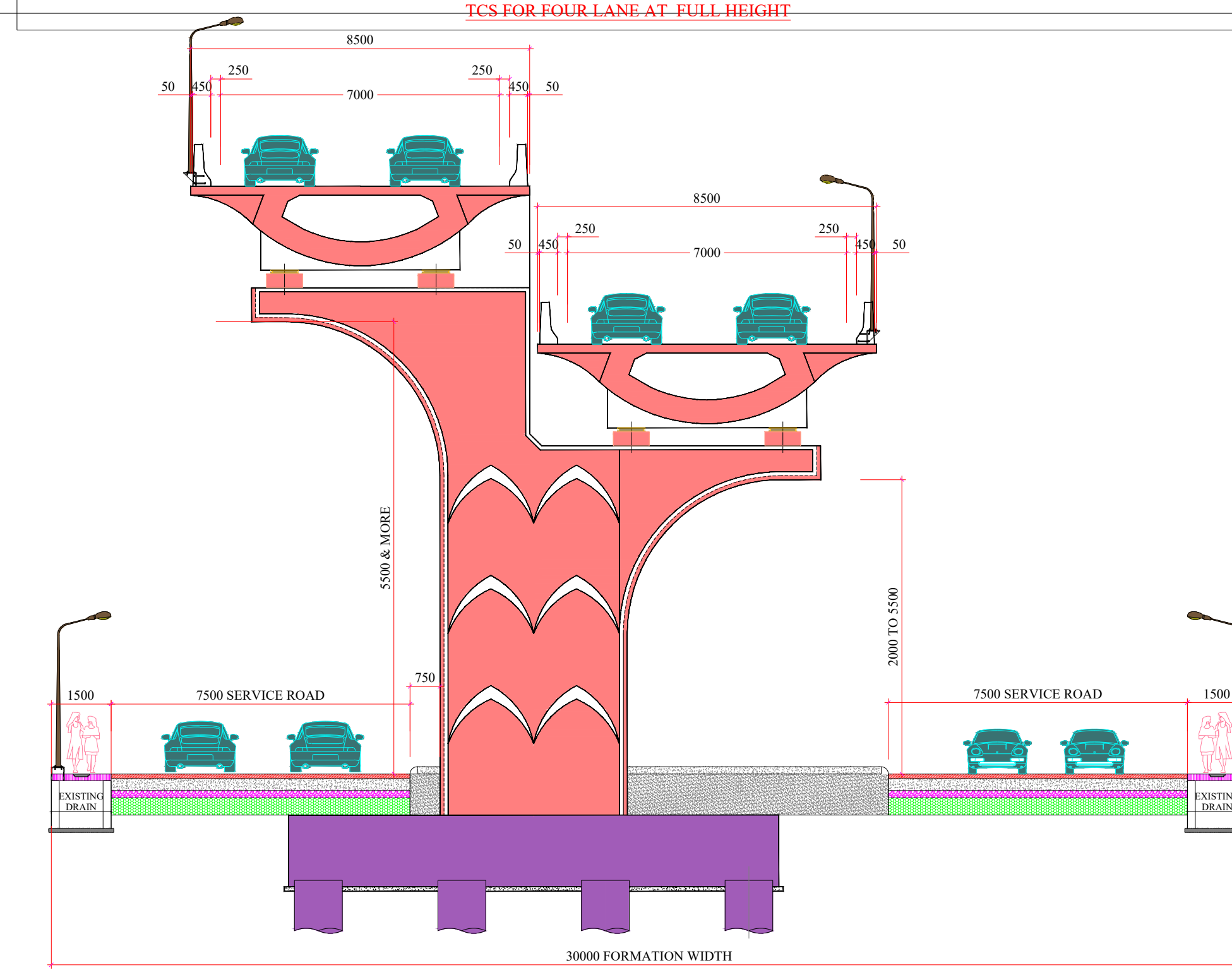
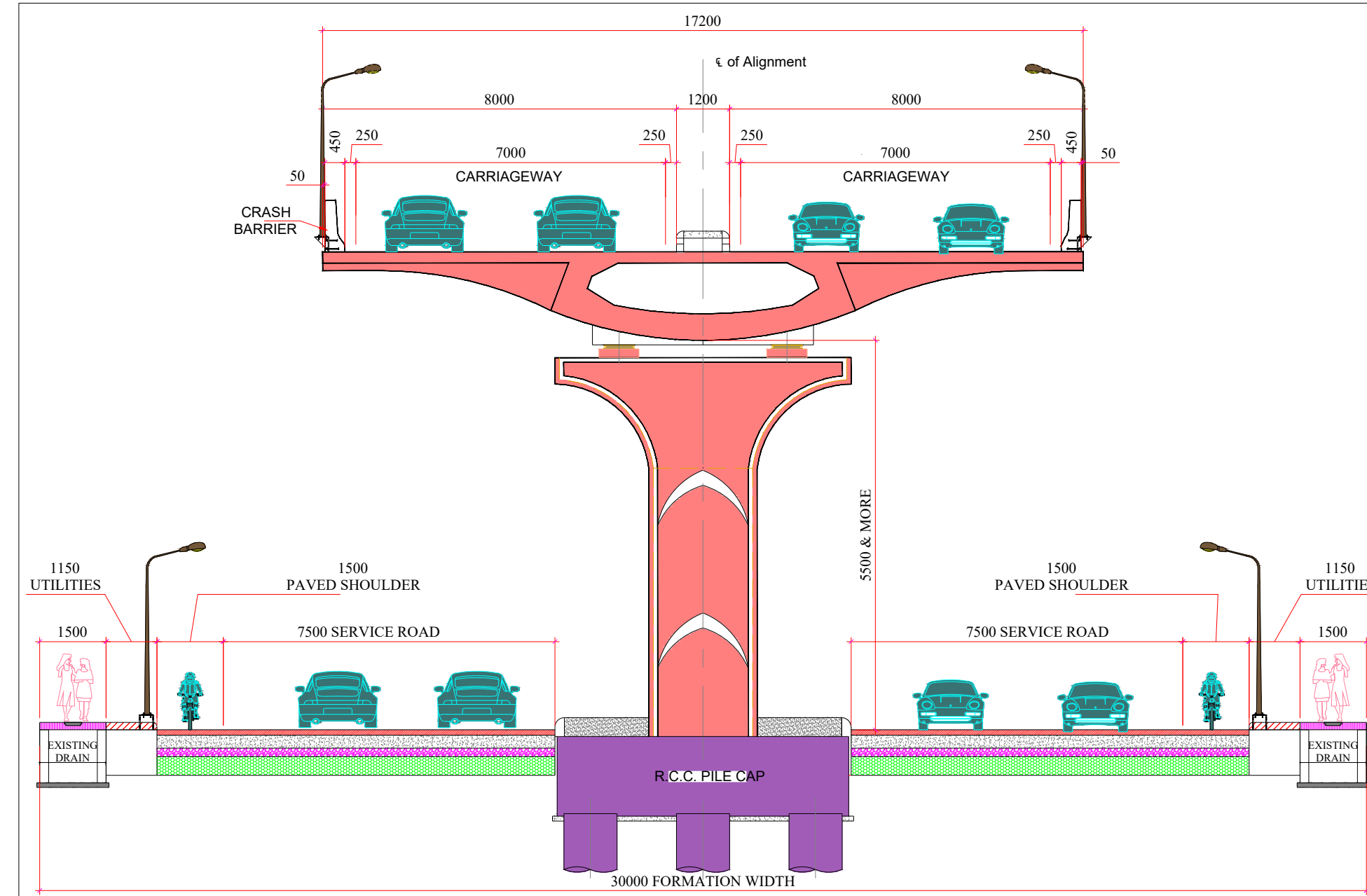
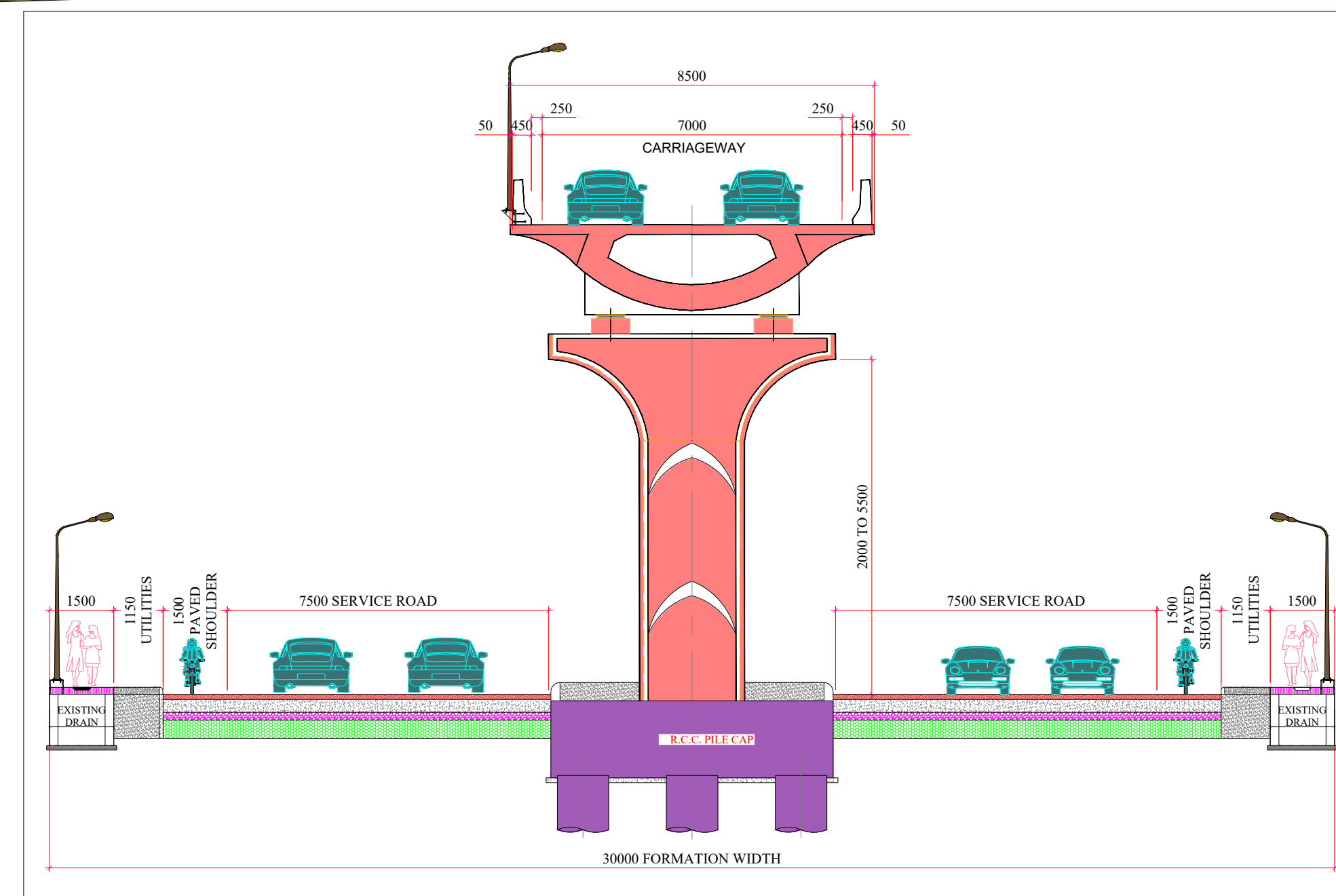
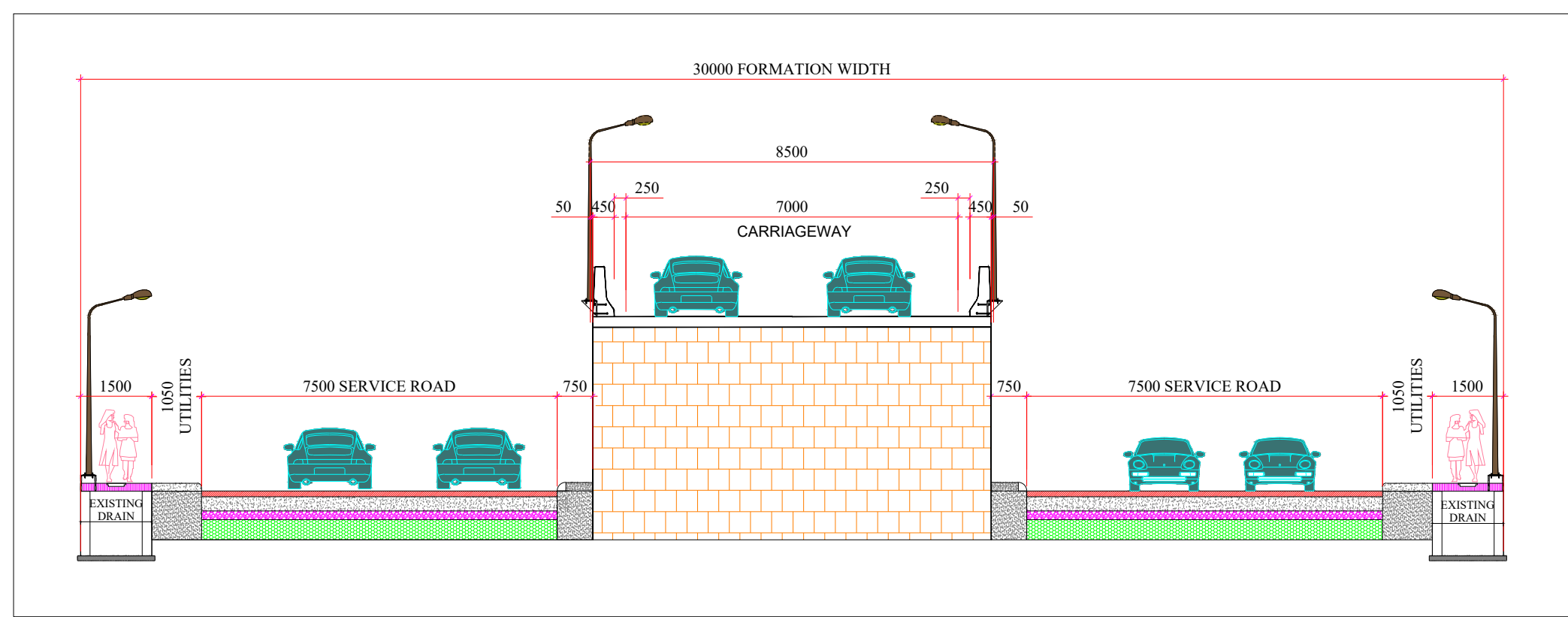
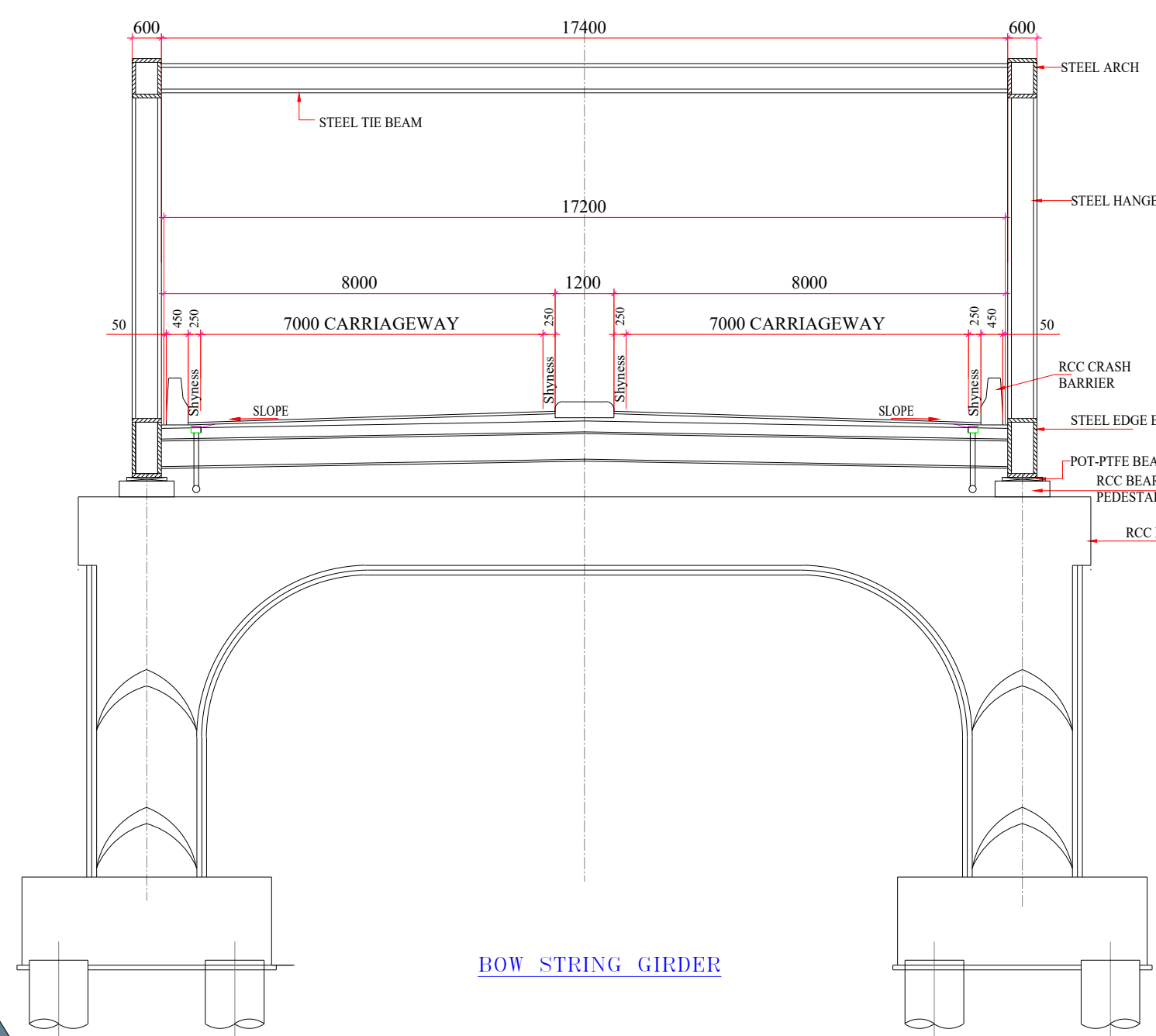

