

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

CENTER FOR URBANIZATION, BUILDINGS & ENVIRONMENT (CUBE)



TENDER DOCUMENT - CUBE/ADM/TEND/015/2020-21

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

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Notice Inviting Tender

Table of Contents

VOLUME - I

A.	Notice Inviting Tender	9
A.	Project Information.....	13
B.	Instruction to the Bidders	15
C.	Draft Form of Bid	24
D.	Draft Articles of Agreement.....	25
F.	Checklist of Documents to Be Enclosed with Tender	29
A.	General Conditions of Contract	31
1.	General.....	31
1.1.	Definitions and Interpretations	31
1.2.	Singular and Plural.....	33
1.3.	Headings and Notes.....	33
1.4.	Price	33
1.5.	Priority of Documents.....	33
1.6.	Contract Agreement	34
1.7.	Project Engineer	34
1.8.	Project Manager	35
2.	Assignment and Sub-Contracting	37
2.1.	Assignment	37
2.2.	Sub-Contractor	38
3.	Bid Documents.....	38
3.1.	Languages and Law	38

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

3.2.	Documents mutually explanatory	38
3.3.	Drawings and Custody of drawings	39
3.4.	One copy of drawings to be kept on site.....	39
3.5.	Disruption of Progress	39
4.	General Obligations	40
4.1.	CONTRACTOR's general responsibilities.....	40
4.2.	Water and power for construction.....	40
4.3.	Temporary works and arrangements	41
4.4.	Demolition and clearance.....	41
4.5.	Storage, cleaning and de-watering.....	41
4.6.	Site Logistics.....	42
4.7.	Care and use of existing facilities and services	42
4.8.	Co-ordination of the work required for services.....	43
4.9.	Bid Agreement	43
4.10.	Performance Bond	43
4.11.	Inspection of site.....	44
4.12.	Sufficiency of Bid - Adverse Physical Conditions and Artificial Obstructions	44
4.13.	Work to be to the satisfaction of Client Engineer, Architect and Project Engineer	45
4.14.	Drawings and Documents	45
4.15.	General.....	45
4.16.	Discrepancies	47
4.17.	As-built drawings and O&M Manuals.....	47
4.18.	Construction Programme.....	47

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

4.19.	CONTRACTOR's Superintendence.....	48
4.20.	CONTRACTOR's Employees.....	48
4.21.	Setting-out	48
4.22.	Watching and Lighting	49
4.23.	Care of Works.....	49
4.24.	Insurance Policies.....	50
4.25.	Giving of notices and payment of fees	54
4.26.	Patent rights and royalties.....	55
4.27.	Interference with traffic and adjoining properties	55
4.28.	Extraordinary traffic.....	55
4.29.	Opportunities for other Contractors & Sub Contractors	56
4.30.	CONTRACTOR to keep site clear	57
4.31.	Clearance of site on completion	57
4.32.	Engagement of Labour.....	57
4.33.	Returns of labour, etc	59
4.34.	Contribution towards Employee Benefits, Funds, Etc.	59
4.35.	Safety Standards and Requirements	59
4.36.	Reports by CONTRACTOR	60
4.37.	Taxation.....	60
4.38.	Withholding taxes	61
4.39.	Site Drainage	61
4.40.	Apprentice Act	61
5.	Materials and Workmanship	61

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

5.1.	Quality of materials and workmanship and tests	61
5.2.	Quality Assurance Programme:.....	62
5.3.	Price of samples/ Mock-ups / Tests.....	62
5.4.	Inspection of operations.....	62
5.5.	Examination of work before covering up	62
5.6.	List of Approved brand and Makes	63
5.7.	Basic Prices	64
5.8.	Instruments	64
5.9.	Uncovering and making openings	64
5.10.	Removal of improper work and materials.....	65
5.11.	Suspension of works	65
5.12.	Quality Control tests	66
5.13.	Guarantees for specialist works.....	67
6.	Commencement Time and Delays	67
6.1.	Commencement of works	67
6.2.	Possession of site.....	67
6.3.	Way leaves, etc.....	67
6.4.	Time for completion	68
6.5.	Extension of time for completion.....	68
6.6.	Night or Sunday work	69
6.7.	Rate of progress.....	69
6.8.	Delay Damages	70
6.9.	Certificate of Substantial Completion of works	71

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

6.10.	Provisional acceptance	72
7.	Maintenance and Defects	73
7.1.	Definition of "Defects Liability Period"	73
7.2.	Execution of repair work, etc.	73
7.3.	Price of execution of works of repair, etc	74
7.4.	Remedy on CONTRACTOR's failure to carry out work required	74
7.5.	CONTRACTOR to search for any defect, imperfection or fault	74
8.	Alterations, Additions and Omissions.....	75
8.1.	Variations.....	75
8.2.	Orders for variations to be in writing	76
8.3.	Valuation of variations - Extra items	76
8.4.	Power of Engineer to Fix Rates.....	77
9.	Plant, Temporary Works and Materials.....	78
9.1.	Plant etc., exclusive use for the works	78
9.2.	Approval of materials etc., not implied	78
9.3.	Housekeeping & Power Charges	78
10.	Measurement.....	79
10.1.	Works to be measured.....	80
10.2.	Measurements for the Bill	80
10.3.	Method of measurement.....	80
11.	Certificates and Payment	81
11.1.	Certificates and Payment.....	81
11.2.	Approval only by Practical Completion certificate	83

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

11.3.	Practical Completion Certificate	83
11.4.	Cessation of Employer's liability	83
12.	Remedies and Powers	84
12.1.	Default of CONTRACTOR.....	84
12.2.	Foreclosure of Contract	85
12.3.	Valuation of date of forfeiture.....	86
12.4.	Payment after forfeiture.....	86
12.5.	Default of CLIENT	87
13.	Special Risks.....	88
14.	Force Majeure	89
14.1.	Payment in the event of force majeure.....	89
15.	Settlement of Disputes.....	90
15.1.	Settlement of disputes and arbitration	90
16.	Site Offices and Facilities.....	90
17.	Notices.....	91
17.1.	Services of notices on CONTRACTOR.....	91
B.	Special Conditions of Contract.....	92
C.	Safety Requirements.....	100
D.	Bid Summary.....	113
	Annexure I – Self-Certified Notarised Affidavit	114
	Annexure II – Proforma of Performance Bank Guarantee	115
	Annexure III – Checklist for Hand Over Documents	116
	Annexure IV – Certificate of Substantial Completion	117

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

Financial Proposal120

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

A. NOTICE INVITING TENDER

S #	Particulars	Detailed Description
1	Project	CPCL Village Adoption Project
2	Location of Site	Gopurajapuram / S Panangudi Villages of Nagapattinam District, Tamil Nadu
3	Name of Work	Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.
4	Period of Completion	90 Days from the date of issue of LoA
5	Type of Tender	Open Tender (Two Cover System)
6	Type of Contract	Lumpsum Contract
7	Issue of Tender Documents	Electronic Release
8	Date of Issue of Tender Documents	Friday, January 18, 2021. From 05:00 PM
9	Pre-Bid Meeting	Tuesday, January 22, 2021. 2:00 PM [upon
10	Last Date of Submission	Friday, January 29, 2021. 02:00 PM
11	Bid Opening	<p><u>Opening of Pre-Qualification Documents:</u> <i>Date & Time:</i> Friday, January 29, 2021, 2:30 PM <i>Place:</i> CUBE office, IITM Research Park, Taramani, Chennai – 600 113</p> <p><u>Opening of Technical and Financial Proposal:</u> Date and Time shall be notified to all Qualified Bidders by E-mail.</p>
12	Cost of Tender Documents	NA

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

13	Earnest Money Deposit (EMD)		Rs. 40,000 in the form of Demand Draft issued by any Nationalized or Schedule Bank Payable at Chennai.
14	Validity of Bid		Ninety (90) days from Last date of submission of tender (which may be extended by mutual agreement)
15	Address of Submission Documents	for	Module No. 6C, 6th Floor, C Block, Phase – II, IIT Madras Research Park, Kanagam Road, Taramani, Chennai – 600 113. Tamil Nadu. Office : 044 – 6121 0901 (Super-scribed as Tender for the Construction of Precast Overhead Tank at Nagapattinam for CPCL)
16	Email		office@cubeiitm.org
17	Time for Completion of the Project	for	3 months from Date of Issue of LOA or written order to commence work, whichever is earlier. The project completion time shall include the mobilisation time.
18	Pre-Qualification Criteria		<ol style="list-style-type: none"> 1. <u>Proof of Establishment [Documents]</u> <ol style="list-style-type: none"> (i) Certificate of Establishment – Incorporation or Registration Certificates (ii) Firm / Company PAN (iii) GST Registration Certificate (iv) PF and ESI Registration Certificates 2. Bidder must have successfully executed Civil works of similar nature of Precast / Pre-engineered structures during the last three years ending on March 31, 2020 under the following criteria <ol style="list-style-type: none"> (i) One work costing not less than Rs. 25.00 lakhs in a single work order. or (ii) Two work costing not less than Rs. 15.00 lakhs in each order. <p>Note: -</p> <ol style="list-style-type: none"> (i) Performance Report of completed works using the Technology shall be submitted. Photocopies of work orders issued by the Customer containing details of bill of quantities / schedule of rates and certificates for proof of satisfactory completion of work.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Notice Inviting Tender

(ii) Attested List of Work Experience with the name of the project, Owner of the project, Name of the customer, Work order reference No and date, brief details of jobs, executed value, date of start, date of completion.

3. The contractor must have achieved minimum average annual financial turnover of Rs. 50.00 Lakhs during the last three financial years (FY) ending on 31/03/2020.

Proof of Submission:

Attested Photo copies of audited ITR, balance sheet, profit and loss account accompanied by relevant schedules for turnover figures.

4. Should not have incurred any loss in more than two years during the last five financial years (between 2016 – 2020).

Proof of Submission:

Solvency Certificate from a Nationalized Bank / Scheduled Bank for a minimum of Rs. 50 lakhs (Rupees Fifty Lakhs only) and should not be older than one year from the date of opening of tender.

5. Information regarding projects under litigation, orders regarding exclusion, expulsion or black listing during the last five years ending on March 31, 2020
6. Each bidder shall furnish in the form of a self-certified affidavit, duly Notarised (format given in the 'Annexure I') that the information provided for evaluation of the pre-qualification criteria of the bidder is correct. Each bidder shall satisfy himself about his pre-qualification criteria before submitting his bid. The pre-qualification criteria will be evaluated as mentioned in Section 18 of the Notice Inviting Tender. Bids who do not possess the required prequalification criteria shall not be eligible for opening Technical and Financial Proposal and shall be rejected.

19 Additional Terms

1. The dates and timings provided in the Notice Inviting Tender supersedes all and any date and timings provided in this Tender Document.
2. CUBE reserves the right to reject or cancel any tender without providing any reasons.
3. The Bid shall be submitted as per the terms laid out in the Instructions to Bidders.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Volume I :

Project Information, Instruction to Bidders, Form of Bid and Draft Articles of Agreement, Checklist of documents to be submitted

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

A. PROJECT INFORMATION

S #	Particulars	Detailed Description
1	Name of Project	CPCL Village Adoption Project
2	Name of Work	Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.
3	Scope of Work	<p><u>Construction of Precast RCC Overhead tank of capacity 45,000 Litres with variations within a range of $\pm 10\%$ from proposed capacity.</u></p> <ol style="list-style-type: none"> 1) Design and detailing of the entire Precast / Pre-engineered overhead tank including foundation and superstructure with steel staircase. (SI report will be provided by Client with issuing of WO). 2) Proof checking of all the design and drawings and obtain approval from IIT Madras Faculty. 3) Obtain client approval on detail design / drawing and work methodology prior to commencement of production. 4) Production / Fabrication and supplying of all the precast elements and transportation to the project site including storage and safekeeping. 5) Appropriate foundation construction with Pile / Raft footings including earthwork. 6) Erection of Precast RCC Columns & Beams up to 12m staging. 7) Erection of Precast Tank as Rigid and Leak Proof structure. 8) Erection of Prefabricated Steel staircase. 9) Painting with Waterproof internal paint, Weather coat exterior paint of the entire external structure, suitable acrylic / enamel decorative painting of size 4' x 3' with artwork content provided by client. and galvanised painting of steel staircase. 10) Associated Plumbing works for inlet and outlet connection to the exiting water supply provisions. 11) Testing (for Leakage and Structural Soundness) and commissioning of the structure including handing over to the local administration.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4 Location of Site Gopurajapuram Panchayat, Nagapattinam

5 Client Centre for Urbanization, Buildings and Environment (CUBE)

6 Client Address Module No. 6C, 6th Floor,
C Block, Phase – II,
IIT Madras Research Park,
Kanagam Road, Taramani, Chennai – 600 113. Tamil Nadu.
Office : 044 – 6121 0901

7 Period of Completion 90 Days from the date of issue of LoA

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

B. INSTRUCTION TO THE BIDDERS

1. The Contract Document is prepared for the **“Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.”**
2. Construction of Overhead Tanks hereinafter may be referred to as work.
3. The scope of the work includes the works described in bill of quantities, specifications, drawings and sketches. The major works under this contract are,
 - a) Construction of Precast RCC Overhead tank of capacity 45,000 litres with variations within a range of $\pm 10\%$ from proposed capacity including
 - b) Design and detailing of the entire Precast / Pre-engineered overhead tank including foundation and superstructure with steel staircase. (SI report will be provided by Client with issuing of WO).
 - c) Proof checking of all the design and drawings and obtain approval from IIT Madras Faculty.
 - d) Obtain client approval on detail design / drawing and work methodology prior to commencement of production.
 - e) Production / Fabrication and supplying of all the precast elements and transportation to the project site including storage and safekeeping.
 - f) Appropriate foundation construction with Pile / Raft footings including earthwork.
 - g) Erection of Precast RCC Columns & Beams up to 12m staging.
 - h) Erection of Precast Tank as Rigid and Leak Proof structure.
 - i) Erection of Prefabricated Steel staircase.
 - j) Painting with Waterproof internal paint, Weather coat exterior paint of the entire external structure, suitable acrylic / enamel decorative painting of size 4' x 3' with artwork content provided by client. and galvanised painting of steel staircase.
 - k) Associated Plumbing works for inlet and outlet connection to the exiting water supply provisions.
 - l) Testing (for Leakage and Structural Soundness) and commissioning of the structure including handing over to the local administration.
4. The Tender document comprises of three volumes, I, II and III
 - a) Volume I : Notice Inviting Tender, Project Information, Instruction to Bidders, Draft Form of Bid, Draft Articles of Agreement and Checklist of documents to be submitted.
 - b) Volume II : General Conditions of Contract, Special Conditions of Contract, Safety Requirements, Bid Summary and Annexure to Tender.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

c) Volume III: Financial Proposal

5. Please read the conditions of the tender carefully.
6. All pages must be signed / initialled as per the below specified requirements
 - a) Full Signatures on :-
 - i Volume I : Notice Inviting Tender, Project Information, Instruction to Bidders.
 - ii Volume II : Special Conditions of Contract, Bid Summary
 - iii Volume III : Financial Proposal
 - b) Please Initial on all other pages of this tender document.
7. In the case of the tender being submitted by a company, it must be signed by authorized signatory. In the event of the tender being submitted by a firm, it must be signed separately by each member thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so; such power of attorney shall be produced with the tender and it must disclose that the firm is registered under the Indian Partnership Act.
8. All pages of the documents shall be numbered in one sequence before the last hard bounding.
9. **All documents shall be hard-bounded (no spiralling of the document is allowed)** and should be submitted in separate sealed envelope / cover, as per the Tender Submission Process, described as below:
 - a. **PRE-QUALIFYING DOCUMENTS**
Signed copies of Volume I-II, Volume III without the rates, Form of Bid, Tender Documents as it is, and documents like Work orders, Completion certificates, Balance sheets, Statement of Profit and Loss, etc. satisfying **Pre-Qualification Criteria / Mandatory Requirements** in a sealed envelope / cover with subscription “**PRE-QUALIFYING DOCUMENTS**”.
 - b. **TECHNOLOGY AND FINANCIAL PROPOSAL**
Signed copies of
 - (i) Technical Proposal comprising of documents required for evaluating and ranking Technical and Technology capabilities, and
 - (ii) Financial Proposal comprising of Volume III with rates.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Both copies in another sealed envelope/cover with subscription “**TECHNOLOGY AND FINANCIAL PROPOSALS**”.

- c. Both envelopes shall be enclosed in a sealed envelope / cover with subscription giving the Name of the Work & your Firm / Company Name with a covering letter.
10. The Bidder must quote his rate only on the proper form as prescribed in the bid document, both in figures and words and both in decimal coinage in the respective spaces provided, therefore. If the rates are not quoted in words also the tender is liable to rejection. The amount for each item should be worked out in figures only for the probable quantities specified in the bills of quantities and the requisite totals already entered for lump sum items and contingencies at the percentage specified.
 11. Special care is to be taken to write the rates in figures and words in such a way that no interpolation is possible. Erasures and alterations must be avoided, but if made unavoidable while pricing the bills of quantities, the wrong figures and words must be neatly scored out under the initials of the Bidder and the correct figures and words neatly rewritten but not overwritten. Overwriting is not accepted.
 12. In the case of figures, the word 'Rs' should be written before the figures of rupees and the word 'P' written after the decimal figures, e.g. Rs:2.15P; In the case of words, the word “Rupee” should similarly precede and the words “Paise only” should be written at the end, closely following each rate and amount. The word “only” should not be written in the next line unless the rate quoted is in whole rupees closely followed by the word “only”. The amount should invariably be up to two decimal places.
 13. Errors in the bills of quantities shall be dealt with in the following manner:
 - a. In the event of a discrepancy between the rates quoted in words and the rates in figures the former shall prevail.
 - b. In the event of an error occurring in the amount column of the bills of quantities because of the wrong extension of the unit rate and the quantity, the unit rate shall be regarded as firm and extension shall be amended based on the rates.
 - c. All the errors in totalling in the amount column and in carrying forward the totals shall be corrected.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- d. The tender total shall be accordingly amended except that there shall be no rectification of any errors, omissions or wrong estimate, in the prices inserted by the Bidder in the bills of quantities.
14. Where alternative items are given only the rates in figures and words are to be entered and not the quantities thereof. A tender which does not show the rates in figures and words for the alternative items may be rejected. The Employer reserves the right to take into account any or all of the alternative items for the purposes of accepting a tender or to operate upon any or all of the said alternative items during the execution of the work, partly or fully as required.
15. The quantities furnished in the bill of quantities are only probable quantities liable to alteration by omission, deduction or addition, and it should be clearly understood that the contract is not a lump sum contract and the Employer, do not, in any way, assure or guarantee the Bidder that the said probable quantities are correct or that the work would correspond thereto. Payments will be regulated on the actual quantities of work done at the accepted rates.
16. The drawings, specifications and the bill of quantities, forming parts of the contract, are explanatory of and are complementary to one another, representing together the works/installations to be carried out.
- If neither the drawings nor the specifications nor the accepted bill of quantities include any part/parts the intention to include which is nevertheless clearly to be inferred and which are obviously necessary for the proper completion of the works/ installations, all such parts shall be supplied and executed by the Contractor at no extra charge.
17. Anything contained in one or another of (a) the drawings, (b) the specifications and (c) the accepted bill of quantities and not found in the others will be equally binding as if contained in each of them.
18. No alterations which are made by the Bidder in the drawings, specifications or probable quantities accompanying this notice will be recognized, and if any such alterations are made, the tender will be invalid. Remarks, explanations, the bidder's own terms and conditions, if any should be set out in the covering letter (submitted in duplicate) which

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

will become binding only if accepted by the Employer in writing at the time of acceptance of the tender.

19. The Bidder must obtain for himself on his own responsibility and at his own expense all the necessary information including risks, contingencies and other circumstances to enable him to make a proper valid tender and to enter into a contract with the Employer. He must examine the drawings, specifications, conditions and so on and must inspect the site of work, examine the nature of the site and acquaint himself with local conditions, means of access to the work, the nature of work, in fact all matters pertaining thereto before the submission of the tender.

