नगरपालिका परिषद् का कार्यालय

OFFICE OF THE MUNICIPAL COUNCIL

पेर्ट ब्लेयर

PORT BLAIR

TENDER DOCUMENT

FOR

CONSTRUCTION OF FAECAL SLUDGE TREATMENT PLANT OF 42 KLD CAPACITY (FSTP) AND NECESSARY WORK FOR SETTING UP PLANT, AT BROOKSHABAD DRY RESOURCE CENTRE OF PBMC.

(PART A: CIVIL WORKS)

NIT NO: 01/EE-III/SWM/MC/2019-20

JUNE, 2019

4 TENDERING PROCEDURES

4.1 ISSUE OF BLANK TENDER FORMS

Blank Tender documents will not be sold by this office. Interested Contractors have to download tender documents from the website. Blank tender form will not be sent by post.

4.2 QUERIES REGARDING THE TENDER

Any queries regarding the tender documentation could be clarified by contacting Superintending Engineer, Port Blair Municipal Council, Indira Bhawan, Aberdeen Bazaar, Port Blair, South Andaman, A&N Islands, email id: sepbmc19@gmail.com, swmpbmc@gmail.com, avipbmc@gmail.com., with a copy to National Institute of Urban Affairs (NIUA) & Ecosan Services Foundation, either via e-mail on doab@niua.org, saurabh.kale@ecosanservices.org, dhawal.patil@ecosanservices.org, on any working day between 10:00 am and 05:00 pm.

IMPORTANT: All tenderers are cautioned that the tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditions will be rejected as non-responsive.

4.3 MANNER OF SUBMISSION OF TENDER AND ITS ACCOMPAINMENTS

Tender shall be submitted in two separate sealed envelopes.

Tenderer shall submit the tender and documents in two sealed envelopes as below: -

4.3.1 ENVELOPE NO. 1 (DOCUMENTS)

The first envelope clearly marked as "ENVELOPE N0 1" shall contain the following documents duly attested by a Class I officer.

a) Term Deposit Receipt for a period of six months of any Nationalized/Scheduled Bank for the amount of earnest money or attested copy of certificate of exemption for payment of earnest money, if applicable.

b) Details of Income Tax circle, or ward, of the district in which the tenderer is assessed to income tax, Tenderer's PAN No. & complete postal address with pin code & telephone no.

c) Details of the other works tendered for and in hand with the value of the work unfinished on the last date of submission of tender (in form no.1), i.e., Details of works of similar type and magnitude carried out by the Contractor, Work completion certificates should be provided.

d) Details of technical personnel on the pay rolls of tenderer.

e) Attested copy of registered partnership deed if the tenderer is a partnership firm and Power of Attorney.

f) Declaration Form

4.3.2 ENVELOPE NO. 2 (MAIN TENDER): (FINANCIAL BID)

The second envelope clearly marked as envelope no. 2 shall contain only the main tender including the common set of deviations and additional facilities (if any) issued by the Employer. After the Pre-tender Conference. A tender submitted without this would be considered as invalid.

The Contractor will have to sign the original copy of the tender papers and the drawing according to which the work is to be carried out. He shall also have to give a declaration to the effect that he has fully studied the plans, specifications, local conditions, availability of labor and materials and that he has quoted his rates with the consideration to all these factors.

The tenderer should quote his offer for Schedule A&B at the appropriate place in the tender document to be submitted only in Envelope no. 2 under the heading TENDER FOR WORKS. He should not quote this offer anywhere directly or indirectly in envelope no.1. The Contractor shall quote for the work as per details given in the main tender. This tender shall be unconditional.

Even though the tenderers meet the above requirement they are subject to be disqualified if they have made misleading or false representations in the forms statements

and attachments submitted in proof of the qualification requirements AND /OR Record of proof performance such as abandoning the works, not properly completing the contract, inordinate delay in completion or work litigation history or financial failures etc.

4.4 SUBMISSION OF TENDER

The two sealed envelopes 1 and 2 shall be again put together in one common cover and sealed. This sealed cover shall be marked on the left-hand top corner **"Construction of Faecal Sludge Treatment Plant of 42 KLD capacity (FSTP) and necessary work for setting up plant, at Brookshabad Dry Resource Centre of PBMC".**

I. All Xerox copies submitted in connection with tender shall be attested by class I officer. Otherwise their tender will not be considered for further action & envelope No. 2 will not be opened.

4.5 EVALUATION OF TENDERS

Tenders shall be evaluated based on the competency and cost effectiveness of the submitted bid. Each tender shall be evaluated based on stipulated technical and financial criteria.

Technical criteria – 10 points each

1. Relevant Past Experience - Bidders should have experience in construction of a Sewage Treatment Plant / Faecal Sludge & Septage treatment plant for more than one year in the last 5 years
2. Qualification of Team - Civil Engineer / Environmental Engineers
3. Financial stability

Financial Criteria – 20 points

1. Average annual turnover of preceding 3 (three) years is equal to or more than INR 5 Cr (Indian Rupees).
2. Working limits from the bank.

4.6 OPENING OF TENDERS

On the date specified in the tender notice, following procedure will be adopted for opening of the tender. Tenders will be opened by PBMC A&N ISLANDS will be assessed based on an equal and fair policy.

a) The online technical opening will be held at the office of **Superintending Engineer, Port Blair Municipal Council, Indira Bhawan, Aberdeen Bazaar, Port Blair, South Andaman, A&N Islands**, on the specified date. The document submitted in hard copies in Envelope 1 (Technical Bid) will be verified with the documents uploaded for online technical bid submission. The bidders whose technical bid documents do not meet the specified qualification criteria would be rejected. Those bidders whose bid documents meet the specified criteria will qualify for the second round, i.e. financial bid opening.
b) The financial bid opening will be done online only. The quoted rates in the financial bid will be arranged automatically to prepare a comparative chart through an online process. The bidder who quotes the lowest rate will be declared as the Contractor and may be called for negotiation if required.
c) The bidder should be apply/compulsory for both the parts i.e. Schedule A & B. the rates for single parts will automatically reject his offer in special case the PBMC have rights to reject or accept on conditional basis.

4.7 ACCEPTANCE OF TENDER

a) The acceptance of tender may be communicated to the Contractor by telephone/mail/letter etc.

b) The tenderer whose tender is accepted will have to give an undertaking in writing to the effect that he/they will pay the laborers engaged on the work, the wages as per Minimum Wages Act, 1948, applied to the zone in which the work lies and act accordingly.

c) The Contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees' Liability Act, 1938, Workmen's Compensation Act, 1961, The Contract Labor (Regulation and Abolition) Act; 1970, and any

modification thereof or any law relating thereto, and rules made there under from time to time.

d) The Contractor will have to sign the original copy of the tender papers and the drawings according to which the work is to be carried out. These drawings shall be made available after the successful tendered has been selected. The Contractor shall also have to give a declaration to the effect that he has fully studied the plans, specifications, local conditions, and availability of labor and materials and that he has quoted his rates with due consideration to all these factors.