A.E.N.
JDA,Jaipur


Executive Engineer
JDA,Jaipur


Supdt. Engineer
JDA,Jaipur

CONSTRUCTION OF ELEVATED ROAD FROM SANGANER FLYOVER TO NEAR MALPURA GATE VIA CHORADIYA PETROL PUMP IN ZONE - 8 JDA, JAIPUR

ANNEXURE B



DATE	R	MKD.

CLIENT :-

JAIPUR DEVELOPMENT AUTHORITY

DESIGN CONSULTANT:-

THOUGHTS CONSULTANTS JAIPUR PVT. LTD. D 13 SHANTI PATH TILAK NAGAR, JAIPUR TEL : +91-9829055330 E MAIL : thoughts.jaipur@gmail.com

PROJECT:-

CONSTRUCTION OF ELEVATED ROAD FROM SANGANER FLYOVER TO NEAR MALPURA GATE VIA CHORADIYA PETROL PUMP IN ZONE - 8 JDA, JAIPUR

DATE	APR.-2025
DRAWN BY	KAILASH
DESIGNED BY	SUDHIR JANGIR
CHECKED BY	DEEPAK SHARMA
APPROVED BY	ASHISH GUPTA

DRAWING TITLE :-	PLAN PROFILE
DRAWING NO. :-	THOUGHTS/STRUCTURE/ELEVATED/JDA/PLAN PROFILE
SCALE :-	AS SHOWN
SHEET NO. :-	01 OF 01
SHEET SIZE :-	A0

ANNEXURE C

P.W.D.M.F. 64
(Para 28.23.5, Chapter 28)

Monthly Progress Report of Road works from Junior Engineer to Assistant Engineer

Part-A

SECTION
ENDING

MONTH

S.No.	Name of Road	Job No.	Adm. Sanction				Tech. Sanction		
			Length	Type	Ref.	Amt.	Length	Date	Amount
1	2	3	4a	4b	4c	4d	5a	5b	5c
Expenditure up to March of preceding year	Length Completed in all respects up to end of March of preceding year (Km.)	Equivalent length completed up to end of March of Preceding year (Km.)	Date of completion Zone wise		Physical Tragets up to end of quarter during the year (Km.)	Physical Achievements up to the end of month during the year			
			Stipulated	Likely		Equivalent length (Km.)	Completed length in all respect (Km.)		
6	7	8	9a	9b	10	11a	11b		

Financial Progress		Town/Villages Panchayat HQ. Connected during the month	Whether progress is slow or satisfactory	Bottlenecks & reasons for delay & slow progress (Give code Nos.)	Progress for removal of bottle necks slow progress	Remarks
Target upto the end of month BE/Fist Reviewed/R.E.	Expenditure upto the end of month during the year					
12a	12b	13	14	15	16	17

Note : 1. See on reverse for codes of bottlenecks formula for equivalent length.

No.
.....

Dated

Copy submitted to the Assistant Engineer, P.W.D., Sub-Division
for information and necessary action.

Junior Engineer,
P.W.D., Section

Code of Bottlenecks	
1 Land not aviable	01
2 Survey not done	02
3 Estimate not prepared	03
4 Estimate not sanction	04
5 Tenders not approved	05
6 Funds not available	06
7 Inadequate Aministrative sanction	07
8 Revised estimate not prepared	08
9 Revised estimate not sanctioned	09
10 Alignment dispute	10
11 Inadequate supply of bitument cement coal etc.	11
12 Contractor's laxity	12
13 Seasonal delay	13
14 Shortage of manpower construction agency	14
15 Machinery Problems	15
16 Any other reasons	16
(a)	
(b)	
.....	

Formula to Calculate Equivalent Length		
1	Earth work including compaction	0.20
2	Culverts cause ways or drainage	0.10
3	Material collection	
	(a) Loer layer	0.15
	(b) Top layer	0.15
4	Consolidations	0.20
5	Wearing Cost	
	(a) Material Collection	0.10
	(b) Consolidation	0.10
	Total	1.00

tables may be suitably rephrased

PROJECT

**Engineering and Architectural Consultancy for Design
of Flyover and Elevated road in Jaipur :**

**A. Construction of Elevated road from Sanganer circle
to Choradiya petrol pump**



GEO TECH-INVESTIGATION REPORT





Geotechnical Investigation Report



E.T.T.L.

ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY
(AN ISO 9001:2015 CERTIFIED CO.)

NABL ACCREDITED LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2			
ULR No.: - TC127432400006031F			
Issued To:	M/s Thoughts Consultants Jaipur Pvt. Ltd.	Sample ID:	6031-1
		Date of Booking:	14.09.2024
		Date of Report:	07.10.2024
Name of Work:	Construction of Elevated Road from Sanganer circle to Choradiya petrol pump.		
Location	Sanganer, BH 01, BH 02, BH 03 & BH 04		
Client:	Jaipur Development Authority Zone 08		

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

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2. FIELD INVESTIGATION:.....	4
3. CLASSIFICATION CRITERIA OF ROCK MASSES:	7
4. LABORATORY INVESTIGATION:	9
5. COMPUTATION OF BEARING CAPACITY:	10
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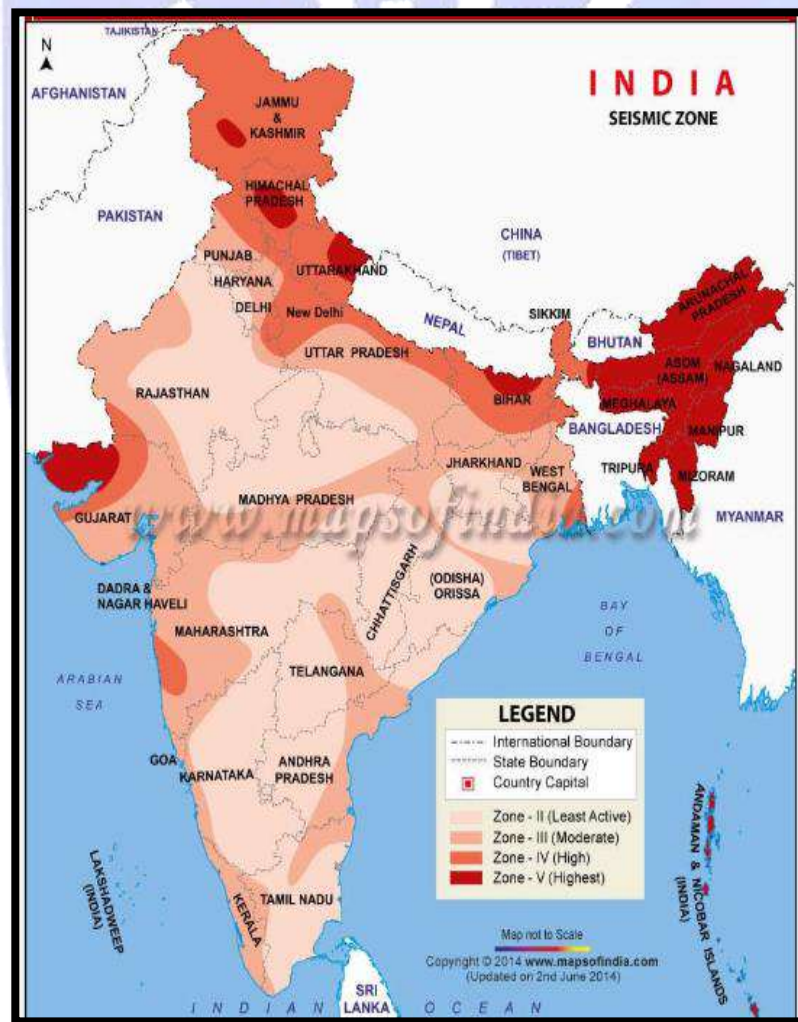
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ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

1. INTRODUCTION:

The work of conducting the detailed Geotechnical Investigation has been awarded to us who includes investigation in field, laboratory testing of bulk samples collected from the site and submission of the test report.

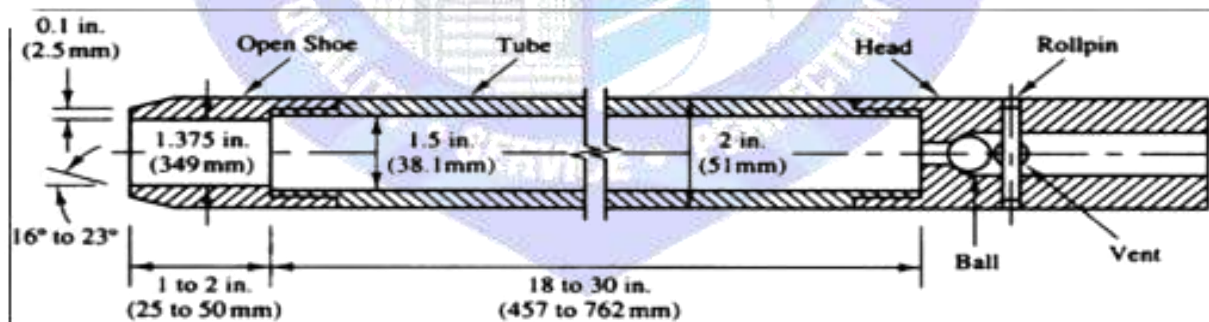
This report includes the detail of Methodology of investigation, collection of samples, field and laboratory test result including their interpretation/ analysis, recommendations on the properties of soils required for design of foundation and suggesting suitable type of foundation and safe allowable bearing capacity for safe and strong foundation for various structures.



2. FIELD INVESTIGATION:

The field investigation work at the sites under consideration of this part of the report was carried out, boreholes of diameter 150 mm, the boreholes were progressed by using power driven rotary drilling machines. In disintegrated and hard rock strata boreholes were progressed using NX size (75 mm diameter) double tube barrel with diamond bit. As the core recovery was from top the rock drilling was done. Standard Penetration Tests were conducted at 1.50 meter interval up to the depth as per the procedure laid in IS: 2131-1981 in all the bore holes whereas possible. For conducting the test, the bottom of the borehole was properly cleaned and split spoon sampler was properly seated in position in the borehole. The split spoon sampler resting on the bottom of borehole was allowed to sink under its own weight; then the sampler was allowed to penetrate 15 cm with the blows of the hammer 63.50 kg weight falling free through 75 cm, thereafter the split spoon sampler was further driven by another 15 cm. For the 3rd and final drive, the sampler was further allowed to penetrate 15 cm. The number of blows required to affect each 15 cm of penetration was recorded. The first 15 cm of drive is considered to be seating drive.

Structure of SPT Sampler



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The total blows of penetration for the second and third 15 cm of penetration is termed the penetration resistance N. The 'N' values are indicative of the compactness/ relative density of cohesion less soils and consistency of cohesive soils.

In case the blows count of SPT in soil (including the number of blows of seating) exceeds 100, the corresponding penetration was recorded and this particular test at that depth stopped. If the total penetration is more than the seating penetration of 15 cm, then breakup of blows count for 15 cm seating penetration and for remaining portion of penetration is also given.

SPT 'N' values are correlated with relative of non-cohesive stratum as per BS: 5930 (1999) - for sandy strata and with consistency of cohesive stratum.

CORRELATION FOR CLAY/PLASTIC SILT		CORRELATION FOR SAND/NON-PLASTIC SILT	
Consistency of clays	Penetration Value	Relative Density of sand	Penetration Value
Very Soft	0 to 2 Blows	Very loose	0 to 4 Blows
Soft	3 to 4 Blows	Loose	5 to 10 Blows
Medium Stiff	5 to 8 Blows	Medium	11 to 30 Blows
Stiff	9 to 16 Blows	Dense	31 to 50 Blows
Very Stiff	17 to 32 Blows	Very Dense	Above 50
Hard	Above 32		

In this method, the sampler acts as a probe and the driving energy is supplied by the fall of the drop weight. The values of 'N' depend on the compactness or relative density of the material. In hard formations, the testing is discontinued if 'N' value is found to be more than 100. It is termed as refusal.

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Report No. JP/ETTL/24-25/TE-85060310914-1 L2

‘N’ value depends upon degree of saturation and over burden pressure of the formation. Silty fine sand and fine sand below the water table develop pore water pressure. Depending on the in-situ void ratio which in turn affects the effective stress. This change in effective stress influences the ‘N’ value considerably. Soil sample obtained from standard spoon sampler for all above standard penetration tests were collected in the polythene bags of suitable size. These samples were properly sealed, labelled, recorded and carefully transported to the laboratory for testing.