Omission, neglect or failure on the part of the Bidder to so obtain requisite and reliable information on any matter affecting his tender, the contract and the construction, completion and maintenance (during defects liability period) of the work shall not relieve the Bidder whose tender is accepted from any liability in respect of the contract.

The Bidder whose tender is accepted shall not be entitled to make any claim for increase in the rates quoted and accepted.

20. The Bidder shall furnish the details of licenses granted to him and / or to professionally qualified and/or licensed technical personnel on his staff who will be engaged on the work (and submit, if called for, the licenses for inspection by the Employer).

21. The rates quoted in the bill of quantities shall, unless specified otherwise, be deemed to be for finished work in-situ, item by item as provided for, and shall include cost for all necessary material and labour, all necessary incidental charges for “water, electricity,” tools and plant and machinery, sheds, marking out, clearing site, freight, etc. and for all applicable and statutory taxes and royalties, customs, OCTROI, excise and any other tax or duty levied by Government, Central or Local, or Local Authority, if and as applicable including sales tax on works contract, if any.

The rates shall be firm and not be subject to any variations(s) in exchange rates, in taxes, duties, works contract tax, etc. in freight and the like, labour conditions, etc. There is no provision for escalation.

22. The Contractor shall be fully responsible for the supply of all materials required for construction.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- a. If for any reason whatsoever there be delay in procurement of such materials as are specified to be supplied by the employer and there is delay in the supply of the said materials, resulting in delay in the commencement and/or the completion of the work, the Contractor shall not be entitled to any claim whatsoever on account of such delay in the execution of the work excepting for such extension of time as may be determined by the Employer, on the recommendation of Project Manager. The Employer's decision in this regard shall be final.
 - b. Cement shall be stacked in neat stacks on dry platforms inside weatherproof areas and steel on hard, dry ground or platforms, arranged category wise, in such manner as to prevent deterioration of any sort and to permit easy access for inspection and stock taking.
23. Tenders submitted shall remain open for acceptance for a period of Ninety (90) days from the date of their submission.
- Should any Bidder withdraw his tender before the expiry of the aforesaid period, makes modifications to his tender which are not acceptable to the Employer or refuses to execute the agreement within the stipulated time after the issue of the work order by the employer, the bid shall be disqualified
24. The Employer does not bind himself to accept the lowest tender and reserve the right to reject any or all the tenders received without assigning any reason whatsoever it may be. Further, the Employer reserves the right to award any component of the project or group of components to bidders or to award the entire work to one Bidder.
25. The Employer further reserves the right to delete or reduce any item or section of the bill of quantities or altering the drawings without assigning any reason whatsoever. No claim will be entertained in this regard.
26. Upon intimation being given to the bidder that his tender is being accepted and that he is required to attend the concerned office of the Employer for the purpose on a specific date, the bidder shall submit a bank guarantee [approved form is attached] towards performance of the BID amounting to 5% of the value of the contract and sign the agreement [the draft of which is attached] for the due fulfilment of contract. The written agreement between the Contractor and the employer shall be the foundation of the rights of both the parties to the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

contract which will not be deemed to be complete until the agreement has been signed by the Contractor and then by the proper official of the Employer authorized to enter into contracts on behalf of the Employer.

27. (i). In addition to the initial security deposit value referred to in Clause 25 above, the Contractor is to permit the Employer to recover in cash further security deposit, otherwise called Retention Money a sum equivalent to 5% of the contract value, by deduction at the rate of 5% of the value of each running account bill.

(ii). Provided that if the Contractor fails to so make up the required deposits by such Bank Guarantee(s), the Employer will be entitled to deduct from interim bills the money required to make up the full security deposit as stated in sub-clause (i) above.

28. The Retention Money of 5% of the contract value will be refunded to the Contractor along with the final bill against submission of an irrevocable bank guarantee of an equal amount from a nationalized bank, valid till the end of defects liability period [with a claim period of 60 days beyond the defects liability period].

29. The Security Deposit or Retention Money will bear no interest whatsoever and shall be refunded only 6 months after completion of the work or physical handing over whichever is later.

30. Any Bidder who purports to alter, vary or omit any of these conditions is likely to be rejected.

31. The successful Bidder (also referred to as Contractor), within one week of award of the work to him, shall submit to the Project Engineer, an illustrative and suitably coloured work-time chart, in the form of bars or other effective means, showing the item wise / location wise / progress which he intends to make to enable him to conveniently and practically complete the work in all respects within the agreed time as per the Contract. The chart will be scrutinized by the Project Engineer and approved by the Employer with suitable modifications, as and if necessary, and the approved chart will then form part of the agreement, being the basis for assessment of progress under relevant conditions of the Contract.

The chart may from time to time during the progress of the work be reviewed and modified with the approval of the Employer keeping in view of the agreed date of completion.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

32. The work is to be carried out in accordance with C.P.W.D specifications in addition to CUBE's Specifications, if any, forming part of the tender documents.
33. In the case of any class of work for which there is no specifications, in the said C.P.W.D. or Local P.W.D. Specifications, the said Regulations and Rules and the Indian Standard Specifications or in the said CUBE's Specifications forming part of the tender documents or in case there is variations, such work shall be carried out in all respects in accordance with the instructions and requirements of the Project Manager/Employer.
34. On acceptance of the tender the Contractor shall in writing and at once inform the Employer the names of his accredited representative(s) who will be responsible to take instructions from the Project Engineer / Employer.
35. The work shall be carried out under the directions and supervision of and subject to the approval in all respects by the Project Engineer / Employer.
36. The work or any part of it shall not be transferred, assigned or sublet without the written consent of the Employer.
37. The Contractor shall be required to co-operate and work in co-ordination with and afford reasonable facilities for such other agencies/specialists as may be employed by the Employer on other works/sub-works in connection with the Project, of which this work forms part.
38. The Contractor is required to comply with all Acts of local bodies, State & Central Governments relating to labour and the Rules and Regulations made there under from time to time and to submit at the proper times all and statements required to be furnished to the labour authorities.
39. The Contractor will be required to submit 2 sets of undermentioned details / reports, at his own expense, to the Project Engineer,
 - a) Detailed design and drawings duly vetted by IIT Madras Faculty.
 - b) Site work reports with copies of photographs (not less than 25cmX20cm in size) of the works, taken during the progress of the work and also at every important stage of the construction, as directed by the Project Engineer / Employer.
40. No Mobilization Advance will be provided to the Contractor.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

41. The EMD of the successful tenderer shall be retained till completion of the project for which no internet payable. For the unsuccessful tenderers, the EMD shall be returned back.

42. Clarifications

Office of CUBE shall be contacted for clarifications of any doubts, on any conditions of the contract, specifications etc. through e-mail / post.

Address

The Chief Executive Officer
Module No. 6C, 6th Floor,
C Block, Phase – II,
IIT Madras Research Park,
Kanagam Road, Taramani, Chennai – 600 113. Tamil Nadu.
Office : 044 – 6121 0901

Any modification arising out of the clarifications shall be formalized by issue of amendments to the Tender Documents through corrigendum.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

C. DRAFT FORM OF BID

To,

Dear Sir,

1. Having examined the drawings, general and special conditions of BID, specification and bill of quantities for the execution of the above named works, we, the undersigned, offer to execute complete and maintain the whole of the said works in conformity with the said drawings, conditions of BID specification and bill of quantities for a sum of Rupees _____
_____ (Rs. _____) or such other sums as may be ascertained in accordance with the said conditions
2. We undertake if our Bid is accepted to commence the works within ten [10] days from the date of the issue of Letter of Acceptance [LOA] and to complete and deliver the whole of the works comprised in the Contract within [90] days calculated from the date of issue of LOA, whichever is earlier.
3. If our Bid is accepted, we will obtain the Bank Guarantee from any Nationalised or scheduled Bank (to be approved by you) for a sum not exceeding 5% (Five percent) of the quoted tender sum for the performance of the contract under the terms to be approved by you.
4. We agree to abide by this Bid for the period of **90 days** from the date fixed for submitting the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period. We would facilitate the timely finalization of the decision by the Employer of the acceptance of the Bid by being present at their Chennai offices for meetings as and when requested by the Employer / Project Management Consultants.
5. We confirm that there are no deviations in the Bid documents submitted herewith from the pro-forma Bid documents except for those qualified separately in the offer.

Thanking you,

Thanking you,

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Yours truly,

Signature of Bidder

D. DRAFT ARTICLES OF AGREEMENT

To be executed on Tamil Nadu stamp paper of face value Rs. 100/- purchased in the name of the Contractor. The draft Articles of Agreement is prescribed below.

Articles of Agreement

ARTICLES OF AGREEMENT executed on this the _____ of day _____ 2020 between _____, (hereinafter called "Employer") of the ONE PART and _____ in the district of (hereinafter called 'the Contractor') of the SECOND PART.

WHEREAS the Employer is desirous of carrying out the works of Construction of Overhead Tanks in Nagapattinam District of Tamil Nadu **as per Schedule I** to this agreement.

AND WHEREAS the said drawings submitted by the bidders inclusive of the bill of quantities and the specifications as per CUBE's specification/ BMTPC/CPWD/ local PWD specifications/ The Indian standard specifications have been signed by or on behalf of the parties hereto:

AND WHEREAS in response to the Tender Notice dated 18th January 2021, the Contractor had submitted to the Employer, a BID proposal for carrying out the proposed works subject to the conditions contained in the said tender and was selected as successful bidder/Contractor

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

AND WHEREAS the Contractor has deposited a security deposit of Rs..... as performance guarantee to ensure undertaking and successful fulfilment of the contract as per the conditions contained in the said tender.

AND WHEREAS the Contractor has agreed to execute upon and subject to the conditions set forth in schedule III hereto (hereinafter referred to as "the said conditions") the work shown upon the said drawings and described in the said specification and included in the said bill of quantities for the sum of Rs._____ (Rupees _____ only

NOW IT IS HEREBY MUTUALLY AGREED AS FOLLOWS:

1. In consideration of the sum mentioned above only to be paid at the times and in the manner set forth in the said condition, the Contractor will upon and subject to the said conditions execute and complete the works shown up to the said drawings and described in the said specification and bill of quantities.
2. The Employer will pay to the Contractor the above said sum or such other sum as shall become payable hereunder at the times and in the manner specified in the said conditions.
3. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the General Conditions of Contract hereinafter referred to.
4. The term "the Project Management Consultant" in the said conditions shall mean CUBE.
5. The said conditions, specifications and priced bill of quantities shall be read and construed as forming part of this agreement and the parties hereto

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

will respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their part respectively in such conditions, specifications and priced bill of quantities contained.

SCHEDULE-I

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

SCHEDULE-II

1. Priced Bill of Quantities

SCHEDULE -III

1. Correspondence between Contractor and Employer
2. General Conditions of Contract
3. Special Conditions of Contract
4. Safety Requirements
5. Any other papers / documents / sections covered by definition of Contract Document given in the General & Special Conditions of Contract

As witness our hand the day and year first above written.

Signed by the said Employer:

In the presence of witnesses

Name: _____

Name: _____

Occupation: _____

Occupation: _____

Address: _____

Address : _____

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Signed by said Contractor (s):

In the presence of witnesses:

Name : _____

Name : _____

Occupation: _____

Occupation: _____

Address : _____

Address : _____

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

F. CHECKLIST OF DOCUMENTS TO BE ENCLOSED WITH TENDER

S #	Description	Declaration
1	Tender Document as issued – every page duly filled, sealed, signed / initialled	Yes / No
2	Tender drawings issued – sealed, signed / initialled	Yes / No
3	Letter indicating any deviation / assumption / conditions, if any	Yes / No
4	Signed and filled up Form of Bid	Yes / No
5	Work Completion / Performance Certificates of Works completed	Yes / No
6	Proof of Establishment (Certificate of Incorporation / Registration)	Yes / No
7	Annual Turnover in the last 3 years. <i>Proof of Documents (ITR, Balance Sheet and Statement of Profit & Loss)</i>	Yes / No
8	Solvency Certificate from Bankers	Yes / No
9	Copy of PAN Card	Yes / No
10	Copy of GST Registration	Yes / No
11	PF and ESI Registration Certificates	Yes / No
12	Tabulated Information regarding projects under litigation, orders regarding exclusion, expulsion or black listing during the last five years ending on March 31, 2020	Yes / No
13	Self-certified notarised affidavit stating the correctness of the document as per “Annexure I”	Yes / No
14	Site Organization - Management / Technical Team to be deployed.	Yes / No
15	Preliminary Construction Schedule	Yes / No
16	”Bill of Quantities” with rates and amount duly filled in Envelope ”Financial Proposal”	Yes / No

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Volume II :
GENERAL CONDITIONS OF CONTRACT,
SPECIAL CONDITIONS OF CONTRACT AND
ANNEXURES

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

A. GENERAL CONDITIONS OF CONTRACT

1. General

1.1. Definitions and Interpretations

In the BID, as hereinafter defined, the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires:

- a) "Project" means work related to "Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District"
- b) "Employer" or "Client" means "Centre for Urbanization, Buildings and Environment (CUBE)", and the legal successors in title to the Employer, or any assignee of the Client, who will employ the Contractor. The site representative of the Employer shall be called as "Client Engineer".
- c) "Contractor" means the persons, firm or company whose Bid has been accepted by the Client and includes the Contractor's personal representatives, successors and permitted assigns. Contractor shall be responsible for the overall Project.
- d) "Sub-Contractor" or "Sub" means the persons, firm or company whose Bid has been accepted by the "Main Contractor" and includes the Sub Contractor's personal representatives, successors and permitted assigns. "Main Contractor" shall be fully responsible for Sub's performance.
- e) "Project Manager" or "Project Engineer" means the person nominated by CUBE to act as Project Management Company from time to time who will act as Project Management Consultants for the successful implementation of the Project.
- f) "Contract document" means Tender Form, General Conditions of Contract, Special Condition, the Technical Specification, the Drawings, the Bill of Quantities, the Articles of Agreement and all related documents contained in the three volumes I, II & III of tender document.
- g) "Works" shall include both permanent works and temporary works.
- h) "The Site" means the land and other places on, under in or through which the permanent works or temporary works designed by the CUBE are to be executed and any other lands and place provided by the Employer for working space or any

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

other purpose as may be specifically designated in the BID as forming part of the site.

- i) "BID" means the Project Information, Instruction to Bidders, Notice Inviting Tender, Conditions of Tender, Form of Bid, Conditions of Contract, Technical Specifications, Drawings, Priced Bill of Quantities, Schedule of Rates and Prices, if any, correspondence letters concerned to Bid, Letters of Intent [LOI] and the Contract Agreement, when completed.
- j) "BID Price" means the sum named in the Letters of Intent (LOI), subject to such additions thereto deductions there from as may be made under the provisions hereinafter contained.
- k) "Plant" means all appliances / equipment, or a thing of whatsoever nature required in or about the execution or maintenance of the works till Practical Completion is issued and Defect Liability Period (DLP) is over but does not include materials or other things intended to form or forming part of the permanent works.
- l) "Temporary Works" means all temporary works of every kind required in or about the execution or maintenance of the works.
- m) "Permanent Works" means the permanent works to be executed and maintained in accordance with the BID. The details of the Permanent Works are set out in drawings/bill of quantities.
- n) "Specifications" means the specification referred to in the Bid and any modification thereof or addition thereto as may, from time to time be furnished or approved in writing by the Architect.
- o) "Drawings" means the drawings referred to in the specification and any modification for such drawings approved in writing by the Client Engineer / Project Engineer and such other drawings as may, from time to time be furnished or approved by Client Engineer / Project Engineer.
- p) "Approved" means approved in writing including subsequent written confirmation of previous verbal approval and "approval" means approval in writing, including as aforesaid.
- q) "Substantial Completion" - The Date of Substantial Completion of the Work, or designated portion thereof, is the Date certified by the Project Engineer &

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Employer, when construction of all elements of the "Permanent Works" which are essential to perform its purpose, is sufficiently complete, in accordance with the BID Documents, although there may still be miscellaneous punch list items left to be done causing some inconveniences to the Employer, provided always that such punch list items of work do not significantly interfere with the intended use of the Permanent works and are to be completed by the Contractor within 2 – 4 weeks of such notification. The defects liability period commences from this date.

- r) "Practical Completion" - The Practical Completion certificate issued, post receipt of hand over documents from Contractor, shall be given by the Project Engineer within 28 days of submission of all the handover documents after the punch list of items have been attended to and accepted by the Architect. Contractor obligations towards the contract are complete except for any defects arising in DLP.

1.2. Singular and Plural

Words importing the singular also include the plural and vice versa where the Context requires.

1.3. Headings and Notes

The headings and marginal notes in these Conditions of Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

1.4. Price

The word "Price" shall be deemed to be inclusive of all overhead costs and local taxes whether on or off the site, except the Goods and Services Tax.

1.5. Priority of Documents

The documents forming the contract are to be taken as mutually explanatory of one another. For interpretation, the priority of the documents shall be in accordance with the following sequence:

- a) Contract Agreement (if any),
- b) Letter of Acceptance
- c) Notice Inviting Tender

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- d) Special Conditions of Contract
- e) General Conditions of Contract
- f) Technical Specifications
- g) Drawings
- h) Bill of Quantities, Schedules & any other documents forming the part of the contract.

If an ambiguity or discrepancy is found in the documents, the Client Engineer shall issue necessary clarifications or instructions.

1.6. Contract Agreement

The parties shall enter into a contract agreement after the Contractor accepts the Letter of Acceptance [LOA] issued by the Employer, unless they agree otherwise. The contract agreement shall be based on the form annexed to the general conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the contract agreement shall be borne by the Contractor.

1.7. Project Engineer

1.7.1. *The site representative of the CUBE shall be called as the Project Engineer.*

1.7.2. *Duties of Architect Engineer:*

The CUBE or any representative of the CUBE shall have power to perform the following actions:

- a. Instructions in matters pertaining to the design, drawings and technical specifications and execution of the work.
- b. Give notice to the Contractor/his representative through the Project Manager of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Project Manager/ Architect Engineer, but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed.
- c. To inspect and examine the work before covering up.
- d. To inspect and approve the Mock up, quality of materials and workmanship.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- e. CUBE shall issue the Good for construction drawing coordinating the services plan for the preparation of the shop drawings.

Notwithstanding any of the above, CUBE shall without prejudice perform actions and deeds as also listed elsewhere in this document.

The Contractor shall afford CUBE every facility and assistance for inspecting the works and materials.

1.8. Project Manager

1.8.1. *The Duties and Responsibilities of the Project Engineer:*

The Project Manager shall monitor administration and completion of the Contract according to its terms and conditions as described below:

- a. The Project Manager will be the CUBE authorized representative during construction and shall be responsible for the coordination of activities between the Client and the Contractor under this BID.
- b. The Project Manager will visit the site at such intervals as are appropriate to the stage of construction to become familiar generally with the progress and quality of the completed work to enable him to determine in general if the Contractor is performing the work in such a manner that, when completed, will be in accordance with the BID documents.
- c. The Project Manager shall carry out all duties in issuing decisions, certificates and orders as specified in the Contract.
- d. The Project Manager will receive all communications of whatever nature which the Contractor is obligated to submit to the Employer under the BID, including but not limited to changes to the BID involving the quality level, Statement of Work, price, rates, delivery and/or completion dates/schedules, Sub, or key personnel changes.
- e. The Project Manager's responsibilities include but are not limited to receiving and approving the Contractor's invoices for payment, if so required by the Employer, accept the work and/or deliverables on behalf of the Client. The Project Manager has the authority to issue or authorize a change to the BID Work Scope and/or delivery/completion schedule. Such changes must be made in accordance with the Article Changes and Modifications

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- i. Review Master Project schedule.
- ii. Ensure performance of the BID
- iii. Issue and co-ordinate Site operating procedures
- iv. Arrange site facilities and systems with respect to initiating access to site
- v. Set start and control procedures
- vi. Ensure safety procedures and code of conduct
- vii. Monitor the project in relation to the broad master schedule included in this document. In relation to the Master Schedule, the bidder shall submit a Detailed Project Schedule using detailed Construction Milestones along with the Bid.
- viii. Organize in house and project kick-off meetings
- ix. Co-ordinate and conduct project review meetings with the Employer, Architect and the Contractors
- x. Co-ordinate Direct procurement of long delivery materials and Equipment by the Employer
- xi. Monitor quality of work with special emphasis on the quality assurance plan
- xii. Initiate reporting systems - daily registers, weekly progress reports, resource allocation and deployment, monthly reports to Employer, Safety, accident and reports, Quality control reports, Sub's status reports, change order procedures, etc.

