Tender documents for the Plumbing/Sanitary Job

For Project

RAS OFFICERS' CLUB

At

Plot No. 2, Institutional Area, Near Dainik Bhaskar office,

Gopalpura Bypass, JAIPUR

Date and Time of submission of Tender at

Directorate of Local Bodies, 22 Godown,

Near Civil Lines Railway Crossing, Jaipur : **12th October, 2017 before 12.00 noon**

Opening of Technical Bid : **12th October, 2017 at 12.45 pm**

Presentation & Opening of Financial Bids : **12th October, 2017 at 1.00 pm**

(At DLB, Jaipur)

Time of Completion : **24 Months**

Following are the types of documents in a construction contract:

1. **Project Detail**
2. **General conditions**
3. **Other Information's**
4. **Brief terms & Conditions**
5. **Appendix**
6. **B.O.Q (bill of quantity)**
7. **Drawings and specifications**

Annexure –1

PROJECT DETAILS

Contract for complete Waterproofing Job of the proposed RAS Officer's Institute (Club House) building at Plot No. 2, Institutional Area, Near Dainik Bhaskar, Jaipur.

RAJASTHAN PRASHASHNIK SEVA PARISHAD, a registered society having a land measuring around 3270 sqm at Plot No.2, Institutional Area, near DAINIK BHASKAR is developing a **RAS OFFICERS' INSTITUTE (CLUB HOUSE)** building through **RAS Officers' Institute**(a registered society formed for the purpose of building and running this club house) Who will act as the employer for the Project.

This **CLUB HOUSE** building comprising of 2 Basement floors and 6 over ground floors (with the total built up area of approx. 1,20,000 sq.ft.) is supposed to house a number of facilities. It will be developed as a green complex with greenery around. The facilities include proper parking space at 2 basement and ground levels, coffee shop, indoor sports areas, outdoor sports areas, swimming pool, banquet hall, conference halls, guest rooms, restaurant, bar, roof top structures, Gym, Health Club etc.

GENERAL CONDITIONS

In constructing these conditions and the interpretations, specifications, schedule of quantities and contract of agreement, etc. the following work shall have the meaning herein assigned to them except where the subject or context is otherwise required.

(A) "**Contractor**" shall mean to whom the contract is awarded and shall include his / their legal representative (s), Assignees(s), or successor(s).

(B) 'Site' shall mean the site of the contract work including any building and creations there on as aforesaid allotted by the "RASOI / PMC / Architect" for the Contractor's use.

(C) 'Notice in Writing or Written Notice shall mean a notice in written, typed or printed characters, sent (unless delivered personally or otherwise proved to have been received) by the registered post to the last known private or business address and of registered office of the addressee and shall be deemed to have been received when in the ordinary course of post, it would have been delivered.

(D) 'Act of Insolvency' shall mean any act of insolvency as defined and laid down by the prevalent laws of the land.

1 **"Contractor" to Provide Everything Necessary**

Ai) The "contractor" shall provide everything necessary for the proper execution of the works including tools and plants according to the intent and the meaning of the drawings, schedule of quantities and specifications taken together (as amended from time to time), whether the same any or may not be particularly shown or described therein, provided that the same can reasonably be inferred there from, and if the "Contractor" finds any discrepancy in the drawings or between the drawings, schedule of quantities, and specifications, he shall immediately and in writing refer the same to the "RASOI / PMC / Architect". Final decision would be consider as per RASOI decision. Figures, dimensions shall be followed in preference to scale and the following order of precedence will be followed:

(A) Schedule of items/ works & quantities.

(B) Particulars of specification.

Bi) The "Contractor" shall supply, fix and maintain at his cost during the executions of any works, all the necessary scaffolding, staging, watching, lighting by night as well as by day,etc. required not only for proper execution and protection of the public and the safety of any adjacent road, street cellars, vaults, ovens, pavements, walls, house, buildings, and all other erections, matters or things and the "Contractor" shall take down and remove any or all such scaffoldings, staging, etc., as occasion shall require or when ordered to do so and shall fully reinstate and make good all matters and things disturbed during the execution of work, to the satisfaction of the Architect / PMC and finally the "Employer".

Ci) All the tools, tackles and testing equipments required to complete the work execution and testing will be in part of contractor.

Di)

2. **Eligibility Criteria:** Contractor who fulfills the following requirements shall be eligible to apply.

Joint Ventures are not accepted.

Should have satisfactorily completed at least 3 Projects of half the size & Cost as mentioned below or one project of similar size and cost mentioned below during the last five years ending the last day of the month March 2017.

Similar nature of work means the Waterproofing Job of minimum Six storied building or a building having minimum height 15 meters with superior specifications. The Value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for bids..

3 Contractor's Superintendence and Representative on the Works –

The "contractor" shall have necessary personal superintendence during the execution of the works, and as long thereafter as "RASOI / PMC / Architect" or his representative may consider necessary until expiry of the 'Defects Liability Period' stated in the appendix which is annexed hereto as **Annexure-4** of the agreement. The "contractor" shall also, during the whole time that works are in progress, employ a competent representative (who can also be the same person as the project engineer) who shall be constantly in attendance at the building while the men are at work. Any directions, explanations, instructions or notices given by the "RASOI / PMC / Architect" or his authorized representative to such representative shall be held to be given to the "contractor".

4 Assignment and Subletting

The whole of the work included in the contract shall be executed by the "contractor" and any part or share thereof or interest thereon without written permission of the "RASOI / PMC" shall not be assigned or sublet. Any such assignment or subletting by the RASOI / PMC shall relieve the "contractor" from the full and entire responsibility of the part so assigned or sublet.

5 Dismissal of Workman -

The "Contractor" shall on the request of the "RASOI / PMC / Architect" or his representative immediately dismiss from the works any person employed thereon by him who may in the opinion of the "RASOI / PMC", be incompetent or misconducts himself, and such person shall not be again employed on the works without the permission of the "RASOI / PMC / Architect".