4.8 SECURITY DEPOSIT

a) The successful tenderer shall have to pay 50% of initial security deposit in cash or in shape of or Term Deposit Receipt of Nationalized / Scheduled Banks in favor of the EMPLOYER or and complete the contract documents failing which his earnest money will be forfeited by the employer (PBMC). The balance 50% of security deposit will be recovered from the R.A. bills at 10 % of the bill amount. In any case the total SD will be recovered before 50 % of the work will be completed.

b) All compensation or other sums payable by the Contractor under the terms of this contract or any other contract or on any account may be deducted from this Security Deposit or from any sums which may be due to him or may become due to him by Employer on any account and in the event of the security being reduced by reason of any such above noted deductions, the Contractor shall within 10 days of receipt of notice of demand from the EMPLOYER in charge make good the deficit.

c) There shall be no liability on the Employer (PBMC A&N) to pay any interest on the Security Deposited by or recovered from the Contractor.

d) The Security Deposit shall be refunded after completion of **Defect liability period** prescribed for this contract in accordance with the provisions in clause of the contract.

4.9 Details on e-tendering

a. The tender would be received in e- tendering process which is available on web site - http://db.and.nic.in/tendersonline/index.php.

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b. It is necessary to give the undertaking as follows by the Bidder, that it will not make any changes in Bidding Documents downloaded from website. If it is done the Bid of such Bidder will be rejected and the Bidder who made such changes is liable for action as per prescribed rules. Bidding Documents published on the website are considered as authentic and legal documents in case of any complaint about the tender.

c. It is necessary to give an undertaking as follows: "We have seen detailed tender document and understand the nature and scope of work. We have visited the Site and we are well aware of the condition of the Site. We have quoted our offer by considering all these things. We are ready to sign the tender before depositing the Security Deposit and taking work order if our tender is accepted."

d. In order to participate in the tenders floated using the Electronic Tender Management System (ETMS), all Bidders are required to get enrolled on the ETMS portal http://db.and.nic.in/tendersonline/index.php.

e. The bids submitted online should be signed electronically with a digital signature certificate to establish the identity of the Bidder bidding online. The tenderer has to obtain the digital signature certificate. For information required for digital signature certificate he may contact ETMS help desk.

f. For submitting the bids online, the Bidders are required to make online payment using the electronic payments gateway service Bid Submission Fee. The different modes of electronic payments accepted on the ETMS is available and can be viewed online on the ETMS website http://db.and.nic.in/tendersonline/index.php.

g. The activities of tender purchase/download, preparation of bid (Submit Bid Online), submission of EMD and other documents will be governed by the time schedules given under "Key Dates"

h. The Bidders have to submit (upload, scan, copies/fill) their offer/credentials online

i. as required in the tender in the online templates in relevant envelopes.

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FORM NO.1

LIST OF THE WORKS TENDERED FOR AND IN HAND AS ON THE DATE OF SUBMISSION OF THE TENDER

Name of the Tenderer:

……..

Sr. No:	Name of Work	Place & Country	Work in Hand		Anticipated date of completion	Work tendered for			Remarks
			Tendered Cost	Cost of Remaining Work		Estimated Cost	Date when decision is expected	Stipulated date of period of completion	
1	2	3	4	5	6	7	8	9	10
SPECIMEN FORM									

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SAMPLE FORM

DECLARATION TO BE FILLED IN BY THE CONTRACTOR /FIRM

Under clause no 3.3.1(f)

(This document should be on Original Stamp Paper of Rs, 100- not on Photo Copy)

(To be submitted in ENVELOPE NO.1)

Name of Work: - _____

_____

1. I / We, have the required machinery i.e. ……etc. owned by me / us which can be spare for this work immediately after awarding the work within a reasonable time. The documentary evidence i.e. (i) copies of purchase bill in Envelope no.1.

   OR

   I / We, intend to hire the required machinery ---……etc. from _____who has promised to spare the said machinery for this work immediately after awarding the work, within a reasonable time the legal agreement of hire deed duly executed in front of magistrate / any other registration authority by government of Maharashtra is given in Envelope no.1.

2. Any dispute arising with the owner of the land shall be amicably settled by me / us and it should not have any encumbrance on the work.
3. I / We. Shall observe the local authorities' rules as would be applicable to all activities I; pertaining to the work.
4. I / WE shall be fully responsible to construct and maintain necessary approach road up to the plant from the road and shall not claim any compensation whatsoever for this purpose.

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5. The Employer does not take any responsibility to acquire, maintain and utilize the land if for the above purpose.
6. I / WE am / are aware of the fact that I / WE, myself / ourselves shall have to make all; arrangements, without any extra cost to Government to obtain the facilities if required such as Electric connection, Water supply, Telephone etc. and such other amenities as may be desired by the concerned authorities of the other Department also.
7. I / WE am / are aware that the erected facilities shall be freely available for inspection to any authorities / representatives of ESF at any time without prior notice.
8. I / WE am / are aware that / We have to commence this work under supervision of ESF or authorized / representative of ESF within maximum period of 7 days from the date of issue of work order, failing which I/We shall be liable for the Security Deposit forfeiture
9. I / We have carefully gone through the conditions enlisted herewith and I / We shall abide by the same the above-mentioned conditions are fully binding over me / us, I / We, am / are also aware that m case I / We shall not agree to these conditions Envelope No 2 of my / our tender will not be opened and I shall have no objection upon it.

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Name of Work: Construction of Faecal Sludge Treatment Plant of 42KLD Capacity at Location Brookshabad near Dry Resource Centre of PBMC, Port Blair

DECLARATION OF CONTRACTORS

I/We hereby declare that I/we have made myself/ourselves thoroughly conversant with the sub-soil conditions, the local conditions regarding all materials (such as stone, murum, sand, etc.) and labor of which I/we have based my/our rates for this work. The specifications, conditions, bore results and lead of materials to be used on this work have been carefully studied and understood by me/us before submitting this tender. !/We undertake to use only the best materials approved by the EMPLOYER, or his duly authorized assistant, before starting the work and to abide by his decision.

I/We hereby further declare that my/our tender is unconditional in every manner of whatsoever in nature.

I/We hereby undertake to pay the laborers' engaged on the work as per Minimum Wages Act, 1948 applicable to the zone concerned.

TO BE FILLED BY THE CONTRACTOR

I/We have quoted my/our offer rates in words as well as in figures. I/We further undertake to enter into contract with **PORT BLAIR MUNICIPAL COUNCIL, A&N**

Name and Signature of Contractor(s) / Power of attorney holder

With complete address.

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5 CONDITIONS OF CONTRACT

Contracting Authority: Port Blair Municipal Council, A&N Islands

Clause 1: *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 date on which the order to commence work is given to the Contractor. The work shall throughout the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be the essence of the contract on the part of the Contractor) and the Contractor shall pay compensation an amount equal to Rs.1000 per day to the EMPLOYER. The programme for completion of work is to be submitted / attached in form of bar chart. The Contractor should complete the work as per phase period given below, which is to be arrived from the bar chart.

1/4" of the work in _____** 1/4th of the time

1/2 of the work in _____** 1/2 of the time

3/4thof the work in _____** 3/4th of the time

Full work to be completed in **06 calendar months** (Including monsoon)

Clause 2: *Action when the progress of any particular portion of the work is unsatisfactory*

If the progress of any particular portion of the work is unsatisfactory, the Employer shall not be withstanding that the general progress of the work, be entitled to take action after giving the Contractor 5 days' notice in writing. The Contractor will not claim for compensation, for any loss sustained by him owing to such action.

Clause 3: *Final Certificate*

On the completion of the work the Contractor shall be furnished with a Final certificate. Certificate by the Employer - of such completion, but no such certificate shall be given nor shall the, work be considered to be completed until the Contractor has to clear the site nor until the work shall have been measured by the EMPLOYER.

Clause 4: Payment Process

the Contractor should submit the bill towards PBMC A&N, which in turn verified by the PBMC A&N ISLANDS technical staff then payment will be drawn to the Contractor's account.