1.8.2. Reporting

The Project Manager shall be responsible for reporting on overall operations at site and shall ensure that the work at site is progressing as per the requirements laid down under the various clauses in the BID.

1.8.3. Instructions to Contractor

The Project Manager / Project Engineer shall have power to give notice to the Contractor/to his representative of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Project Manager / Project Engineer, but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause the CONTRACTOR shall take instructions from the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Employer / Project Manager / Project Engineer; in case of deviations the instructions by Project Manager / Project Engineer shall prevail.

1.8.4. Inspection & Approval

The CONTRACTOR shall afford the Project Manager / Project Engineer every facility and assistance for inspecting the works and materials and for checking and measuring work and materials.

1.8.5. Disapproval & Rejection

Failure of the Project Manager / Project Engineer to disapprove any work or materials shall not prejudice the power of the Project Manager / Project Engineer thereafter to disapprove such work or materials and to order the pulling down, removal, or breaking up thereof.

1.8.6. Testing & Inspection

The Project Manager / Project Engineer are authorized to supervise, test, examine any materials and/or works, to order, cancel, alter, modify, any of the materials, items or works within the frame work of the BID, to approve/reject requests for modifications in works or schedule whether or not such orders, approvals, rejections, etc., involves increase or decrease in the Prices or time.

1.8.7. Bill Scrutiny

The Project Manager / Project Engineer is further authorized to check, correct, modify and certify or reject any bill or requests for payment to the Client for the materials, items or works. The Project Manager's decision shall be final and binding.

2. Assignment and Sub-Contracting

2.1. Assignment

The CONTRACTOR shall not assign the BID or any benefit or interest therein or there under, otherwise than by a charge in favor of the CONTRACTOR's Bankers of any

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

monies due or to become due under this BID and in accordance with the payment terms under this BID without the prior written consent of the Employer.

2.2. Sub-Contractor

The Contractor must attach with the Bid Document a list of selected Subs and Suppliers. The Contractor is requested to use this list. The Contractor shall be responsible for the acts, defaults and neglects of any Sub or his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the CONTRACTOR, his agents, servants or workmen.

The terms and conditions of the BID shall equally be applicable to the Subs and it shall be the sole and exclusive responsibility of the Contractor to ensure that they are complied with in respect of the Sub's as well. But without limitation, this shall apply to insurance and compliance with law.

The CONTRACTOR shall co-ordinate and shall be responsible for all aspects of his Subs work including but not limited to scheduling, delivery, storage, installation, safety at site, testing, commissioning and handing over.

3. Bid Documents

3.1. Languages and Law

The bids prepared by the Contractor and all correspondence and documents relating to the bid exchanged by the bidder and the Client, shall be written in the English language, provided that any printed literature furnished by the Contractor may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the bid, the English translation shall govern. Indian Law shall be applicable to this Contract.

3.2. Documents mutually explanatory

Except if and to the extent otherwise provided by the BID, the provisions of the Contract and Tender specifications shall prevail over those of any other document

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

forming part of the BID, subject to the foregoing, the several documents forming the contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Project Engineer / Engineer who shall thereupon issue to the CONTRACTOR instructions thereon.

3.3. Drawings and Custody of drawings

All Employer property, including but not limited to equipment, facilities, fixtures, drawings, patterns, molds, jigs, research, writings or other information furnished to CONTRACTOR by the Employer or Architect for use in the performance of the Contract shall always be the property of the Employer, but Four [4] copies thereof shall be furnished to the Contractor by the Architect free of charge. The Contractor shall provide and make at his own expense any further copies required by him.

Upon completion, termination or expiration of the Contract, or at such other times as the Employer / Project Engineer may direct, CONTRACTOR will return to the Employer all such property, at CONTRACTOR's expense.

Any shop drawings and as-built drawings shall become the property of the Employer at the time they are submitted to the Employer.

3.4. One copy of drawings to be kept on site

One copy of the drawings, furnished to the CONTRACTOR as aforesaid, shall be kept by the CONTRACTOR on The Site and the same shall at all reasonable times be available for inspection and use by the Project Engineer, Client Engineer and Architect and their representatives and by any other person authorized by the Project Engineer in writing.

3.5. Disruption of Progress

The Contractor shall give written notice to the Client Engineer / Project Manager, 15 days in advance whenever planning or progress of works is likely to be delayed or

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

disrupted because of drawings. The notice shall include details of the drawings or order required and of why and by when it is required. This shall not, however, absolve the Contractor to complete the work within the time schedule stipulated in the contract.

4. General Obligations

4.1. CONTRACTOR's general responsibilities

CONTRACTOR shall supervise and direct the Work, using CONTRACTOR's (including Subs as approved by the Client) best skill and attention. CONTRACTOR shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the CONTRACTOR. Time is the essence of the Contract and the Contractor is solely responsible for full completion in his scope within the time limit specified in the document.

CONTRACTOR shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for proper execution and completion of the work.

Where applicable, CONTRACTOR shall preserve and protect all vegetation (trees, shrubs, plantings), removing only such vegetation as authorized and/or directed by the Client (as specified in the Contract Documents). CONTRACTOR shall take precautions, as needed, to avoid damaging existing utilities, facilities and improvements.

4.2. Water and power for construction

Water and Electricity for the Construction & Commissioning purposes will have to be arranged by the CONTRACTOR at his own Cost.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.3. Temporary works and arrangements

The CONTRACTOR shall furnish to the Project Engineer full, drawings, etc., of all temporary works necessary for the execution of the works and shall allow sufficient time for the Project Engineer to consider the same. The Project Engineer reserves the right to comment/alter on the CONTRACTOR's proposals if he considers that modifications should be made. The CONTRACTOR shall be solely responsible for the stability and safety of all temporary works and unfinished permanent works resulting from the arrangements eventually adopted for their execution.

4.4. Demolition and clearance

The CONTRACTOR shall be responsible for the clearance of the site of all scrub, debris, rubbish, etc., shall be carted to an area not objected to by the Municipal Authorities. The structures, services and works required to be demolished and removed shall also be removed off site to a location as mentioned above. The CONTRACTOR shall obtain necessary permissions and approvals from local authorities for such disposals.

4.5. Storage, cleaning and de-watering

The CONTRACTOR shall at all the times during construction keep the site clean and free from all debris and unwanted materials as per instructions of the Project Engineer.

Storage of materials shall be in organized manner and in proper compartments. Storage on suspended floors shall not be permitted unless specifically approved in writing by the Project Engineer for specific materials in specific locations and in approved manner. Project Engineer shall be furnished with load details, if requested, before seeking approval for storage.

Regular cleaning operations shall be undertaken to remove all dust, debris, waste materials, etc and disposal of the same. A cleaning schedule shall be maintained.

CONTRACTOR shall make his own arrangements for storage of those materials, which cannot be accommodated at site. CONTRACTOR shall be fully responsible for safe custody of the same. Materials shall be considered as "Delivered at site," only after

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

the physical presence of materials at site. Stores elsewhere shall not be eligible for being considered as "Delivered at site."

The CONTRACTOR understands that the site is free from pollutants at the time of access to the site and commencement of works. The CONTRACTOR shall comply with all applicable environmental laws and regulations and shall ensure that the site remains free from pollutants till the end of the Project.

CONTRACTOR shall be responsible to keep entire site free from water due to water coming from any source at any level and shall protect all materials and works from being damaged by the water from any source. CONTRACTOR shall make proper arrangements for drainage prior to use of water for curing, testing, cleaning etc.

4.6. Site Logistics

The CONTRACTOR is not to make temporary access until approval from the Project Engineer is given. Site access are to be on the lines agreed with the Project Manager.

The cost of developing and maintaining temporary access (if any) shall be within the scope of the Contractor and shall not be paid extra. The temporary access (if any) shall be laid and maintained as specified by the Project Manager from time to time.

4.7. Care and use of existing facilities and services

During the execution of the work, the CONTRACTOR shall take all precautions and exercise full care, at his Price, to ensure that no damage is caused by him or workmen, during the operation, to the existing building structure, water supply, sewerage, power or telecommunication lines or any other services or works. The CONTRACTOR shall provide and erect before construction, substantial barricades, guardrails, and warning signs. He shall furnish, place and maintain adequate warning lights, signals, etc., in line with local safety norms & guidelines; as required by Project Engineer, approval of which shall not relieve the CONTRACTOR of his responsibilities, obligations and liabilities for safety and timely completion of works.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

If any service lines must be shifted / diverted, it shall be done so with the explicit permission of the Project Engineer.

Contractor shall provide temporary partition from floor level to roof level on all / minimum two sides to avoid dust / noise etc. which may disturb / affect the existing neighbouring tenants adjacent to the site.

4.8. Co-ordination of the work required for services

The CONTRACTOR shall co-ordinate the requirements for and the work for internal and external service installations in accordance with the requirements of the relevant drawings, which shall be made available to CONTRACTOR by the Project Engineer.

4.9. Bid Agreement

The work to be performed under this BID is set out in Specifications & Drawings.

In the event of a conflict between, description of the work and the plans/drawings, the terms of description of work shall control unless otherwise agreed, in writing, by the Client Engineer / Project Engineer.

As the Contract is modified or changed during its term, the Contract Documents shall include all modifications or changes to said documents issued after the execution of the Contract.

Any such modification or change shall supersede the original Contract Documents, where modified or changed.

4.10. Performance Bond

Prior to the commencement of any work, CONTRACTOR shall furnish bonds, in the amount of 5% of the BID Price, covering the faithful performance of the BID and the payment of all obligations arising hereunder. During the term of this BID, CONTRACTOR shall maintain secured bonds with a corporate surety and in a form acceptable to the Employer. For the due performance of the BID, the Bid shall contain an undertaking by the CONTRACTOR to obtain on being awarded the contract and

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

before any monies are paid to him under the contract, an unconditional and irrevocable guarantee from a scheduled bank in Chennai in the format as indicated in APPENDIX "C" for a sum not exceeding 5% (Five percent) of the value of the contract, the said Client and the terms of the said guarantee such as shall be approved by the Client. The obtaining of such guarantee and the Price of the guarantee to be so entered shall be at the expense in all respects of the CONTRACTOR. The performance bond shall be valid until the date of issue of the Certificate of Substantial Completion.

4.11. Inspection of site

The CONTRACTOR shall also be deemed to have inspected and examined the site and its surroundings and information available in connection therewith and to have satisfied himself, so far as is practicable, before submitting his Bid, as to the form and nature thereof, including the sub-surface conditions, the hydrological and climatic conditions, the extent and nature of the work and information he may require and, in general, shall be deemed to have obtained all necessary information on subject as above mentioned as to risks, contingencies and all other circumstances which may influence or affect his Bid. The CONTRACTOR shall not be entitled to rely only on the information provided by Project Manager / Project Engineer and shall make independent enquiries and be satisfied about such information. No extra charges consequent on any misunderstanding or otherwise shall be allowed.

4.12. Sufficiency of Bid - Adverse Physical Conditions and Artificial Obstructions

The CONTRACTOR shall be deemed to have satisfied himself before Bidding as to the correctness and sufficiency of his Bid for the works and of the rates and prices stated in the priced bill of quantities and the schedule of rates and prices, if any, which Bid rates and prices shall, except in so far as it is otherwise provided in the contract, cover all his obligations under the contract and all matters and things necessary for the proper execution and maintenance of the works.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.13. Work to be to the satisfaction of Client Engineer, Architect and Project Engineer

Unless it is legally or physically impossible, the CONTRACTOR shall execute and maintain the works in strict accordance with the contract to the satisfaction of the Client Engineer, Project Engineer and shall comply with and adhere strictly to the instructions and directions from the Project Manager or subject to the limitations referred to in Clause 2 hereof.

4.14. Drawings and Documents

4.15. General

The drawings and documents prepared for the project shall be treated as confidential documents and must not be copied or loaned to any other party without the express permission of the Project Manager. Contractors & his subs may be allowed to take pictures / photographs of the completed works only with prior approval from Project Manager / Engineer

4.15.1.1. Bid drawings

The Bid drawings furnished by CUBE are Good for Bid Purpose only. Detailed drawings in all cases shall be worked to in preference to those of a more general nature and figured dimensions where indicated shall be followed in preference to scaled dimensions.

Should any item of equipment, materials or labor that would reasonably and obviously be inferred as necessary for the complete safe and satisfactory usage of the works or part thereof, not be expressly specified, the CONTRACTOR shall provide and execute such work as a part of the contract.

4.15.1.1. Construction drawings

Contractor shall submit free of charges four [04] sets of Construction drawings to CUBE, vetted and proof checked by IITM Faculty for construction, to the Project Engineer. The distribution of the drawings would be the responsibility of the Project

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Manager in the order as spelt herein; one [01] copy The Project Manager, one [01] copy to the Project Engineer, two [02] copies to the CONTRACTOR Site execution team. Additional copies as and when required shall be taken by the CONTRACTOR.

The CONTRACTOR shall ensure that a complete up to date register of drawing is maintained at site. All Construction drawings shall be properly filed and indexed for ready reference.

4.15.1.1. Shop, Fabrication drawings

Shop, Fabrication drawings shall mean any or all drawings, required for satisfactory execution of the work, in addition to the Construction drawings for woodwork, metal work, false work, bar bending schedules etc., as required by the Project Engineer.

The CONTRACTOR shall be entirely responsible for co-ordination of entire work at site including the work carried out by his Subs and DCs (other Contractors selected and directly contracted by the Client) and shall ensure that all necessary Shop, Fabrication drawings are properly prepared by the CONTRACTOR and are submitted to the Project Engineer for approval in sufficient time so as not to cause any delay in the expeditious execution of the works as per the programme. Such approval shall not absolve the CONTRACTOR from his responsibility.

Shop, Fabrication drawings to be prepared by the CONTRACTOR, his Subs and DC's shall be such that all details are included as required by the Project Engineer at an appropriate scale to ensure that the works are properly executed, coordinated, fabricated and installed in accordance with Construction drawings and specifications; The Contractor to submit scaffolding & props layout, along with the shop drawings / fabrication drawings.

The CONTRACTOR shall make a general check of all physical sizes and details of plant and equipment required and/or specified for the project and shall inform the Project Engineer of any matter that may come to his notice with which he disagrees. Any comments by the CONTRACTOR on the difficulty in incorporating the plant, materials and equipment in the project and the time required for the completion of the work shall be made to the Project Engineer.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.16. Discrepancies

The CONTRACTOR shall bring to the notice of the Project Engineer any discrepancies within or between Construction drawings and/or the other BID documents prior to commencement of work and shall not proceed with work until the Project Manager gives clarifications and instructions to proceed.

4.17. As-built drawings and O&M Manuals

As-built drawings shall be under preparation from the onset of the contract, in order that all minor amendments and discrepancies from the "Construction, Shop and Fabrication drawings" are incorporated. The Contractor shall enable CUBE to prepare the As-built drawing.

At the discretion of the Project Manager / Project Engineer, subject to his agreement, all Shop and Fabrication drawings may be modified and submitted to the Client as the "As-built drawings". Two laminated sets of these as-built drawings and one soft copy on a CD shall be submitted by the CONTRACTOR.

4.18. Construction Programme

- a. The CONTRACTOR shall include in his Bid Response a Preliminary construction programme detailing out the Construction Milestones. Upon award of contract and before commencement of the work, the CONTRACTOR shall prepare a detailed and comprehensive construction programme. This approved programme shall form the basis of all construction / erection works to be performed by the CONTRACTOR.
- b. The CONTRACTOR shall revise and update his construction programme to indicate actual progress of work in relation to scheduled progress. The CONTRACTOR shall also submit periodic (daily, weekly, and monthly) progress reports indicating progress of work giving scheduled and actual percentage completion, causes for delays if any etc. as well as other reasonable reports and photographs as Project Manager / Project Engineer may require from time to time.
- c. The submission to and approval by the Project Engineer of such programme or the furnishing of such shall not relieve the CONTRACTOR of any of his duties or responsibilities under the Contract.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.19. CONTRACTOR's Superintendence

The CONTRACTOR shall give or provide all necessary superintendence during the execution of the works for the proper fulfilling of his obligations under the contract. The CONTRACTOR's representative (Project In-charge) shall be vested with enough power by the CONTRACTOR to enable his representative to take decisions at site for the due and diligent performance of the contract. The CONTRACTOR or a competent and authorized agent (Project In-charge) is to be constantly on the works and shall give his whole time to the superintendence of the same. Such authorized agent or representative (Project In-charge) shall receive, on behalf of the CONTRACTOR, directions, and instructions from the Project Manager / Engineer. The CONTRACTOR's Authorized Agent (Project In-charge) shall be nominated in writing. The CONTRACTOR shall be obligated to make available one professional for safety at work (safety engineer) on this job.

4.20. CONTRACTOR's Employees

The CONTRACTOR shall provide and employ on the site in connection with the execution and maintenance of the works, only such technical assistants as are skilled and experienced in their respective fields and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the works.

The Contractor agrees that all Services will be rendered by him as an independent Contractor and that there is no agency relationship between the Contractor and the Employer.

4.21. Setting-out

The CONTRACTOR shall be responsible for the true and proper setting out of the works in relation to original points, lines and levels of reference given by CUBE in writing and for the correctness, subject as above mentioned, of the position, levels, dimensions

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

and alignment of all works and for the provision of all necessary instruments, appliances and labor in connection therewith. If, at any error shall appear or arise in the position, levels, dimensions or alignment of any part of the works, the CONTRACTOR, on being required to do by the CUBE, shall, at his own Price, rectify such error to the satisfaction of the Project Manager / Engineer. The checking of any setting-out or of any line or level by Project Manager / Project Engineer or their representative shall not in any way relieve the CONTRACTOR of his responsibility for the correctness thereof and the CONTRACTOR shall carefully protect and preserve all bench marks, sight-rails, pegs and other things used in setting-out the works.

4.22. *Watching and Lighting*

The CONTRACTOR shall in connection with the works provide and maintain at his own Cost all lights, guards, fencing and watching when and where necessary for the protection of the works, or for the safety and convenience of the public or others. The care and the safety of the materials and works within the Works Site shall be sole responsibility of the CONTRACTOR.

In the overall interest of security and safety, the Contractor and its agencies shall act as per the security and safety instructions as is instructed by the Project Engineer.