6 **Variation not to Vitiate Contract & Ascertainment of price for extras etc.**

The "RASOI / PMC / Architect" will have power to make any alteration & omission from / addition to or substitution from the original specifications, drawings, 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 instruction which may be given to him in writing signed by the PMC/Architect, and such alternations, omissions, additions or substitutions shall not vitiate the contract and any altered, additional or substituted work, which the "Contractor" may be directed to do in the manner specified above as part of the work to be carried out by the " Contractor" on the

same conditions in all respect on which he agrees to do the main work . In such an event, 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 (only in case the changes are of a substantial nature).

The rates for such additional altered or substituted work under this clause shall be worked out in accordance with the following provisions respective by –

(i) If the rates for the additional, altered or substituted work are specified in the contract for the work, the "Contractor" is bound to carry out the altered, additional 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 specially provided in the contract for the work, the rates will be derived from the rates for similar class of work as are specified in the contract for the work.

(iii) If the altered, additional or substituted work includes any work for which rates cannot be derived from the similar class of work, in the contract, then such work shall be carried out at the rates as per RASO'I keeping in view the prevailing rates, mutually agreed based on the rate analysis including overheads and profit of the "Contractor"

7 **Measurement of Works-**

Measurements shall be taken in accordance with the standard method of mode of measurement of building works as per P.W.D. Rajasthan specification or BIS. The "Contractor" or his agent may at the time of taking measurement take such notes and measurement as he may require. All authorized extra works, omissions, and other items if subsequently authorized by the "RASOI / PMC / Architect" or his authorized representative in writing shall be included in such measurement.

The "Contractor" shall submit running bills supported by details and after the completion of the work to the satisfaction of the "RASOI / PMC / Architect" the "Contractor" shall forward the final bill in the same manner as explained above. No. claim shall be entertained in respect of work after submission of final bill by the "Contractor".

8 TESTS

After completion of the works and before first delivery is taken, a full test will be carried out of the work for a period of sufficient duration to determine the satisfactory working thereof. During this period the work will be inspected by "RASOI / PMC / Architect" and the Contractor shall make good, to the satisfaction of the "RASOI / PMC / Architect", any defects which may arise.

The Contractor shall provide all instruments and equipment required for testing and completion.

9 Notice to Be Given Before Work Is Covered Up-

The "Contractor" shall give not less than seven days' notice in writing to the Architect/ PMC Engineer in charge or his subordinates in-charge of the work before covering up or otherwise placing beyond the reach of measurement, any work that the same may be measured, and correct dimension there be recorded before the same is so covered up or placed beyond the reach. Architect or PMC Engineer in-charge shall within the aforesaid period of seven days inspect the work, and if any work is covered up or placed beyond the reach of measurement, or

without such notice having been given or PMC's consent not obtained, the same shall be uncovered at the "contractor's" expense or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

10 **Defects after Completion**

Any defects, shrinkage, settlement or other faults, which may appear within the 'Defect Liability Period', arising in the opinion of the "RASOI / PMC's engineer / Architect" of the materials or workmanship or specifications, drawings, and directions in the writing of the "RASOI / Architect / PMC's shall within such reasonable time as specified in writing be rectified, amended and made good by the "Contractor" at his own cost. The"RASOI / PMC's" engineer shall decide whether the "Contractor" ought to be paid for such amending and in case of default the "RASOI / PMC" may employ and pay other persons to amend and make good such defects, shrinkage, settlement or other faults, and all damages, loss and expenses consequent thereon and incidental thereto shall make good and born by the "Contractor" and such damages, loss and expenses shall be recoverable from him by the "RASOI / PMC". This may be deducted by the "RASOI / PMC" on PMC/Architect's certificate in writing, from any money due or that may become due to him (Contractor).

11 **Certificate of Virtual Completion-**

The work shall not be considered as complete until the PMC Engineer/ Architect have certified in writing that the works have been virtually completed and the defects liability period shall commence from the date of such certificate. Such certificates of virtual completion shall not be issued until the "Contractor" shall have cleared the site to the satisfaction of the "RASOI / PMC / Architect".

12 Date of Commencement and Completion

The "Contractor" shall be allowed admittance to the site in the 'Date of Commencement' stated in the Work Order, and he shall hereupon and forth with begin the work and shall regularly proceed with and complete the same on or before the 'Date of completion' stated in the appendix subject nevertheless to the provision for the extension of time hereinafter contained.

13 **Damage for Non-Completion**

If the "Contractor" fails to complete the works by due date or within any extended time under writing, the "Contractor" shall pay or allow the "RASOI" the **"Liquidated Damage**" for the period during which the said works shall so remain incomplete and the "RASOI" may deduct such damage at the of **Rs. 1,000 per day** subject to the maximum of 2% of contract value will be levied. However delays due to non-supply of working drawings, natural calamities like floods, heavy rains, earth quakes and bandh, curfew etc. will not be counted in delays.

14 **Damages through Unforeseen Events.**

No compensation for any damage caused to the work or material by “Contractor’s” work force shall be paid to the “Contractor”, the “Contractor” shall have to make good all such damages himself at his own cost. (Except Force Majeure)

15 **Termination of the Contract by the “RASOI / PMC”-**

On default of “Contractor” in execution of work to the satisfaction of “RASOI / PMC / Architect” in all respects, the RASOI shall have the right to terminate the contract after giving 7 days’ notice.

16. **Clearance of Site-**

The “Contractor’ shall have to remove debris related to his work from the site of work, before handing over the work to the “RASOI / PMC”. The work shall not be treated as completed in all respects unless this requirement is fulfilled by him. In the event of the “Contractor” failing to do so, the “RASOI / Architect/ PMC” shall have the right to get site cleared, at the “Contractor’s” risk and cost without prejudice to the right to recover damages under clause 13 of the contract.