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Clause 5: Bill to be submitted monthly

The Contractor shall on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part of the work than approved and passed by the Employer (PBMC A&N).

Clause 6: Bills to be on Printed form

The Contractor shall submit bills on printed forms, which will be furnished subsequent to selection of the contractor. The charges to be made in the bills shall always be entered at the rates specified in the tender at the rates hereinafter provided for such work.

Clause 7: 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 workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications.

Clause 8: Work to be open to inspection & Contractor or responsible agent to be present.

All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in charge and his subordinates AND the Contractor, either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose. Orders given to the Contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the Contractor himself

Clause 9: Notice to be given before work is covered up.

The Contractor shall give not less than two days' notice in writing to the Employer or his subordinate in charge of the work before covering up the work done. 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 expense, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

The defect liabilities period in particular for waterproofing treatment (building works) shall be 5 year and contractor has to give the warrant for such period to make good any defects occurring in this period.

Clause 10: The Contractor shall provide suitable scaffolds and working platforms, for the safety of work.

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Clause 11: Measure for prevention of fire.

The Contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permission from the Employer.

Clause 12: Liability of Contractor for any damage done in or outside work area

Compensation for all damages done intentionally or unintentionally by Contractor's labor whether in or beyond the limits of Government property including any damage caused by the spreading of fire mentioned in Clause 11 shall be estimated by the AMC or such other officer as he may appoint and the estimate of such expert person subject to the decision of the -Employer on appeal shall be final and the Contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the Contractors bill.

Clause 13: Medical Aid to labor

The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workman who may suffer a bodily injury as a result of an accident. If such expenses are incurred by the EMPLOYER the same shall be recoverable from the Contractor forthwith and be deducted without prejudice to any other remedy of Government from any amount due or that may become due to the Contractor.

Clause 14: Safety Equipment's

The Contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

a) The workers shall be required to use the equipment's so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
c) Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Clause 15: Labor Act

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The Contractor shall duly comply with the provisions of The Apprentices Act, 1961" (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subjected to all the liabilities and penalties provided by the said Act and said Rules.

Clause 16: Claim for quantities entered in the tender or estimates

Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing a different percentage of permissible variation in the quantity of the item does not exceed the tender quantity by more than 25% percent and so long as the value of tidies excess quantity beyond this limit at the rate of the item specified in the tender, is not more than Rs.10,000/-.

Clause 17: Claim for compensation for delay in starting the work

- No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or, in the case of clearance works; on account of any delay in accordance to sanction of estimates

Clause 18: Claim for compensation for delay in execution of work

No compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrows pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, sub-soil, water standing in borrows pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Clause 19: Quality Control Test

The contractor should take quality control test of the selected materials as given below. The expenditure for the quality test to be bear by the contractor only.

QUALITY CONTROL TESTS

Sr. No.	Items	Material test
1	Stone	i) Compressive test ii) Water absorption
2	Trap Metal	i) Crushing value ii) Impact value iii) Abrasion value iv) Water absorption v) Flakiness Index and Elongation index vi) Gradation

3	Bricks	i) Crushing strength ii) Water absorption
4	Flooring tiles	i) Flexural strength ii) Water absorption
5	Glazing tiles	i) Water absorption
6	Cement	i) Compressive strength ii) Initial setting time iii) Final setting time iv) Specific gravity v) Soundness vi) Fitness vii) Standard consistency
7	Steel	i) Weight per meter. ii) Ultimate Tensile stress. iii) Yield stress iv) Elongation v) Bend Test
8	Wood work (Shutters)	i) End immersion tests ii) Knife test iii) Glue adhesion test
9	Cement concrete	i) Mix design ii) Compressive strength
10	Structural steel	i) Weight/Running meter
11	Sand	i)Water absorption and specific Gravity ii) Fineness Modulus iii) Slit Content iv) Bulk age
12	Water	i) P.H. Value for water ii) Chloride and Sulphate content

Clause 20: Photographs

So as to observe the progress of work at different stages of execution of works the contractor shall take out colored photograph at 3 stages i.e. 1) Before execution 2) During execution 3) After completion of work Contractor shall take out at least 15 photographs of different location of each sub works at each stage. The photographs will be of post card size same shall be submitted along with the running bill in duplicate. No extra cost shall be paid to the contractor on this account.

Clause 21: New Items

Extra new item can be used by the contractor after getting the approval from the Engineer in charge. However the new item rates are as per the Government approved district schedule rates.

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Clause 23 Dispute Resolution

Any dispute arising between PBMC and Contractor regarding the Contract terms and conditions would be aimed to be resolved through mutual discussions.

If the discussions fail to produce a resolution, the dispute shall be subject to the court in PBMC jurisdiction.

Clause No 23: Electric Power & Water Supply

Arrangement for obtaining Electric Power connection and water supply will have to be made by the Bidder at his own cost.

Clause No 24: Under Ground services

During the execution of work, it is likely that the Bidder may meet with telephone cables, electricity cables, water supply lines etc. it will, therefore be the responsibility of the Bidder to protect them carefully. All such cases should be brought to the notice of the Engineer-in-charge by the Bidder also the concerned department. Any damage what-so-ever done to these cables and pipe lines by the Bidder shall be made good by him at his cost.

Clause No 25: RCC work specifications

The work included in this Contract shall be carried out in addition to this specification detailed herein, in accordance with specifications and regulations as laid down in the following standard specifications. Standard specifications published by State Government 1985 Edition:

I.S. 8112 1989- Specifications for 43 grade ordinary Portland cement.

I.S. 383 1976 - specifications for coarse and fine aggregate from natural coarse for concrete.

I.S. 383-1970 Specification for TMT bars.

I.S.456 2000 - Code of practice for plain and reinforced concrete.

a) Besides manufacturer's test certificate for quality of cement at least one set of physical and chemical tests should be conducted for each source of supply for verification. Where the quality is in doubt, or where the cement had been stored for long periods or in improper condition, the Engineer shall call testing the cement at more frequent intervals.
b) Job mix formula based on trials carried out in the Bidder laboratory should be got approved by the Engineer.

c) The mineral aggregates should be tested for their properties. Water to be used for mixing should be tested for chemical impurities.
d) Checking for stability and sturdiness of form work.
e) Ensuring that the crucial equipment lime mixers and vibrators are in working order before start of work.
f) Control on water cement ratio.
g) Control on workability and time elapsed between mixing and placing of concrete.
h) Control on compaction and finishing.
i) Test on cubes samples at 7 to 28 days.
j) Checks on provisions for adequate curing.
k) In case of machinery work, control should be exercised on the quality of the materials (e.g. stone, brick, sand, cement etc.) as also on mortar proportion.
l) For R.C.C. Work, quality of steel in each batch may be approved on the basis of test certificate. The reinforcement layout should be checked for conformity with approved drawings and bar bending schedules. All laps should be checked for conformity with the specification. The reinforcement should be free from oil and loose rust scale should be properly tied with binding wire.

Clause No 26: Damage by Floods or Accidents

The Bidder shall take all precautions against damage by floods or tides or from accidents etc. No compensation will be allowed to the Bidder on this account or for correcting and repairing any such damage to the work during construction. The Bidder shall be liable to make good at his cost any plant or material belonging to the Government lost or damaged by floods or from any other cause while in his charge.

Clause No 27: Defect Liability Period

The Defect liability period of the project work is of 12 months after the completion of all project works.