Disturbed soil samples were tried to be collected at 1.50-meter interval and at significant change of stratum. Soil from cutting edge of SPT samplers and retained in split spoon sampler, used for Standard Penetration Tests was taken as disturbed samples. These samples were placed without delay in adequately sealed polythene bags. The laboratory tests were conducted on the collected soil samples and reported

- 2.1 Undisturbed soil samples were tried to be collected in accordance with IS: 2132-1986. Undisturbed soil samples (UDS) was obtained in 100 mm diameter MS tubes of length 450 mm at 3.00 meter interval in all the bore holes.

Undisturbed samples were collected using 75 mm dia. and 450 mm long MS tubes provided with sampler head with ball check arrangement in power operated rotary drilling for deep bore holes. Collection of Undisturbed samples in very hard cohesive soils/ dense granular soils/gravels/ cobbles/ pebbles/ boulders, refusal strata is practically not possible and such collected samples will not truly represent the undisturbed conditions.

Immediately after taking undisturbed sample in a tube, the adapter head was removed along with the disturbed material. The visible ends of the samples shall each be trimmed off any wet disturbed soil. The ends will then be coated alternately with four layers of just molten wax. More molten wax will then be added to give a total thickness of not less than 25mm. The laboratory test results have been reported

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2.2 IF the **water table** at this site was encountered during the boring operation. Depth of water table was recorded as per IS 6935-1973. Recorded depth of water table in different bore holes are reported below.

Location	Depth of Bore (m)	Water table (m)	Coordinate	
			Northing	Easting
BH-01	40.0	Not found	NA	NA
BH-02	40.0	Not found	NA	NA
BH-03	40.0	Not found	NA	NA
BH-04	40.0	Not found	NA	NA

3. CLASSIFICATION CRITERIA OF ROCK MASSES:

Rock classification in terms of weathering and state of fractures and strength is carried out in the following manner. Tabulations given in below explain it briefly.

TERMS	DESCRIPTION	GRADE	GEOLOGIST INTERPRETATION
Fresh	No visible sign of rock material weathering; perhaps slight coloration on major discontinuity surfaces	I	CR > 91 %
Slightly Weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discoloured by weathering.	II	CR between 71 % to 90 %
Moderately Weathered	Less than half of the rock material is decomposed or disintegrated to a soil. Fresh or discoloured rock is present either as a continuous framework or as core-stones.	III	CR between 51 % to 70 %
Highly Weathered	More than half of the rock material is decomposed or disintegrated to a soil. Fresh or discoloured rock is present either as a discontinuous framework or as core-stones.	IV	CR between 11 % to 50 %
Completely weathered	All rock material is decomposed and / or disintegrated to soil. The original mass structure is still largely intact.	V	CR between zero to 10 %
Residual Soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.	VI	CR = Zero % But N > 50

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Report No. JP/ETTL/24-25/TE-85060310914-1 L2

As per IS: 4464, It should be understood that all grades of weathering may not be seen in a given rock mass and that in some cases a particular grade may be present to a very small extent. Distribution of the various weathering grades of rock material in the rock mass may be related to the porosity of the rock material and the presence of open discontinuities of all types in the rock mass.

- 3.1 **Relation between RQD and In-situ Rock quality** is further measured by frequency of natural joints in rock mass. Rock Quality Designation (RQD) is used to define state of fractures or massiveness of rock. Following table defines the quality of rock mass.

RQD classification	RQD %
Excellent	91 to 100
Good	76 to 90
Fair	51-75
Poor	25-50
Very Poor	0-25

- 3.2 **Classification of Rock by Compressive Strength**

Rock type	Unconfined compressive strength in MPa
Extremely strong	>200
Very Strong	100 to 200
Strong	50 to 100
Moderately Strong	12.5 to 50
Moderately Weak	5 to 12.5
Weak	1.25 to 5
Very weak	<1.25

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Report No. JP/ETTL/24-25/TE-85060310914-1 L2

4. LABORATORY INVESTIGATION:

- 4.1 Field moisture contents** were determined by oven drying method as per IS 2720 (part II)-1997. The results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.2 Bulk density** of soil strata were obtained using density ring method. The results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.3 Mechanical sieve analysis** test were performed in accordance with IS 2720 (Part IV) - 1985, for the purpose of identification by grain size analysis, on coarse part of the soil
- 4.4** Samples and the results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.5 Particle size** analysis test by **hydrometer** method were performed in accordance with IS 2720 (Part IV) - 1995 on the part of soil samples obtained after the sieve analysis. The results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.6 Atterbergs limits** tests were performed in accordance with IS 2720 (part V)-1985 and results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.7 Specific gravity** tests were performed in accordance with IS 2720 (part III-sec. 1) -1980 and the results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.8 Direct shear tests** were performed as per IS 2720 (part XII)-1971, on the undisturbed soil samples obtained during the field investigation. The results have been reported in Table 1 to table 3 of Appendix A under the title “Laboratory Test Result”.
- 4.9 Point load tests** were performed as per **IS 8764:1998** on the rock samples obtained during field investigation. The results have been reported in Table 1 of under the title “Laboratory Test Result”.
- 4.10 Unconfined compressive strength tests** were performed as per **IS 9143:1979** on the rock samples obtained during field investigation. The results have been reported in Table 1 of under the title “Laboratory Test Result”.

5. COMPUTATION OF BEARING CAPACITY:

The safe allowable bearing capacity of the foundation for the proposed structure has been calculated on the shear failure criteria suggested as per IS 6403-1981 and settlement criteria as per IS: 8009 (part-I)-1976. Looking at the site condition, sub soil stratification and type of proposed structure, calculations have been done for isolated footing.

5.1 ISOLATED FOOTING:

IS: 6403-1981

(a) In case of general shear failure –

$$q_d = cN_c s_c d_c i_c + q(N_q - 1) s_q d_q i_q + 0.5 B \gamma N_\gamma S_\gamma d_\gamma i_\gamma w'$$

(b) In case of local shear failure –

$$q'_d = 0.67 c N'_c s_c d_c i_c + q(N'_q - 1) s_q d_q i_q + 0.5 B \gamma N'_\gamma S_\gamma d_\gamma i_\gamma w'$$

Where,

$N_c, N'_c, N_q, N'_q, N_\gamma, N'_\gamma$ = Bearing capacity factors

C = Unit Cohesion

B = Width of Footing

γ = Bulk Density

$$q = \gamma d$$

S_c, S_q, S_γ = Shape factors

d_c, d_q, d_γ = Depth factors

i_c, i_q, i_γ = Inclination factors

W' = Correction factor for location for location of water table

Φ = Angle of internal resistance of soil

$$\Phi' = \tan^{-1}(0.67 \tan \phi)$$

Note: - If the void ratio is less than 0.55, the shear failure is considered as General shear failure. On the other hand, if the relative density is smaller than 20% and the void ratio is greater than 0.75, the failure is local shear failure. For relative density between 20% and 70% and the void ratio 0.55 to 0.75, the bearing capacity factors are obtained by interpolation between the general shear failure and local shear failure.

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Report No. JP/ETTL/24-25/TE-85060310914-1 L2

5.2 SETTLEMENT CRITERIA:

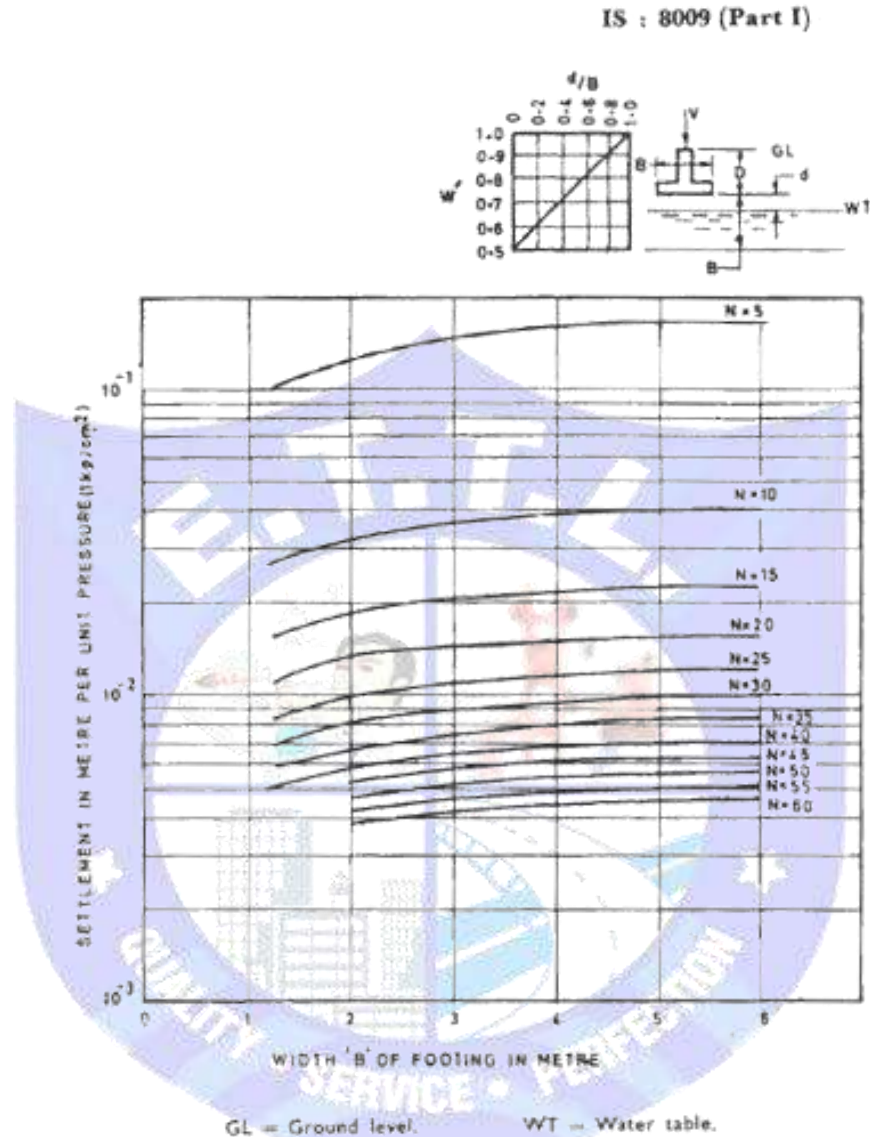


FIG. 9 SETTLEMENT PER UNIT PRESSURE FROM STANDARD PENETRATION RESISTANCE

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Report No. JP/ETTL/24-25/TE-85060310914-1 L2

6. RECOMMENDATIONS:

Keeping in mind, the field conditions, field test results, laboratory test results and IS codes of practice; the following recommendations are hereby made:

6.1 Isolated footing:

Isolated **footings** shall be provided for the foundation of the proposed structures.

The depth and corresponding safe allowable bearing capacity shall be as follows:

The field investigation and laboratory tests conducted over the soil revealed the following Conclusions:

- ❖ The soil stratum consists as per **Stratigraphy Drawings**.
- ❖ The specimen found gets disintegrated into gravels during the process of soaking core in water.
- ❖ The SPT 'N' value indicates that soil stratum is **mostly dense to hard strata**.
- ❖ Depth of ground water is encountered as per clause No.-2.2.
- ❖ Plastic index as per laboratory test result as per clause no. - 9.

BH-1

Depth of footing (m)	Type of footing	Width of foundation (M)	General Shear Failure Criteria (T / m ²)	Local Shear Failure Criteria (T / m ²)	Interpolated Value from Column 4&5 (As per IS 6403-1981) (T / m ²)	Settlement Criteria (Safe Bearing Capacity (t/m ²))	Recommended Safe Bearing Capacity (T / m ²) (Lower of columns 6 & 7 & rounded down)	Settlement (mm)
1	2	3	4	5	6	7	8	9
3.00	Isolated Footing	6.00	51.02	17.99	22.94	42.37	22.94	25
4.50		6.00	74.53	25.93	33.22	43.85	33.22	
6.00		6.00	90.64	31.93	40.74	45.45	40.74	

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BH-3

Depth of footing (m)	Type of footing	Width of foundation (M)	General Shear Failure Criteria (T / m ²)	Local Shear Failure Criteria (T / m ²)	Interpolated Value from Column 4&5 (As per IS 6403-1981) (T / m ²)	Settlement Criteria (Safe Bearing Capacity (t/m ²))	Recommended Safe Bearing Capacity (T / m ²) (Lower of columns 6 & 7 & rounded down)	Settlement (mm)
1	2	3	4	5	6	7	8	9
3.00	Isolated Footing	6.00	51.34	18.10	23.08	44.64	23.08	25
4.50		6.00	75.44	26.25	38.54	45.45	38.54	
6.00		6.00	91.75	32.32	47.18	47.16	47.16	

BH-4

Depth of footing (m)	Type of footing	Width of foundation (M)	General Shear Failure Criteria (T / m ²)	Local Shear Failure Criteria (T / m ²)	Interpolated Value from Column 4&5 (As per IS 6403-1981) (T / m ²)	Settlement Criteria (Safe Bearing Capacity (t/m ²))	Recommended Safe Bearing Capacity (T / m ²) (Lower of columns 6 & 7 & rounded down)	Settlement (mm)
1	2	3	4	5	6	7	8	9
4.50	Isolated Footing	6.00	57.71	19.68	23.48	44.64	23.48	25
6.00		6.00	74.98	26.09	35.87	46.29	35.87	

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Dia. of the pile (m)	Axial load carrying capacity	Lateral Load carrying capacity of pile (Tons)	Uplift Capacity (Tons)	Depth of pile
1.0	223.5	12.9	117.2	20
1.0	251.9		139.4	22
1.0	282.9		163.5	24
1.0	299.5		176.3	25
1.2	315.6	18.7	146.3	20
1.2	349.6		173.5	22
1.2	386.9		203.0	24
1.2	406.7		218.6	25

CALCULATION OF LATERAL LOAD CAPACITY

Sr. No.	Diameter, D (cm)	Mix (N/mm ²)	Young's Modulus of Pile Material, E (Kg/Sq.cm)	Young's Modulus of Subgrade Reaction, K (Kg/Sq.cm)	Moment of Inertia, I (CMS ⁴)	Stiffness Factor, T (M)	L1 / T	Depth of Fixity, L1 (cms)	(Fixed head) Lateral Load Capacity, QL (T.)
1	100.00	35	295804	0.14	4908739	401.02	2.19	878	12.872
2	120.00	35	295804	0.16	10178760	451.77	2.19	989	18.675