17. LABOUR REGULATIONS:

17.1 REGULATIONS:

The contractor shall be wholly and solely responsible for full compliance of provisions under all labour laws and / or regulations including the latest requirements of all the acts, laws, any regulations or bye-laws or any local or other statutory obligation applicable in relation to the execution of the work as Payment of Wages Act 1936, employees liability act 1938, workmen’s compensation act 1923, industrial disputes act 1947, the Maternity benefit act 1961, the contract labour (regulation and abolition) act 1970 and the factories act 1948, minimum wages act 1948,apprentices act 1961, any other act including E.S.I.C. Act or enactment and rules framed there under from time to time, industrial employment, (standing order) act 1946 (amended), personal injuries (compensation insurance) act 1963 and any modification thereof and rules made there under from time to time, employees provident fund and miscellaneous provision act 1952, Owner’s liability act 1938, or any modifications thereof or any other law relating thereto and rules there under for the time being in force introduced from time to time which may be applicable to employees of the contractor. The contractor shall assume liability and shall indemnify the owner from every expense, liability or payment by reason of the application of any labour law, act, rules or regulations existing or to be introduced at a future date during the term of the contract. Insurance cover towards the above shall be affected by the contractor as called for. In general, in respect of all labour directly or indirectly employed in the work for the performance of contractor’s part of the contract, the contractor shall comply with all the rules framed by the Government authorities concerned from time to time for protection of the health and welfare of the workers. The contractor shall obtain a valid license under the contract labour (R & A) act 1970 and the contract labour (regulation and abolition) central rules 1971 and under any other applicable rules before the commencement of the work and continue to have a valid license until the completion of the work and shall pay the statutory fee, file returns, etc. in compliance under all such Acts.

17.2 PAYMENT OF WAGES:

The contractor shall pay to labour employed by him either directly or through sub-contractors wages not less than the minimum wages as defined in the relevant local labour regulations or as per the provisions of Minimum Wages Act, 1948 or the contract labour (regulation and Abolition) act 1970 and the contract labour regulation and Abolition of central rules1971,wherever applicable and observe hours and conditions of labours according to the conditions established for the trade or industry or prescribed by regulations or order in force in the district where the work is carried out. He shall also abide by the minimum wages and other regulations applicable to the labour engaged in the work, as laid down by the concerned local authorities to which the organizations of Owners and trade union representatives or a substantial proportions of the Owners and workers engaged in the trade or industry in the district are affiliated. In the absence of such established rates and conditions the contractor shall pay rates or wages and observe hours and conditions of labour which are not less favorable than the general level of wages, hours and conditions observed in the trades or industries similar to those in which the contractor in engaged.

17.3 MODEL RULES:

The contractor shall at his own expenses comply with or cause to be complied with Model Rules for labour welfare framed by Government or other local bodies from time to time for the protection of health and for making sanitary arrangements, Malaria control, etc. for workers employed directly or indirectly on the work and in the workers hutment area including any temporary stay arrangement. In case the contractor fails to make arrangements as aforesaid, the owner shall be entitled to do so and recover the cost thereof from the contractor, without absolving the contractor from all or any consequences of his defaults.

18 CONTRIBUTION TOWARDS EMPLOYEE BENEFITS, FUNDS ETC :

The contract price includes expenses necessary to meet the contractor's obligations for making contributions towards employee benefits funds (such as provident fund , ESI benefits, old age pension and /or any other benefits/ compensation legally payable) in compliance with all the statutory regulations and requirements whether specifically mentioned here or not. All records in this connection shall be properly maintained by the contractor and produced for scrutiny by the concerned authorities, the Engineer-In-Charge, and the owner whenever called for.

19 **Minimum Wages Act & Rules-**

The "Contractor" shall comply with all the provision of /The Minimum Wages Act. The contract or shall, also comply with all the provisions of the P.W.D "Contractor's" Labour Regulations' made by the Government from time to time C.P.W.D., safety code framed from time to time as well as ' Model rules for the protection of health and sanitary arrangements for worker employed by the "Contractor" shall also from part of this contract. The contractor will follow all labour laws which are applicable in the

state including provident fund rules. **Contractor will ensure that in no case the RASO'I will have any responsibility about the workers/employees of the contractor**. The RASOI / PMC will also watch whether the contractor follows the all labour laws **and other statutory Rules & Regulations of Govt. in this regards.**

20 **Possession Prior to Completion-**

The "RASOI / PMC" shall have the right to taking possession of or use any completed or partially completed part of the work. Such possession or use shall not be an acceptance of any work completed in accordance with contract agreements.

21 **Alternatives-**

The "Contractor" is to quote for various alternative items of work described in the schedule of quantities. The "RASOI / PMC" reserves the right to substitute the items in lieu of original items in the tender either in part or in full.

22 **Record and documentation of test report-**

A proper record/ documentation of the work test report daily signed by the "Contractor"/ PMC Team Leader /site engineer will be maintained by the "PMC". All tests will be done in presence of the PMC site engineer.

23 **Taxes and Duties**-

I. Income – Tax

Income Tax at the prevailing rate, on gross amount billed, shall be deducted from Contractor's bills as per relevant provisions of the income Tax Act

II. GST will be paid extra over rates quoted as mentioned in the tender by the contractor.

No escalation shall be allowed on labour. Any New Taxes applicable at any stage on any works shall be to contractor's account. The contractor shall include in his rates statutory obligations of his labour such as ESI, PF, etc, if applicable and indemnify the RASOI against the same.

III. Other Taxes

Contractor shall be fully and exclusively liable for all the statutory taxes, levies, cess etc. now in force and hereafter increases, or modified in respect of works and materials by central and state government authorized.

24 Specification and drawing will be supplied by Architect. All specifications will be written on the respective drawings supplied. In case of any doubt regarding specification, Architect will be contacted and clarification sought by the "Contractor".

25 **Safety Clause-**

I. During the execution & Testing, the safety of workers / adjacent buildings / roads/ public utilities shall be total responsibility of “Contractor” and the “Contractor” shall be responsible for injury to persons or things and all structural damages to the property which may arise from the operation or neglect of the “ Contractor’s” employees, nominees, "Sub-Contractor’s” or their employees. Whether such injury or damages arises from carelessness, accident or any other causes whatsoever, in any way connected with the carrying out of construction pursuant to these presents.

II. The “Contractor’s” shall indemnify and keep the owners harmless against any claims, demands, actions, proceedings that may be made against the “RASOI / PMC/ Architect" or that may be suffered by the “RASOI / PMC / Architect” by reason of anything done by the “Contractor” pursuant to said works.