Clause No 28: Extension of time

If the Bidder shall desire an extension of time, he shall apply in writing to the Engineer-In-Charge before the expiry of 30 (thirty) days from the date on which he was hindered or on which the cause for asking for extension occurred. If the Engineer-In-Charge or the CEO, PBSPL, as the case may be, is of the opinion, that there were reasonable grounds for

granting an extension, then he may grant such extension as he thinks necessary or proper. The decision of the Engineer-In-Charge in this matter shall be final.

Clause No 29*: *Progress report

The Bidder shall submit the progress report on weekly basis to the PBMC regularly, the progress report format of weekly report to be finalized in co-ordination with the PBMC or consultant appointed by them.

Clause No 30*: *Stock Register

Material stock register to be maintained by the bidder and it should be keep updated, if PBMC wants to verify it at any point of time it should be submitted to them immediately.

Clause No 31*: *First Aid Apparatus

The Bidder shall provide all necessary safety equipment and first aid apparatus available for the use of the persons employed on the Site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

a) The workers shall be required to use the equipment so provided by the Bidder and shall take adequate steps to ensure proper use of the equipment by those concerned.
b) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

Clause No 32: ***Termination***

a) The Employer may terminate the contract if the other party causes a fundamental branch of the contract.
b) Fundamental branches of contract include, but shall not be limited to the following
    i. The contractor stop work for 28 days & stoppage has not been authorized by the engineer.
    ii. The contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
    iii. The engineer gives notice that failure to correct a particular defect is a fundamental branch of contact & the contractor fails to correct it within a reasonable period of time determined by the engineer.
    iv. The contractor does not maintain a security which is required;

c) Notwithstanding the above, the Employer may term the contract for convenience.
d) If the contract is terminated the contractor shall stop work immediately, make the site safe & secure & leave the site as soon as reasonably possible.

Clause No 33: Payment upon Termination

a) If the contractor is terminated because of a fundamental branch of contract by the contractor, the engineer shall issue a certificate for the value of the work done less advance payment received up to the date of the issue of the certificate, less than other recoveries due in terms of the contract, less taxes due to deducted at sources as per applicable law.
b) If the contract is terminated at the Employer's convenience, the engineer shall issue a certificate for the value of the work done, the responsible cost of removal of equipment, repatriation of the contractor's personal employed solely on the works & the contractor's costs of protecting & securing the work & less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract & less taxes due to be deducted at source as per applicable law.

Clause No 34: Benchmarks and Setting Out

The Contractor shall engage a qualified surveyor to establish permanent benchmarks in suitable locations around the site. These benchmarks shall enable the Contractor to set out the location of all buildings, paths, roads, utility lines, storm water drains and all other portions of the Contract work.

If an error in setting out causes some portion of the work to be constructed in the wrong location, or to the wrong dimensions, the Contractor shall make good the incorrect work at his own expense to the satisfaction of the Project Manager / Professional Team. The Contractor shall be liable for any consequential loss experienced by the Client.

Clause No 35: Stacking of Excavated Materials

All materials excavated will remain the property of the Project Manager / Professional Team and rate for excavation including sorting out of useful materials and stacking them on site as directed but with a safe distance from the edge of excavation to avoid collapse/ shielding of excavated area. Materials suitable and useful for back filling, plinth filling or leveling of the plot or other use shall be stacked in convenient place but not in

such a way as to obstruct free movement of men, animals and vehicles or encroach on the area required for constructional purposes

Clause No 36: Dewatering

Rate for excavation shall include bailing or pumping out which may accumulate in the excavation during the progress of work either from seepage, rain water or any other cause and for diverting surface flow, if any by bunds or other means. Pumping out water shall be done in such approved manner as to preclude the possibility of any damage to the foundation trench, concrete or masonry or any adjacent structure inside or outside the wall front. When water is met in foundation trenches or in tank excavation, pumping out water shall be from auxiliary pit of adequate size dug slightly outside the building excavations. The depth of auxiliary pit shall be more than the working foundation trenches/levels. The auxiliary pit shall be refilled with approved excavated materials after the dewatering is over.

The Contractor shall adopt an appropriate method of dewatering work and shall submit its proposal for carrying out the dewatering work for the approval of the Project Manager / Professional Team. The water shall be pumped continuously to keep the water level at a minimum of two 2' (feet) below the lowest point of excavation level. The operation shall be continued until the entire excavation has been completed so as to ensure the excavation is always dry.

Adequate number of pumps shall be deployed to ensure a continuous dewatering process. Power / Fuel required for the operation of pumps etc shall be provided and paid for by the Contractor.

Clause No 36: Shoring and Strutting - Scope to Include

The excavated area shall be surrounded by strong barricaded safety barriers made of wooden posts three to four (3 to 4) inches in diameter and cross planks/ runners shall be erected to a height of 1.2m all around the excavation with reflective tapes and necessary lighting at night all as shown on drawings. The Contractor shall take all necessary measures for the safety of the excavation, persons working, tools and plants working in and near the excavation pits, property and people in the vicinity.

Protection and maintenance of all bench marks axis points and other similar reference points if disturbed and/ or damaged, to be replaced by the Contractor at no extra cost to the Developer.

6 ADDITIONAL CONDITIONS

1. All the materials such as asphalt, cement etc. shall be procured by the Bidder from the approved Government institution or as directed by Superintending Engineer, PBMC only. The material shall be brought at the Site of work well in advance by the Bidder.
2. The Bidder shall submit periodically progress reports of Work to the Superintending Engineer, Port Blair Municipal Council, copy to Nodal Officer, PBSPL.
3. Materials shall be tested as per frequency prescribed by the department from any Government Laboratory or Government Polytechnic and the cost of such testing shall be borne by the Bidder. Only if the test results are satisfactory, the materials shall be allowed to be used on the Work. If the test results are not as per standards prescribed, such materials shall be immediately removed from the Work Site at Bidder's cost. In case of cement, if so requested by the Bidder in writing, material shall be allowed to be used before receipt of test results but this will be entirely at the risk and cost of the Bidder.
4. The materials not conforming to the required standard shall be removed at once from the Site of Work by the Bidder at his own cost. All materials such as asphalt, cement etc. required for use in the Work shall conform to the relevant I.S (Indian Standard) codes specifications.
5. The Bidder shall construct at its own cost shed/ sheds for storing materials as per the direction of the **Superintending Engineer,** PBMC. Such constructed sheds shall be removed on completion of Work.
6. The Bidder shall make its own arrangements for the safe custody of the materials brought by it on Site of Work.
7. The charges for conveying of materials from the place of purchase by the Bidder to the Site of Work and the actual spot on Work Site shall be entirely borne by the Bidder. No claims on this account shall be entertained.
8. Separate register for Site Visit/ Instruction which are given by Superintending Engineer, of PBMC Municipal Council, shall be maintained by the Bidder
9. The Bidder shall provide regular technical person on Site.

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10. Bidder will not be entitled for price variation claim.
11. Arbitration is allowed as per dispute resolution clauses.
12. The Municipal Council shall not be responsible for the loss in cement, steel, granite, marble, tiles and electrical item during transit to Work Site.