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As Per IS 2911-1_sec 2 : 2010												
BH No		Minimum of Four		Depth of GWT, m		not found		No of layer		3		
Pile length, m		20		Pile Dia, m		1		Factor of Safety		2.5		
Skin Friction Resistance (Granular)						$Q_s = \sum k_i \cdot P_{di} \cdot \tan \delta^* A_{si}$						
End Bearing Resistance (Granular)						$Q_b = A_p(0.5 \cdot D^* \gamma^* N_\gamma + P_d \cdot N_q)$						
Layer No.	Start Depth, m	End Depth,m	Layer Thickness, m	Cohesion, C, T/m2	Reduction Factor, α	Angle of Internal Friction $\phi = \delta$	Earth Pressure Coefficient, K	Bulk Density, of 1 layer γ_i T/m3	Over Burden at mid depth of layer P_{di}	Q_s		
1	2.5	5.00	2.50	0	0	27	1	0.97	1.213	4.86		
2	5.0	11.5	6.50	0	0	28	1	0.970	5.58	60.56		
3	11.5	22.5	11.00	0	0	29	1	0.970	14.07	269.14		
Total Skin friction resistance Q_s , T										334.6		
Soil Parameters at Pile Tip			Cohesion, C , T/m2		0	ϕ	29	18.4	End Bearing Resistance Q_b , T	224.3		
			Q'		7.5	pd	15.0	19.34				
Ultimate Pile Carrying Capacity T			558.8			Safe Pile Carrying Capacity T					223.5	
UPLIFT LOAD CAPACITY												
Volume of Pile m3			15.70	Unit Weight of Concrete, T/m3			1.5	Weight of Pile, T			23.55	
Total Uplift Capacity, T			234.19	Factor of Safety			2.5	Safe Uplift Capacity, T			117.2	

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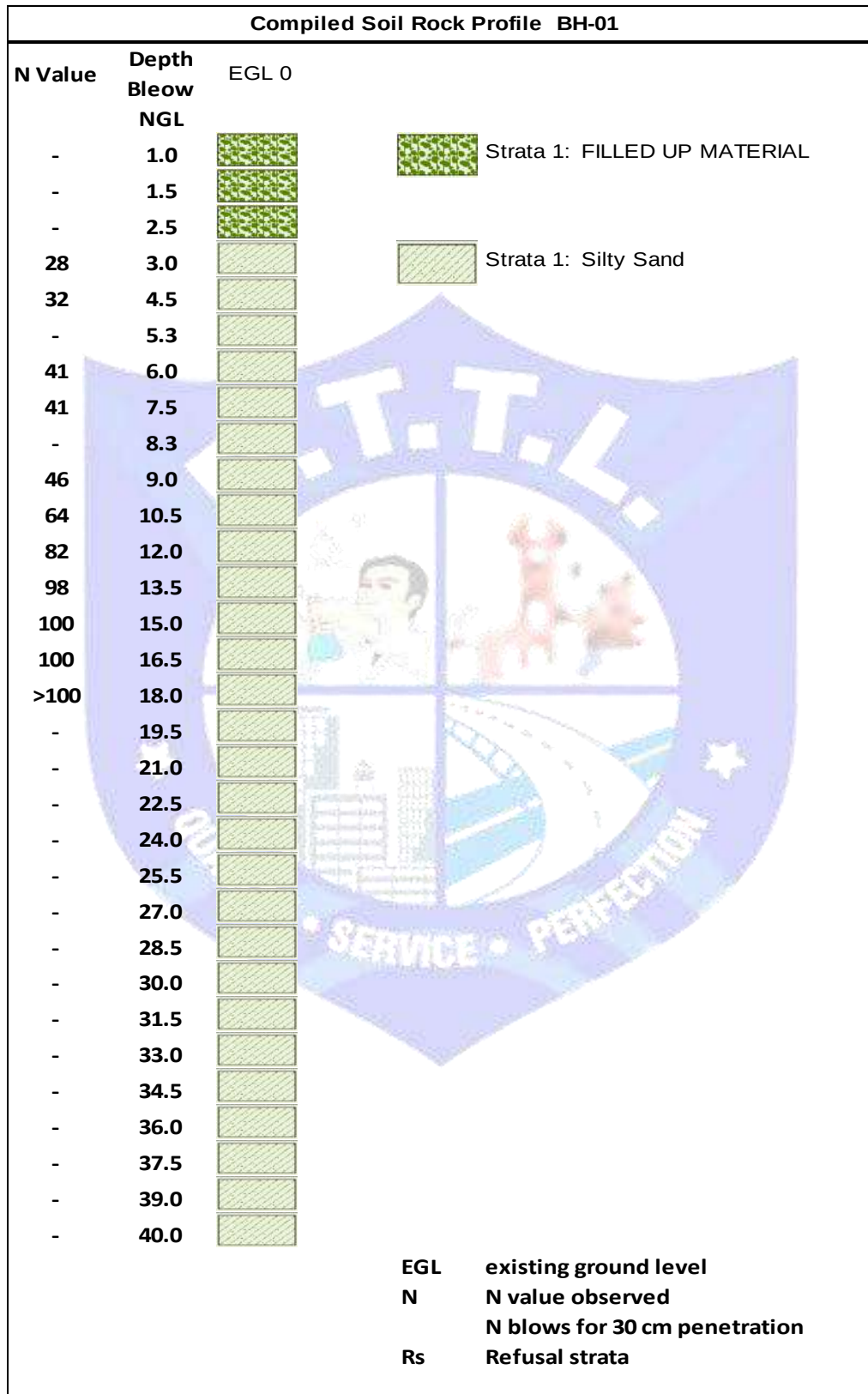
Report No. JP/ETTL/24-25/TE-85060310914-1 L2

As Per IS 2911-1_sec 2 : 2010										
BH No		Minimum of Four		Depth of GWT,m		not found		No of layer		3
Pile length, m		20		Pile Dia,m		1.2		Factor of Safety		2.5
Skin Friction Resistance (Granular)						$Q_s = \sum k_i \cdot P_{di} \cdot \tan \delta \cdot A_{si}$				
End Bearing Resistance (Granular)						$Q_b= A_p(0.5 \cdot D \cdot \gamma \cdot N_\gamma + P_d \cdot N_q)$				
Layer No.	Start Depth, m	End Depth, m	Layer Thickness, m	Cohesion, C, T/m2	Reduction Factor, α	Angle of Internal Friction $\phi = \delta$	Earth Pressure Coefficient, K	Bulk Density, of 1 layer γ_i T/m3	Over Burden at mid depth of layer P_{di}	Q_s
1	2.5	5.00	2.50	0	0	27	1	0.97	1.213	5.83
2	5.0	11.5	6.50	0	0	28	1	0.970	5.58	72.67
3	11.5	22.5	11.00	0	0	29	1	0.970	14.07	322.96
Total Skin friction resistance Q_s , T										401.5
Soil Parameters at Pile Tip			Cohesion, C, T/m2		0	ϕ	29	18.4	End Bearing Resistance Q_b , T	387.5
			Q'		7.5	pd	18.0	19.34		
Ultimate Pile Carrying Capacity T			789.0			Safe Pile Carrying Capacity T				315.6
UPLIFT LOAD CAPACITY										
Volume of Pile m3			22.61	Unit Weight of Concrete, T/m3			1.5	Weight of Pile, T		33.91
Total Uplift Capacity, T			281.02	Factor of Safety			2.5	Safe Uplift Capacity, T		146.3

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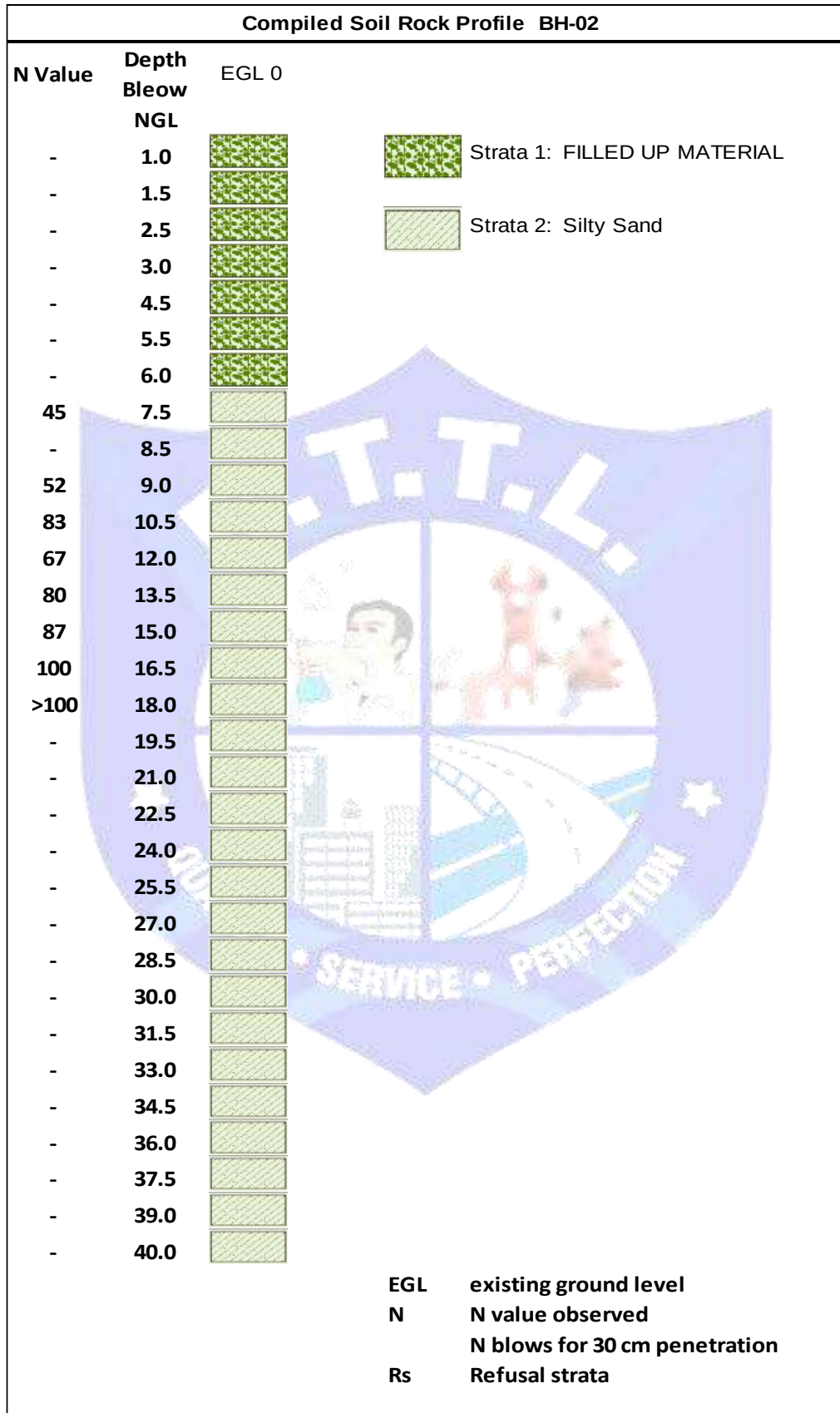
Report No. JP/ETTL/24-25/TE-85060310914-1 L2

7. STRATIGRAPHY DRAWINGS



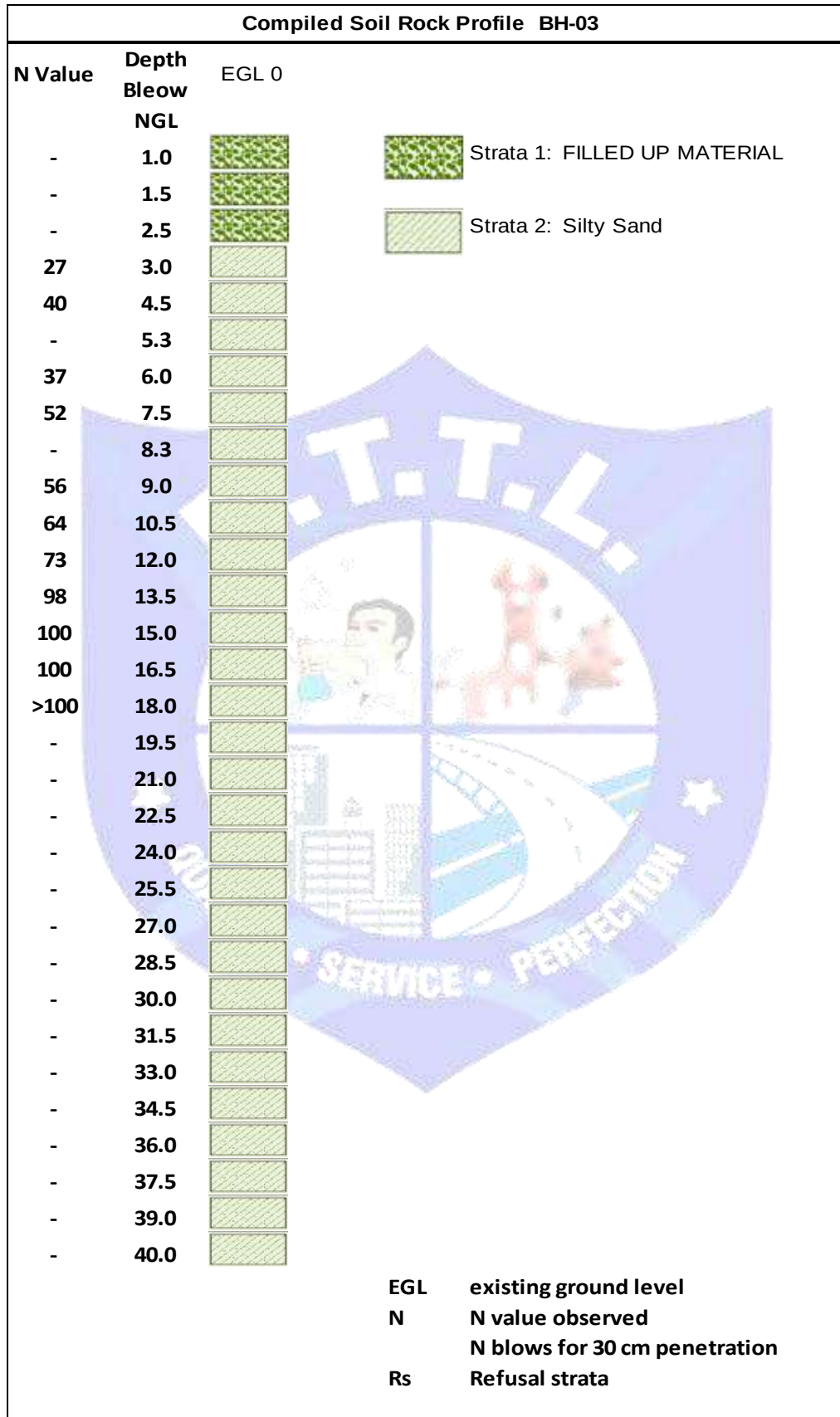
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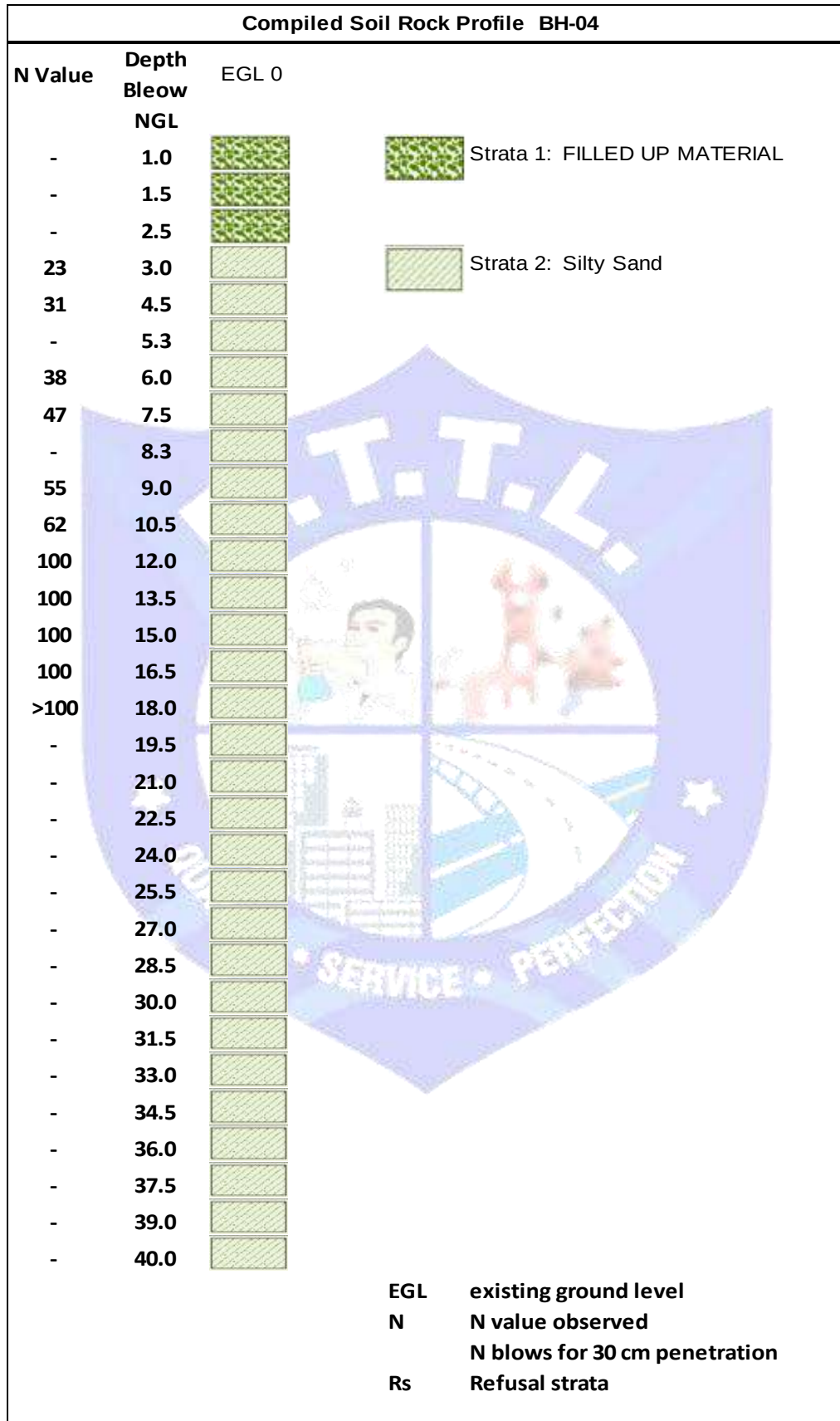
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8. FIELD TEST RESULT