III. The “Contractor” shall obtain required insurance policies covering all such risks covering labour engaged by them.

26. SAFETY CODES:

In respect of all labour directly or indirectly employed on the work for the performance and execution of the contractor’s work under the contract, the contractor shall at his own expenses arrange for all the safety provisions as listed in (i) Safety codes of C.P.W.D. and Bureau of Indian Standards,

Precautions as stated in the safety clause are the minimum necessary and shall not preclude the contractor taking additional safety precautions as may be warranted for the particular type of work or situations. Also mere observance of these precautions shall not absolve the contractor of his liability in case of loss or damage to property or injury to any person including but not limited to the contractor’s labour, the owner’s Engineer-In-Charge’s ,architect’s, owner’s representative and or any member of the public or resulting in the death of any of these.

Protective gear such as safety helmets, boots, belts etc. shall be provided by the contractor at his own cost to all his manpower at the site. The contractor shall impose such requirements on all sub-contractors and vendors also. It shall be the responsibility of the contractor to ensure that such protective gear is worn at all times by all personnel working at the site during the term of the project. The owner and project manager / owner’s representative shall each have the right to stop any person not wearing such protective gear from working on the site.

In case the contractor fails to make arrangements and provide necessary facilities as aforesaid, the owner shall be entitled to do so and recover the costs thereof from the contractor, the decision of the owner’s representative in this regard shall be final and binding on the contractor.

27 **Approximate Quantities-**

The quantities given in the Bill of Quantities are approximate only and these quantities are liable to alterations by omissions, reductions or additions to any extent without affecting the rates or terms and conditions of the Contracts.

28 All the material procured by the RASOI will be deposited in site store,material will be issued by PMC/store incharge on day to day basis against the progress report submitted by the contractor..

29 The Rates Quoted in the Schedule of Quantities includes all Lead & Lift and are valid for all heights. No Extra payment will be claimed by the Contractor on this account.

30 A detailed agreement will be executed between the RASOI & the contractor at the time of issue of work order.

31 Tenderers are advised to inspect and examine the site and its surrounding and satisfy themselves before submitting their tenders. A tenderer shall be deemed to have full knowledge of the site whether he inspect it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.

Annexure –3

Other Information:

1) The bid document can be downloaded from the RASO'I website www.rasassociation.com , free of cost.

2) Bidders shall have to submit their offers in two separate envelopes.

3) The sealed cover within the main cover should contain:

(a) Qualification, Credentials, EMD, superscribed **"Packet A"**

(b) Financial bid clearly superscribed **"Packet B".**

a) Bids not supported with EMD shall be summarily rejected.

The "Packet A "should contain -

b) Details of the Bidder, Contact Address, email, phone, Fax.

c) Documents in support of the eligibility criteria for this bid.

d) Bidders to provide indemnity bond stating that they are not blacklisted by any Govt. Authority/Agency.

e) EMD by way of Demand Draft drawn in favour of **"RAS OFFICERS INSTITUTE" payable at JAIPUR** for an amount of **Rs. 25,000/-.**

f) Copies of PAN Card, GST Registration, PF/ESI Registration, etc.

The "Packet B "should contain -

Only the financial bids of bidders eligible as mentioned above will be opened. Financial bids of the bidders failing to eligibility criteria will not be opened.

The rates shall be written properly both in figures and the words, in case of any discrepancy will consider the lowest rate as the final

Last Date for Submission of the Bid: 12th October, 2017 12.00 noon at the address given below. Technical Bids will be opened in presence of Construction Committee of RASO'I on 12th October, 2017 at 12.45 pm. Presentation and opening of financial bid on 12th October, 2017 at 1.00 PM at the address given below:

Directorate of Local Bodies,

22 Godown, Near Civil Lines Railway Crossing, Jaipur

RASO’I reserves the right to cancel any or all the offers or the bidding process without assigning any reason, whatsoever.

Annexure –4

BRIEF TERMS & CONDITIONS

1	**Project** Multi-storied Club House – Near Dainik bhaskar office, Jaipur (2 Basement + Ground + 5 Floors + Structures on Terrace) **Total Gross BUA :** 1,20,000 Sqft (approx.)
2	**Scope of work – Complete** Plumbing & Sanitary Works **as per the BOQ Enclosed**
3	**Type of Contract –**Labour rate contract.
3.01	The Contractor shall note that unless otherwise stated, the Contract is strictly on labour rate basis contract.
3.02	The quantities in the Schedule of Quantities approximately indicate the total extent of work but may vary to any extent and may even be omitted thus altering the aggregate value of the Contract. No claim shall be entertained on this account
3.03	**Rate Only Items / Alternatives** The "Contractor" is to quote for various alternative items of work described in the schedule of quantities. The "RASOI and its representatives" reserves the right to substitute the items in lieu of original items in the tender either in part or in full.
3.04	Material shall be provided by RASO"I at site.
3.05	Electricity and water shall be provided free of cost by "RASOI" at work site at one point.
4	**SUFFICIENCY OF RATES**
4.1	The Contractor shall be deemed to have satisfied himself before contracting as to the correctness and sufficiency of his contract for the works and of the prices stated in the schedule of quantities and/or the schedule of rates and prices which rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.
4.2	The Rates Quoted in the Schedule of Quantities includes all Lead & Lift is valid for all heights. No Extra payment will be claimed by the Contractor on this account
4.3	The rates shall include all taxes, duties, Excise Duty, Octroi, Cess, at prevailing rates except the GST which will be borne by the RASOI. The increase in taxes and duties in future will be the liability of the contractor.