4.23. *Care of Works*

a. From the commencement of the works until the date stated in the Certificate of Substantial Completion for the whole of the works pursuant to Clause 6.9 hereof, the CONTRACTOR shall take full responsibility for the care thereof. Provided that if the Project Engineer shall issue a Certificate of Substantial Completion in respect of any part of the permanent works the CONTRACTOR shall cease to be liable for the care of that part and of permanent works from the date stated in the Certificate of Substantial Completion in respect of that part and the responsibility for the care of that part shall pass to the Client. Provided, further that, the CONTRACTOR shall take full responsibility for the care of any outstanding work, which he shall have undertaken to finish during the Defects Liability Period until such outstanding work is completed. In case any damage, loss or injury shall happen to the works, or to any part thereof, from any cause whatsoever, save and except the excepted risks as defined in sub-Clause 4.23.b of this Clause, while the CONTRACTOR shall

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

be responsible for the care thereof, the CONTRACTOR shall at his own Price, repair and make good the same, so that at completion, the permanent works shall be in good order and condition and in conformity in every respect with the requirements of the contract and the Project Manager's instructions. In the event of any such damage, loss or injury happening from any of the excepted risks, the CONTRACTOR shall, if and to the extent required by the Project Engineer repair and make good the same as aforesaid to the satisfaction of the Project Engineer. The CONTRACTOR shall also be liable for any damage to the works occasioned by him during any operations carried out by him for the purpose of completing any outstanding work or complying with his obligations under Clause 7. This shall not prejudice the CONTRACTOR's obligations in respect of damage to works caused by him or sub, or their respective agents, employees, representatives, visitors and personnel.

b. Excepted risks

The "Excepted risks" are war, hostilities (whether war declared or not), invasion act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war or ionizing radiation or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosives or other hazardous properties of any explosive, nuclear assembly or nuclear component thereof, pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds, or any such operation of the forces of nature as an experienced CONTRACTOR could not foresee, or reasonably make provision for or insure against all of which are herein collectively referred to as "the excepted risks". The CONTRACTOR shall, however, be responsible to take all necessary steps to minimize the damage to the works because of the excepted risks.

4.24. Insurance Policies

All insurance policies required to be obtained under this Clause 5.20 shall be taken out in the joint names of the Employer and the CONTRACTOR.

- a. Contractors All Risk Insurance Policy
- b. General Third-Party Liability insurance - 100% of the value of the contract;
- c. Workmen's Compensation Policy in accordance with local law;

1.24.1. *Insurance of works, etc.*

Without limiting his obligations and responsibilities under Clause 5.19 hereof, the CONTRACTOR shall insure in the joint names of the Employer and the CONTRACTOR against all loss or damage from whatever cause arising, other than the excepted risks, for which he is responsible under the terms of the contract and in such manner that

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

the Client and CONTRACTOR are covered for the period stipulated in hereof, and are also covered during the Defects Liability Period, and for any loss or damage occasioned by the CONTRACTOR in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 7 hereof:

- a. The works for the time being executed to the estimated current Contract value thereof or such additional sum, together with the materials for incorporation in the works at their replacement value.
- b. The constructional plant and other things brought on to the site by the CONTRACTOR to the replacement value of such constructional plant and other things.

Such insurance shall be affected with an insurer and in terms approved by the Employer which approval shall not be unreasonably withheld, and the CONTRACTOR shall, whenever required produce to the Employer or his representative the policy or policies of insurance and the receipts for payment of the current premiums.

1.24.2. Damage to persons and property

The CONTRACTOR shall indemnify the Employer against all losses and claims in respect of injuries or damage to any persons or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims, proceedings, damages, Prices, charges and expenses whatsoever in respect of or in relation thereto.

1.24.3. Third Party Insurance

Before commencing the execution of the works the CONTRACTOR, but without limiting his obligations and responsibilities under this Clause 5.20.3 hereof, shall insure against loss for any material or physical damage, loss or injury which may occur to any property, including that of the Employer, or to any person, including any employee of the Employer, the Project Management Consultants, the his Sub's or their respective employees, agents, representatives and visitors, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to Clause 5.20.3 hereof.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

The CONTRACTOR shall, whenever required, produce to the Employer or his representative the policy or policies of insurance and the receipts for payment of the current premiums.

1.24.4. Provisions to indemnify Employer

The terms of such insurance shall include a provision whereby, in the event of any claim in respect of which the CONTRACTOR would be entitled to receive and indemnify under the policy being bought or made against the Employer, the insurer will indemnify the Employer against such claims and any Price, charges and expenses in respect thereof and the CONTRACTOR to indemnify the Employer for any shortfall in the realization of the claims (including excess clauses). The Employer shall be entitled to set off any such amounts from the amounts due and payable by it to the CONTRACTOR under the terms of this agreement.

1.24.5. Accident or Injury to workmen

a. The Employer shall not be liable for or in respect of any damages or compensation payable by law in respect or in consequence of any accident or injury to any workman or other person in the employment of the CONTRACTOR or any Sub's, save and except an accident or injury resulting from any act or default of the Client, his agents, or servants. The CONTRACTOR shall indemnify and keep indemnified the Employer against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings Price, charges and expenses whatsoever in respect thereof, or in relation thereto.

b. Insurance against accident, etc., to workmen

The CONTRACTOR shall insure against such liability with an insurer approved by the Employer, which approval shall not be unreasonably withheld, and shall continue such insurance during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the Employer or his representative such policy of insurance and the receipt for payment of the current premium. Provided always that, in respect of any persons employed by any Sub's- the CONTRACTOR's obligation to insure as aforesaid under this subclause shall be satisfied if the Sub's shall have issued against the liability in

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

respect of such persons in such manner that the Employer is indemnified under the policy, but the CONTRACTOR shall require such Subs to produce to the Employer or his representative, when required, such policy of insurance and the receipt for the payment of the current premium.

Notwithstanding the requirements mentioned in the above the CONTRACTOR shall at the minimum provide for the following insurance:

1. Contractors All Risk Insurance Policy to cover the following:

- i. Entire BID value for the period of completion including defects liability period
 - ii. Third party insurance to cover for any damages to third party. This shall be up to the end of the defects liability period and shall include for any damage to the properties and/ or injury [including death] to the persons of the general public and anyone else deemed to be third party.
 - iii. Civil commotion, Riots, Strike, Malicious Damage, Terrorism, and other disturbances.
2. Policy to cover CONTRACTOR's liability under Workmen's compensation Act 1923, Minimum Wages Act 1948, Contract Labour (Regulation and Abolition) Act 1970 and other relevant Acts listed elsewhere. This shall be for the period up to completion of work, including the defects liability period.
3. Insurance cover against damage, theft or any other loss of all materials and equipment brought to site for which advance payment is claimed - Limit of liability not less than the value of such materials at any stage of the contract.

The CONTRACTOR shall insure against all such liabilities and shall continue such insurance during the currency of the contract including defects liability period. Premium for all insurance policies shall be paid and borne by the CONTRACTOR and shall NOT be reimbursable.

These Insurance certificates shall be fully executed and shall state that the policies cannot be cancelled until ten [10] days after written notice of the Employer having consented to such cancellations.

The CONTRACTOR shall obtain written confirmation of similar certificates from all sub and thereby assume responsibility for any claims or losses to the Employer resulting

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

from failure of any of the sub to obtain adequate insurance protection in connection with their work. CONTRACTOR's All Risk Policy (C.A.R policy).

1.24.6. Remedy on CONTRACTOR's failure to insure

If the CONTRACTOR shall fail to effect and keep in force the insurances referred to in Clause 5.20 hereof, or any other insurance which he may be required to effect under the terms of the contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any monies due or which may become due to the CONTRACTOR, or recover the same as a debt due from the CONTRACTOR.

4.25. Giving of notices and payment of fees

- a. The CONTRACTOR shall give all notices and pay fees required to be given or paid by any National or State Statute, Ordinance or other Law, or any regulation, or bye law or any local or other duly constituted authority in relation to the execution of the works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the works.
- b. Compliance with statutes, regulations, etc.
- c. The CONTRACTOR shall conform in all respects with the provisions of any such statute, ordinance or law as aforesaid and the regulations or bye laws of any local or other duly constituted authority which may be applicable to the works and with such rules and regulation of public bodies and companies as aforesaid and shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such statute, ordinance or law, regulation or bye-law.
- d. The CONTRACTOR shall ensure compliance with the provisions of the ESI, EPF, Workman's Compensation, Minimum Wages, and Contract Labour (Regulation and Abolition) Act. Copies of the records and registers maintained under the applicable laws shall be provided to the Employer at the end of each month. The CONTRACTOR shall procure the necessary licenses under the Contract Labour (Regulation and Abolition) Act. The CONTRACTOR shall also obtain various licenses / permits / clearance / approvals / consents as appropriate from the various statutory authorities in respect of construction work, as amended from time to time, to be undertaken by it including but not limited to boiler registration, pollution control board clearance, etc.
- e. The CONTRACTOR shall keep the Employer informed of all claims under any applicable laws and keep informed the Employer of compliance thereunder.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.26. Patent rights and royalties

The CONTRACTOR shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any patent rights, designed trademark or name or other protected rights in respect of any constructional plant, machine work, or material used for or in connection with the works or any of them and from and against all claims, proceedings, damages, Price, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the CONTRACTOR shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the works or any of them.

4.27. Interference with traffic and adjoining properties

All operations necessary for the execution of the works shall, so far as compliance with the requirements of the BID permits, be carried on so as not to interfere unnecessarily or improperly with the public convenience, or the access to use and occupation of public or private roads and footpaths, or to or of properties whether in the possession of the Employer or of any other person. The CONTRACTOR shall save harmless and indemnify the Employer in respect of all claims, proceedings, damages, Price, charges and expenses whatsoever arising out of, or in relation to, any such matters in so far as the CONTRACTOR is responsible therefore.

4.28. Extraordinary traffic

a. The CONTRACTOR shall use every reasonable means to prevent any of the highways or bridges communicating with or on the routes to the site from being damaged or injured by any traffic of the CONTRACTOR or any of his Subs-s and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of plant and material from and to the site shall be limited, as far as reasonably, and so that no unnecessary damage or injury may be occasioned to such highways and bridges.

b. Special Loads

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Should it be found necessary for the CONTRACTOR to move one or more loads of constructional plant, machinery or pre-constructed units or parts of units of work over part of a highway or bridge, the moving whereof is likely to damage any highway or bridge unless special protection or strengthening is carried out, then the CONTRACTOR shall before moving the load on to such highway or bridge give notice to Project Engineer, about the weight and other particulars of the loads and unless within fourteen days of the receipt of such notice the Project Manager shall by counter notice direct that such protection or strengthening is unnecessary, then the CONTRACTOR will carry out such proposals of any modification thereof that the Project Engineer shall require and, unless there is an item or are items in the bill of quantities for pricing by the CONTRACTOR of the necessary works for the protection or strengthening as aforesaid, the Prices thereof shall be paid by the Employer to the CONTRACTOR.

4.29. Opportunities for other Contractors & Sub Contractors

The CONTRACTOR shall, in accordance afford all reasonable opportunities for carrying out their work to any other Contractor & Sub Contractors employed by the Employer and their workmen and to the workmen of the Employer and of any other duly constituted authorities who may be employed in the execution on or near the site of any work not included in the contract or of any contract which the Employer may enter into in connection with or ancillary to the works. If, however, the CONTRACTOR shall, on the written request of the Project Engineer, make available to any such other Contractors CONTRACTOR, or to the Employer or any such authority CONTRACTOR is responsible, or permit the use by any such of the CONTRACTOR scaffolding or other plant on the site, or provide any other service of whatsoever nature for any such, the Employer's sub-Contractor shall pay to the CONTRACTOR in respect of such used or service such sum or sums as shall, in the opinion of the Project Engineer, be reasonable.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.30. CONTRACTOR to keep site clear

During the progress of the works the CONTRACTOR shall keep the site free from unnecessary obstruction and shall store or dispose off any constructional plant and surplus material and clear away and remove from the site any wreckage, rubbish or temporary works no longer required, daily. The CONTRACTOR shall not at any time do, cause or permit any nuisance on the site or do anything which shall cause unnecessary disturbance or inconvenience to Employer, Owner's tenants or occupants of other neighbouring properties and to the public generally.

4.31. Clearance of site on completion

On the completion of the works the CONTRACTOR shall clear away and remove from the site without any additional costs all constructional plant, surplus materials, rubbish and temporary works of every kind, and leave the whole of the site and works clean and in a workmanlike condition to the satisfaction of the Project Engineer.

4.32. Engagement of Labour

- a. The CONTRACTOR shall make his own arrangements for the engagement of all labor local or otherwise, and, save in so far as the BID otherwise provides, for the transport, housing feeding and payment thereof. The Employer shall not be responsible for such labor in any manner whatsoever and they shall not be construed as the labor or employees of the Employer. The CONTRACTOR shall indemnify and hold harmless the Employer from all claims made by such labor against the Employer.

The CONTRACTOR shall comply with all rules, regulations, and laws including but not limited to CLB, ESI, PF, Medical and Safety of workmen for labor directly or indirectly engaged by the CONTRACTOR, his representative, and Subs. CONTRACTOR shall register themselves wherever and whosoever required in this connection at local and state level. The CONTRACTOR shall indemnify the Client from every expense. The Employer is authorized to call at any point of time to its registered office/offices for inspection or copy of such documents as it considers necessary for ensuring statutory compliances to the above by the CONTRACTOR.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- b. **Supply of Water:** The CONTRACTOR shall, so far as is reasonably practicable, having regard to local conditions provide on the site water for the use of the CONTRACTOR, Sub staff and work people.
- c. **Accommodation of Supervisory Staff and Construction Labor:** The CONTRACTOR shall make his own arrangements to provide accommodation for his staff and labor outside and away from the site. The CONTRACTOR at his price to construct labor camp(s) to accommodate construction labour. **No extra Price is payable to the CONTRACTOR on this account.**
- d. **Sanitation and drainage during construction:** The CONTRACTOR shall provide sanitation and drainage facilities. The CONTRACTOR shall strictly control the labor so that the site is not polluted, made dirty or littered with debris, wastes or the likes. Any person found creating mess or litter or pollution shall be removed from the site immediately at CONTRACTOR's Price. The CONTRACTOR shall provide sanitation facilities at convenient locations to preserve the cleanliness of the site.
- e. **Alcoholic liquor or drugs:** Use of alcoholic liquor, drugs or smoking is fully prohibited within the Project site. The CONTRACTOR shall not, otherwise than in accordance with the statutes, ordinances and government regulations or orders for the time being in force, import, sell, give, barter or dispose any alcoholic liquor or drugs or cigarettes / beedis /etc by his Subs-, agents or employees.
- f. **Arms and ammunition:** The CONTRACTOR shall not give, barter or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.
- g. **Festivals and religious customs:** The CONTRACTOR shall in all dealings with labour in his employment have due regard to all recognized festivals, days of rest and religious or other customs.
- h. **Epidemics:** In the event of any outbreak of illness of an epidemics nature the CONTRACTOR shall comply with and carryout such regulations, orders and requirements as may be made by the government, or the local medical or sanitary authorities for dealing with and overcoming the same.
- i. **Disorderly conduct, etc:** The CONTRACTOR shall always take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by any of his sub, employees or agents and for the preservation of peace and protection of persons and property in the neighborhood of the works against the same.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- j. **Observation by Subs:** The CONTRACTOR shall be responsible for observance by his Subs of the foregoing provisions.
- k. **Child Labour:** The CONTRACTOR shall not employ any labour under 18 years of age on the job. If female labour is engaged the CONTRACTOR shall make necessary provisions at his own expense for the safeguarding and care of small children and keeping them clear of the site of operations. No children shall be permitted on the site.

4.33. Returns of labour, etc

The CONTRACTOR shall furnish a return in detail in such form and at such intervals as the Project Engineer may prescribe showing the supervisory staff and the numbers of the several classes of labour from time to time employed by the CONTRACTOR on the site and such information regarding constructional plant that the Project Manager may require. The previous day report on labour employed shall reach before 9.00 am next day to the Project Manager.

4.34. Contribution towards Employee Benefits, Funds, Etc.

The CONTRACTOR shall include in his rates for all expenses necessary to meet his obligations for making contributions toward employee benefits funds (such as ESI, Provident fund, old age pension if any or any other benefits / compensation payable by the CONTRACTOR) etc., in compliance with all the statutory regulations and requirements. All records in this connection shall be properly maintained by the CONTRACTOR and produced for scrutiny by the concerned authorities and the Project Engineer whenever called for. They should also bear the cost of payment to Employees welfare fund as per the requirements of Labour Laws.

4.35. Safety Standards and Requirements

The CONTRACTOR shall follow the rules and guidelines laid down in Safety Requirements as listed in APPENDIX "G". The Price so incurred by the CONTRACTOR in providing for safety standards and requirements as above shall be deemed to be

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

included in the rates quoted for various items of work under the scope of this BID and no extra amounts shall be payable to the CONTRACTOR on this account.

4.36. Reports by CONTRACTOR

- a. The CONTRACTOR shall prepare daily reports of planned and actual progress of work and subsequent day's scheduled work. These will also include material procurement status. These reports shall be submitted to Project Engineer / Client Engineer and shall be reviewed daily at the site.
- b. The CONTRACTOR shall maintain on file daily category-wise labour return. The report shall indicate scheduled requirement against actual strength.
- c. The CONTRACTOR shall prepare weekly reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to Project Manager and shall be reviewed in weekly co-ordination meeting.
- d. The CONTRACTOR shall also submit the following:
 - i. Plant and Equipment Schedule
 - ii. Material delivery schedule
- e. The CONTRACTOR shall submit monthly report. The reports shall include photographs taken from pre-determined locations, which illustrate progress of the work.
- f. Further progress charts and schedules shall be prepared by the CONTRACTOR as directed by the Project Engineer / Client Engineer.
- g. The submission to and approval by the Project Engineer of such programme / reports or the furnishing of such shall not relieve the CONTRACTOR of any of his responsibilities and liabilities under this Contract.

4.37. Taxation

The CONTRACTOR shall be responsible to pay personal and company taxes of his staff and his organization wherever applicable. The CONTRACTOR shall be responsible for deduction of tax at source while releasing payment to their staff, Subs, workers, etc.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4.38. Withholding taxes

The Employer shall withhold sums equivalent to taxes at appropriate rates on the amount payable to the CONTRACTOR by way of consideration under this BID in accordance with the provisions of the Income Tax Act, 1961, as amended or modified and applicable. The Employer shall not make such withholdings if the CONTRACTOR produces a certificate from the Appropriate Authority constituted under the Indian Income Tax laws to the effect that no withholding taxes would be required on the payments received by the CONTRACTOR from the Employer.

4.39. Site Drainage

All water which may accumulate on the site during the progress of works, from other than the excepted risks (as defined in this contract) shall be removed from site to the satisfaction of the Project Engineer, at the CONTRACTOR's expense.

4.40. Apprentice Act

The CONTRACTOR shall comply with the provisions of the "Apprentice Act 1961" and the rules and orders issued there under from time to time. Failure to do so will amount to breach of contract. The CONTRACTOR shall also be liable for any pecuniary or other liability arising because of any violation by him of provisions of the Act.

5. Materials and Workmanship

5.1. Quality of materials and workmanship and tests

All materials and workmanship shall be of the respective kinds described in the BID and in accordance with the Project Manager's instructions and shall be subjected from time to time to such tests as the Project Manager may direct at the place of manufacture or fabrication or on the site or at such other place or places as may be specified in the BID, or at all or any of such places. The CONTRACTOR shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the Project Manager.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

5.2. Quality Assurance Programme:

The CONTRACTOR shall strictly adhere to this programme and any failure attributable to the CONTRACTOR shall be corrected in accordance with the Warranty Provisions.

5.3. Price of samples/ Mock-ups / Tests

All samples/mock-ups shall be supplied by the CONTRACTOR at his own Cost if the supply thereof is clearly intended by or provided for in the Contract. The CONTRACTOR shall provide samples for the approval of Employer / Project Engineer and shall provide alternative samples until an approval has been obtained. Samples approved shall be kept at site under Custody of the CONTRACTOR until completion of the Project in a secure room.

The Price of making any test shall be borne by the CONTRACTOR if such test is clearly intended by or provided for in the Contract and in the cases only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfill, is particularized in the Contract in sufficient detail to enable the CONTRACTOR to price or allow for the same in his Bid.

The CONTRACTOR shall provide normal testing facilities at site at his Price as directed by the Project Manager / Project Engineer.

5.4. Inspection of operations

The Project Manager or any person authorized by them shall always have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the CONTRACTOR shall afford every facility for and every assistance in or in obtaining the right to such access.