location /Chainage: BH-01								Method of drilling: Rotary	
Diameter of Bore hole: 100 mm								Starting Date:- 20/09/2024	
FIELD TEST RESULT								Ending Date:- 21/09/2024	
Depth Below NGL (Meter)	Nature of Sample	Sample Reference No.	SPT Test Result					Description of soil	Soil Classification
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT N(N2+N3)	N' (Correct N)		
1.0	DS	1	FILLED UP MATERIAL						
1.5	DS	2							
2.5	DS	3							
3.0	SPT/DS	4	10	13	15	28	35	Silty Sand	SM
4.5	SPT	5	12	14	18	32	35	Silty Sand	SM
5.3	UDS	6	-	-	-	-	-	Silty Sand	SM
6.0	SPT	7	15	19	22	41	41	Silty Sand	SM
7.5	SPT	8	14	18	23	41	38	Silty Sand	SM
8.3	UDS	9	-	-	-	-	-	Silty Sand	SM
9.0	SPT	10	17	21	25	46	40	Silty Sand	SM
10.5	SPT	11	19	29	35	64	51	Silty Sand	SM
12.0	SPT	12	25	34	48	82	62	Silty Sand	SM
13.5	SPT	13	32	48	50	98	70	Silty Sand	SM
15.0	SPT	14	40	50	50	100	68	Silty Sand	SM
16.5	SPT	15	43	50	50	100	64	Silty Sand	SM
18.0	DS	16	-	-	-	>100	60	Silty Sand	SM
19.5	DS	17	-	-	-	-	60	Silty Sand	SM
21.0	DS	18	-	-	-	-	-	Silty Sand	SM
22.5	DS	19	-	-	-	-	-	Silty Sand	SM
24.0	DS	20	-	-	-	-	-	Silty Sand	SM
25.5	DS	21	-	-	-	-	-	Silty Sand	SM
27.0	DS	22	-	-	-	-	-	Silty Sand	SM
28.5	DS	23	-	-	-	-	-	Silty Sand	SM
30.0	DS	24	-	-	-	-	-	Silty Sand	SM
31.5	DS	25	-	-	-	-	-	Silty Sand	SM
33.0	DS	26	-	-	-	-	-	Silty Sand	SM
34.5	DS	27	-	-	-	-	-	Silty Sand	SM
36.0	DS	28	-	-	-	-	-	Silty Sand	SM
37.5	DS	29	-	-	-	-	-	Silty Sand	SM
39.0	DS	30	-	-	-	-	-	Silty Sand	SM
40.0	DS	31	-	-	-	-	-	Silty Sand	SM

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ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

location /Chainage: BH-02								Method of drilling: Rotary		
Diameter of Bore hole: 100 mm								Starting Date:- 14/09/2024		
FIELD TEST RESULT								Ending Date:- 14/09/2024		
Depth Below NGL (Meter)	Nature of Sample	Sample Reference No.	SPT Test Result					Description of soil	Soil Classification	
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT N(N2+N3)	N' (Correct N)			
1.0	DS	1	FILLED UP MATERIAL							
1.5	DS	2								
2.5	DS	3								
3.0	DS	4								
4.5	DS	5								
5.5	DS	6								
6.0	DS	7								
7.5	SPT	8	16	20	25	45	42	Silty Sand	SM	
8.5	UDS	9	-	-	-	-	-	Silty Sand	SM	
9.0	SPT	10	20	23	29	52	45	Silty Sand	SM	
10.5	SPT	11	28	35	48	83	68	Silty Sand	SM	
12.0	SPT	12	30	33	34	67	51	Silty Sand	SM	
13.5	SPT	13	27	37	43	80	58	Silty Sand	SM	
15.0	SPT	14	32	40	47	87	60	Silty Sand	SM	
16.5	SPT	15	45	50	50	100	65	Silty Sand	SM	
18.0	DS	16	-	-	-	>100	60	Silty Sand	SM	
19.5	DS	17	-	-	-	-	60	Silty Sand	SM	
21.0	DS	18	-	-	-	-	-	Silty Sand	SM	
22.5	DS	19	-	-	-	-	-	Silty Sand	SM	
24.0	DS	20	-	-	-	-	-	Silty Sand	SM	
25.5	DS	21	-	-	-	-	-	Silty Sand	SM	
27.0	DS	22	-	-	-	-	-	Silty Sand	SM	
28.5	DS	23	-	-	-	-	-	Silty Sand	SM	
30.0	DS	24	-	-	-	-	-	Silty Sand	SM	
31.5	DS	25	-	-	-	-	-	Silty Sand	SM	
33.0	DS	26	-	-	-	-	-	Silty Sand	SM	
34.5	DS	27	-	-	-	-	-	Silty Sand	SM	
36.0	DS	28	-	-	-	-	-	Silty Sand	SM	
37.5	DS	29	-	-	-	-	-	Silty Sand	SM	
39.0	DS	30	-	-	-	-	-	Silty Sand	SM	
40.0	DS	31	-	-	-	-	-	Silty Sand	SM	

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

location /Chainage: BH-03								Method of drilling: Rotary		
Diameter of Bore hole: 100 mm								Starting Date:- 21/09/2024		
FIELD TEST RESULT								Ending Date:- 21/09/2024		
Depth Below NGL (Meter)	Nature of Sample	Sample Reference No.	SPT Test Result					Description of soil	Soil Classification	
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT N(N2+N3)	N' (Correct N)			
1.0	DS	1	FILLED UP MATERIAL							
1.5	DS	2								
2.5	DS	3								
3.0	SPT/DS	4	8	13	14	27	33	Silty Sand	SM	
4.5	SPT	5	12	18	22	40	44	Silty Sand	SM	
5.3	UDS	6	-	-	-	-	-	Silty Sand	SM	
6.0	SPT	7	16	17	20	37	37	Silty Sand	SM	
7.5	SPT	8	20	25	27	52	48	Silty Sand	SM	
8.3	UDS	9	-	-	-	-	-	Silty Sand	SM	
9.0	SPT	10	24	26	30	56	48	Silty Sand	SM	
10.5	SPT	11	25	30	34	64	52	Silty Sand	SM	
12.0	SPT	12	28	33	40	73	55	Silty Sand	SM	
13.5	SPT	13	35	48	50	98	70	Silty Sand	SM	
15.0	SPT	14	41	50	50	100	68	Silty Sand	SM	
16.5	SPT	15	48	50	50	100	65	Silty Sand	SM	
18.0	DS	16	-	-	-	>100	60	Silty Sand	SM	
19.5	DS	17	-	-	-	-	60	Silty Sand	SM	
21.0	DS	18	-	-	-	-	-	Silty Sand	SM	
22.5	DS	19	-	-	-	-	-	Silty Sand	SM	
24.0	DS	20	-	-	-	-	-	Silty Sand	SM	
25.5	DS	21	-	-	-	-	-	Silty Sand	SM	
27.0	DS	22	-	-	-	-	-	Silty Sand	SM	
28.5	DS	23	-	-	-	-	-	Silty Sand	SM	
30.0	DS	24	-	-	-	-	-	Silty Sand	SM	
31.5	DS	25	-	-	-	-	-	Silty Sand	SM	
33.0	DS	26	-	-	-	-	-	Silty Sand	SM	
34.5	DS	27	-	-	-	-	-	Silty Sand	SM	
36.0	DS	28	-	-	-	-	-	Silty Sand	SM	
37.5	DS	29	-	-	-	-	-	Silty Sand	SM	
39.0	DS	30	-	-	-	-	-	Silty Sand	SM	
40.0	DS	31	-	-	-	-	-	Silty Sand	SM	

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

location /Chainage: BH-04								Method of drilling: Rotary			
Diameter of Bore hole: 100 mm								Starting Date:- 22/09/2024			
FIELD TEST RESULT								Ending Date:- 22/09/2024			
Depth Below NGL (Meter)	Nature of Sample	Sample Reference No.	SPT Test Result					Description of soil	Soil Classification		
			N1 (Seating Drive)	N2 (First Drive)	N3 (Second Drive)	Observed SPT N(N2+N3)	N' (Correct N)				
1.0	DS	1	FILLED UP MATERIAL								
1.5	DS	2									
2.5	DS	3									
3.0	SPT/DS	4	9	10	13	23	29	Silty Sand	SM		
4.5	SPT	5	12	14	17	31	34	Silty Sand	SM		
5.3	UDS	6	-	-	-	-	-	Silty Sand	SM		
6.0	SPT	7	15	18	20	38	38	Silty Sand	SM		
7.5	SPT	8	18	21	26	47	43	Silty Sand	SM		
8.3	UDS	9	-	-	-	-	-	Silty Sand	SM		
9.0	SPT	10	20	25	30	55	47	Silty Sand	SM		
10.5	SPT	11	19	30	32	62	50	Silty Sand	SM		
12.0	SPT	12	31	50	50	100	76	Silty Sand	SM		
13.5	SPT	13	35	50	50	100	71	Silty Sand	SM		
15.0	SPT	14	42	50	50	100	68	Silty Sand	SM		
16.5	SPT	15	48	50	50	100	64	Silty Sand	SM		
18.0	DS	16	-	-	-	>100	60	Silty Sand	SM		
19.5	DS	17	-	-	-	-	60	Silty Sand	SM		
21.0	DS	18	-	-	-	-	-	Silty Sand	SM		
22.5	DS	19	-	-	-	-	-	Silty Sand	SM		
24.0	DS	20	-	-	-	-	-	Silty Sand	SM		
25.5	DS	21	-	-	-	-	-	Silty Sand	SM		
27.0	DS	22	-	-	-	-	-	Silty Sand	SM		
28.5	DS	23	-	-	-	-	-	Silty Sand	SM		
30.0	DS	24	-	-	-	-	-	Silty Sand	SM		
31.5	DS	25	-	-	-	-	-	Silty Sand	SM		
33.0	DS	26	-	-	-	-	-	Silty Sand	SM		
34.5	DS	27	-	-	-	-	-	Silty Sand	SM		
36.0	DS	28	-	-	-	-	-	Silty Sand	SM		
37.5	DS	29	-	-	-	-	-	Silty Sand	SM		
39.0	DS	30	-	-	-	-	-	Silty Sand	SM		
40.0	DS	31	-	-	-	-	-	Silty Sand	SM		