4.4	**Rates are fixed for the duration of the project and no escalation shall be allowed** for variation in price on labour, diesel, freight, taxes, octroi, any duty, levies etc. The contractor shall include in his rates statutory obligations on his labour compliance such as ESI, PF, etc, if applicable.
4.5	The rates shall be inclusive of: The rates quoted in the Contract shall include all charges for clearing of Site before and after commencement, fencing, hoarding, Plant and equipment, storage sheds, watching and lighting on all days and all other erections.
4.6	The rates quoted shall be deemed to be for the finished work to be measured at Site and include the rate for protection of the finished items.
4.7	TDS at prevailing rates on the gross value of each running bill will be deducted at source. Worker's compensation is to be borne by the contractor himself.
5	**Manpower Resources** That all the labour, staff, supervisors and engineers will be provided by the contractor for the Water Proofing Work purpose. The engineering staff to be provided by the contractor will be adequate nos. of supervisors / foremen which would be jointly agreed. Before commencement of any work, detailed construction schedule to be submitted by the contractor for the same. And in case of deviation from that schedule, recovery measures and revised schedule to be provided by him every time.
6	That all the staff members, labour, workers, supervisor, engineers, operators etc. will be the employee of contractor itself, and the owner/RASOI / PMC will not be in any way treated as an RASOI / PMC. Thus, there will be no RASOI / PMC – Employee relationship.
7	**Tools & Plants** All tools, plants, machinery etc shall be arranged by the contractor. The list of the same to be submitted by the contractor with the tender.
8	**Completion Period** Time is the essence of the contract. The Completion period of the work shall be **24 Months** from the date of commencement as per schedule attached herewith. (Note – All these milestone dates are the latest dates by which these activities should start & finish. However contractor can pre- pone the activities if as per his schedule the activities needs to be started earlier to achieve the handing over dates).
9	**Damages** That all the damages caused by the accident or the carelessness of the workmen, or any material are wasted or is misused by the workmen, will be to the account of the contractor, who shall make good the same.

10	**Penalty for the delay** In case of delay in completion of Project in stipulated period of completion a penalty of Rs. 1,000/- per day subject to the maximum of 2% of contract value will be levied. However delays due to non-supply of working drawings, natural's calamities like floods, heavy rains, earth quakes, strikes, bandh, curfew etc. will be considered and the suitable extension will be given.
11	**SAFETY** The Contractor acknowledges and agrees that they will exercise the overall co-ordination of safety matters relating to the Project including those affecting the Contractor's personnel. The Contractor further acknowledges that the Engineer in Charge / Project Manager shall have the right to instruct direct or take any action deemed necessary to ensure that the Safety issues are met. This does not relieve the Contractor of its responsibilities relating to its personnel or the Works. The Contractor must at all times exercise all necessary precautions for the safety of all persons on the Site, members of the public who may be affected by the Works and the protection of the environment.
12	**Minimum Safety Requirements** Proper working platform shall be provided for working at height more than 2.0m / 6'6". Harnesses and personal protective equipment must be used as a last resort. All persons working on suspended scaffolds/cradles/gondolas must wear and use appropriate fall prevention equipment so as to protect them effectively at all times when they are at risk from any failure of any part of the scaffold/cradle/gondola, including its suspension system. Free-standing scaffold towers used externally must not be higher to the top platform level than three times the minimum base dimension, unless secured to a permanent structure. For internal use only, the height to platform may rise to 3.5 times the minimum base dimension. Wheels must be locked when towers are in use. No person is permitted to remain on a tower platform while a tower is being moved. Adequate lighting must be provided to enable safe access to and egress from every place on a site where persons are liable to work; this is in addition to task lighting.
11	**R.A. Bills** The bills shall be paid either monthly or subject to a minimum amount of Rs. 50,000/-. Seventy (70%) percent of the bill amount shall be paid within Seven working days after submission of verified bills. Balance payments shall be made within next seven days after getting verified bill from PMC Security deposits shall be deducted @ 5 % from each Running bill. 50% of this S.D. will be refund after satisfactory completion of works and balance after the expiry of "Defects Liability Period" of 1 Years

12	In case the work is temporarily suspended by the “RASOI” due to reasons beyond his control, adequate extension in completion period may be considered but no financial damages will be paid to the “contractor”.
13	In case work is abandoned by the “Contractor”, the security money shall be forfeited by the “RASOI and its representative” after giving 7 days notice by registered post. The work done by him will be measured & finalized & balance left over work will be awarded by the RASOI / PMC to some other contractor at the risk & cost of the contractor who left the work incomplete.
14	In case any dispute or difference should arise between the parties, whether in respect of work done or in respect of quality of material used by the contractor or delay in completion of work or any other matter arising out of works or relating to the specifications, designs, drawings, orders during the progress of the work or after the completion or abandonment thereof or any matter arising out of the agreement shall be referred to the sole arbitrator. The arbitrator shall decide the dispute within two months. This submission to arbitration shall be deemed to be a submission to arbitration within the meaning of the Arbitration and Conciliation Act, 1996 or any statutory modification thereof. The award of the arbitrator shall be final, conclusive and binding. Legal jurisdiction shall be that of Jaipur courts only.
15	The contractor will not divert the funds/payments released for the project to the other project. The statement should be provided briefing the detail of major transactions done for the project whenever asked for.

The documents including annexure have been read by us and fully understood by us.

Annexure –5

Appendix

1.	Date of commencement	Within 07 days of work order
2.	Time of completion	24 months from Date of commencement
3.	Liquidated damages for non-completion of work in time per day	Rs. 1,000 /- per day subject to the ceiling of 2 % of contract value
4.	Minimum interval between submission of interim bill	One Month -
5.	Minimum value of works for interim certificate	Rs. 25,000.00/-
6.	Maximum period of payment of interim bills	15 (fifteen) days from the date of submission of bills/ 70 % within 7 working days, remaining with in next 7 days after verification of bill -
7.	Period of submitting the final bills	Within one month of the completion -
8	Warranty Time	10 Year from the date of certificate.
9	Payment of S.D.	50 % with Final Bill Payment, remaining amount after defects liability period -
10	Defects liability period	1 year from the date of completion of the work.
11	Approved makes of material to be used	