5.5. Examination of work before covering up

No work shall be covered up or put out of view without the approval of the Project Manager / Project Engineer or his representative and the CONTRACTOR shall afford full opportunity to the Project Manager /Project Engineer or his representative to

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The CONTRACTOR shall give due notice to the Project Engineer or his representative whenever any such work or foundations is or are ready or about to be ready for examination and the Project Engineer or his representative shall, without unreasonable delay, unless he considers it unnecessary, attend for the examining such foundations.

5.6. List of Approved brand and Makes

A list of approved brands and makes for major materials to be used in the works is listed in technical specifications. In case the Contractor proposes to use some other makes, The CONTRACTOR shall submit samples of processed raw materials and manufactured materials procured in conformity to the list for the approval of Employer. Procurement of the materials for incorporation in the works shall be after the approval of the Project Engineer in writing. The CONTRACTOR shall mention in his offer the "make" considered for various items of work. The CONTRACTOR shall quote for the first option in the list of makes. In case the Client chooses to use the second option in the list of makes, the rates shall be subject to negotiation.

The approved sample shall be secured by the Contractor at the site by safekeeping. If necessary, the Project manager / Project Engineer may compare to ensure that the procured material conforms to quality of the approved sample. Equivalent or alternative makes if suggested shall be permissible provided it is pre-approved in writing by the Project Engineer. All these approval process shall be completed prior to award of work and any subsequent change is not acceptable except written approval by the Chief Executive Officer of the Employer.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

5.7. Basic Prices

The basic prices of processed raw materials and manufactured products for incorporation in the works wherever relevant are indicated along with description of the item of work in Bill of Quantities.

For the purposes of this BID, Basic price means: Price of the material per unit inclusive of all taxes and duties at the site. Price of transportation, loading, unloading, breakage, incidental charges, etc. are deemed to be included in item rate quoted by the CONTRACTOR for that relevant item and no extras shall be on this account.

5.8. Instruments

The CONTRACTOR shall provide, at all items, for the duration of the contract, survey instruments for the exclusive use of Client Engineer / Project Engineer as directed for carrying out of his duties in connection with the contract. All instruments shall be calibrated as per legal requirements; the cost of such calibration is under Contractor's scope. Instruments to be brought at site on a returnable gate pass and not to be taken out of the site by the Contractor without notification and prior approval of the Client Engineer and Project Engineer.

Such instruments, which must be approved by the Project Manager / Project Engineer, shall include but not limited to the following:

- Two auto levels with horizontal circle and tripod and required accessories.
- Two metric level staffs not less than 4mtr high.
- Ten 30 m rustles steel tape and two 30 m linen tapes.

The CONTRACTOR shall be solely responsible for all such instruments and equipment and shall ensure that they are always in good repair, calibrated and adjustment.

5.9. Uncovering and making openings

The CONTRACTOR shall uncover any part or parts of the works or make openings in or through the same as the Project Engineer may from time to time direct and shall

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

reinstate and make good such part or parts to the satisfaction of the Project Engineer.

If any such part or parts have been covered up or put out of view after compliance with the requirements of Clause 5.5 and are found to be executed in accordance with the contract, the expenses of uncovering, making openings in or through, reinstating and making good the same shall be borne by the Client but in any other case all Prices shall be borne by the CONTRACTOR

5.10. Removal of improper work and materials

The Project Engineer shall during the progress of the works have power to order in writing from time to time: The removal from the site, within such time or times as may be specified in the order, of any materials, which, in the opinion of the Project Manager, are not in accordance with the contract.

- a. The substitution of proper and suitable materials and;
- b. The removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefore, of any work which in respect of materials or workmanship is not, in the opinion of the Project Manager, in accordance with the contract.

Default of CONTRACTOR in compliance: In case of default on the part of the CONTRACTOR in carrying out such order, the Client shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be recoverable from the CONTRACTOR by the Client or may be deducted by the Client from any monies due to or which may become due to the CONTRACTOR.

5.11. Suspension of works

The CONTRACTOR shall, on the written order of the Project Manager, with the previous written approval of the Employer, suspend the progress of the works or any part thereof for such time or times and in such manner as the Project Engineer may consider necessary and shall during such suspension properly protect and secure the work, so far as is necessary in the opinion of the Project Engineer. The extra Price

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

incurred by the CONTRACTOR in giving effect to the instructions of the Project Engineer under this Clause shall be borne by the employer unless such suspension is:

- a. Otherwise provided for in the contract, or
- b. Necessary by reason of some default on the part of the CONTRACTOR, or
- c. Necessary by reason of climatic conditions on site, or
- d. Necessary for the proper execution of the works or for the safety of the works or any part thereof in so far as such necessity does not arise from any act or default by the Project Manager or the Employer or from any of the expected risks defined in Clause 5.19 hereof.

Provided that the CONTRACTOR shall not be entitled to recover any such extra Price unless he gives written notice of his intention to claim to the Project Manager within 15 days of the order of the Project Engineer. The Project Employer shall settle and determine such extra payment and/or extension of time under Clause 6.5 hereof to be made to the CONTRACTOR in respect of such claim as shall, in the opinion of the Project Engineer, be fair and reasonable.

5.12. [Quality Control tests](#)

The CONTRACTOR shall perform the relevant tests as required under the scope of this BID. The Price of all such tests so performed shall be borne by the CONTRACTOR and no extra amounts shall be borne by the Employer on this account. The details of the quality tests to be carried out are given in technical specifications.

The CONTRACTOR shall carry out following tests related to the project

- a) NDT tests through Rebound Hammer and Ultrasonic Pulse Velocity for examining the structural soundness of the RCC Members.
- b) Water Leakage tests for examining water tightness of the structure.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

5.13. Guarantees for specialist works

The CONTRACTOR on completion of the Waterproofing and other specialized agency works executed by his approved specialist agencies shall submit guarantees on nonjudicial stamp papers of appropriate value and the

6. Commencement Time and Delays

6.1. Commencement of works

The CONTRACTOR shall commence the work on site within Ten [10] days from the date of Letter of Acceptance / Employer's written order, whichever is earlier to commence the work and shall proceed with the same with due expedition and without delay, except as may be expressly sanctioned or ordered by the Employer or be wholly beyond the CONTRACTOR's control.

6.2. Possession of site

The possession of the Site shall always under all circumstances and be with the Employer. The BID shall, not under any circumstances be deemed to be giving the CONTRACTOR a lease, license or other possessory right over the Site. The CONTRACTOR and his personnel shall be permitted suitable access to the Site for the purposes of carrying out the works. The Employer, may at any time, remove or cause to be removed any of the CONTRACTOR's articles, things, construction plant, personnel or labour without notice to the CONTRACTOR. This shall not, in any manner, prejudice or affect the CONTRACTOR's liabilities and obligations in respect of the works and the liability arising due to any damage to any person or material at the Site.

6.3. Way leaves, etc.

The CONTRACTOR shall bear all Prices and charges for special or temporary way leaves required by him in connection with access to the site. The CONTRACTOR shall also provide at his own Price any additional accommodation outside the site required by him for the works.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

6.4. Time for completion

The whole of the works shall be completed within **Ninety [90] Days** from the day of issue of Letter of Acceptance and the CONTRACTOR shall carryout the works as per schedule / programme of work approved by the Project Manager / Project Engineer. In the event of CONTRACTOR failing to comply with the overall and individual milestones contained in the time schedule, he shall be liable to pay Liquidated Damages as per the terms of the Contract.

- a. Subject to any requirement in the BID as to completion of any section of the works before completion of the whole, the whole of the works shall be completed, in accordance with the provisions of Clause 7.9 hereof, within the time stated in the BID or such extended time as may be allowed under Clause 7.5 hereof.

6.5. Extension of time for completion

Should the amount of extra or additional work of any kind or any cause of delay referred to in these conditions or (a) exceptional adverse climatic conditions or (b) by force majeure or (c) reason of any proceedings taken or threatened by or (d) dispute with adjoining or neighbouring owners or public authorities arising otherwise than through the Contractor's own defaults or (e) by the works or delays of other Contractors or tradesmen engaged or nominated by the Employer or the Project Engineer and not referred to in the Schedule of Quantities and / or Technical Specification or (f) by Strikes or lockout affecting any of the building trades or (g) by reason of delays in the supply of materials stipulated to be supplied by the Employer or other special circumstances of any kind whatsoever which may occur, other than through a default of the CONTRACTOR, be such as fairly to entitle the CONTRACTOR to an extension of time for the completion of the works, the Employer in consultation with the Architect/ Project Engineer shall determine the amount of such extension and shall notify the CONTRACTOR accordingly. Provided that the Employer is not bound to take into account any extra or additional work or other special circumstances unless the CONTRACTOR has within 10 days after such work has been commenced or

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

such circumstances have arisen or as soon thereafter as is practicable, submitted to the Employer full and detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time. No extra payment of Over Head or other expenses shall be paid for Extension of Time. The price is deemed to include all such incidents.

If the CONTRACTOR considers that he is being hindered in the proper execution of the work, he shall inform the Project Engineer of this without delay. Deadlines set for execution of work shall be extended where the interruption is caused by circumstances within the Employer's sphere of liability.

6.6. Night or Sunday work

Subject to any provision to the contrary contained in the BID, none of the permanent work shall, save as hereinafter provided, be carried on during the night or on Sundays, if locally recognized as days of rest or their locally recognized equivalent without the permission in writing of the Project Engineer or his representative except when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the works, in which case the CONTRACTOR shall immediately advise the Project Engineer or his representative. Provided always that, the provisions of this clause shall not be applicable in the case of any work, which is customarily carried out by rotary or double shifts. However, if the site progress so warrants, the CONTRACTOR shall arrange to carry out night and/ or Sunday works through a dedicated team after obtaining necessary permission for the same.

6.7. Rate of progress

If for any reason, which does not entitle the CONTRACTOR to an extension of time, the rate of progress of the works or any section is at any time, in the opinion of the Project Engineer, too slow to ensure completion by the prescribed time or extended time for completion, the Project Engineer shall so notify the CONTRACTOR in writing and the CONTRACTOR shall thereupon take such steps as are necessary and the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Project Engineer may approve to expedite progress so as to complete the works or such section by the prescribed time or extended time. The CONTRACTOR shall not be entitled to any additional payment for taking such steps. If, as a result of any notice given by the Project Engineer under this Clause, the CONTRACTOR shall seek the permission of the Project Engineer to do any work at night or on Sundays, if locally recognized as days of rest or their locally recognized equivalent, such permission shall not be unreasonably refused.

6.8. Delay Damages

Timely completion of the work is the essence of the contract. If the CONTRACTOR shall fail to achieve completion of the works in progressive stages within the permitted time, agreed mutually before the commencement of the project, the CONTRACTOR shall be liable for penalty. However, if the CONTRACTOR compensates it by progressing in other stages without compromising on the quality as adjudged by the Project Engineer, the Employer may consider waiver or reduction of penalty in the subsequent stages on specific recommendation by the Project Engineer. The penalty for delay shall be 0.50% of the balance value of work per week of delay, not limited to project completion but each stage of work, subject to a maximum of 2% of the total contract value.

Notwithstanding the above the Total Liquidated Damages, at any point in time, is restricted to the maximum of 2% of the Total Contract Value. In case the Contractor does not achieve the milestones, subsequently causing a delay in the overall completion of the project, and thereby causing damages to the project, Employers interests / business and are sufficiently uncertain at this point in time, the Employer upon specific recommendation of the Project Engineer, may insist upon a claim against Liquidated Damages as specified in this clause.

When damages cannot be pre-determined / assessed in advance, then the amount recoverable is said to be 'at large' (to be agreed mutually or determined as specified in clause 16 Settlement of Disputes, in the event of breach).

However, the decision of the Employer shall be final and binding on the Contractor, The Employer may without prejudice to any other method of recovery, deduct the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

amount from any monies in his hands, due or which may become due to the CONTRACTOR.

The payment or deduction of such damages shall not relieve the CONTRACTOR from his obligation to complete the works or from any other of his obligations and liabilities under the BID.

The CONTRACTOR recognizes and acknowledges that the Employer would suffer substantial losses and damage if there were a delay in the execution of the works in as much as the Employer may not be able to carry out its business thereat until the works are completed. For unreasonable delay, without prejudice to the above, the Employer has the right to proceed against the Contractor for any consequential loss and damages.

6.9. Certificate of Substantial Completion of works

When the whole of the works has been completed along with a punch list of items completed and / or corrected, the CONTRACTOR may give a notice of substantial completion to the Project Engineer accompanied by an undertaking to attend to any other snag during the defects liability period. Such notice and undertaking shall be in writing and shall be deemed to be a request by the CONTRACTOR for the Project Engineer to issue a certificate of Substantial Completion in respect of the works. The Project Engineer shall, in consultation with and with prior written consent of the Architect, within 14 days (for short duration contracts) and within 28 days (for long term contracts) of the date of delivery of such notice either issue to the CONTRACTOR, a certificate of Substantial Completion stating the date on which, in his opinion, the works were satisfactorily completed in accordance with the contract or give instructions in writing to the CONTRACTOR specifying all the work which, in the opinion of the Project Engineer, requires to be done by the CONTRACTOR before the issue of such certificate. The Project Manager shall also notify the CONTRACTOR of any defects in the works affecting satisfactory completion that may appear after such instructions and before completion of the works specified therein.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

The CONTRACTOR shall be entitled to receive such certificate of Substantial Completion within 15 days of completion, to the satisfaction of the Project Manager, of the works so specified and making good any defects so notified.

6.10. Provisional acceptance

The work shall deem to have been provisionally accepted after fulfilment of all of the following by the CONTRACTOR.

1. Handing over of the works to the Project Manager and Project Engineer.
2. Obtaining certificate of Substantial Completion vide Clause 7.9 from the Project Manager and Project Engineer
3. Submitting as-built drawings called for in the Contract and everything else necessary for the proper use and maintenance for the works complete with all systems and services. [ref Appendix G for checklist]

1.10.1. *Approval and acceptance:*

The works shall deem to have been approved and accepted only on issue of Practical Completion certificate by the Project Manager and Project Engineer without prejudice to the Employers' rights under the Contract particularly under clause 12.3.

1.10.2. *Taking over of parts of works:*

The Project Engineer may, at sole discretion of the Employer, issue of substantial completion certificate for any part of permanent works

The Employer shall not use any part of the works (other than as a temporary measure which is either specified in contract or mutually agreed by both parties) unless and until the Project Engineer has issues a certificate of substantial completion for this part.

However, if the client wishes to use any part of works prior to such a notice from the Project Engineer then

- i. The part which is used shall be deemed to have been taken over as from the date which it is used

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- ii. The Contractor shall cease to be liable for the care of such part as from this date, the responsibility shall pass on to the Client, and
- iii. If requested by the Contractor the Project Engineer shall issue a notice to this effect for this part

7. Maintenance and Defects

7.1. Definition of "Defects Liability Period"

In these conditions the expression "Defects Liability Period" shall mean the Defects Liability Period, calculated from the date of substantial completion of the works, certified by the Project Engineer in accordance with Clause 7.9 hereof, or in the event of more than one certificate having been issued by the Project Manager under the said clause, from the respective dates so certified and in relation to the Defects Liability Period the expression "the works" shall be construed accordingly.

The defects liability period shall be equivalent to **[12] Twelve months** from the date of issue of certificate of substantial completion.

7.2. Execution of repair work, etc.

To the intent that the works shall at or as soon as practicable after the expiration of the Defects Liability Period be delivered to the Employer in the condition required by the contract, fair, wear and tear excepted, to the satisfaction of the Project Manager / Project Engineer, the CONTRACTOR shall finish the work, if any, outstanding at the date of completion, as certified under clause 7.9 hereof, as soon as practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good defects, imperfections, shrinkages or other faults as may be required of the CONTRACTOR in writing by the Project Manager / Project Engineer during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Project Engineer prior to its expiration.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

7.3. Price of execution of works of repair, etc

All such work shall be carried out by the CONTRACTOR at his own expense if the necessity thereof shall, in the opinion of the Project Engineer / Client Engineer, be due to the use of materials or workmanship not in accordance with the contract, or to neglect of failure on the part of the CONTRACTOR to comply with any obligation, expressed or implied, on the CONTRACTOR's part under the contract. If, in the opinion of the Project Manager / Project Engineer, such necessity shall be due to any other cause, the value of such work shall be ascertained and paid for as if it were additional work.

7.4. Remedy on CONTRACTOR's failure to carry out work required

If the CONTRACTOR shall fail to do any such work as aforesaid required by the Project Engineer, the Project Engineer shall be entitled to employ and pay other persons to carry out the same and if such work is work which, in the opinion of the Project Engineer, the CONTRACTOR was liable to do at his own expense under the contract, then all expenses consequent thereon or incidental thereto shall be recoverable from the CONTRACTOR by the Employer either by deduction by the Employer from any monies due or which may become due to the CONTRACTOR or otherwise.

7.5. CONTRACTOR to search for any defect, imperfection or fault

The CONTRACTOR shall, if required by the Project Engineer in writing, search under the directions of the Project Engineer for the cause of any defect, imperfection or fault appearing during the progress of the works or in the Defects Liability Period. If such defect, imperfection or fault shall be one for which the CONTRACTOR is liable as aforesaid, the Price of the work carried out in searching as aforesaid shall be borne by the CONTRACTOR and he shall in such case repair, rectify and make good such defect, imperfection or fault at his own expense in accordance with the provisions of Clause 8 hereof.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

8. Alterations, Additions and Omissions

8.1. Variations

The Project Engineer will receive all communications of whatever nature which the CONTRACTOR is obligated to submit to the Client under the BID, including but not limited to changes to the BID involving the quality level, Statement of Work, delivery and/or completion dates/schedules, sub, or key personnel changes.

The Project Manager / Project Engineer, shall make any variation of the form, quality or quantity of the works or any part thereof that may, in his/her opinion, be necessary and for that purpose or if for any other reason it shall, in his/her opinion be desirable, he/she shall have power to order the CONTRACTOR to do and the CONTRACTOR shall do any of the following:

- a. Increase or decrease the quantity of any work included in the BID,
- b. Omit any such work,
- c. Change the character or quality or kind of any such work,
- d. Change the levels, lines, position and dimensions of any part of the works.
- e. Execute additional work of any kind necessary for the completion of the works, and
- f. Work, which, though not included in the original BID, is found to be necessary for its completion, shall also be carried out by the CONTRACTOR at the Project Manager / Project Engineer request unless the CONTRACTOR's business is not equipped for the purpose. Other work may only be allocated to a Contractor with his consent.

No such variation shall in any way vitiate or invalidate the BID, but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the BID price. No claims on account of variation compensation will be entertained irrespective of the amount of variation in quantities of individual items as well as the BID value.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

8.2. Orders for variations to be in writing

The CONTRACTOR shall make no such variations without an order in writing of the Project Engineer.

Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities.

Provided also that if for any reason the Project Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order any confirmation in writing of such verbal order given by the Project Engineer, whether before or after the carrying out of the order, shall be deemed to be an order in writing within the meaning of this clause.

Provided further that if the Contractor shall within seven days confirm in writing to the Project Engineer and such confirmation shall not be contradicted in writing within fourteen days by the Project Engineer, it shall be deemed to be an order in writing by the Project Engineer.

8.3. Valuation of variations - Extra items

All extra or additional work done or work omitted by order of the Project Engineer shall be valued at the rates and prices set out in the BID. If the BID does not contain any rates or prices applicable to the extra or additional work, then suitable rates or prices shall be agreed upon between the Project Manager / Project Engineer and the CONTRACTOR. In the event of disagreement, the Project Manager / Project Engineer in consultation with CEO,CUBE shall fix such rates or prices as shall, in his opinion, be reasonable and proper. The decision of the CEO,CUBE shall be final and binding on both parties.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Wherever possible the actual Price shall be derived from similar items of work available in the BID. In case it is not possible to assess the rates as indicated above, the actual Price shall be determined as follows:

- a. Basic Price of material inclusive of all taxes and duties at suppliers' warehouse
- b. Transportation to site subject to a ceiling of 2% of the total material Price.
- c. Price of tools and plant with proper break up of Price
- d. Price of consumables
- e. Price of Labour
- f. Overheads and Profits to a ceiling of 15% of total derived price from above [a to e]

For all extra items of work, it shall be the responsibility of the CONTRACTOR to submit to the Project Manager Rate analysis as detailed above. The Project Manager in consultation with the CEO,CUBE shall give his approval of the rates agreed in writing to the CONTRACTOR.