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

9. LABORATORY TEST RESULT

Depth of bore hole: 40.00 mtr										Water Table: Not Found									
LABORATORY TEST RESULT BH-01																			
Depth Below NGL (Meter)	Index Property				Grain Size Analysis					Grain Size Analysis by Hydrometer		Index Property			Shear Strength Parameters			Soil Classification	
	Bulk Density (gm/cc)	Moisture Content (%)	Void Ratio	Specific Gravity (Gs)	Gravel (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Silt & Clay (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plastic Index (%)	Type of Test	Cohesion C (kg/cm²)	Angle of Friction (Degree) ϕ		
1.0	FILLED UP MATERIAL																		
1.5																			
2.5																			
3.0	1.63	4.25	0.72	2.694	0.56	1.41	2.16	70.02	25.85	25.85	0.00	23.5	Nil	NP	DST	0.00	27	SM	
4.5	1.63	4.32	0.72	2.689	0.02	1.65	3.25	69.32	25.76	25.76	0.00	-	-	-	-	-	-	SM	
5.5	1.64	4.67	0.72	2.694	0.62	1.95	4.02	66.41	27.00	27.00	0.00	23.6	Nil	NP	DST	0.00	28	SM	
6.0	1.66	4.82	0.70	2.688	0.31	2.64	1.25	76.32	19.48	19.48	0.00	-	-	-	-	-	-	SM	
7.5	1.67	5.49	0.69	2.678	0.25	3.26	3.26	72.31	20.92	20.92	0.00	-	-	-	-	-	-	SM	
8.5	1.68	5.82	0.69	2.686	0.41	1.20	3.28	71.02	24.09	24.09	0.00	23.8	Nil	NP	DST	0.00	28	SM	
9.0	1.70	6.24	0.67	2.678	0.65	2.84	2.54	74.00	19.97	19.97	0.00	-	-	-	-	-	-	SM	
10.5	1.72	6.77	0.67	2.685	0.95	2.46	4.15	74.52	17.92	17.92	0.00	-	-	-	-	-	-	SM	
12.0	1.73	7.09	0.66	2.679	0.52	3.82	2.64	76.32	16.70	16.70	0.00	-	-	-	-	-	-	SM	
13.5	1.74	7.51	0.65	2.665	0.44	4.26	4.02	70.02	21.26	21.26	0.00	23.1	Nil	NP	DST	0.00	29	SM	
15.0	1.76	7.97	0.64	2.674	0.63	1.26	3.65	65.35	29.11	29.11	0.00	-	-	-	-	-	-	SM	
16.5	1.77	8.24	0.64	2.685	0.25	4.12	2.03	69.52	24.08	24.08	0.00	22.2	Nil	NP	DST	0.00	29	SM	
18.0	1.79	8.65	0.62	2.670	0.85	1.03	5.32	67.16	25.64	25.64	0.00	-	-	-	-	-	-	SM	
19.5	1.80	8.93	0.62	2.679	0.16	2.30	2.65	69.52	25.37	25.37	0.00	-	-	-	-	-	-	SM	
21.0	1.80	9.24	0.62	2.671	0.34	2.47	6.32	67.52	23.35	23.35	0.00	-	-	-	-	-	-	SM	
22.5	1.81	9.74	0.62	2.665	0.85	2.02	4.51	73.26	19.36	19.36	0.00	-	-	-	-	-	-	SM	
24.0	1.82	10.08	0.62	2.674	0.52	1.64	3.26	68.52	26.06	26.06	0.00	-	-	-	-	-	-	SM	
25.5	1.83	10.25	0.61	2.668	0.16	2.03	5.25	64.51	28.05	28.05	0.00	-	-	-	-	-	-	SM	
27.0	1.84	10.85	0.60	2.659	0.98	4.25	2.65	58.52	33.60	33.60	0.00	-	-	-	-	-	-	SM	
28.5	1.85	11.46	0.60	2.663	0.85	1.98	6.25	59.62	31.30	31.30	0.00	-	-	-	-	-	-	SM	
30.0	1.85	11.82	0.60	2.648	0.25	4.02	6.13	65.41	24.19	24.19	0.00	-	-	-	-	-	-	SM	
31.5	1.86	12.25	0.60	2.651	0.74	5.22	4.82	72.01	17.21	17.21	0.00	-	-	-	-	-	-	SM	
33.0	1.87	12.78	0.60	2.649	0.66	8.34	4.12	67.66	19.22	19.22	0.00	-	-	-	-	-	-	SM	
34.5	1.88	13.36	0.60	2.652	0.35	4.19	6.45	76.32	12.69	12.69	0.00	-	-	-	-	-	-	SM	
36.0	1.90	13.86	0.60	2.674	0.25	7.76	2.36	67.41	22.22	22.22	0.00	-	-	-	-	-	-	SM	
37.5	1.90	14.29	0.60	2.652	0.46	6.98	4.77	65.02	22.77	22.77	0.00	-	-	-	-	-	-	SM	
39.0	1.91	14.63	0.60	2.659	0.82	1.63	5.02	69.52	23.01	23.01	0.00	-	-	-	-	-	-	SM	
40.0	1.92	15.01	0.60	2.665	0.98	4.32	6.32	67.41	20.97	20.97	0.00	-	-	-	-	-	-	SM	

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

Depth of bore hole: 40.00 mtr										Water Table: Not Found								
LABORATORY TEST RESULT BH-02																		
Depth Below NGL (Meter)	Index Property				Grain Size Analysis					Grain Size Analysis by Hydrometer		Index Property			Shear Strength Parameters			Soil Classification
	Bulk Density (gm/cc)	Moisture Content (%)	Void Ratio	Specific Gravity (Gs)	Gravel (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Silt & Clay (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plastic Index (%)	Type of Test	Cohesion C (kg/cm ²)	Angle of Friction (Degree) ϕ	
1.0	FILLED UP MATERIAL																	
1.5																		
2.5																		
3.0																		
4.5																		
5.5																		
6.0																		
7.5	1.64	6.14	0.73	2.678	0.25	1.06	2.51	70.01	26.17	26.17	0.00	-	-	-	-	-	-	SM
8.5	1.65	6.52	0.73	2.682	0.61	2.01	3.48	68.32	25.58	25.58	0.00	23.6	Nil	NP	DST	0.00	25	SM
9.0	1.66	6.85	0.73	2.694	0.43	1.63	2.55	65.29	30.10	30.10	0.00	-	-	-	-	-	-	SM
10.5	1.67	7.12	0.71	2.671	0.25	1.84	3.62	69.41	24.88	24.88	0.00	-	-	-	-	-	-	SM
12.0	1.69	7.41	0.71	2.685	0.52	2.33	4.12	64.50	28.53	28.53	0.00	-	-	-	-	-	-	SM
13.5	1.70	7.62	0.69	2.667	0.94	3.14	2.96	62.02	30.94	30.94	0.00	23.0	Nil	NP	DST	0.00	26	SM
15.0	1.72	7.85	0.68	2.678	1.45	2.74	3.41	67.36	25.04	25.04	0.00	-	-	-	-	-	-	SM
16.5	1.74	8.01	0.67	2.685	0.32	2.00	2.46	70.02	25.20	25.20	0.00	22.7	Nil	NP	DST	0.00	29	SM
18.0	1.75	8.32	0.65	2.671	0.95	3.26	3.98	62.35	29.46	29.46	0.00	-	-	-	-	-	-	SM
19.5	1.76	8.52	0.64	2.659	1.02	1.02	4.02	68.51	25.43	25.43	0.00	-	-	-	-	-	-	SM
21.0	1.77	8.95	0.64	2.668	1.84	2.54	5.24	67.16	23.22	23.22	0.00	-	-	-	-	-	-	SM
22.5	1.79	9.21	0.62	2.651	1.33	1.02	1.64	69.52	26.49	26.49	0.00	-	-	-	-	-	-	SM
24.0	1.80	9.52	0.61	2.647	1.75	3.46	2.69	55.26	36.84	36.84	0.00	-	-	-	-	-	-	SM
25.5	1.81	9.74	0.61	2.663	2.02	2.95	6.32	59.64	29.07	29.07	0.00	-	-	-	-	-	-	SM
27.0	1.81	10.02	0.61	2.650	1.54	1.47	5.84	63.25	27.90	27.90	0.00	-	-	-	-	-	-	SM
28.5	1.82	10.52	0.61	2.659	1.36	3.26	4.15	61.24	29.99	29.99	0.00	-	-	-	-	-	-	SM
30.0	1.83	10.68	0.60	2.647	2.03	3.78	2.47	67.52	24.20	24.20	0.00	-	-	-	-	-	-	SM
31.5	1.85	10.98	0.59	2.655	1.63	1.62	3.52	67.36	25.87	25.87	0.00	-	-	-	-	-	-	SM
33.0	1.86	11.12	0.58	2.651	2.99	2.04	2.02	68.62	24.34	24.34	0.00	-	-	-	-	-	-	SM
34.5	1.87	11.51	0.58	2.647	1.41	1.69	3.66	72.14	21.10	21.10	0.00	-	-	-	-	-	-	SM
36.0	1.89	11.85	0.57	2.658	1.66	2.55	2.80	67.11	25.88	25.88	0.00	-	-	-	-	-	-	SM
37.5	1.89	12.02	0.57	2.643	1.82	3.14	4.28	65.36	25.40	25.40	0.00	-	-	-	-	-	-	SM
39.0	1.90	12.63	0.57	2.652	2.34	2.74	4.15	69.52	21.25	21.25	0.00	-	-	-	-	-	-	SM
40.0	1.91	12.85	0.56	2.638	2.02	1.46	2.69	64.74	29.09	29.09	0.00	-	-	-	-	-	-	SM

E.T.T.L.
ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

Depth of bore hole: 40.00 mtr										Water Table: Not Found								
LABORATORY TEST RESULT BH-03																		
Depth Below NGL (Meter)	Index Property				Grain Size Analysis					Grain Size Analysis by Hydrometer		Index Property			Shear Strength Parameters			Soil Classification
	Bulk Density (gm/cc)	Moistur e Content (%)	Void Ratio	Specific Gravity (Gs)	Gravel (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Silt & Clay (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plastic Index (%)	Type of Test	Cohesio n C (kg/cm ²)	Angle of Friction (Degree)	
1.0	FILLED UP MATERIAL																	
1.5																		
2.5																		
3.0	1.64	4.51	0.72	2.695	0.02	1.41	1.24	76.32	21.01	21.01	0.00	23.6	Nil	NP	DST	0.00	27	SM
4.5	1.65	4.85	0.71	2.689	0.62	1.65	2.02	71.02	24.69	24.69	0.00	-	-	-	-	-	-	SM
5.3	1.66	5.12	0.70	2.684	0.35	1.95	1.62	75.52	20.56	20.56	0.00	23.2	Nil	NP	DST	0.00	28	SM
6.0	1.68	5.52	0.68	2.678	0.41	2.64	2.34	70.02	24.59	24.59	0.00	-	-	-	-	-	-	SM
7.5	1.68	5.94	0.68	2.671	0.85	3.26	1.20	65.62	29.07	29.07	0.00	-	-	-	-	-	-	SM
8.5	1.69	6.07	0.68	2.678	0.26	1.20	1.95	78.65	17.94	17.94	0.00	22.6	Nil	NP	DST	0.00	28	SM
9.0	1.70	6.52	0.68	2.684	0.64	2.84	2.46	71.34	22.72	22.72	0.00	-	-	-	-	-	-	SM
10.5	1.71	6.98	0.67	2.677	0.55	2.46	1.31	80.03	15.65	15.65	0.00	-	-	-	-	-	-	SM
12.0	1.72	7.24	0.66	2.668	0.82	3.82	1.02	64.12	30.22	30.22	0.00	-	-	-	-	-	-	SM
13.5	1.74	7.76	0.66	2.678	0.29	4.26	1.74	69.52	24.19	24.19	0.00	23.8	Nil	NP	DST	0.00	29	SM
15.0	1.74	8.09	0.66	2.679	2.64	6.32	1.33	76.33	13.38	13.38	0.00	-	-	-	-	-	-	SM
16.5	1.75	8.52	0.65	2.663	1.62	4.12	1.62	71.45	21.19	21.19	0.00	23.1	Nil	NP	DST	0.00	29	SM
18.0	1.76	8.89	0.65	2.674	2.35	6.32	2.35	63.25	25.73	25.73	0.00	-	-	-	-	-	-	SM
19.5	1.77	9.32	0.64	2.655	1.85	2.51	1.85	71.05	22.74	22.74	0.00	-	-	-	-	-	-	SM
21.0	1.79	9.74	0.63	2.653	2.03	1.63	2.01	75.28	19.05	19.05	0.00	-	-	-	-	-	-	SM
22.5	1.80	10.15	0.63	2.668	2.96	3.02	1.64	78.65	13.73	13.73	0.00	-	-	-	-	-	-	SM
24.0	1.80	10.75	0.63	2.652	3.14	1.02	1.74	73.26	20.84	20.84	0.00	-	-	-	-	-	-	SM
25.5	1.81	11.32	0.63	2.647	1.02	4.21	1.03	80.01	13.73	13.73	0.00	-	-	-	-	-	-	SM
27.0	1.83	11.65	0.62	2.651	1.52	1.69	1.95	71.34	23.50	23.50	0.00	-	-	-	-	-	-	SM
28.5	1.84	11.82	0.61	2.646	1.02	2.02	3.26	76.26	17.44	17.44	0.00	-	-	-	-	-	-	SM
30.0	1.85	12.52	0.61	2.652	0.85	1.74	2.51	78.52	16.38	16.38	0.00	-	-	-	-	-	-	SM
31.5	1.87	12.88	0.60	2.650	1.34	1.33	4.56	74.11	18.66	18.66	0.00	-	-	-	-	-	-	SM
33.0	1.87	13.01	0.60	2.644	2.55	1.69	2.84	64.36	28.56	28.56	0.00	-	-	-	-	-	-	SM
34.5	1.89	13.42	0.59	2.649	3.24	1.45	4.26	68.62	22.43	22.43	0.00	-	-	-	-	-	-	SM
36.0	1.90	13.86	0.59	2.656	1.02	1.65	5.12	69.63	22.58	22.58	0.00	-	-	-	-	-	-	SM
37.5	1.91	14.33	0.58	2.639	3.65	1.02	3.26	71.45	20.62	20.62	0.00	-	-	-	-	-	-	SM
39.0	1.92	14.65	0.58	2.641	2.74	3.20	4.20	67.41	22.45	22.45	0.00	-	-	-	-	-	-	SM
40.0	1.94	14.92	0.56	2.638	1.64	1.02	4.36	68.52	24.46	24.46	0.00	-	-	-	-	-	-	SM

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ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

Report No. JP/ETTL/24-25/TE-85060310914-1 L2

Depth of bore hole: 40.00 mtr										Water Table: Not Found								
LABORATORY TEST RESULT BH-04																		
Depth Below NGL (Meter)	Index Property				Grain Size Analysis					Grain Size Analysis by Hydrometer		Index Property			Shear Strength Parameters			Soil Classification
	Bulk Density (gm/cc)	Moistur e Content (%)	Void Ratio	Specific Gravity (Gs)	Gravel (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Silt & Clay (%)	Silt (%)	Clay (%)	Liquid Limit (%)	Plastic Limit (%)	Plastic Index (%)	Type of Test	Cohesio n c (kg/cm ²)	Angle of Friction (Degree)	
1.0	FILLED UP MATERIAL																	
1.5																		
2.5																		
3.0	1.62	4.16	0.73	2.685	0.00	1.02	2.65	72.15	24.18	24.18	0.00	23.1	Nil	NP	DST	0.00	28	SM
4.5	1.63	4.65	0.72	2.679	0.00	2.62	3.14	79.32	14.92	14.92	0.00	-	-	-	-	-	-	SM
5.3	1.65	4.96	0.71	2.686	0.00	1.02	2.55	74.02	22.41	22.41	0.00	23.5	Nil	NP	DST	0.00	28	SM
6.0	1.68	5.22	0.67	2.671	0.00	0.95	2.95	71.02	25.08	25.08	0.00	-	-	-	-	-	-	SM
7.5	1.69	5.85	0.67	2.670	0.00	0.64	3.26	73.26	22.84	22.84	0.00	-	-	-	-	-	-	SM
8.5	1.70	6.04	0.67	2.670	0.00	0.75	4.12	76.65	18.48	18.48	0.00	23.0	Nil	NP	DST	0.00	29	SM
9.0	1.70	6.32	0.67	2.665	0.00	0.25	2.02	78.52	19.21	19.21	0.00	-	-	-	-	-	-	SM
10.5	1.72	6.85	0.65	2.659	0.00	0.52	2.85	74.51	22.12	22.12	0.00	-	-	-	-	-	-	SM
12.0	1.74	7.16	0.64	2.661	0.00	0.34	5.32	74.32	20.02	20.02	0.00	-	-	-	-	-	-	SM
13.5	1.75	7.65	0.63	2.657	0.00	0.74	2.69	76.32	20.25	20.25	0.00	23.6	Nil	NP	DST	0.00	30	SM
15.0	1.77	7.92	0.63	2.678	0.12	0.10	4.12	72.02	23.64	23.64	0.00	-	-	-	-	-	-	SM
16.5	1.78	8.45	0.63	2.675	0.25	1.02	6.32	70.03	22.38	22.38	0.00	22.8	Nil	NP	DST	0.00	30	SM
18.0	1.78	8.92	0.62	2.650	0.03	1.48	2.74	68.65	27.10	27.10	0.00	-	-	-	-	-	-	SM
19.5	1.80	9.65	0.62	2.653	0.52	2.34	2.02	76.32	18.80	18.80	0.00	-	-	-	-	-	-	SM
21.0	1.81	10.41	0.62	2.651	0.12	1.62	1.36	79.52	17.38	17.38	0.00	-	-	-	-	-	-	SM
22.5	1.82	10.75	0.61	2.640	0.63	3.25	3.26	70.01	22.85	22.85	0.00	-	-	-	-	-	-	SM
24.0	1.84	11.26	0.60	2.652	0.52	1.02	1.02	64.29	33.15	33.15	0.00	-	-	-	-	-	-	SM
25.5	1.85	11.86	0.60	2.648	0.16	1.65	4.12	68.63	25.44	25.44	0.00	-	-	-	-	-	-	SM
27.0	1.86	12.34	0.60	2.641	0.82	2.85	1.85	69.65	24.83	24.83	0.00	-	-	-	-	-	-	SM
28.5	1.87	12.85	0.60	2.655	1.62	2.06	2.02	76.32	17.98	17.98	0.00	-	-	-	-	-	-	SM
30.0	1.89	13.24	0.58	2.640	2.34	1.70	2.85	75.02	18.09	18.09	0.00	-	-	-	-	-	-	SM
31.5	1.90	13.62	0.57	2.632	1.02	1.06	4.12	71.34	22.46	22.46	0.00	-	-	-	-	-	-	SM
33.0	1.91	14.02	0.57	2.628	1.72	0.95	2.02	68.74	26.57	26.57	0.00	-	-	-	-	-	-	SM
34.5	1.92	14.52	0.56	2.615	2.65	1.45	6.32	76.32	13.26	13.26	0.00	-	-	-	-	-	-	SM
36.0	1.93	15.02	0.56	2.625	3.05	0.58	2.02	64.15	30.20	30.20	0.00	-	-	-	-	-	-	SM
37.5	1.94	15.22	0.56	2.635	1.24	2.54	1.95	76.52	17.75	17.75	0.00	-	-	-	-	-	-	SM
39.0	1.95	15.65	0.56	2.633	3.02	2.07	3.26	79.52	12.13	12.13	0.00	-	-	-	-	-	-	SM
40.0	1.97	15.92	0.55	2.628	0.85	3.25	1.74	82.01	12.15	12.15	0.00	-	-	-	-	-	-	SM