Annexure –6

SCOPE OF WORK

RAS CLUB PLUMBING WORK
ERECTION, TESTING & COMMISSIONING OF PLUMBING SYSTEM

NO.	DESCRIPTION	UNIT	Approx QTY.	RATE (Rs.)	AMOUNT (Rs.)
A	**INTERNAL DRAINAGE**				
	SANITARY FIXTURES (FIXING, TESTING)				
1	Fixing of white vitreous china **wall hung European type water closet** with CP bolts, nuts, CI Chair or other hanging arrangement with **dual expose flushing cistern** with internal fittings, white solid plastic sheet and cover with lid, CP brass hinged rubber buffers with accessories, CI/ MS brackets painted with two coat of primer, CP brass screws and wooden cleats including cutting and making good the wall and floors wherever required.	Each	71		
2	Fixing of white vitreous china **Indian (Orissa) water closet** with 110mm 'P' or 'S' trap set in cement concrete 1:2:4 mix (1 cement :2 coarse sand :4 graded stone aggregate 20mm nominal size) with slim line low level dual - flushing cistern, flush pipe with clamps and rubber adapter joint with C.P. brass screws and washer etc complete, including cutting and making good the walls and floors etc. Indian type Orissa Pan size 580x440mm.	Each	2		
3	Fixing of white vitreous china **Oval wash basin** of size 56x45 cms for under counter mounting, specially fabricated brackets, painted white, 32mm C.P.waste, complete including cutting and making good the walls, wherever required.	Each	85		
4	Fixing of white vitreous china **flat back wash** basin,Size- 45x30 cms specially fabricated brackets, painted white, 32mm C.P.waste, complete including cutting and making good the walls, wherever required.	Each	2		

5	Fixing of white vitreous china battery based infrared sensor operated urinal of approx. size 370 x 390 x 610 mm having pre & post inbuilt flushing cistern with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	32		
6	Fixing of **stainless steel Kitchen sink** with C.I. brackets, duly painted white 40mm C.P. waste,C.P. brass chain and rubber plug, rubber adapter for waste connection complete including cutting and making good the walls wherever required.				
a)	Size 610x460mm with Single Bowl	Each	8		
7	Fixing of White color vitreous china urinal partition of 690x165x325mm app. size, fixed with expandable anchor fasteners with C.P. brass bolts and washers, embedded in wall with anchor and set in cement concrete complete including cutting and making good the walls wherever required.	Each	30		
8	Fixing of 15mm C.P brass bib tap with C.P brass threaded flange complete, including cutting and making good the walls wherever required.				
a)	Long Bib Cock	Each	2		
b)	Two way bib tap	Each	71		
9	Fixing of 15mm C.P.brass **angle valve** with C.P copper connecting pipe 375mm long and nuts, washer with C.P. brass flange complete, including cutting and making good the walls, wherever required.	Each	340		
10	Fixing of deck mounted / wall mounted **sink mixer** with swinging spout complete, including cutting and making good the walls wherever required.	Each	8		
11	Fixing of CP brass **toilet paper holder c**omplete, including cutting and making good the walls wherever required.	Each	71		
12	Fixing of wall mount double **Robe Hook** fixed to wooden cleats with C.P. brass screws.	Each	50		

13	Fixing of SS body 1.25 litre **liquid soap dispenser** with simple push lever fitted with liquid soap (one time) including cutting and making good the walls, wherever required.	Each	70		
14	Fixing of C.P brass **towel rail** of size 610mm long and 20mm dia, complete with C.P brass brackets fixed to wooden cleats with C.P. brass screws.	Each	50		
15	Fixing of C.P. brass **towel ring** fixed to wooden cleats with C.P. brass screws including cutting and making good the walls wherever required.	Each	70		
16	Fixing of CP brass **Health faucet** with PVC Flexible Tube with wall hook.	Each	71		
17	Fixing of CP brass **pillar tap for wash basin** with pop up waste complete including cutting and making good the walls where required.	Each	87		
18	Fixing of 6mm thick beveled edge **mirror** with teak wood beading and 6mm thick asbestos plain sheet ground fixed with C.P. brass screws and washers complete as per approval.				
a)	Size - 600x450 mm	Each	2		
b)	Other Size	sqm	90		
19	Fixing of deck mounted / wall mounted single lever sink mixer with swinging spout complete, including cutting and making good the walls wherever required.	Each	8		
21	Fixing of straight /offset type Macfit single body push fit type WC pan connector with factory supplied **spring loaded seal guard** of **McAlpine, UK or approved make** with integral single mould sealing fins made of flexible EVA body, including bush/adaptor for use with C.I. Pipe as supplied with the pan connector (if required).	Each	10		
22	Fixing of Polypropylene Silent **Bottle trap 32 mm dia.** with 75 mm clear water seal fitted with built-in Air Admittance valve of adequate capacity with factory supplied extension piece.	Each	87		

23	Fixing of Polypropylene Silent **Bottle trap 40 mm dia.** with 75 mm clear water seal fitted with built-in Air Admittance valve of adequate capacity with factory supplied extension piece for sinks.	Each	32		
24	Fixing of Urinal Trap with 75 mm clear water seal **as** approved make with factory supplied extension piece for sinks.	Each	32		
25	Fixing of Storage type **hot water geyser c**omplete in all respect including cutting and making good the walls wherever required as per approval of engineer in charge.				
a)	25 liter capacity.	Each	RO		
26	Fixing & Testing of uPVC pipes, conforming to IS 4985 class 3 (6 kg/cm2) including injection moulded fittings, jointing with solvent cement, cutting and making good the floors and walls and jointing to trap/waste pipe, complete of outer dia as per approval of engineer in charge.				
26.1	50 mm dia	Mtr.	1650		
26.2	75 mm dia	Mtr.	220		
26.3	110 mm dia	Mtr.	160		
27	Fixing of Unplasticized Poly Vinyl Chloride (UPVC) SWR Pipes fittings type B for sciland waste discharge system (IS:13592 : 1992 Marked) of approved quality as per approval of engineer in charge.				
27.1	**Coupler**				
	75mm dia	Each	150		
	110mm dia	Each	160		
27.2	**Bend 87.5 Dg.**				
	75mm dia	Each	50		
	110mm dia	Each	50		
27.3	**Bend 45 Dg.**				
	75mm dia	Each	50		
	110mm dia	Each	50		
27.4	**Door Bend 87.5 Dg.**				
	75mm dia	Each	40		
	110mm dia	Each	40		
27.5	**Single 'Y'**				
	75mm dia	Each	20		
	110mm dia	Each	20		
27.6	**Single 'Y' with Door**				
	75mm dia	Each	20		