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6.1 LETTER OF ACCEPTANCE

Acceptance Letter

---- On letterhead paper of the Employer ----

<<<<DATE>>>>

To:

<<<<NAME & ADDRESS of the contactor>>>>>>

Subject:

<<<<NOTIFICATION OF AWARD CONTRACT NO<<<<

This is to notify you that your Bid dated . . .. DATE . . .. For execution of the . . . . NAME OF THE CONTRACT AND IDENTIFICATION NUMBER, as given in the Appendix to Bid . . . . for the Accepted Contract Amount of the equivalent of . . . . . AMOUNT IN NUMBERS AND WORDS AND NAME OF CURRENCY . . . . . ., as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

Attachment: Contract Agreement

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6.2 CONTRACT AGREEMENT

THIS AGREEMENT made the . . . . . day of . . . ., ..., between . . . . . NAME OF THE EMPLOYER. . ... (here in after "the Employer"), of the one part, and . . .. NAME OF THE CONTRACTOR. . . ... (here in after "the Contractor"), of the other part:

WHEREAS the *Employer* desires that the Works known as . . .. NAME OF THE CONTRACT. . .. should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

    a) The Letter of Acceptance

    b) The Bid

    c) The Particular Conditions

    d) The Specification

    e) The Drawings; and

    f) The completed Schedules,

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the

Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of . . .. India. on the day, month and year indicated above.

Signed by.....	Signed by.....
For and on behalf of the Employer	for and on behalf the Contractor
in the presence of:	In the presence of:
Witness, Name, Signature, ADDRESS, Date	Witness, Name, Signature, Address, Date

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6.3 RECAPTULATION SHEET

Name of Work: Construction Faecal Sludge Treatment Plant (FSTP) of 42 cum capacity at Port Blair						
RECAPTULATION SHEET						
Sr. No	**Description**	**Estimated Cost**		**Quoted Total Amount**		**% above or below**
		Rs. In Figure	**Rs.in words**	**Rs. In Figure**	**Rs.in words**	
1	Receiving Station and Screening					
2	Settling Thickening tank					
3	Anaerobic Digestor					
4	Equalization tank					
5	MBBR Foundation					
6	Treated water tank					
7	Road + Culvert					
8	Prefabricated Toilet					
9	Solid Handling room + Office Building					
10	Boundary Wall					
11	Gate					
12	Rain Water System for office building					
	Total Cost					
Note: The above quoted final cost is inclusive of Govt taxes. The payment for the taxes to de deducted from the submitted RA Bill. In case of tax exemption relevant document proof to be enclosed along with the bill or submitted earlier i.e. during the submission of tendering document.						

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ANNEXURES

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ANNEXTURE 1: WORK DETAILS

Form No: 1 – Name of work, details of work of similar type and magnitude carried out by the tenderer							
Sr. No	**Name of Work**	**Cost of Work**	**Date of starting work**	**Stipulated date of Completion**	**Actual date of Completion**	**Time in which completed**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

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Form No 2 Details of other works tenderer has in hand at the time of submission of tender									
Sr. No	Name of work	Place of work	Work in Hand			Work Tendered for			Remarks
			Tender cost	Cost of remaining work	Anticipated date of completion	Estimated cost and date	Expected date of decision	Stipulated period of completion	
1	2	3	4	5	6	7	8	9	10

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Form No 3 - Details of plants and Machinery immediately with the tenderer for the use of this work							
Sr. No	**Name of Equipment**	**No, of unit's plants**	**kind and make**	**capacity**	**Age condition**	**Present location and condition**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

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Form No 4 - Details of Technical personnel with the tenderer						
Sr. No	**Name of Person**	**Qualification**	**Location of work (field or office)**	**Experience execution of similar type works in detail**	**Period for which person is working with the tenderer**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**

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Form No: 5 Year wise statement showing cost of completed works						
Sr. No	**Name of work**	**Year for construction**	**Year wise cost of executed work**			**Remarks**
			2014-15	**2015-16**	**2016-17**	
1	**2**	**3**	**4**	**5**	**6**	**7**

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SCHEDULE OF ITEMS

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RECEIVING STATION, TRUCK BAY, SCREENING AND SEWER NETWORK FOR FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**240.00**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**240.00**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge **In all kinds of soil**	**52.25**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, ordinary rock**	**16.13**	cum			
5	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**69.78**	cum			

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6	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size).** **(**PCC work for the portion between office building and Truck bay**)**	**48.92**	cum			
7	5.1.2 DSR page no 97	Providing and laying in position specified M-20 grade of reinforced cement concrete for footing excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size	**77.00**	cum			
8	5.33.2 DSR Page No 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. "(Note:- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).	**5.67**	cum			

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9	5.33.2 DSR Page No 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note: Cement content considered in this item is @ 330 kg/cum. "Excess/ less cement used as per design mix is payable/recoverable separately). 1. Plinth Beam (PB-1 to PB-23) 2. Beam (First & Second Floor) (B-1 to B-23)	**21.77**	cum			
10	5.9.21 DSR page No 98	Centering and shuttering including strutting, propping etc. and removal of form work for: A). Lintels, beams, plinth beams, girders, bressumers and cantilevers. with water proof ply 12 mm thick	**96.75**	sq-m			
11	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**10.44**	MT			
12	13.3.1 DSR Page No 227	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**28.65**	sq-m			
13	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix: 13.3.2 1:6 (1 cement: 6 fine sand	**13.65**	sq-m			

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14	11.5 DSR Page No 191	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	**92.00**	sq-m			
15	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes** of 100mm dia: 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729	**5.00**	mtr			
16	18.31.3 DSR Page no 330	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately): A). **150 mm diameter 18.31.3.1 Class I**	**3.00**	Nos			
17	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**10.00**	Kilo ltr			
18	13.33.1 DSR Page no 230	**Pointing on stone work** with cement mortar 1:3 (1 cement: 3 fine sand): 13.33.1 Flush/ Ruled pointing	**77.76**	sqm			
19	7.1.1 DSR Page No 119	**Random rubble masonry with hard stone** in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand: 12 graded stone aggregate 20 mm nominal size) upto plinth level with: 7.1.1 Cement mortar 1:6 (1 cement: 6 coarse sand	**17.50**	cum			

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20	19.19.1.1 DSR page 359	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality 19.19.1.1 Rectangular shape 600x450 mm internal dimensions	**40.00**	Nos			
21	23.5DSR Page No 393	**Supplying, filling, spreading & levelling stone boulders of size** range 5 cm to 20 cm, in the specific area, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	**22.82**	cu-m			
22	16.1 DSR Page No 265	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead up to 50 metres	**98.40**	sq-m			
23	18.9.10 DSR Page No 325	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold-water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. 18.9.10 150 mm nominal inner dia. Pipes (FOR COLLECTION OF SEWAGE)	**8.00**	mtr			
24	18.9.8 DSR Page No 325	18.9.8 75 mm nominal inner dia. Pipes (FOR TRANSPORTATION SEWAGE UP TO DRAIN)	**15.00**	mtr			
25	19.6.3 DSR Page No 355	Providing and laying 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: 19.6.3 250 mm dia. R.C.C. pipe	**30.00**	mtr			

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26	19.27.1 DSR Page No 361	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: A). With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5	**3.00**	Nos			

SETTLING THICKENING TANK OF FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**42.00**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**42.00**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, all kinds of soil**	**50.40**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in	**42.00**	cum			

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		depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, ordinary rock**					
5	2.7.3 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **(Blasting Prohibited)**	**33.60**	cum			
6	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**59.31**	cum			
7	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).**	**2.63**	cum			
8	5.33.1 DSR page no102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate,	**6.56**	cum			

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		retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately). (For RCC Footing)					
9	5.33.2 DSR Page No 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).	**16.40**	cum			
10	5.33.2 DSR Page No 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without	**5.49**	cum			