In the event that no agreement is reached on arriving at rates on any or all of the extra items of work, the guidelines lay down by the CPWD / Government of India Schedule of Rates shall be followed for arriving at the rates for the extra items of work.

The decision of the Employer in all such matters shall be final and binding on the CONTRACTOR.

8.4. Power of Engineer to Fix Rates

Provided that if the nature or amount of any omission or addition relative to the nature or the amount of the whole of the works or to any part thereof shall be such that, in the opinion of the Project Engineer, the rate or price contained in the contract for any item of the works is, by reason of such omission, substitution or addition, rendered unreasonable or inapplicable, then a suitable rate or price shall be agreed upon between the Project Manager / Project Engineer and the Contractor. In the event of disagreement, the CEO, CUBE shall fix such order rate or price as shall in his

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

opinion, be reasonable and proper having regard to the circumstances. The CEO, CUBE's rate and decision shall be final.

Provided also that no increase or decrease or variation of rate or price shall be made unless, as soon after the date of the order as it is practicable and in the case of additional or extra work, before the commencement of the work or as soon after the date of the order as it is practicable and, in the case of additional or extra work, before the commencement of the work or as soon thereafter as is practicable, notice shall have been given in writing by the Contractor to the Project Engineer of his intention to claim extra payment or a varied rate or price.

9. Plant, Temporary Works and Materials

9.1. Plant etc., exclusive use for the works

- a. All constructional plant, temporary works and materials provided by the CONTRACTOR shall, when brought on to the site, be deemed to be exclusively intended for the execution of the works and the CONTRACTOR shall not remove the same or any part thereof except for the purpose of moving it from one part of the site to another, which shall not be unreasonably withheld.
- b. **Removal of plant, etc.:** Upon completion of the works or on receiving a written direction from the Project Engineer, the CONTRACTOR shall remove from the site all the said constructional plant and temporary works remaining thereon and any unused materials provided by the CONTRACTOR.
- c. **Employer not liable for damage to plant, etc.:** The Employer shall not at any time be liable for the loss or damage to any of the said constructional plant, temporary works or materials.

9.2. Approval of materials etc., not implied

The operation of Clause 10 hereof shall not be deemed to imply any approval by the Project Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Project Engineer.

9.3. Housekeeping & Power Charges

The Housekeeping Services & Power Charges will be the scope of Contractor from the project kick start to Project Handover.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

10. Measurement

A. **Quantities:** The quantities set out in the bill of quantities are the estimated quantities of the work but they are not to be taken as the actual and correct quantities of the works to be executed by the CONTRACTOR in fulfilment of his obligations under the BID. The Contractor shall make his own study to determine the correct quantities of works to be executed.

B. All the useable material like boulders excavated from the site shall remain property of the Employer and shall be stacked at suitable place as advised by the Project Engineer. This material shall be used by CONTRACTOR with prior permission of the Project Engineer shall be disposed by the Contractor without additional claim.

C. **Schedule of quantities:** No claim because actual quantities differ from bill of quantities

The quantities of the various kinds of work to be done and materials to be furnished under this BID which have been estimated and are set forth in the proposal or the BID or the bill of quantities, are the estimated quantities and not be accurate in any or all particulars and are only for the purpose of comparing on a uniform basis the bids offered for the work under this BID.

The CONTRACTOR shall have no claim whatsoever for anticipated profits or loss on profit or for damages consequent on Project Engineer excluding such items from the scope of the Contractor or for variation in quantities.

D. All package's measurement will be based only on the actual work executed and approved by the Project Manager / Project Engineer.

E. Works to be measured

The Project Manager / Project Engineer shall, except as otherwise stated, ascertain and determine by measurement the value of the Contract or Work in accordance with the Contract. He shall, when he requires any part or parts of the Works to be measured, give notice to the Contractor's authorized agent to assist the Project Engineer or his representative in making such measurement, and shall furnish all particulars required by either of them.

Should the Contractor not attend, or neglect or omit to send such agent, then the measurement made by the Project Engineer or approved by him shall be taken to be

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

measured by the records and drawings, the Project Engineer's Representative shall prepare records and drawings month by month of such work, they shall nevertheless be taken to be correct and no claim shall be entertained whatsoever

10.1. Works to be measured

The Project Manager / Project Engineer shall, except as otherwise stated, ascertain and determine by measurement the value of the Contract or Work in accordance with the Contract. He shall, when he requires any part or parts of the Works to be measured, give notice to the Contractor's authorized agent to assist the Project Engineer or his representative in making such measurement, and shall furnish all particulars required by either of them.

Should the Contractor not attend, or neglect or omit to send such agent, then the measurement made by the Project Engineer or approved by him shall be taken to be measured by the records and drawings, the Project Engineer's Representative shall prepare records and drawings month by month of such work, they shall nevertheless be taken to be correct and no claim shall be entertained whatsoever

10.2. Measurements for the Bill

All Works completed and to be measured and included in Contractor bills shall be only those items completed and approved the Project Engineer in full in any particular area, room or building as may be decided by the Project Engineer. Partial completion shall not be included in Contractor bills and shall not be paid for unless specifically agreed by the Project Engineer.

10.3. Method of measurement

The works shall be measured as stipulated in the Bureau of Indian Standards notwithstanding any general or local custom except where otherwise specifically described or prescribed in the BID. The works shall be measured as per latest edition of Indian Standard IS: 1200 or as specified separately in the technical specifications.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

In the event of any dispute with regard to the method of measurement of any work, the decision of the Project Manager / Project Engineer shall be final and binding and no extra claims shall be entertained or allowed at any stage in this regard.

All payments will be based on quality certification by the Project Manager / Project Engineer and the quantity certification by the Project Engineer and the basis of payment will be for the quantities arrived from the good for construction drawings as originally provided & subsequent amendments from time to time and actual quantities executed, whichever is less.

All final measurements will be based only on the As-Built drawings.

11. Certificates and Payment

11.1. Certificates and Payment

Unless otherwise provided, payments shall be made in accordance with the conditions set out below.

a. Billing and Certificates

The Bills shall be submitted in triplicate in the agreed format to the Project Engineer. Once ascertained of its contents it would be treated as complete.

b. Running Account Bills

The Running Account Bills shall be submitted on completion of executed works for a sum of minimum Five [5] Lakhs once in a month.

c. Final Bills

Final bill shall be submitted within one month of issue of the Substantial Completion certificate vide clause 7.9 - General conditions unless specific extension of time is granted by the Project Manager.

Final certificate of payment shall be issued within one month of receipt of all clarifications and details of the Final bill to the satisfaction of the Project Manager.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

1.1.1. *Terms of payment*

- a. 10% against submission of detailed design & drawings duly proof checked by IITM Faculty with construction work methodology & Quality Assurance Plans.
- b. 40% against completion of foundation construction and supply of precast elements at site in good condition.
- c. 40% against erection of Precast elements at site upto the satisfaction of EIC.
- d. 5% against Completion as Final bill, Testing & Commissioning with Handing Over of all structure upto the satisfaction of EIC.
- e. 5% after successful completion of Defects Liability Period upto the satisfaction of EIC.

1.1.2. *Bill Submissions*

- a. **Payment against Running Account Bills:** Payment of the said Amount based on submitted Running Account Bills shall be paid within **[20] days** from the date of certification by Project Manager, of the submitted bills in full shape along with necessary documents. If the bills are returned for want of details, the date of resubmission in full shape with required documents shall be considered.
- b. **Payment against Final Bill:** Payment of the said Amount based on submitted Final Bill shall be paid within Thirty **[30] days** from the date of certification by Project Manager, of the submitted bills in full shape. If the bills are returned for want of details, the date of resubmission in full shape shall be considered.

1.1.3. *Retention Money*

5% of all the certified payment values shall be deducted as Retention Money and shall be released after successful completion of **Defects Liability Period of Twelve [12] months**, provided that the work is free from defects and the CONTRACTOR has rectified all defects identified by the Project Engineer/ Architect. The Retention amount shall not carry any interest.

The contract price is exclusive of GST but inclusive of all other Central and Local Taxes, OCTROI, Excise, Levies, Duties, etc. However, you will be paid as per the actual quantum of work executed at the site as certified by the Project Engineer and at accepted rates as given in the enclosed Bill of Quantities.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

This agreement is based upon the submitted referred quotation, generic outline of the scope of works and discussions with the Project Manager.

Rates mentioned above hold firm for the entire delivery period plus the period up to the settlement of Final Bill. No escalation will be entertained towards labour, materials, petrol, diesel, or on any other account.

11.2. Approval only by Practical Completion certificate

No certificate other than the Final Completion certificate referred to in Clause 12.3 hereof shall be deemed to constitute approval of the works.

11.3. Practical Completion Certificate

The contract shall not be considered as completed until a Practical Completion certificate shall have been signed by the Project Manager and Project Engineer stating that the works have been completed in accordance with the conditions of contract. The Practical Completion certificate shall be given by the Project Engineer within twenty-eight [28] days of submission of all the handover documents specified in clause 7.10 after the punch list of items have been attended to and accepted by the Project Manager, or if different periods of Final Completion shall become applicable to different sections or parts of the works, the expiration of the latest such period, or as soon thereafter as any works ordered during such period pursuant to Clause 8 hereof, shall have been completed to the satisfaction of the Project Manager and full effect shall be given to this clause notwithstanding any previous entry on the works or the taking possession, working or using thereof or any part thereof by the Employer.

11.4. Cessation of Employer's liability

The Employer shall not be liable to the CONTRACTOR for any matter or thing arising out of or in connection with the contract or the execution of the works, unless the CONTRACTOR shall have made a claim in writing in respect thereof before the giving of the Practical Completion certificate under this Clause.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

12. Remedies and Powers

12.1. Default of CONTRACTOR

If the CONTRACTOR shall become Bankrupt or have a receiving order made against him, or shall present this petition in bankruptcy, or shall make an arrangement with or assignment in favor of his creditors, or shall agree to carry out the contract under a committee of inspection of his creditors or, being a corporation, shall go into liquidation (other than a voluntary liquidation), or if the CONTRACTOR shall assign the contract, without the consent in writing of the Client first obtained, or shall have an execution levied on his goods, or if the Project Engineer shall certify in writing to the Employer that in his opinion the CONTRACTOR:

- a. Has abandoned the contract, OR
- b. Without reasonable excuse has failed to commence the works or has suspended the progress of the works for fifteen days after receiving from the Employer written notice to proceed, OR
- c. Has failed to remove materials from the site or to pull down and replace work for fifteen days after receiving from the Project Manager/ Engineer written notice that the said materials or work had been condemned and rejected by the Project Engineer under these conditions, OR
- d. Contractor is not executing the works in accordance with the contract, or is persistently or flagrantly neglecting to carry out his obligations under the BID, OR
- e. Has, to the detriment of good workmanship, or in defiance of the Project Manager / Engineer's instructions to the contrary, sub-let any part of the contract

Then the CEO,CUBE may, after giving fourteen days' notice in writing to the CONTRACTOR, quoting the defaults mentioned above and terminate the contract there from without releasing the CONTRACTOR from any of his obligations or liabilities under the contract, or affecting the rights and powers conferred on the Employer by the contract, and may himself complete the works or may employ any other CONTRACTOR to complete the works at the risk and Cost of CONTRACTOR. The Project Manager or such other CONTRACTOR may use for such completion so much of

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

the constructional plant, temporary works and materials, which have been deemed to be reserved exclusively for the execution of the works, under the provisions of the contract, as he or they may think proper, and the Employer may, at any time, sell any of the said constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the CONTRACTOR under the contract.

12.2. Foreclosure of Contract

If the Employer is unable to commence or execute the Works for any reason whatsoever, the Employer shall inform the Contractor of the same in writing and the Contractor shall have no claim of any nature whatsoever, including but not limited to any payment, costs or loss for expected profits. Furthermore, if at any time after the commencement of Works, the Employer for any reason whatsoever, does not require the whole or part of the Works specified, the Employer shall give notice in writing of the same to the Contractor who shall have no claim of any kind whatsoever against the Employer, including but not limited to a claim for payment or compensation on account of any profit or advantage which he might have derived from execution of the Works but which he shall not so derive on account of the whole or part of the Works not being carried out or any loss or costs he may suffer for such foreclosure. The Contractor shall be paid at quoted rates full amounts for Works executed at Site and in addition thereto, if necessary, a reasonable amount as certified by the Project Manager & Quality approved by the Project Manager for the following because of the foreclosure:

- a. the amount payable in respect of any preliminary items so far as the Works or service comprised therein has been carried out and a proper proportion, as certified by the Project Manager, of any such items, the work or service comprised, which has been partially carried out or performed;
- b. Cost of materials reasonably ordered for the Works which shall have been delivered at the Site or which the Contractor is legally liable to accept delivery of;

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- c. At the Employer's request and direction, the Contractor shall return and cancel orders applicable to such materials, in which event the Contractor shall be entitled to recover from the Employer any cancellation and shipping charges incurred by the Contractor in connection therewith, subject to submission of relevant documents to establish the claim;

Provided that against any payments due from the Employer under this Clause, the Employer shall be entitled to be credited with any outstanding balances due from the Contractor for any advances in respect of materials and otherwise and any other sum which on the date of foreclosing was recoverable by the Employer from the Contractor under the terms of the Works Contract.

12.3. Valuation of date of forfeiture

The Project Manager shall, as soon as may be practicable after such termination by the Engineer fix and determine after such investigation or enquiries as he may think fit to make or institute and shall certify what amount, if any, had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the CONTRACTOR in respect of work then actually done by him under the BID and the value of any of the said unused or partially used materials, any constructional plant and any temporary works.

12.4. Payment after forfeiture

If the Employer shall terminate the contract under this clause, he shall not be liable to pay to the CONTRACTOR any money on account of the contract until the expiration of the Defects Liability Period and thereafter until the Prices of execution and Final Completion, damages for delay in completion, if any, and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the Project Manager. The CONTRACTOR shall then be entitled to receive only such sum or sums, if any, as the Project Engineer may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount shall exceed the sum which would have been payable to the CONTRACTOR on due completion by him, then the CONTRACTOR shall, upon demand, pay to the Client the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

amount of such excess and it shall be deemed a debt due by the CONTRACTOR to the Employer and shall be recoverable accordingly.

12.5. Default of CLIENT

If the payment of the amount payable by the Employer under any certificate of the Project Manager, shall be in arrears and unpaid for sixty days after “notice” in writing requiring payment of the amount as aforesaid shall have been given by the CONTRACTOR to the Employer, or if the Employer interferes with or obstructs the issue of any such certificates, or the Employer commits any “act of insolvency”, or if the Employer (being an individual or Firm) shall be adjudged insolvent, or (being an incorporated company) shall have an order made against him or pass an effective resolution for winding up, either compulsorily, or subject to the supervision of the court or voluntarily, or if the official assignee or the Employer shall repudiate the contract, or if the official assignee or the liquidator in any such winding up shall be unable within fifteen days after notice to him requiring him to do so to show to the reasonable satisfaction of the CONTRACTOR that he is able to carry out and fulfill the contract and to make all payments due, and to become due there under, and if required by the CONTRACTOR, to give security for the same, or if the works be stopped for the three months under the order of the Project Engineer or Employer or by any injunction or other order of any court of law, then and in any of the said cases the CONTRACTOR shall be at liberty to determine the contract by notice in writing to Employer, and shall be entitled to recover from the Employer, payment for all works executed and for any loss he may sustain upon any plant or machineries supplied or purchases or prepared for the purpose of the contract.

In arriving at the amount of such payment the net rates contained in the CONTRACTOR’s original tender shall be followed or where the same may not apply, valuation shall be made in accordance with Clause 11 hereof.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

13. Special Risks

The special risks are war, hostilities (whether war be declared or not), invasion act of foreign enemies, the nuclear and pressure waves risk described in clause 5.14 b) hereof, or in so far as it relates to the country in which the works are being or are to be executed or maintained, rebellion, revolution, insurrection, military or usurped power, civil war, or unless solely restricted to the employees of the CONTRACTOR or of his sub-CONTRACTORS and arising from the conduct of the works, riot, commotion or disorder.

a. Outbreak of war

If, during the currency of the contract, there shall be an outbreak of war, whether war is declared or not, in any part of the which, whether financially or otherwise, materially affects the execution of the works, the CONTRACTOR shall, unless and until the contract is terminated under the provisions of this clause, continue to use his best endeavours to complete the execution of the works. Provided always that the Employer shall be entitled at any time after such outbreak of war to terminate the contract by giving written notice to the CONTRACTOR and, upon such notice being given this BID shall except as to the rights of the parties under this clause and to the operations of clause 13.2 hereof, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof.

b. Removal of plant on termination

If the contract shall be terminated under the provisions of the last preceding subclause, the CONTRACTOR shall, with all reasonable dispatch, remove from the site all constructional plant and shall give similar facilities to his Subs to do so, unless the Project Engineer has detained the same in accordance with the terms and conditions of this BID for the purpose of disposal to recover any moneys due to it.

c. Payment on contract termination

If the contract shall be terminated as aforesaid, the CONTRACTOR shall be paid by the Employer, in so far as such amounts or items shall not have already been covered by

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

payments on account made to the CONTRACTOR, for all work executed prior to the date of termination at the rates and prices provided in the contract and in addition:

- i. The amounts payable in respect of any preliminary items, so far as work or service comprised therein has been carried out or performed, and a proper proportion as certified by the Architect of any such items, the work or service comprised in which has been partially carried out or performed.
- ii. The Price of materials or goods reasonably ordered for the works which shall have been delivered to the CONTRACTOR or of which the CONTRACTOR is legally liable to accept delivery, such materials or goods becoming the property of the Employer upon such payments being made by him.

Provided always that against any payments due from the Employer under this clause, the Employer shall be entitled to be credited with any outstanding balances due from the CONTRACTOR for advances in respect of constructional plant and materials and any other sums which at the date of termination were recoverable by the Employer from the CONTRACTOR under the terms of the contract.

Provided further that, the CONTRACTOR shall not be entitled to be paid for any work, which is not executed in accordance with the specifications given to the CONTRACTOR, under these provisions

14. Force Majeure

14.1. Payment in the event of force majeure

If a war, or other circumstances outside the control of both parties, arises after the contract is made so that either party is prevented from fulfilling his contractual obligations, or under the law governing the contract, the parties are released from further performance, then the sum payable by the Employer to the CONTRACTOR in respect of the work executed shall be the same as that which would have been payable under clause 14.C hereof if the contract had been terminated under the provisions of Clause 14.C hereof.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

15. Settlement of Disputes

15.1. Settlement of disputes and arbitration

On any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this Contract or the validity or the breach thereof, the parties shall first Endeavour to settle the same amicably in a spirit of co-operation.

If the dispute cannot be amicably settled either party shall, as soon as practicable, but not earlier than 3 months give to the other party notice in writing of the existence of such dispute or difference, specifying the nature and the point at issue and the same shall be settled by Arbitration in accordance with the Arbitration and Conciliation Act, 1996 as amended from time to time. Any such disputes between the Employer and the Contractor arising out of or connected with this Agreement or the Project shall be referred to and determined by a sole arbitrator appointed by CEO,CUBE.

Except as above, all matters arising under this agreement shall be subject to the exclusive jurisdiction of the Courts at Chennai only. The Arbitration shall be held at Chennai and shall be held in English language.