	110mm dia	Each	20		
27.7	**Double 'Y'**				
	75mm dia	Each	10		
	110mm dia	Each	10		
27.8	**Double 'Y' with Door**				
	75mm dia	Each	10		
	110mm dia	Each	10		
27.9	**Socket Plug**				
	75mm dia	Each	100		
	110mm dia	Each	150		
27.10	**Pipe Clip**				
	75mm dia	Each	100		
	110mm dia	Each	150		
27.11	**Double tee with Door**				
	75mm dia	Each	20		
	110mm dia	Each	20		
	160mm dia	Each	20		
27.12	**W.C. Connector**				
	110mm dia	Each	75		
27.13	**W.C. Connector (Bend) with ring**				
	110mm dia	Each			
27.14	**Single Tee**				
	75mm dia	Each	20		
	110mm dia	Each	40		
27.15	**Single Tee with Door**				
	75mm dia	Each	10		
	110mm dia	Each	30		
27.16	**Multi floor trap**				
	110mmx75mm dia	Each	100		
	110mmx110mm dia	Each	80		
27.17	**Offset**				
	110mm dia	Each	80		
27.18	**Extra Square Jali**				
	110mm dia	Each	10		
27.19	**Extra Round Jali**				
	110mm dia	Each	10		
27.20	**Nahni Trap with Jali 4”**				
	110mm dia	Each	80		
27.21	**Nahni Trap with Jali 3”**				
	110x75 mm dia	Each	50		
27.22	**Vent Cowel**				
	75 mm	Each	10		
27.23	**Vent Cowel**				

	110mm dia	Each	30		
28	Fixing & Testing of uPVC SWR pipes confirming to IS 13592 (Type B) alongwith all required fittings like tees, bends, crosses with or without access doors jointed with approved solvent cement as per manufacturer's recommendations, fixed to **ceilings or Wall** with clamps complete including cutting and making good the floors and walls where required complete of outer diameter in **Basement Floor as per approval of engineer in charge.**				
a)	160 mm OD	RM	160		
b)	110 mm OD	RM	150		
c)	90 mm OD	RM	RO		
29	Laying of cement concrete 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 75 mm in bed and alround uPVC soil & waste pipes including excavation, refilling where required complete in all respect as per standard design.				
a)	Pipe 90 to 110 mm OD	M	160		
b)	Pipe 40 to 50 mm OD	M	150		
30	Fixing of cast brass Floor Clean Out plug with suitable insert keys for opening, male threaded joint with G.I. socket lead caulked to soil pipe / waste pipe of C.I. and C.I.(LA) pipe as required complete as per instruction of the Engineer in charge.				
a)	100 mm dia	Each	20		
31	Fixing of uPVC rain water pipes of 6kg/cm^2 conforming to IS: 4985 including all fittings with or without access i.e bends, junctions, cowls, offsets, etc., and jointing with solvent cement and excavation, refilling and disposal of surplus earth, including cutting holes in walls and floors ,wherever required and making good the same, complete as directed by the Engineer-in-Charge				
a)	110mm outer dia.	Metre	650		
32	Fixing of materials for making rain water khurra of size 450x450mm as specified including 3mm thick lead flushing from pipe edges with single piece of lead sheet of size 300x150mm set in layer of cold bitumen including C.I. grating 5mm thick circular or square.	Each	28		
33	Fixing of 150mm dia C.I (Through flow) made up C.I body with flange and aluminium ring and aluminium dome grating for rain water Khurra at terrace complete as per requirements.	Each	28		

34	Fixing, jointing and testing in position flow guard CTS-SDR 11, CPVC (chlorinated poly vinyl chloride) conforming to IS 15778-2007, ASTM D2846, UV resistant, suitable for hot & cold water supply in concealed/exposed/chases/burried locations works complete with all plugs, clamps including transition fittings between CPVC pipe including jointing the pipe and fittings by flow guard solvent cement as per ASTM F 493 and by Teflon tape on threaded ends including cutting chases and making good the walls and properly clamped . All termination points for installation of faucets shall have brass terminal fittings complete as required by engineer in charge and manufactures specification for proper completion of work as per approval of engineer in charge.				
a)	15mm dia nominal bore equivalent to 12.44 ID	Metre	685		
b)	20mm dia nominal bore equivalent to 18.44 ID	Metre	110		
c)	25mm dia nominal bore equivalent to 23.42 ID	Metre	50		
d)	32mm dia nominal bore equivalent to 28.54 ID	Metre	120		
f)	40mm dia nominal bore equivalent to 28.54 ID	Metre	370		
g)	50mm dia nominal bore equivalent to 28.54 ID	Metre	570		
35	Fixing of thermal insulation tubing for hot water pipes (exposed/chases/burried locations), an elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber over pipes of following nominal bores and thickness including all required accessories, protection as per manufacturer's recommendations, complete in al respect as per approval of engineer in charge.				
a)	For 15mm Dia or Equivalent	Metre	50		
b)	For 20mm Dia or Equivalent	Metre	180		
c)	For 25mm Dia or Equivalent	Metre	50		
d)	For 32mm Dia or Equivalent	Metre	30		
e)	For 40mm Dia or Equivalent	Metre	300		
f)	For 50mm Dia or Equivalent	Metre	20		
36	**Fixing of brass/bronze lever operated ball valve** of full flow with stainless steel ball (AISI 304 and spindle AISI 410) with setting and gland of superior quality having minimum working pressure of 10 kg/cm$^{2.}$				
a)	15mm dia	Each	60		
b)	20mm dia	Each	60		
c)	25mm dia	Each	20		
d)	32mm dia	Each	10		