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		impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).					
11	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings	**5.20**	sq-m			
12	5.9.3 DSR page no 98	Cantering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**18.20**	sq-m			
13	4.3.3 DSR page no 89	Cantering and shuttering including strutting, propping etc. and removal of form work for A). For Wall	**70.25**	sq-m			
14	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. work** including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**2.85**	MT			
15	13.3.1 DSR Page No 227	Cement Plaster with a floating coat of neat cement 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**70.25**	sq-m			
16	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix: 13.3.2 1:6 (1 cement: 6 fine sand	**71.50**	sq-m			
17	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes**: 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729 100 mm diameter	**3.00**	mtr			
18	22.5 DSR Page No 382	**Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc.,** by applying cement slurry	**18.27**	sq-m			

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		mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.					
19	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**100.00**	Kilo ltr			
20	19.19.3.1 DSR Page no 359	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality. 19.19.3 H D – 20. A). Circular shape 560 mm internal diameter	**1.00**	Nos			
21	Non-Schedule Item/ Market Rate	Providing and fixing UPVC pipe of 110mm diameter at specific level including necessary accessories required such as Tee, Elbow etc.	**3.00**	mtr			
22	18.36.1DSR Page No 332	**Constructing masonry Chamber 60x60x75 cm,** inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 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 40 mm nominal size) and inside plastering with	**2.00**	Nos			

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		cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : 18.36.1 With common burnt clay F.P.S.(non modular) bricks of class designation 7.5					
23	Non-Schedule Item/ Market Rate	Providing and fixing submersible sewage pump of 1 HP capacity at appropriate place including lowering, transportation and electrification work etc complete	01	Nos			

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ANAEROBIC DIGESTOR OF FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**51.75**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**51.75**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge **In all kinds of soil**	**62.10**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In ordinary rock**	**51.75**	cum			
5	2.7.3 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **(Blasting**	**41.40**	cum			

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		Prohibited)					
6	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**119.42**	cum			
7	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).**	**3.16**	cum			
8	5.1.2 DSR page no 97	Providing and laying in position specified M-20 grade of reinforced cement concrete for footing excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size. (For RCC Footing)	**7.91**	cum			
9	5.2.2 DSR Page No 97	**Reinforced cement concrete work in walls** (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, **columns, pillars,** piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement 5.2.2 1:1.5:3 (1 cement: 1.5 coarse sand(zone-III): 3 graded stone aggregate 20 mm nominal size)	**24.41**	cum			
10	5.3 DSR Page No 97	Reinforced cement concrete work in **beams, suspended floors, roofs** having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with	**6.98**	cum			

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		1:1.5:3 (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).					
11	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings	**5.60**	sq-m			
12	5.9.3 DSR page no 98	Centering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**23.00**	sq-m			
13	4.3.3 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A).For Wall	**112.75**	sq-m			
14	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**3.93**	MT			
15	13.3.1 DSR Page No 227	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**116.60**	sq-m			
16	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix: 13.3.2 1:6 (1 cement: 6 fine sand	**89.28**	sq-m			
17	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes** : 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729 100 mm diameter	**3.00**	mtr			

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18	22.5 DSR Page No 382	**Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc.,** by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	**125.44**	sq-m			
19	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**100.00**	Kilo ltr			
20	19.19.3 H D - 20 19.19.3.1 DSR Page no 359	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality. 19.19.3 H D - 20 19.19.3.1 Circular shape 560 mm internal diameter	**6.00**	Nos			
21	Non-Schedule & Market	Providing and fixing UPVC pipe of 110mm diameter at specific level including necessary accessories required such as Tee, Elbow etc.	**48.00**	mtr			

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22	18.36.1DSR Page No 332	**Constructing masonry Chamber 60x60x75 cm,** inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 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 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : 18.36.1 With common burnt clay F.P.S.(non-modular) bricks of class designation 7.5	**2.00**	Nos			

EQUILIZATION TANK OF FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**20.25**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area	**20.25**	sq-m			

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		cleared					
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, all kinds of soil**	**24.30**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In ordinary rock**	**30.38**	cum			
5	2.7.3 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **(Blasting Prohibited)**	**16.20**	cum			
6	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**38.21**	cum			
7	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III) : 6 graded stone**	**1.23**	cum			

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		aggregate 20 mm nominal size).					
8	5.33.1 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately). (For RCC Footing)	**1.84**	cum			
9	5.33.2 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).	**8.96**	cum			

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		For RCC Column					
10	5.33.2 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately).	**1.84**	cum			
11	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings, bases for columns	**2.80**	sq-m			
12	5.9.3 DSR page no 98	Cantering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**12.25**	sq-m			
13	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings	**2.80**	sq-m			
14	5.9.3 DSR page no 98	Cantering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**12.25**	sq-m			

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15	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete up to plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**1.26**	MT			
16	13.3.1 DSR Page No 227	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**30.25**	sq-m			
17	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix: 13.3.2 1:6 (1 cement: 6 fine sand	**39.69**	sq-m			
18	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes**: 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729 100 mm diameter	**1.00**	mtr			
19	22.5 DSR Page No 382	**Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc.,** by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	**7.56**	sq-m			

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20	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**10.00**	Kilo ltr			
21	19.19.3 H D - 20 19.19.3.1 DSR Page no 359	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality. 19.19.3 H D - 20 19.19.3.1 Circular shape 560 mm internal diameter	**1.00**	Nos			

PLATFORM FOR MBBR SYSTEM FOR FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016 Providing and Fixing and Commissioning the MBBR system as per the dimension and specification enclosed here.							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**48.00**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**48.00**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as	**7.20**	cum			

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		directed by Engineer In-charge **In all kinds of soil**					
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-In-charge **In ordinary rock**	**9.45**	cum			
5	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**6.66**	cum			
6	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size).**	**1.56**	cum			
7	5.33.2 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.	**8.53**	cum			

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		"(Note: - Cement content considered in this item is @ 330 kg/cum. "Excess/ less cement used as per design mix is payable/recoverable separately).					
8	5.9.21 DSR page No 98	Centering and shuttering including strutting, propping etc. and removal of form work for: A). Lintels, beams, plinth beams, girders, bressumers and cantilevers. with water proof ply 12 mm thick	**15.60**	sq-m			
9	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**0.85**	MT			
10	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix: 13.3.2 1:6 (1 cement: 6 fine sand	**39.00**	sq-m			
11	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**10.00**	Kilo ltr			
12	13.33.1 DSR Page no 230	**Pointing on stone work** with cement mortar 1:3 (1 cement: 3 fine sand) : 13.33.1 Flush/ Ruled pointing	**39.00**	sqm			
13	7.1.1 DSR Page No 119	**Random rubble masonry with hard stone** in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with : 7.1.1 Cement mortar 1:6 (1 cement : 6 coarse sand	**21.06**	cum			

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14	23.5DSR Page No 393	**Supplying, filling, spreading & levelling stone boulders of size** range 5 cm to 20 cm, in the specific area, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	**5.25**	cu-m			
15	11.5 DSR Page No 191	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	**41.25**	sq-m			

TREATED WATER TANK OF FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**27.04**	sq-m			

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2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**27.04**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, all kinds of soil**	**32.45**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer In-charge **In, ordinary rock**	**40.56**	cum			
5	2.7.3 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **(Blasting Prohibited)**	**21.63**	cum			
6	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**38.21**	cum			
7	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).**	**1.23**	cum			

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8	5.33.1 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum., "Excess/ less cement used as per design mix is payable/recoverable separately). A). For RCC Footing	**1.84**	cum			
9	5.34.1 DSR Page No 102	Providing and laying in position machine batched and machine mixed design mix M-30 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum."Excess/ less cement used as per design mix is payable/recoverable separately). A). For RCC Column	**8.96**	cum			