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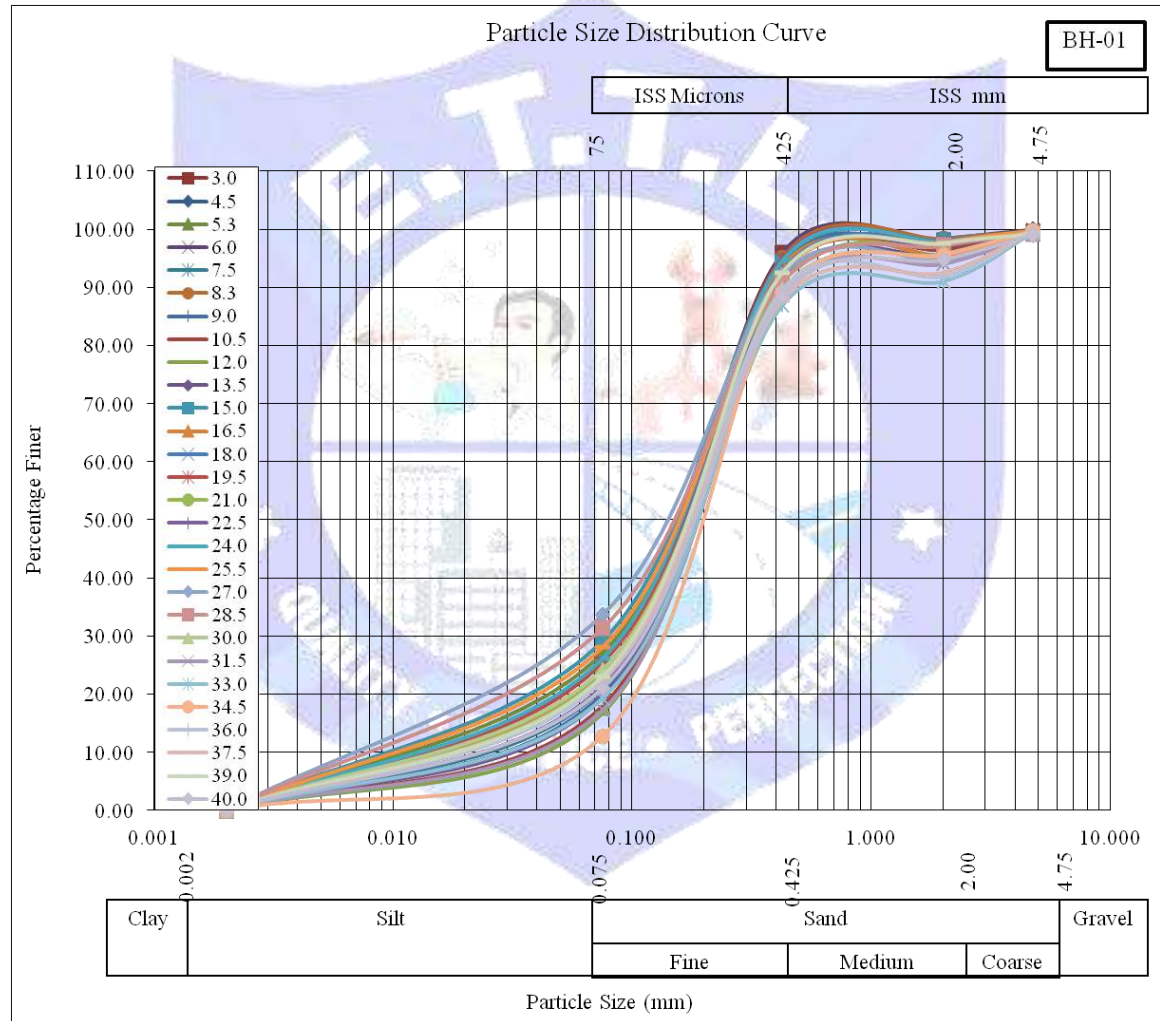
Chemical test

BH No.	Depth of Sampling (mtr)	Chemical Properties		
		pH	Sulphate so ₃ (%)	Chloride (%)
BH-01	3.00	7.69	0.03	0.008
BH-02	7.50	7.84	0.01	0.002
BH-03	3.00	7.78	0.03	0.006
BH-04	3.00	7.81	0.04	0.005

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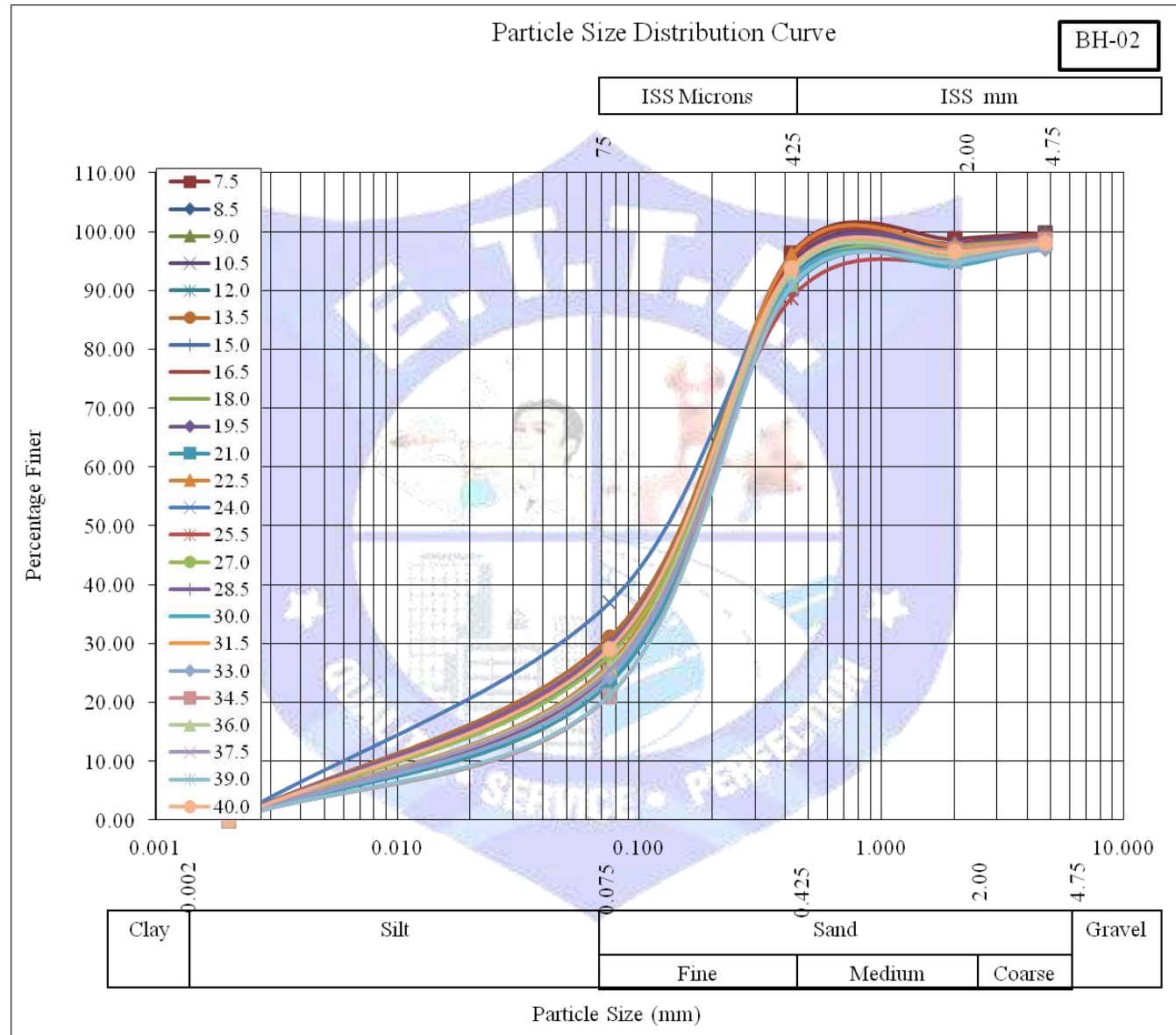
10. TEST PLOTS

Grain Size Analysis



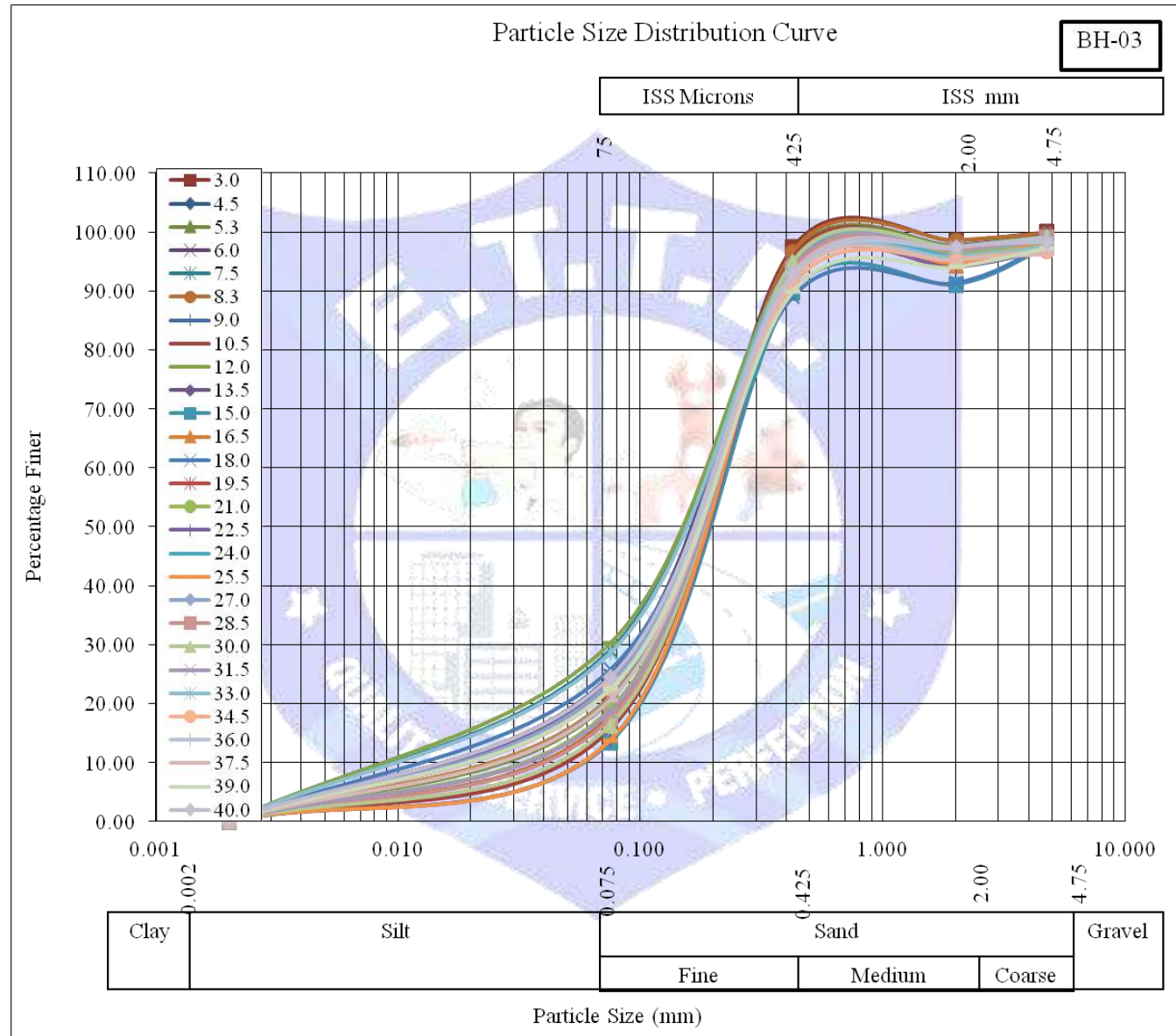
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ENGINEERING TRAINING TESTING AND CALIBRATION LABORATORY