e)	40mm dia	Each	5		
f)	50mm dia	Each	10		
37	Fixing of **Chlorinated Polyvinyl Chloride (CPVC) pipes,** having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings, this included jointing of pipes & fittings with one step CPVC solvent cement , trenching refilling & testing of joints complete as per direction of Engineer in Charge.				
	32 mm nominal outer dia pipes	Rm	50		
	50 mm nominal outer dia pipes	Rm	120		
38	Placing on terrace (at all levels) polyethylene water storage tank ISI marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.				
a)	Capacity -1000 Litre	Each	2		
b)	Capacity -2000 Litre	Each	RO		
39	Fixing of square-mouth S.W. gully trap grade ‘A" complete , brick masonry chamber with bricks of class designation 75 in cement mortar 1:5 (1 cement : 5 coarse sand) inside plaster above trap 12 mm thick m cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement outside plaster 12 mm thick in cement mortar 1:3 (1cement :3 coarse sand) 10 cm thick foundation concrete 1:5:10 mix (1cement :5 coarse sad : 10 graded stone aggregate 40 mm nominal size) space between chamber, and trap filled-with cement concrete 1:2:4 (1cement :2 coarse sand :4graded stone aggregate 20 mm nominal size) and F.R.P. cover and frame 300 x 300 mm as per standard design.	Each	8		
40	Fixing of PVC Storage Tank (IS:12701 marked indicating the BIS license No.) of approved make with cover, 25 mm dia 1 M long G.I. over-flow pipe & 25 Cm. long wash out pipe with plug & socket, including making connection etc. complete of approved design.	Each	2		
41	Fixing of Ball Cock (IS:1703 Mark) with Rod & P.V.C. Ball complete : Brass wt. 400 gm, 15 mm.	Each	2		

42	**Installing, testing & commissioning of** Solar Hot water generator with 125 ltr insulated hot water storage tank collectors, including all required fittings and pipe lines (Ball valve, pressure gauge, pressure gauge, syphon and cock valves and solnoid valve etc). Collector stands and frame.Tech Specification as below, Type of collector:Cu-Cu, Ultra sonically welded. Size of collector:2600 X1450 X 100mm Absorber area:3.70 sqm Absorber Coating:Selective coated black chrome Nelson Collectors absorbtivity:>0.95 Collectors emmissivity:<0.20 Collector box material:Extruded Aluminium frame 1.4mm Fin width:120mm Insulating Material:Rockwool Thickness of bottom insulation:50mm Thickness of side insulation:25mm Thermal conductivity:0.029 W/mk, Density:40 Kg./cum COLLECTOR'S GLAZING MATERIAL : Material:Toughned clear glass Thickness: 4mm Transitivity:88% Glass Beeding:EPDM	SET	20		
43	Fixing of PT100 temperature sensor with 4-20mA head mounted transmitter, SS304 probe suitable for Pipe & Tank mountings.	Nos	4		
B)	**EXTERNAL DRAINAGE**				
1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	All Kind of Soil				
	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	60		
2	Laying and Jointing light duty non-pressure NP2 class S/S R.C.C. pipes with collars jointing with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including curing, testing of joints etc.				
i	150 mm diameter	metre	20		
ii	200 mm diameter	metre	70		
3	Laying of 150 mm thick cement concrete 1 : 5 : 10 mix (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of R.C.C pipes including bed concrete 150 mm thick as per standard design complete.				

i	150 mm diameter	metre	20		
ii	200 mm diameter	metre	70		
4	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: **(300 mm thick brick masonry wall)**				
i	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	3		
ii	Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4		
5	Extra for depth beyond 45 cm of brick masonry chamber :				
i	For 455x610 mm size				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	3		
ii	For 500x700 mm size				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4		
6	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design **(450 mm thick brick masonry wall)**				

	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	5		
7	Extra for depth for manholes :				
	Size 90x80 cm				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5		
8	Fixing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :				
	With 20x20 mm square bar	each	30		
9	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :				
	For pipes 100 to 250 mm diameter	each	1		

C	**STORM WATER DRAINAGE & RECHARGE WELL**				
1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.				
	All types of soil				
	400 mm dia	RM	280		
2	Assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.				
	200 mm nominal size dia	RM	220		
3	Assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.				
	200 mm nominal size dia	RM	280		
4	Filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	75		
5	Filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-Charge	cum	75		
6	Filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.	cum	75		

7	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by “V” notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	hrs	50		
8	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
	All Kind of Soil				
	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	160		
9	Laying of non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :				
	150 mm dia. R.C.C. pipe	metre	10		
	250 mm dia. R.C.C. pipe	metre	150		
	300 mm dia. R.C.C. pipe	metre	RO		
10	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:**(300 mm thick brick masonry wall)**				

i	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	5		
ii	Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	8		
11	Extra for depth beyond 45 cm of brick masonry chamber :				
i	For 455x610 mm size				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	3		
ii	For 500x700 mm size				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4		
12	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design **(450 mm thick brick masonry wall)**				
	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2		
13	Extra for depth for manholes :				
	Size 90x80 cm				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	2		
14	Fixing of M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :				
	With 20x20 mm square bar	each	20		

15	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4		
16	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design : **(450 mm thick brick masonry wall)**				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	8		
17	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame and vertical grating complete as per standard design : **(450 mm thick brick masonry wall)**				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	1		
18	Fixing of G.I. pipes (for Air vent in Well) complete with G.I. fittings including trenching and refilling etc.				
	25 mm dia nominal bore	Mtr	180		
D	**GARDEN HYDRANT**				
1	Fixing of G.I. pipes complete with G.I. fittings including trenching and refilling etc.				
	25 mm dia nominal bore	Mtr	80		
	40 mm dia nominal bore	Mtr	280		
2	Making connection of G.I. distribution branch with G.I. main of following sizes by fixing of tee, including cutting and threading the pipe etc. complete :				
	25 to 40 mm nominal bore	each	12		
3	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				
	25 mm dia nominal bore	Mtr	80		
	40 mm dia nominal bore	Mtr	280		
4	Fixing of gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
	40 mm nominal bore. At terrace floor and water lifting pipe	each	5		
5	Fixing of ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				

	25 mm nominal bore (In Shaft & Terrace Floor)	each	12		
6	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of eat cement complete as per standard design :				
	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	12		
	TOTAL PLUMBING COST				
	GST				
	TERMS & CONDITIONS (IF ANY)				