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10	5.3 DSR Page No 97	Reinforced cement concrete work in **beams, suspended floors, roofs** having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	**1.84**	cum			
11	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings, bases for columns	**2.80**	sq-m			
12	5.9.3 DSR page no 98	Centering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**12.25**	sq-m			
13	4.3.1 DSR page no 89	Centering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings	**2.80**	sq-m			
14	5.9.3 DSR page no 98	Centering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**12.25**	sq-m			
15	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**1.26**	MT			
16	13.3.1 DSR Page No 227	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**36.00**	sq-m			

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17	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix : 13.3.2 1:6 (1 cement: 6 fine sand	**46.24**	sq-m			
18	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes** : 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729 100 mm diameter	**1.00**	mtr			
19	22.5 DSR Page No 382	**Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc.,** by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry	**9.00**	sq-m			
20	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like	**10.00**	Kilo ltr			
21	19.19.3 H D - 20 19.19.3.1 DSR Page no 359	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality. 19.19.3 H D - 20 19.19.3.1 Circular shape 560 mm internal diameter	**1.00**	Nos			

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CONSTRUCTION OF ROAD & CULVERT FOR FSTP PLANT AT PORT BLAIR							
	ABSTRACT SHEET AS PER CPWD DSR 2016						
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	16.1 DSR Page No 265	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres	1080	sq-m			
2	16.2 DSR Page No 265	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	1080	sq-m			
3	16.3.10	Supplying and stacking at site. A). Moorum	540	cum			
4	16.3.1	Supplying and stacking at site. A). 90 mm to 45 mm size stone aggregate	324.00	cum			
5	16.4 DSR Page No 265	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density	324	cum			

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6	16.42 DSR Page No 271	Cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete	162	cum			
7	16.43.2	"Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). **Note: - Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.** A). Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	248.4	cum			

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8	16.46 DSR Page No 272	Providing and laying in position bitumen hot sealing compound for expansion joints etc	240	per cm depth per cm width per m length			
9	5.22.6 DSR page no 100	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	8.89905	kg			
10	19.35.3 DSR Page No	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 19.35.3 900 mm dia RCC pipes.	17.5	mtr			
11	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge **In all kinds of soil**	180	cum			
12	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size). 4.1.5 DSR page no 88 cum 4927	10.8	cum			

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13	5.1.2 DSR page no 97	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement 5.2.2 1:1.5:3 (1 cement: 1.5 coarse sand(zone-III): 3 graded stone aggregate 20 mm nominal size) 5.2.2 DSR Page No 97 cum 7145.8	69.912	cum			
14	5.2.2 DSR Page No 97	Providing and laying in position specified M-20 grade of reinforced cement concrete for footing excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size 5.1.2 DSR page no 97 cum 6215.35	16.2	cum			
15	23.9 DSR Page no 393	"Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineering- charge." 23.9 DSR Page no 393 Nos 959.35	200	Nos			

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16	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : **4.1.5 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).**	2.63	cum			
17	5.1.2 DSR page no 97	Providing and laying in position specified M-20 grade of reinforced cement concrete for footing excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size	5.25	cum			

PRE-FABRICATED TOILET FOR FSTP PLANT AT PORT BLAIR							
ABSTRACT SHEET AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	Non Schedule Item/ Market Rate	Providing and Fixing the Prefabricated toilet along with the disposal system at proper location complete in all respect for 04 users (02 for Male & 02 Female, each of Indian W.C. & EWC, water tank with all fixtures including float valve, etc., Mirror, Hand rail, exhaust fan, soap/ hand wash handle, wash basin with fittings.	01	No.			

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SOLID HANDLING ROOM PLUS OFFICE BUILDING FOR FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**180.00**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**180.00**	sq-m			
3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge **In all kinds of soil**	**31.08**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **In ordinary rock**	**24.86**	cum			
5	2.7.3 DSR page no	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm	**18.65**	cum			

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	76	in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **(Blasting Prohibited)**					
6	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**27.76**	cum			
7	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size).**	**4.15**	cum			
8	5.33.1 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note: Cement content considered in this item is @ 330 kg/cum. "Excess/ less cement used as per design mix is payable/recoverable separately). (For RCC Footing)	**20.93**	cum			

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9	5.33.2 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum. "Excess/ less cement used as per design mix is payable/recoverable separately). (For RCC Column)	**21.85**	cum			
10	5.33.2 DSR page no 102	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge."(Note :- Cement content considered in this item is @ 330 kg/cum. "Excess/ less cement used as per design mix is payable/recoverable separately). A). Plinth Beam (PB-1 to PB-23)	**74.20**	cum			

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		B). Beam (First & Second Floor) (B-1 to B-23) C). Slab First Floor & Second Floor D). Waist slab E). Landing F). Staircase (flight height 3M) Tread:300mm & Rise 200mm					
11	4.3.1 DSR page no 89	Cantering and shuttering including strutting, propping etc. and removal of form work for A). Foundations, footings, bases for columns	**51.48**	sq-m			
12	4.3.3 DSR page no 89	Cantering and shuttering including strutting, propping etc. and removal of form work for A). Columns, piers, abutments, pillars, posts and struts	**197.94**	sq-m			
13	5.9.21 DSR page No 98	Cantering and shuttering including strutting, propping etc. and removal of form work for A). Lintels, beams, plinth beams, girders, bressumers and cantilevers. with water proof ply 12 mm thick	**474.20**	sq-m			
14	5.9.3 DSR page no 98	Cantering and shuttering including strutting, propping etc. and removal of form work for A). For slab	**268.50**	sq-m			
15	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**11.70**	MT			
16	6.4.1 DSR page no 111	**Brick work with common burnt clay F.P.S**. (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in 6.4.1 Cement mortar 1:4 (1 cement: 4 coarse sand	**506.94**	cum			
17	13.3.1 DSR Page No	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine	**546.21**	sq-m			

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	227	sand) **Internal Plaster**					
18	13.3.1 DSR Page No 227	**External Plaster 20 mm cement plaster** of mix : 13.3.2 1:6 (1 cement: 6 fine sand	**265.01**	sq-m			
19	13.41.1 DSR Page No 230	**Distempering with oil bound washable distemper** of approved brand and manufacture to give an even shade 13.41.1 New work (two or more coats) over and including water thinnable priming coat with cement primer	**811.21**	sqm			
20	11.38 DSR Page No 196	Providing and laying **Ceramic glazed floor tiles of size 300x300 mm** (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete	**32.95**	sq-m			
21	11.26 DSR Page No 195	**Kota stone slab flooring** over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 11.26.1 25 mm thick	**60.15**	sq-m			
22	11.21.2.1 DSR Page No 194	**Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved** make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-	**11.21**	sq-m			

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		Charge.**11.21.2 In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand), 11.21.2.1 Acid and alkali resistant tile**					
23	11.21.2.1 DSR Page No 194	**Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved** make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.**11.21.2 In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand), 11.21.2.1 Acid and alkali resistant tile**	**27.90**	sq-m			
24	17.1.1 DSR page no 292	**Providing and fixing water closet squatting pan (In**dian type W.C.pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: 17.1.1 White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	**4.00**	Nos			
25	17.7.1 DSR page no 293	**Providing and fixing wash basin with C.I. brackets**, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: 17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	**4.00**	Nos			
26	17.10.1.1 DSR Page	**Providing and fixing Stainless Steel A ISi 304 (18/8) kitchen sink** as per IS: 13983 with C.I. brackets and stainless steel	**1.00**	Nos			