The Contractor hereby agrees that he will not object or raise any issues on the appointment of Arbitrator for any reason that the Arbitrator is appointed by the Employer or that the Arbitrator is an employee or an associate of the client.

16. Site Offices and Facilities

The CONTRACTOR may supply & erect a well-lit temporary site office for use by him at his own Cost within the approved premises. For securing the samples etc., the Contractor may erect a secure enclosure or storage. All construction shall be suitable for all weather use and be reasonably secure from thieves / pilferage.

The CONTRACTOR shall dismantle and remove from site all such temporary structures on completion of contract or whenever the Project Manager / Project Engineer may require

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

such dismantling and removal on account of obstruction of work, nuisance value or any other reason.

17. Notices

17.1. Services of notices on CONTRACTOR

All certificates, notices or written orders to be given by the Employer or by the Project Engineer to the CONTRACTOR under the terms of the contract shall be served by sending by registered post to or delivering the same to the CONTRACTOR's principal place of business, or such other address as the CONTRACTOR shall nominate for this purpose.

- a) Service of notices on Employer: All notices to be given to the Project Engineer under the terms of the contract shall be served by sending by registered post or delivering the same to the respective addresses nominated for that purpose.
- b) Change of address: Either party may change a nominated address to another address in the country where the works are being executed by prior written notice to the other party.
- c) A written notice shall be deemed to have been given if
 - i. sent by registered/Speed Post or certified mail or
 - ii. transmitted by any other means if and when receipt is acknowledged by the person identified below:

b. **EMPLOYER:** (name and address) _____

c. **CONTRACTOR:** (name and address) _____

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

B. SPECIAL CONDITIONS OF CONTRACT

1. The time allowed for the completion of work is **Ninety days [90]** from the date of issue of LOA by the Employer. This period is all inclusive and no extra time for mobilization etc., is contemplated. Time is to be the essence of the contract. The completion period is inclusive of monsoon season and inclement weather.
2. Contractor shall be fully responsible for the supply of all materials required for construction as per specification and approvals.
3. The rates shall be firm and not be subject to any variation(s) in exchange rates, in taxes, VAT, duties, works contract tax, etc. in freight and the like, labour conditions, etc. The rates for all items must cover the cost of all materials, labour, transportation, tools, machinery, plant, pumps, explosives, scaffolding, staging, shores, props, bamboos, ropes, templates, pegs and all appliances and operations whatsoever necessary for efficient execution of the work. The rates quoted shall be inclusive of all taxes, VAT, duties, levies, royalties, PF & ESI payments. Bidder is required to quote separately the component of goods and service tax on the overall cost of the project.
4. The Contractor shall include in his rates for forming access to the site with all temporary roads and gangway, if required.
5. The Contractor shall set-out and verify all measurements at the site.
6. Dewatering for excavation wherever required is included in the respective earth work item itself, no separate payment will be made for dewatering.
7. CEMENT : OPC 43 Grade Cement like ACC , Ultratech, Sankar, Birla Cement, Ramco Cement, Arasu or any other brand approved by the client shall be used.
8. SAND : River sand shall be used for all works, in case of non-availability of River sand, M. Sand as per IS Specifications shall be used.
9. For examination and testing of materials and the work, the Contractor shall make the following available readily in good working condition at site.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

10. Payment will be made on the basis of actual measurement at approved rates and reasonable rates settled with the Contractor for other items of work wherever applicable.
11. Quality of work and quality of materials used should be first class and should conform to latest IS Codes. The decision of the Project Manager / Engineer, in this matter will be final.
12. Contractor shall adhere to all the labour laws in force at his own cost in the manner stipulated by CUBE.
13. All materials, articles, and workmanship shall be the best of their respective kind for the class of work described in the contract, specifications and Bill of Quantities. All materials shall be subject to the approval of the Project Manager /Engineer. The words “best” is used in these specifications shall mean that in the opinion of the Engineer, there is no superior quality of material or finish of articles in the market available for a particular item described in the Contract Document. The Project Manager / Engineer shall have the authority to persuade the Contractor to purchase and use such materials of particular make or from particular source as may in their opinion be necessary for proper and reasonable compliance with the specification and execution of the work.
14. The Contractor shall provide equipment, instruments, labour and such other allied assistance required by the Project Manager / Project Engineer for measurement of the Work, materials, quality etc.
15. Contractors shall submit ESI/PF clearance certificates or paid challans along with each running bill for the period till the previous month.
16. The Contractor shall store all materials in proper manner so as to avoid contamination, deterioration and ensure ease of access. The places at site where materials are to be stored shall be subject to the approval of the Project Manager / Project Engineer. Should the place where the materials are stored by the Contractor be required by the Project Manager / Project Engineer for any other purposes, the Contractor shall make

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

arrangements to clear the place within such time as may be instructed by the Project Manager / Project Engineer.

17. Where directed by the Project Manager / Project Engineer the Contractor shall provide suitable stones with flat tops and build the same permanently to act as benchmarks. Likewise any other levels or lines or points specifically required by the Project Manager / Project Engineer shall be indicated in a suitable manner. The Contractor shall carefully protect and preserve such important marks during execution of the work.
18. The tests shall be carried out by the Contractor at his own cost in laboratories approved by the Project Manager / Project Engineer (and as often as he may consider them necessary) testing equipment at site for such tests which are required to be carried out more frequently. The Contractor shall ensure and certify the calibration of the equipment so installed and shall maintain the same in working order throughout the period of construction. The Contractor shall also provide necessary trained staff for carrying out such tests and using such equipment. Tests of materials supplied by Employer shall be carried out by the Contractor as above.
19. The rates of items are for all heights, depths and widths unless otherwise specified in the Bill of Quantities.
20. The Contractor should ensure that there are no disturbances to others within the Village premises. Any noisy activity (including drilling, hammering, core-cutting etc.) should be planned after usual office working hours or at night (8PM to 8AM) to ensure minimum or no inconveniences to the other occupants of the IITMRP premises. Necessary permission to work after the office working hours/night must be obtained from the Owner and Employer, in advance.
21. The rate should include the cost of disposal of surplus debris away from site as directed by Project Manager / Project Engineer.
22. Site Discipline
 - a. The Contractor is also responsible for cleanliness and hygiene in all the areas irrespective of their allocated space.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

b. Any other space other than the allocated space or the common areas leading the allocated space shall not be utilized for carrying out any construction / execution activities without prior approval from Employer and Owner.

c. Any personnel or workmen, employed by the Contractor, shall not carry or use pan masala, gutkha, thambaku, cigarette, alcohol etc. in the premises. They may be frisked / searched at the Entry / Exit Gate to determine and confiscate any such possessions. In case of any violation, the Contractor shall be fined and the specific worker barred for three days for entering the site premises.

23. Workmen, material and equipment movement from outside / inside Village Premises

a. The Contractor shall study and get familiarized with the site premises, devise a route plan for movement of workmen, material and equipment and submit the same with the Bid documents. The same shall be agreed to and approved by the Employer.

b. At all times, the Contractor shall inform and obtain clearance from the Project Manager, in prior, for movement of workmen, material (including debris) and equipment from outside.

c. At all times, the Contractor's personnel and workmen shall comply with the instruction of Security Personnel of the Owner.

d. Debris / scrap shall be disposed only in the identified / allotted area in the premises and the same shall be cleared on a regular basis.

24. Workmen, material and equipment movement within the Premises

a. The workmen, material and equipment shall not utilize any other space outside the allotted premises for site offices, stores etc.

b. Debris / scrap shall be disposed only in the identified / allotted area in the premises and the same shall be cleared on a regular basis.

25. Statutory Norms

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- a. The Contractor shall possess necessary licenses, permits as required by law (eg: WCA Policy, ESI, EPF etc.).
- b. Any accident or untoward incidents happening in the premises will come under the purview of the Contractor, for lack of safety precautions towards the incident. The Employer nor the Owner will be held responsible or accountable for any such incident.
- c. Comprehensive Insurance Cover shall be taken by the Contractor including third party insurance. No liability shall be claimed from Employer or the Owner.

26. Safety Regulations

- a. All workmen shall wear Personal Protective Equipment (PPEs) such as helmets, jackets, etc as per requirement or site condition.
- b. Extra precautions to be taken for workmen carrying out specialized work such as electrical, plumbing etc.
- c. Extra precautions to be taken for workmen carrying out work at heights and depths.
- d. The Contractor shall ensure that all equipment be of safe working condition.
- e. Neither the Contractor nor his labour shall not cause any type of damage or pollution to the Environment or water bodies.

27. Water and Power

Water and Power shall be arranged by the Contractor on his own.

Water

- a. The Contractor shall maintain and keep the surrounding areas neat and clean.
- b. The Contractor shall also make arrangements for waste water disposal that will result during the course of works.
- c. The Contractor shall provide drinking water for the workers at the site.

Electricity and Power

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- a. The Contractor shall make his own arrangements for power if any required.

28. Personnel and Security

- a. The Contractor shall depute a dedicated resource,
 - (i) To look after the Welfare of the Workmen at the site. The resource shall also keep in check and uphold the site discipline.
 - (ii) The Contractor shall ensure that the Contractor's personnel / workmen do not use the premises for any illegal actions or activities objectionable / punishable by law.
 - (iii) The Contractor shall make his own security arrangements to guard the materials/site and its premises at all times, at his own expenses.

29. Damages

- a. The Contractor shall ensure that
 - (i) There are no damages (especially structural damages) to the building or any other facility of the Village/Villagers.
 - (ii) There are no damages to the finishing in common areas / any other part of the facility during the movement of workmen, material and equipment.
 - (iii) There are no damages to any utility lines while working in shafts etc.
- b. In case, of any damage, the Contractor shall at his cost rectify this damage to the satisfaction of the Project Engineer.

30. Labour Accommodation

- a. The scope and responsibility of providing Labour Accommodation lies with the Contractor.
- b. No on-site shack shall be allowed to be put up for labourers stay.
- c. No separate fees shall be claimed by the Contractor to the Employer in this respect.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

d. Drinking water and hygiene at the Labour Accommodation shall be provided by the Contractor

31. The CONTRACTOR shall adhere to strict Safety Conditions as mentioned in Appendix C of the Tender Document. Hence, the CONTRACTOR shall submit a Health, Safety & Environmental Plan specifically for the project along with Tender Submission.

32. Cleaning up and handing over

Upon completion of the work all the areas should be cleaned in manner in which will render the work acceptable to the Employer. All rubbish is removed from the site as it accumulates and area upto ten meters on the other boundaries of the premises will be cleaned by the Contractor as a part of the contract. Upon completion of the project, the Contractor shall hand over to the Employer the following:

- a. Written guarantee and certificates.
- b. Maintenance manuals, if any and
- c. Keys.

33. Samples and Shop Drawings

- a. After the award of the contract, the Contractor shall furnish for the approval of the CUBE, with such promptness as to cause no delay in his work or in that of any other sub-Contractor, samples and shop drawings required by the specifications or by CUBE. Samples shall be delivered as directed by the Project Manager / Project Engineer.
- b. A schedule giving dates for the submission of samples shall be included in the Tender. Unless specifically authorized all samples must be submitted for approval within 10 days before the date of particular work involved is schedule to begin.
- c. The Project Manager / Project Engineer shall check and approve such samples, with reasonable promptness only for conformity with the design concept of the project and for compliance with the information in the contract documents. The work shall be in accordance with the approved samples.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- d. The Contractor shall secure the approved items in a dedicated space and produce the same whenever directed
34. The Contractor shall provide adequate lighting arrangements as approved by the Engineer for carrying out the works even during night times and also provide all other facilities for the labour employed to carry out the works without any extra charges. Necessary lighting as directed by the Project Manager / Project Engineer shall also be provided by the Contractor without any extra charges for yard lighting as well as to cover the entire site.
35. The Contractor may have to execute the work in shifts to complete the work as per schedule for which no extra shall be paid. The Employer is not liable for any extra payment for the same.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

C. SAFETY REQUIREMENTS

1) INTRODUCTION

This document illustrates the principle requirement of Employer, on Safety and Health associated with the Contractor. The CONTRACTOR, his Subs and DC's, shall comply with the safety precautions, protective measures to keep clean Environment/ water bodies, housekeeping requirements, etc. The Project Manager with due intimation shall have the right to stop the work at site, if in their opinion proceeding with the work will lead to an unsafe and dangerous condition. The CONTRACTOR shall get the unsafe condition removed or provide protective equipment. The CONTRACTOR shall ensure that all workmen are aware about the nature of risk involved in their work and have adequate knowledge for carrying out their work safely.

The instructions issued herein are indicative and not exhaustive. Therefore, the CONTRACTOR shall be responsible to ensure that adequate safety measures have been adopted in the course of execution of the contract in accordance with safety standards / statutory regulations, as applicable including protecting the Environment.

The CONTRACTOR shall be held responsible for non-compliance if any of the safety measures and delays, implications, injuries, fatalities and compensation arising out of such situations or incidents.

2) ENVIRONMENT-HEALTH-SAFETY TARGET AND GOALS

1. Zero recordable injuries
2. Zero reportable environmental incidents
3. 100% adherence to usage of proper PPE at work.
4. 100% incident recording and reporting
5. 100% clean and proper house-keeping and disposable of debris/rejected materials if any.

3) DUTIES AND RESPONSIBILITIES OF EHS COORDINATOR/ CONTRACTOR

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Safety person shall be responsible for implementing and maintaining safety at work site.

Responsibilities include

- a. 100% implementation of safety rules and regulations.
- b. Checking work areas, making housekeeping inspections
- c. Keeping records of all unsafe conditions found and corrective action taken.
- d. Enabling members to use PPE
- e. Conducting safety committee meeting on a periodic basis to discuss on the safety non-compliances.

The person thus designated will in generally co-ordinate on matters of safety and in particular ensure that the Safety Manual is complied with. His name shall be displayed on the Notice Board at a prominent place at the work site.

4) SAFE MEANS OF ACCESS/ EGRESS

1. Adequate and safe means of access and exit shall be provided for all work places, at all elevations.
2. Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short duration work as can be done safely from ladders. Ladder shall be of rigid construction having sufficient strength for the intended loads and made of metal and all ladders shall be maintained well for safe working condition. Suitable footholds and handholds shall be provided on the ladder. The ladder shall be given an inclination not steeper than 1 in 4 (1 horizontal and 4 vertical / at an angle of 75 degree to the wall)
3. Access/Egress should be free of obstructions and from any slippery substances like oil or grease.
4. The landing space for the access/egress should be a levelled surface.

5) EXCAVATION, TRENCHING AND EARTH REMOVAL

1. Before excavation the location should be checked for underground pipelines, cables, etc and prior approval of the Client / Project Engineer shall be obtained one day before commencement of Earth work.
2. The CONTRACTOR shall ensure the stability and safety of the excavation, adjacent structures, services and the works.
3. All works in this connection shall be carried out as per IS code of practice. Barricades, warning signs etc., shall be placed on the roads/open area.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4. As far as practical, earth shall be removed mechanically and disposed in the area allotted.
5. Wherever manual removal of earth is involved, earth shall be removed from the top by maintaining the proper slope equal to the angle of re-pose of the earth.
6. The CONTRACTOR to ensure that no under-cutting is done and shall constantly supervise such work.
7. Movement of heavy vehicles/machineries should not be allowed near the excavated pit.

6) PERSONAL PROTECTIVE EQUIPMENT

All necessary personal protective equipment shall be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use. Also the CONTRACTOR shall take adequate steps to ensure proper use of equipment by those concerned. The personal protective equipment to be provided by the CONTRACTOR is detailed below.

1. All persons employed at the construction site shall use safety helmets. No worker will be allowed enter to the site without safety helmets.
2. Workers employed on mixing cements and lime mortars shall use protective goggles, protective footwear and hand gloves as the case may be.
3. Persons engaged in welding and gas-cutting works shall use suitable aprons, leather gloves and welding face shields. The persons who assist the welders shall use suitable goggles. Protective goggles shall be worn while chipping and grinding.
4. All persons working at heights and exposed to risk of falling down shall use full body safety harness, unless otherwise protected by cages, guard railings, etc. In places where the use of safety belts is impractical, suitable net of adequate strength fastened to substantial supports shall be employed. Protective nets shall be provided at places where men are working at heights to safe guard against falling debris.
5. In case the CONTRACTOR fails to supply the safety equipment's, the owner may purchase the same and debit the Price of the equipment's and incidentals, to the CONTRACTOR.

7) PAINTING

1. The CONTRACTOR shall not employ women on the work of painting with products containing lead in any form. Only men above the age of 18 years shall be employed on the work. The following precautions shall be taken during the work:

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

2. Supply air respirators for use by the workers when paint is applied in the form of spray, or a surface having lead paint is scraped.
3. Smoking, open flames or sources of ignition shall not be allowed in places where paints and other flammable substances are stored, mixed or used. A caution board, with the instructions written in national/regional language, "SMOKING - STRICTLY PROHIBITED" shall be displayed in the vicinity where painting is in progress or where paints are stored. Symbols shall also be used for caution boards.
4. Suitable fire extinguishers/sand buckets shall be kept available at places where flammable paints are stored, handled or used.
5. When painting work is done in a closed room or in a confined space, adequate ventilation shall be provided. If adequate ventilation cannot be provided, workers shall wear suitable respirators.
6. Epoxy resins and their formulations used for painting shall not be allowed to come in contact with the skin. The workers shall use plastic gloves or suitable barrier creams.
7. Adequate ventilation shall be provided especially when working with hot resin mixes.
8. Increased personal hygiene shall be practiced to control inadvertent contact with the resin and eliminate its effects.
9. Workers shall thoroughly wash hands and feet before leaving the work. Work clothes shall be changed and laundered frequently.

8) LIFTING MACHINES AND TACKLES

Use of lifting machines and tackles including their attachments, anchorage and supports shall conform to the following standards or conditions:

1. Lifting machines and tackles shall be of good mechanical construction, sound material and adequate strength and free from any defects and shall be kept in good repair and in good working order.
2. Every rope used in hoisting or lowering materials or as a means of suspension shall be of good quality and adequate strength and free from any defect.
3. In case of every lifting machine (and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or as means of suspension) the safe working load shall be ascertained and clearly marked. In case of a lifting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing. The safety engineer shall approve this.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4. Thorough inspection and load testing of lifting machines and tackles shall be done by a competent person atleast once every 2 months and records of such inspection and testing shall be maintained.
5. Load shall be never allowed to swing during lifting.
6. Tires should be inspected for cuts, tears, breaks and proper inflation.
7. Copy of third party test certificate for slings should be submitted to the safety dept.

9) HOUSE KEEPING

1. The CONTRACTOR shall at all time keep his work site, site office and surroundings clean and tidy from rubbish, scrap, surplus materials and unwanted tools and equipment.
2. Welding and other electrical cables shall be so routed as to allow safe traffic by all concerned.
3. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.
4. At the completion of the work, the CONTRACTOR shall ensure removal from the work premises all scaffoldings, surplus materials, rubbish and all huts and sanitary arrangements used/installed for workmen on the site.
5. Any rubbish materials should not be burnt at site.

10) ALCOHOL and DRUGS

1. The Contractor shall ensure at all times that no labour is working under the influence of alcohol/drugs. If found they should be suspended from the site immediately.
2. Smoking at worksite by any member is also prohibited.