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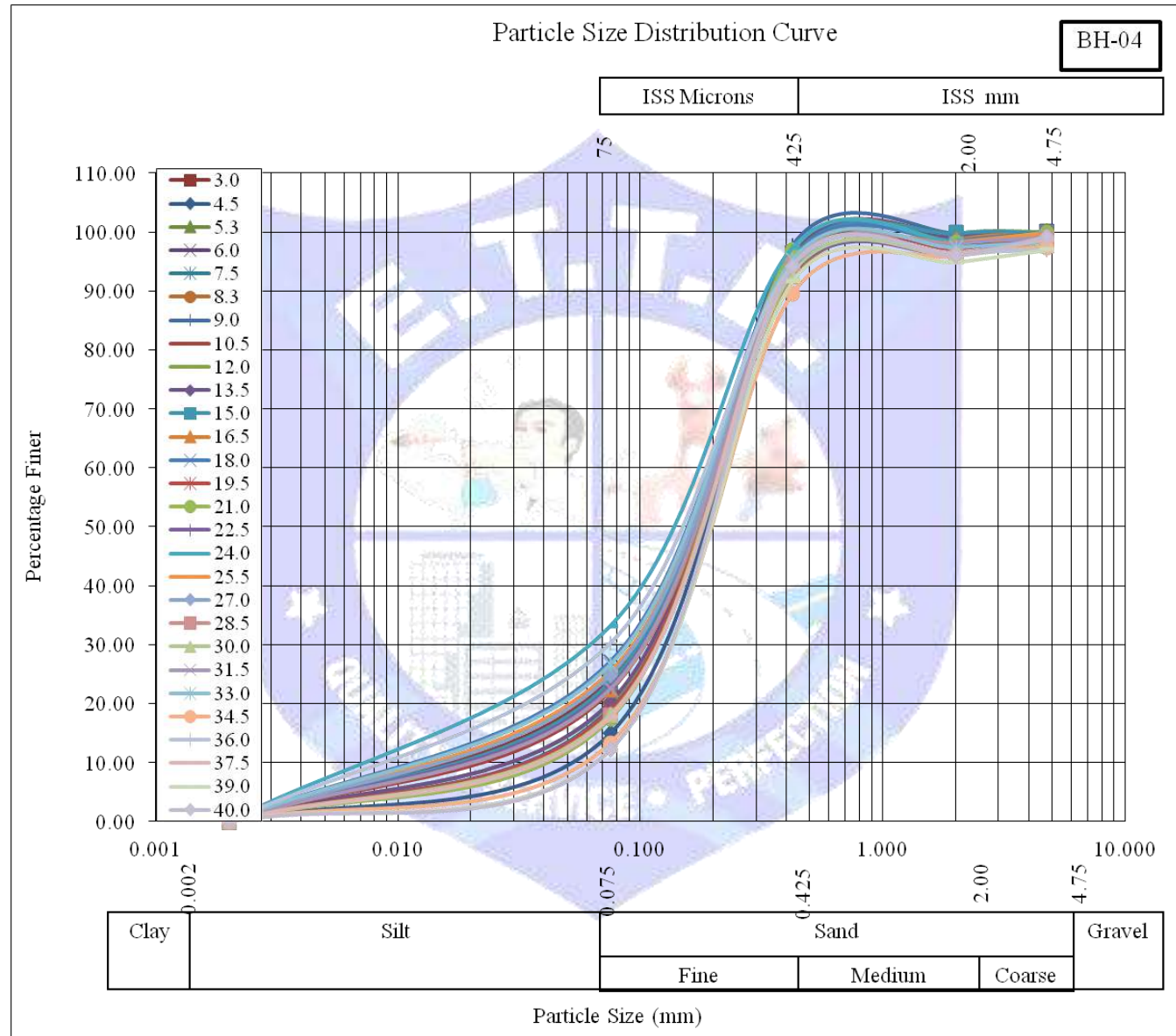
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11. SHEAR FAILURE AND CALCULATION

BH-01 (Local Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [2/3 * C * N_{cscdcic} + q(N_q - 1)S_{qdqiq} + 0.5 * B * \gamma * N_{\gamma} * W_{qSydyiy}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

Sr.No	Size of Foundation		Depth of Foundation m	Shear Parameter			Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	Φ'	N _c	N _q	N _{γ}			W _q	W _{γ}	Sc	S _q	S _{γ}		
1	6.00	6.00	3.00	0.0	27	18.8	13.68	5.65	4.52	1.63	4.890	1.0	1.0	1.3	1.2	0.8	17.99	22.88
2	6.00	6.00	4.50	0.0	28	19.5	14.34	6.09	5.03	1.64	7.380	1.0	1.0	1.3	1.2	0.8	25.93	33.31
3	6.00	6.00	6.00	0.0	28	19.5	14.34	6.09	5.03	1.64	9.840	1.0	1.0	1.3	1.2	0.8	31.93	41.77

BH-01 (General Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [C * N_{cscdcic} + q(N_q - 1)S_{qdqiq} + 0.5 * B * \gamma * N_{\gamma} * W_{qSydyiy}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

S.N O	Size of Foundation		Depth of Foundation m	Shear Parameter		Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	N _c	N _q	N _{γ}			W _q	W _{γ}	Sc	S _q	S _{γ}		
1	6.00	6.00	3.00	0.00	27	23.82	13.13	14.40	1.63	4.890	1.0	1.0	1.3	1.2	0.8	51.02	55.91
2	6.00	6.00	4.50	0.00	28	25.66	14.65	16.64	1.64	7.380	1.0	1.0	1.3	1.2	0.8	74.53	81.91
3	6.00	6.00	6.00	0.00	28	25.66	14.65	16.64	1.64	9.840	1.0	1.0	1.3	1.2	0.8	90.64	100.48

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BH-03 (Local Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [2/3 * C * N_{csc} + q(N_q - 1)S_qd_{q1} + 0.5 * B * \gamma * N_{\gamma} * W_{\gamma}S_{\gamma d_{y1}}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

Sr.No	Size of Foundation		Depth of Foundation m	Shear Parameter			Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	Φ'	N _c	N _q	N _γ			W _q	W _γ	Sc	S _q	S _γ		
1	6.00	6.00	3.00	0.0	27	18.8	13.68	5.65	4.52	1.64	4.920	1.0	1.0	1.3	1.2	0.8	18.10	23.02
2	6.00	6.00	4.50	0.0	28	19.5	14.34	6.09	5.03	1.66	7.470	1.0	1.0	1.3	1.2	0.8	26.25	33.72
3	6.00	6.00	6.00	0.0	28	19.5	14.34	6.09	5.03	1.66	9.960	1.0	1.0	1.3	1.2	0.8	32.32	42.28

BH-03 (General Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [C * N_{csc} + q(N_q - 1)S_qd_{q1} + 0.5 * B * \gamma * N_{\gamma} * W_{\gamma}S_{\gamma d_{y1}}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

S.N O	Size of Foundation		Depth of Foundation m	Shear Parameter		Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	N _c	N _q	N _γ			W _q	W _γ	Sc	S _q	S _γ		
1	6.00	6.00	3.00	0.00	27	23.82	13.13	14.40	1.64	4.920	1.0	1.0	1.3	1.2	0.8	51.34	56.26
2	6.00	6.00	4.50	0.00	28	25.66	14.65	16.64	1.66	7.470	1.0	1.0	1.3	1.2	0.8	75.44	82.91
3	6.00	6.00	6.00	0.00	28	25.66	14.65	16.64	1.66	9.960	1.0	1.0	1.3	1.2	0.8	91.75	101.71

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BH-04 (Local Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [2/3 * C * N_{cscdc} + q(N_q - 1)S_qd_{q_i} + 0.5 * B * \gamma * N_{\gamma} * W_{qSydyiy}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

Sr.No	Size of Foundation		Depth of Foundation m	Shear Parameter			Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	Φ'	N _c	N _q	N _γ			W _q	W _γ	Sc	S _q	S _γ		
1	6.00	6.00	3.00	0.0	28	19.5	14.34	6.09	5.03	1.62	4.860	1.0	1.0	1.3	1.2	0.8	19.68	24.54
2	6.00	6.00	4.50	0.0	28	19.5	14.34	6.09	5.03	1.65	7.425	1.0	1.0	1.3	1.2	0.8	26.09	33.51
3	6.00	6.00	6.00	0.0	28	19.5	14.34	6.09	5.03	1.65	9.900	1.0	1.0	1.3	1.2	0.8	32.13	42.03

BH-04 (General Shear Failure)

Calculation of Net Safe Bearing Capacity Based on Shear Parameters C- Φ
 $Q_{ns} = 1/FS [C * N_{cscdc} + q(N_q - 1)S_qd_{q_i} + 0.5 * B * \gamma * N_{\gamma} * W_{qSydyiy}]$; $Q_s = Q_{ns} + \gamma d$
 FS=2.50, Water Table as per Clause No.2.2.

S.N O	Size of Foundation		Depth of Foundation m	Shear Parameter		Bearing Capacity Factors			Unit Weight (γ) (gm/cc)	Overburden q	Water Table Correction		Shape Factor			Net Safe Bearing Capacity t/m ² (Q _{ns})	Gross Safe Bearing Capacity t/m ² (Q _s)
	Length m	Width m		C (kg/cm ²)	Φ	N _c	N _q	N _γ			W _q	W _γ	Sc	S _q	S _γ		
1	6.00	6.00	3.00	0.00	28	25.66	14.65	16.64	1.62	4.860	1.0	1.0	1.3	1.2	0.8	57.71	62.57
2	6.00	6.00	4.50	0.00	28	25.66	14.65	16.64	1.65	7.425	1.0	1.0	1.3	1.2	0.8	74.98	82.41
3	6.00	6.00	6.00	0.00	28	25.66	14.65	16.64	1.65	9.900	1.0	1.0	1.3	1.2	0.8	91.19	101.09

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12. SATTLEMENT FAILUR AND CALCULATION

BH-01

Depth(m)	width(m)	Length(m)	corrected N	Weighted average corrected 'N' value	from Figure 12 of IS:8009 part -1, depth factor	Settlement in 'm' per unit pressure (reading from graph)	Recommended allowable bearing pressure for 25 mm settlement
3.00	6.00	6.00	49	48	1.000	0.006	42.37
4.50	6.00	6.00	52	49	1.000	0.006	43.85
6.00	6.00	6.00	55	51	1.000	0.006	45.45

BH-03

Depth(m)	width(m)	Length(m)	corrected N	Weighted average corrected 'N' value	from Figure 12 of IS:8009 part -1, depth factor	Settlement in 'm' per unit pressure (reading from graph)	Recommended allowable bearing pressure for 25 mm settlement
3.00	6.00	6.00	51	49	1.000	0.006	44.64
4.50	6.00	6.00	54	51	1.000	0.006	45.45
6.00	6.00	6.00	56	52	1.000	0.005	47.16

BH-04

Depth(m)	width(m)	Length(m)	corrected N	Weighted average corrected 'N' value	from Figure 12 of IS:8009 part -1, depth factor	Settlement in 'm' per unit pressure (reading from graph)	Recommended allowable bearing pressure for 25 mm settlement
3.00	6.00	6.00	51	50	1.000	0.006	44.64
4.50	6.00	6.00	55	51	1.000	0.005	46.29
6.00	6.00	6.00	57	53	1.000	0.005	47.16

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13. SAMPLE CALCULATION FOR BH-01

SAFE BEARING CAPACITY OF SOIL - Based on IS: 6403																			
Shape of footing		Rectangle																	
Depth of footing, D	3.00			Cohesion, C, kg/sq.cm	0.000														
Width of footing, B	6.00			Angle of Int.Friction, ϕ	27.00														
	6.00			Specific Gravity, g	2.694														
Depth of Water Table, m	Not found			Bulk Density, γ_d , gm/cc	1.630														
Ratio d/B	0.500			Sat. Density, γ_{sat} , gm/cc	1.985														
Water Table Factor	1.00			Sub. Density, γ' , gm/cc	0.985														
Effective Surcharge over EGL, m	0.00		m	Inclination Angle α	0														
Dry Density, γ_d , gm/cc	1.564	4.25		Factor of Safety	2.5														
Overburden Pressure, σ_v	4.890	t/m ²		Surcharge Density Assumed, gm/cc	1.000														
Shear Zone, H	5.41	= 0.5 B tan (45+ ϕ /2)		Void Ratio, $e_o = \frac{G \times}{\gamma_w \gamma_d} - 1$	= 0.72														
				Mode of Failure =	Intermediate Shear Failure														
$F' = \tan^{-1}(0.67 \tan \phi)$				N_c''	15.201	23.82	13.68												
= 18.85				N_q''	6.773	13.13	5.65												
				N_g''	6.003	14.40	4.52												
				Inter	General	Local													
For general shear failure i.e. Void Ratio < 0.55 $q_u = cN_c Scdcic + q(N_q - 1) Sqdqiq + 0.5 B \gamma N_g Sgdgig W'$ = 127.56 $q_s = 51.02 \text{ t/m}^2$ For local shear failure i.e. Void Ratio > 0.75 $q_u = 0.67 c N_c' Scdcic + q(N_q' - 1) Sqdqiq + 0.5 B \gamma N_g' Sgdgig W'$ = 44.97 17.99 t/m² For intermediate shear failure i.e. Void Ratio < 0.55 and > 0.75 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Void Ratio</th> <th>$e \leq 0.55$</th> <th>$e \geq 0.75$</th> <th>$0.55 < e < 0.75$</th> </tr> </thead> <tbody> <tr> <td>e</td> <td>0.55</td> <td>0.75</td> <td>0.72</td> </tr> <tr> <td>$q_u = \text{Net Safe Bearing Capacity, t/m}^2$</td> <td>51.02</td> <td>17.99</td> <td>22.94</td> </tr> </tbody> </table>								Void Ratio	$e \leq 0.55$	$e \geq 0.75$	$0.55 < e < 0.75$	e	0.55	0.75	0.72	$q_u = \text{Net Safe Bearing Capacity, t/m}^2$	51.02	17.99	22.94
Void Ratio	$e \leq 0.55$	$e \geq 0.75$	$0.55 < e < 0.75$																
e	0.55	0.75	0.72																
$q_u = \text{Net Safe Bearing Capacity, t/m}^2$	51.02	17.99	22.94																
Factors- $\tan^{-1}(0.67 \tan \phi)$				Factors- $\tan \phi$															
d, s, i	Depth factor	Shape factor	Inclination factor	d, s, i	Depth factor	Shape factor	Inclination factor												
dc, sc, ic	1.000	1.300	1.000	dc, sc, ic	1.000	1.300	1.000												
dq, sq, iq	1.000	1.200	1.000	dq, sq, iq	1.000	1.200	1.000												
dg, sg, ig	1.000	0.800	1.000	dg, sg, ig	1.000	0.800	1.000												

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SETTLEMENT ANALYSIS FOR SHALLOW FOUNDATIONS BASED ON N - VALUES

Analysis as per IS:8009(Part 1)-1976 , Clause 9.1.4

Width of footing	B =	6.00	m
Length of footing	L =	6.00	m
Depth of foundation	D _f =	3.00	m
Depth of Influence	=	9.00	m
CORRECTED 'N' VALUE=NVALUE* N` = (0.77 log 10 20/ρ) N (ρ= Overburden Pressure)			

Weighted average 'N' value

Calculation

46.5

Weighted average corrected

'N' value

N = 46.50

Design Depth of water table d = Not found m

Water Table Correction W' = 1.00

from Figure 12 of IS:8009 part -1,
depth factor = 1.000

Settlement in 'm' per unit pressure (reading from graph) = 0.0059 m/kg/sq cm

Settlement after applying water table correction for 1 unit pressure
 $= 1 \times 0.0059 / (1 \times 100) = 0.000059$ m/kN/m²

Bearing Pressure for 25 mm settlement
 $= 25 / (0.000059 \times 1000) = 423.7$ kN/m²

Recommended allowable bearing pressure for 25 mm settlement
 $= 423.7$ kN/m²
 $= 42.37$ t/m²

END OF REPORT