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	No 295	plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required: 17.10.1 Kitchen sink with drain board 17.10.1.1 510x1040 mm bowl depth 250 mm					
27	17.28.2 DSR page No	**Providing and fixing P.V.C. waste pipe for sink or wash basin** including P.V.C. waste fittings complete 17.28.2 Flexible pipe, 17.28.2.1 32 mm dia	**3.00**	Nos			
28	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes**: 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729	**15.00**	mtr			
29	18.7.3 DSR Page No 325	**Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes,** having thermal stability for hot & cold-water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. A). 18.7.3 25 mm nominal outer dia Pipes	**40.00**	mtr			
30	18.7.6 DSR Page No 325	**Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes,** having thermal stability for hot & cold-water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. A). 50 mm nominal outer dia Pipes	**45.00**	mtr			
31	18.17.4 DSR Page	**Providing and fixing gun metal gate valve** with C.I. wheel of approved quality (screwed end).	**1.00**	Nos			

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	no 327	A). 18.17.4 50 mm nominal bore					
32	18.48A DSR page no 334	**Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS: 12701** marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. 18.48A Circular tank	**5000.00**	ltr			
33	18.49.1 DSR Page 334	**Providing and fixing C.P. brass bib cock** of approved quality conforming to IS:8931: 18.49.1 15 mm nominal bore	**8.00**	Nos			
34	8.2 DSR Page No 128	**Providing and fixing 18 mm thick gang saw cut, mirror polished, pre-moulded and pre-polished, machine cut for kitchen platforms**, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. **8.2.1.2 Area of slab over 0.50 sqm**	**3.38**	sq-m			
35	22.5 DSR Page No 382	**Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc.,** by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126	**4.50**	sq-m			

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		kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.					
36	22.6 DSR Page No 382	**Providing and laying water proofing treatment on roofs of slabs** by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. (b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. (c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. (d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement, the entire treated surface will be measured.	**120.00**	sq-m			
37	10.6.1 DSR Page no 182	**Supplying and fixing rolling shutters of approved make,** made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside	**8.28**	sqm			

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		and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 10.6.1 80x1.25 mm M.S. laths with 1.25 mm thick top cover.					
38	10.7 DSR Page no 182	**Providing and fixing ball bearing for rolling shutters.**	**6.00**	Nos			
39	10.2 DSR Page no 182	**Structural steel work riveted, bolted or welded** in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	**200.00**	Kg			
40	9.21.1 DSR Page No 148	**Providing and fixing ISI marked flush door shutters c**onforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 9.21.1 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	**30.24**	sq-m			
41	18.32.1 DSR page No 331	**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	**2.00**	Nos			

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		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 neat cement complete as per standard design : A). 18.32.1 With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5					
42	18.36.1DSR Page No 332	**Constructing masonry Chamber 60x60x75 cm,** inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 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 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : 18.36.1 With common burnt clay F.P.S.(non-modular) bricks of class designation 7.5	**2.00**	Nos			
43	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**10.00**	Kilo ltr			
44	13.33.1 DSR Page no 230	**Pointing on stone work** with cement mortar 1:3 (1 cement: 3 fine sand): A). Flush/ Ruled pointing	**26.40**	sqm			
45	7.1.1 DSR Page No 119	**Random rubble masonry with hard stone** in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand: 12 graded stone	**11.88**	cum			

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		aggregate 20 mm nominal size) upto plinth level with: 7.1.1 Cement mortar 1:6 (1 cement: 6 coarse sand					
46	11.27 DSR Page No 195	**Kota stone slabs 20 mm thick in risers and tread of steps,** laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	**30.54**	sq-m			
47	19.4.1.1 DSR Page no 354	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: A). 100x100 mm size P type 19.4.1.1 With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5	**1.00**	Nos			

BOUNDARY WALL FOR FSTP AT PORT BLAIR							
AS PER CPWD DSR 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	2.28.1 DSR page no 80	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. All kinds of soil	**48.75**	sq-m			
2	2.32 DSR page no 80	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared	**48.75**	sq-m			

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3	2.6.1 DSR page no 76	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge **In all kinds of soil**	**21.94**	cum			
4	2.7.1 DSR Page No 76	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge **In ordinary rock**	**21.94**	cum			
5	2.25 DSR page no 79	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	**17.55**	cum			
6	4.1.5 DSR page no 88	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: **4.1.5 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size).**	**7.07**	cum			
7	5.1.2 DSR page no 97	Providing and laying in position specified M-20 grade of reinforced cement concrete for footing excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size	**9.75**	cum			
8	5.9.21 DSR page No	Centering and shuttering including strutting, propping etc. and removal of form work for	**26.00**	sq-m			

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	98	A). Lintels, beams, plinth beams, girders, bressumers and cantilevers. with water proof ply 12 mm thick					
9	5.22.6 DSR page no 100	**Steel reinforcement for R.C.C. wor**k including straightening, cutting, bending, placing in position and binding all complete upto plinth level 5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more	**0.98**	MT			
10	13.3.1 DSR Page No 227	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT 20 mm cement plaster of mix :13.3.1 1:4 (1 cement: 4 fine sand) **Internal Plaster**	**299.00**	sq-m			
11	17.35.1.1 DSR Page No 297	**Providing and fixing soil, waste and vent pipes**: 17.35.1.1 Sand cast iron S&S pipe as per IS: 1729	**20.00**	mtr			
12	14.23 DSR Page No 244	**Pumping out water caused by springs, tidal or river seepage**, broken water mains or drains and the like.	**10.00**	Kilo ltr			
13	13.33.1 DSR Page no 230	**Pointing on stone work** with cement mortar 1:3 (1 cement: 3 fine sand): 13.33.1 Flush/ Ruled pointing	**58.50**	sqm			
14	7.1.1 DSR Page No 119	**Random rubble masonry with hard stone** in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand: 12 graded stone aggregate 20 mm nominal size) upto plinth level with: 7.1.1 Cement mortar 1:6 (1 cement: 6 coarse sand	**21.94**	cum			
15	23.5DSR Page No 393	**Supplying, filling, spreading & levelling stone boulders of size** range 5 cm to 20 cm, in the specific area, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	**8.97**	cu-m			

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16	10.2 DSR Page no 182	**Structural steel work riveted, bolted or welded** in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	**949.29**	Kg			
17	16.53 DSR Page No 273	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately	**65.00**	mtr			

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APPROXIMATE ESTIMATE FOR THE GATE FOR FSTP AT PORT BLAIR							
AS PER CPWD RATE 2016							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	10.2 DSR Page no 182	**Structural steel work riveted, bolted or welded** in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	**2000**	Kg.			

PPROXIMATE ESTIMATE FOR THE ROOF WATER HARVESTING SYSTEM FOR THE OFFICE BUILDING OF FSTP AT PORT BLAIR							
Sr. No	**Item Code No**	**Item Description**	**Qty.**	**Unit**	**Unit rate**		**Amount**
					In INR	**In Words**	
1	**Non-Schedule Item/ Market Rate**	Providing, laying and commissioning the roof water harvesting system for the office building of the FSTP plant. The Terrace area is 120 sq.-m. The system includes laying of PVC pipes, collection & storage water in GSR (10,000Ltr.) and reuse of the same for gardening/vehicle washing/ etc by using pumps of adequate capacity. Including the accessories such as First Flush valve, Gate valve, Overhead tank if required etc complete.	1	No			

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