11) FIRE SAFETY

1. All necessary precautions shall be taken to prevent outbreak of fires at the construction site. Adequate provisions shall be made to extinguish fires, should they still break out.
Quantities of combustible materials like timber, bamboo, coal, paints, etc. shall be the minimum required in order to avoid unnecessary accumulation of combustibles at site.
2. Containers of paints, thinners and allied materials shall be stored separately, which shall be well ventilated, and free from excessive heat, sparks, flame or direct rays of the sun. The containers of paint shall be kept covered and properly fitted with lid and shall not be kept open except while using.
3. Fire extinguishers shall be located at the construction site at appropriate places.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

4. Adequate number of workmen shall be given education and training in firefighting and extinguishing methods.

12) MEDICAL FACILITIES

1. The CONTRACTOR shall arrange for medical aid and treatment for his staff and workers engaged on the work site including the **first-aid** facilities if they are not available at the project site.
2. First-aid appliance including sterilized dressing, cotton wool and antiseptic cream shall be made available at readily accessible places at every work site. These shall be maintained in good order under the charge of a responsible person.
3. Each first aid box shall contain the following equipment
 - a. 12 small size sterilized dressings
 - b. 6 medium size sterilized dressings
 - c. 6 large size sterilized dressings
 - d. 6 packets of sterilized cotton wool
 - e. 1 bottle of iodine (containing 2% alcoholic solution)
 - f. 1 rolls of adhesive plaster.
 - g. A snakebite lancet.
 - h. 1 bottle of potassium permanganate crystals.
 - i. One pair of scissors.
 - j. A bottle containing 100 tablets of aspirin.
 - k. Ointment for burns like BURNOL or equivalent.
4. An injured person shall be taken to a hospital without loss of time, in cases where the injury necessitates hospitalization.

13) REPORTING OF ACCIDENT

1. All accident leading to property damage and/or personnel injuries shall be reported to the concerned authorities' viz. Insurance Co. Police, Head Office, Regional Office, etc.
2. The CONTRACTOR shall also submit a monthly statement of accidents to the Project Managers / Architect by every month showing details of accident, nature of injury including disability, days lost, treatment provided, etc., and the extent of property damage.
3. The statutory safety records required to be maintained by the CONTRACTOR at the site are

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

- a. Accident Register
- b. Dangerous Hazards Register
- c. First Aid Register
- d. Register for the inspection notes by government officers.
- e. Copies of all accident reports and hazard reports filed to the prescribed authorities.
- f. Incident/Near-miss registers

14) PUBLIC PROTECTION

The CONTRACTOR shall make all necessary provisions to protect the public. He shall be held responsible for defence of every action of other proceedings at law that may be brought by any person for injury sustained owing to neglect of any precaution required to taken to protect the public.

15) OTHER STATUTORY PROVISIONS

All operations involving the transport, handling, storage and use of explosive shall be as per the standing instructions and conform with the latest Indian Explosives Act and the explosives Rules. Handling, transport, storage and use of compressed gas cylinders and pressure vessels shall conform to the latest Gas Cylinder Rules and Static and Mobile Pressure Vessels (Unfired) Rules. In addition, The Indian Electricity Act and Indian Electricity Rules - latest, the Atomic Energy Act, the Radiation Protection Rules - latest, Radiation Protection Manual of Nuclear Facilities and the Atomic Energy (Factories) Rules – latest, and various latest rules and Act related to mining shall also be strictly complied with.

16) GUIDELINES AND GENERAL PROCEDURES FOR SUPPLY AND USE OF ELECTRICITY AT SITE

26.1. General

Following safety requirements shall be complied with before the CONTRACTOR uses the power supply.

1. The CONTRACTOR shall submit a list of licensed electrical staff to be posted at Site.
2. It shall be the responsibility of the CONTRACTOR to provide and maintain complete installation on the load side of the supply point with regard to the safety requirements at Site. All cabling and installation shall comply with the appropriate

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

latest statutory requirements given below and shall be subject to approval of the Engineer-in-Charge:

- a. Indian Electricity Act.
 - b. Electricity (Supply) Act.
 - c. Indian Electricity Rules.
 - d. National Electricity Code.
 - e. Other relevant rules of Local Bodies and Electricity Boards.
3. The power supply shall be regulated as per the terms and conditions of the supply of the respective electricity boards.
 4. Where distribution boards are located at different places the CONTRACTOR shall submit schematic drawing indicating all details like size of wires, Overhead and Cable feeders, earthing etc. The position and location of all equipment and switches shall be given.
 5. The CONTRACTOR shall make his own arrangement for main earth electrode and tapings thereof. The existing earth points available at site can be used at the discretion of Client with prior permission. Method of earthing, installation and earth testing results shall conform to relevant I.S. Specifications (IS-3043).
 6. All three phases' equipment shall be provided with double earthing. All light fixtures and portable equipment shall be effectively earthed to main earthing.
 7. All earth terminals shall be visible. No gas pipes and water pipes shall be used for earth connection. Neutral conductor shall not be treated as earth wire.
 8. The CONTRACTOR shall not connect any additional load without prior permission of Client.
 9. The test procedures and their results shall conform to relevant standards.

26.2. Installation

1. Only persons having valid wireman's license/competency certificate shall be employed for carrying out electrical work and repair of electrical equipment, installation and maintenance at site. A qualified licensed Supervisor shall supervise the job.
2. Electrical equipment and installations shall be installed and maintained as to prevent danger from contact with live conductors and to prevent fires originating from electrical causes like short circuits, overheating etc. Installation shall not cause any hindrance to movement of men and materials.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

3. Materials for all electrical equipment shall be selected with regard to working voltage, load and working environment. Such equipment shall conform to the relevant standards.
4. Electric fuses and/or circuit breakers installed in equipment circuits for short circuit protection shall be of proper rating. It is also recommended that high rupturing capacity (HRC) fuses are used in all circuits. For load of 5 kW or more earth leakage circuit breaker shall be provided in the circuits.
5. Wires and cables shall be properly supported and an approved method of fixing shall be adopted. Loose hanging of wires and cables shall be avoided. Lighting and power circuits shall be kept distinct and separate.
6. Reinforcement rods or any metallic part of structure shall not be used for supporting wires and cables, fixtures, equipment, earthing etc.
7. Adequate working space shall be provided around electrical equipment, which requires adjustment or examination during operation.

26.3. Operation & Maintenance

1. All persons, who work with electrical installation/equipment, shall be aware of the electrical hazards, use to protective devices and safe operational procedures. They shall be given training in firefighting, first aid and artificial resuscitation techniques.
2. The CONTRACTOR shall instruct the workers in the proper procedure, specify and enforce the use of necessary protective equipment such as adequately insulated pliers, screw drivers, fuse pulleys, testing lamps and similar hand tools. Only wooden ladders shall be used to reach the heights in electrical work.
3. Before any maintenance work is commenced on electrical installations/equipment, the circuits shall be de-energized and ascertained to be dead by positive test with an approved voltage-testing device. Switches shall be tagged or the fuse holders withdrawn before starting the work. Adequate precautions shall be taken in two important aspects viz.
 - a. That there shall be no danger from any adjacent live parts and
 - b. That there shall be no chances of re-energizing of the equipment on which the persons are working.
4. When structural repairs, modification or painting work are to be undertaken, appropriate measures shall be taken for the protection of persons whose work may bring them into the priority of live equipment/circuit.
5. It shall be ensured that the insulation and wire size of extension cords are adequate for the voltage and current to be carried.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

6. While tapping electricity from the socket, plug top must be used. It shall be ensured that no extension boards are over loaded while tapping. Only standard three pin plugs shall be used for tapping electricity. Broken sockets/plugs shall be replaced immediately with good ones. Only joints free cables shall be used for connecting equipment/ apparatus.
7. Floors shall be kept free from tailing electrical cables to avoid tripping hazard.
8. Power supply to the entire machines and lighting fixture shall be switched off when not in use.
9. Temporary electrical connections shall be removed as soon as the stipulated work is over. After completion of the works, the CONTRACTOR shall dismantle the distribution boards and the other facilities erected at site.
10. Unauthorized tapping of power by others from distribution boards under the control of the NCC shall be prohibited at all circumstances.
11. No flammable materials shall be stored in any working area near the switchboards.
12. "MEN ON LINE" "DO NOT SWITCH ON" "DANGER" OR "CAUTION" boards as applicable shall be used during maintenance works on the electrical equipment.

17) SCHEDULE OF FINES

Schedule of Charges to Contractors who are in breach of the employer's Site Safety, Site Safety Cycle and Environmental Rules and Regulations

Noncompliance of content of this document content may result in penalty for first violation, stoppage of work, removal of supervisor or member from the work premises for second violation.

S #	NATURE OF OFFENCE	AMOUNT OF FINE OR CHARGE TO BE LEVIED FOR EACH BREACH (IN INR)
1	Smoking in an unauthorized area and / or consumption of alcohol and/or use of illegal substances.	Rs. 5000.00 per instance
2	Burning of waste or smoldering of combustible materials on site	Rs. 2,000.00
3	Failure to wear personal protective equipment (P.P.E.) eg. Safety helmets, safety boots, goggles etc. respirator,	1) Rs.500.00 per worker when lack of enforcement of the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

	<p>ear plugs, safety belts which shall include failure to anchor belt to a secure structure.</p> <p>Where any site operation requires the use of PPE then all workmen must use the required PPE eg. grinding, welding, burning, unloading hazardous materials etc.</p>	<p>usage of P.P.E. by the Sub Contractor is observed by the employer.</p> <p>OR</p> <p>2) Rs.1,000.00 where issuance of the required P.P.E. by the Sub Contractor equipment is not carried out.</p>
4	<p>Failure to attend general safety induction course conducted by the employer / the employer.</p>	<p>1) Rs.300.00 per worker for not attending the course; and</p> <p>2) Workers to attend course within 2 working days or be dismissed.</p>
5.	<p>Failure to attend a notified site safety meeting.</p>	<p>Rs 2,000.00</p>
6.	<p>Failure to submit, within the specified time to the employer, safety supervisor reports which shall include relevant statutory reports, weekly labour return, issuance of personal protective equipment records, safety data sheets and others related certificates.</p>	<p>Rs 2,000.00</p>
7.	<p>Failure to submit a written report for an accident and/or other dangerous occurrence, to the employer within 24 hours of its occurrence.</p>	<p>Rs 2,000.00</p>
8.	<p>Failure to carry out within the specified time the necessary improvement action against any notified safety violation.</p>	<p>Rs 5,000.00</p>
9.	<p>Damaged to or misuse of the employer's / owner's property.</p>	<p>1) Rs.2,000.00; and</p>

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

		2) In addition the Sub Contractor to pay for the cost of items damaged.
10.	Failure to maintain work area, facility storage and preparation yard, office premises and workers changing and rest area in a clean and orderly state and free from health and fire hazards.	1) Rs 2,000.00; and 2) In addition the Sub Contractor shall clean up the disorderly and untidy areas within 3 days.
11.	Obstruction of passageways, entrances, doorways, stairs, access to firefighting equipment etc. and/or the erection unsafe accesses and crossings.	Rs 2,000.00
12.	Unsafe practices including, 1) Unsafe hoisting of materials 2) Unsafe use of lifting appliances 3) Using unsafe or unstable, scaffolds, working platforms and temporary structures 4) Allowing workers to occupy or work on unguarded elevated platforms, floor edges and without adopting adequate safety measures against the risk of a person falling from height.	Rs 5,000.00
13.	Throwing or allowing objects to drop from heights.	1) Rs 7,000.00 and 2) Workers to be immediately banned from the site.
14.	Stacking or leaving materials including work in progress articles and tools in unstable condition and or along floor edges such they are likely to endanger workers.	Rs 7,000.00
15.	Failure to effectively cordon off guard and warn other workers from entering into the danger areas when they are likely to be affected by falling materials from the Sub Contract Work.	Rs 7,000.00

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

16.	Adopting unsafe tapping, connections, termination of electrical lines and including the use of defective electrical fittings, power cables and electrical tools. Allowing cables / equipment to be submerged in water.	Rs 2,000.00
17.	Failure to comply with an order issued by the employer's Construction manager, site agent, site safety supervisor safety officer and environmental officers in regard to safety/environmental matters.	Up to Rs 7,000.00
18.	Threatening safety/personnel misbehavior, fighting or intentional causing hurt to others.	1) Rs 7,000.00 2) Worker to be barred from the site for 3 days. On receiving 3 violations, the specific worker will be banned and a report will be made to the police.
19.	Other safety/environmental violations which are in breach of safety or environmental ordinances and regulations.	Rs 1,000.00
20.	Failure to wear safety harness and anchor to a secure structure, whilst working.	Rs 7,000.00 and worker to be banned from site immediately.
21.	Failure to tidy up the Sub contract works after each day work	Rs. 1,200.00
22.	In case any worker is found in some other area other than the allotted working space	Rs. 5,000 per instance.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

D. BID SUMMARY

S #	DESCRIPTION	CONDITION
1	Name of Work	Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.
2	Bid Submission	29 th January ,2021
3	Validity of Bids	90 Days from last date of bid submission
4	Issue of Letter of Acceptance (LOA)	Within 10days from date of opening of the bids
5	Period for Completion from Client's order to commence	Ninety [90] days from the date of issue of LOA.
6	Performance Bond	Five [5] Percent of BID Value within 14 days of issue of LOA and shall be valid for 90 Days / till after the issue of the Certificate of Substantial Completion, whichever is later.
7	Signing of contract/agreement	Within Fifteen [15] days from the date of LOA, but however after furnishing of Performance Guarantee.
8	Bid Security (Earnest Money Deposit)	Rs. 40,000/-
9	Penalty	0.5% of balance contract value per week of delay subject to a maximum of 2% of the total contract value.
10	Defects Liability Period	Twelve [12] months from the date of issue of certificate of substantial completion
11	Percentage of Retention	Five [5] Percent of the value of certified invoice

Dated this _____ day of _____ 20__

Signature _____ in the capacity of _____ duly authorized to sign Bids for and on behalf of _____

(IN BLOCK LETTERS)

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Annexure I – Self-Certified Notarised Affidavit

SELF-DECLARATION OR CERTIFICATION

I certify that all the information furnished in the Tender Document is true to the best of my knowledge. If any of the information furnished by me in the submissions is / are found incorrect, I hereby agree that CUBE has the discretion to reject my tender or terminate the contract without assigning any reasons.

AUTHORISED SIGNATORY

SUBSCRIBED AND SWORN to before me this _____(date) of _____(month), 2020 _____at _____(address).

NOTARY PUBLIC

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Annexure II – Proforma of Performance Bank Guarantee

(ON NON-JUDICIAL PAPER OF APPROPRIATE VALUE)

To: [name and address of Employer]

WHEREAS [name and address of CONTRACTOR] (hereinafter called “the CONTRACTOR”) has undertaken, in pursuance of Contract No. ____ dated ____ to execute [name of Contract and brief description of Works] (hereinafter called “the Contract”);

AND WHEREAS it has been stipulated by you in the said Contract that the CONTRACTOR shall furnish you with a Bank Guarantee by a recognized Client for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the CONTRACTOR such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the CONTRACTOR, up to a total of [amount of Guarantee], [amount in words]¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the CONTRACTOR before presenting us with the demand.

Any disputes between you and the Contract will not absolve our obligations under this guarantee and we shall pay you the guarantee amount on demand without any demur.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents that may be made between you and the CONTRACTOR shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall be valid for 90 days or till after the issue of Certificate of Substantial Completion, whichever is alter

¹ An amount is to be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract, and denominated in the currency of the Contract.

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Client:

Address:

Date:

Annexure III – Checklist for Hand Over Documents

S #	Description	Yes	No
1	Substantial Completion Certificate	<input type="checkbox"/>	<input type="checkbox"/>
2	No Dues Certificate from Contractor	<input type="checkbox"/>	<input type="checkbox"/>
3	Warranty Certificates from Contractor	<input type="checkbox"/>	<input type="checkbox"/>
4	Design Concept / Scope of Works	<input type="checkbox"/>	<input type="checkbox"/>
5	Maintenance Schedule	<input type="checkbox"/>	<input type="checkbox"/>
7	Call Escalation Chart	<input type="checkbox"/>	<input type="checkbox"/>
8	Attic Stock	<input type="checkbox"/>	<input type="checkbox"/>
9	As-Built Drawings	<input type="checkbox"/>	<input type="checkbox"/>
10	WO / PO Copy	<input type="checkbox"/>	<input type="checkbox"/>
11	Accepted Snag / Punch List	<input type="checkbox"/>	<input type="checkbox"/>
12	Practical Completion Certificate	<input type="checkbox"/>	<input type="checkbox"/>
13	Binder with all above documents	<input type="checkbox"/>	<input type="checkbox"/>
14	Extra plastic folder for drawings / CD	<input type="checkbox"/>	<input type="checkbox"/>

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Annexure IV – Certificate of Substantial Completion

Project: _____

Date of Issue: _____

EMPLOYER: _____

CONTRACTOR: _____

Project Managers: **Name and Address**

Architect: **Name and Address**

This Certificate of Substantial Completion applies to all work under the Contract documents for the _____ works awarded to the Contractor vide _____

The work performed under this Contract to which this Certificate applies as specified above has been inspected by authorized representatives of the Employer, Architect and Project Management Consultants and is hereby declared to be substantially complete in accordance with the Contract documents. The Date of Substantial Completion is therefore established as _____, so that the employer may occupy or utilize the entire works or portion noted above for its intended purpose. This date is also the date of commencement of all warranties as required in the Contract documents, except as stated below:

A list of items to be completed or corrected (Punch List) prepared by the CONTRACTOR and amended by the Project Manager is attached to this Certificate. The failure to include any items on this list does not absolve the responsibility of the CONTRACTOR to complete all the Work in accordance with the Contract documents.

The items in the Punch List shall be completed or corrected by the CONTRACTOR within _____ calendar days of the above date of Substantial Completion with work permits authorized by client in respective areas. The date of commencement of warranties for items included in the

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Punch List will be the date of acceptance of completion of Punch List items, by The Architect, The Project Engineer and The Employer.

The Employer accepts the work or portion noted above as substantially complete as determined by the Project Manager and will assume full possession thereof at ____ hrs. (Time) on ___/___/___ (Date) and the Employer accepts responsibility for security, operations, maintenance and insurance coverage necessary (subject to their internal solicitation) and all risks associated with its occupancy subject to the following terms and conditions and punch list

- 1.
- 2.
- 3.

CONTRACTOR accepts this Certificate of Substantial Completion on: _____

Authorized Signatory – Name
For Company Name

Certified by **Project Manager** on: _____

Authorized Signatory – Name
For Company Name

Accepted by **Employer** on: _____

Authorized Signatory – Name
For Company Name

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Volume III : FINANCIAL PROPOSAL

Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.

Volume I

Financial Proposal

S.No.	Description	UoM	Quantity	Amount
A	Design, Supply, Construction, Erection, Testing and Commissioning of Precast / Pre-Engineered RCC Overhead Tank at 12m Staging Height with suitable Foundations, Steel Staircase including Plumbing and Water Connections at Gopurajapuram Panchayat of Nagapattinam District.			
	Lumpsum rate to be quoted for construction of Precast RCC Overhead tank of capacity 45,000 Litres with variations within a range of $\pm 10\%$ from proposed capacity, detailed scope of work given below: - <ul style="list-style-type: none"> a) Design and detailing of the entire Precast / Pre-engineered overhead tank including foundation and superstructure with steel staircase. b) Proof checking of all the design and drawings and obtain approval from IIT Madras Faculty. c) Obtain client approval on detail design / drawing and work methodology prior to commencement of production. d) Production / Fabrication and supplying of all the precast elements and transportation to the project site including storage and safekeeping. e) Appropriate foundation construction with Pile / Raft footings including earthwork. f) Erection of Precast RCC Columns & Beams up to 12m staging. g) Erection of Precast Tank as Rigid and Leak Proof structure. h) Erection of Prefabricated Steel staircase. i) Painting with Waterproof internal paint, Weather coat exterior paint of the entire external structure, suitable acrylic / enamel decorative painting of size 4' x 3' with artwork content provided by client. and galvanised painting of steel staircase. j) Associated Plumbing works for inlet and outlet connection to the exiting water supply provisions. k) Testing and commissioning of the structure including handing over to the local administration. <p>Note:</p> <ul style="list-style-type: none"> i. Contractor to make necessary Site visits to ascertain the site condition and feasibility of work execution. ii. Contractor to facilitate necessary factory inspections carried out by client during the production & erection period. 	No.	1	
	Cost for 1 Unit excluding GST			
	GST			
	Total cost Including GST			