



GREATER VISAKHAPATNAM MUNICIPAL CORPORATION

Tender Notice No:02/2016-17/CE/SE(P)/EE(WSP-I)/GVMC, Dt. 31-03-2017.

**NAME OF WORK : Providing water supply to the Parawada housing colony
from Desapathrunipalem Village.**

Estimate Cost. : Rs.200.00 Lakhs

**BID DOCUMENT (Cost of works above Rs.50.00 Lakhs)
(VOLUME – I)**

CHIEF ENGINEER

GREATER VISAKHAPATNAM MUNICIPAL CORPORATION

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Name of work: "Providing water supply to the Parawada housing colony from Desapathrunipalem Village".

OFFICER INVITING BIDS: COMMISSIONER, GVMC, VISAKHAPATNAM

1. Bids are invited on the e-procurement platform for the above -mentioned work from the Contractors / Contracting firms registered with Government of Andhra Pradesh. The details of Tender conditions and terms can be downloaded from the electronic procurement platform of Government of Andhra Pradesh i.e. www.apecurement.gov.in
2. Approximate Estimate Contract value(ECV) of work: **Rs. 1,75,41,867/-**
3. Contractors would be required to register on the e-Procurement Market place "**www.apecurement.gov.in**" and submit their bids online. The department will not accept any bid submitted in the paper form.
4. E.M.D. to be paid online by way of unconditional and irrevocable Bank Guarantee issued by any Nationalized Bank /Scheduled Commercial Bank in the standard format as shown in the Tender Schedule or Crossed Demand Draft for **Rs.1,75,419/-** as specified in the NIT (i.e., 1% of ECV) drawn in favour of **THE COMMISSIONER GREATER VISAKHAPATNAM MUNICIPAL CORPORATION VISAKHAPATNAM**, along with bids and the balance EMD @ 1.5% of Contract Value to be paid at the time of concluding agreement. Scanned E.M.D. may be uploaded with the bids. The tenderer shall hand over the original DDs/BG to **THE COMMISSIONER GREATER VISAKHAPATNAM MUNICIPAL CORPORATION VISAKHAPATNAM** through authorized representative directly or through his agent or by Registered post or by Courier service so as to reach one day before the opening of price bid. The department will not take any responsibility for any delay or non-receipt.
5. Transaction Fee: It is mandatory for all the participating bidders to pay electronically the transaction fee to M/s Vupadhi Techno Services Pvt. Ltd., through "Payment Gateway services on e-procurement platform". The electronic payment Gateway accepts all Master and Visa cards issued by any bank and direct debit facility/Net banking of ICICI bank, HDFC to facilitate the transaction. This is in compliance as per Go Ms No. 13 IT&C Dept dt 5.7.06. A service tax of 12.36% + Bank charges for credit card transaction of 1.85% on the transaction amount payable to Vupadhi Techno Services Pvt. Ltd., shall be applicable.
6. Period of completion of work : **6 Months.**
7. The bidders can view/ down load the tender documents from the 'e' market place.
8. Form of contract – Lump sum contract.

9. Class of Contractors eligible is as given below:

Eligible class of contractor as per G.O. Ms. No:

521 Irr (PW) Dt: 10-12-1984	: Special Class
22 T,R&B Dept. Dt.06.02.1998	: Special class
132, T,R&B Dept., Dt.11-08-1998	: Special Class Civil
8, TAPSHC Ltd Dept., Dt.08-01-03	: Class-I Civil
94 I&CAD (PW.COD) Dept Dt.01.07.2003	: Class-I Civil
Between 1 crore to 2 crores	: Class-II Civil
Between 0.5 crore to 1 crore	: Class-III Civil
Between 0.10 crore to 0.5 crore	: Class-IV Civil
178 (I&CAD) dated 27-09-1997	: Super Class (Buildings) or Class-I

10. Issue of Tender Documents : From 03-04-2017 @ 06.00 PM

11. Date and time for Receipt of tenders : From 19-04-2017 @ 4.00 PM

12. Time and date of opening of tenders:

(a) Technical Bid : 19-04-2017 @ 4.30 PM

(b) Price Bid : 26-04-2017 @ 4.00 PM

Note: The dates stipulated above are firm and under no circumstances they will be relaxed unless otherwise extended by an official notification or happen to be Public Holidays.

13. Procedure for submission of Bids:

- Bidders need to contact **THE CHIEF ENGINEER, GREATER VISAKHAPATNAM MUNICIPAL CORPORATION VISAKHAPATNAM**, on e-Procurement.
- Bidders need to register on the electronic procurement market place of Government of Andhra Pradesh i.e., "www.apecurement.gov.in". On registration on the e-Procurement market place they will be provided with a user id and password by the system using which they can submit their bids online.
- While registering on the e-procurement market Place, Bidders need to scan and upload the required documents as per the Tender requirements onto their profile. The e procurement market place provides an on line self service registration facility to such of the contractors who are already registered with respective participating Departments for supply of specified goods and services. As an incentive for an early registration, basic registration by suppliers that allows them to participate in the e procurement process shall be enabled on e procurement market place without leavy of any registration or subscription fee up to 31st March 2003 or such later date as may be decided by the steering committee. However the e procurement market place may levy charges for such value added services as may be decided by the steering committee on the e procurement as laid down in the G.O.Ms.No.2 Information Technology and Communication Department Dt.15-1-2003.

- (d) Such uploaded documents pertaining Technical Bid need to be attached to the tender while submitting the bids on line.
- (e) Successful (L1) tenderer shall furnish the original hard copies of all the documents / certificates / statements up loaded by him before concluding agreement to **The Commissioner Greater Visakhapatnam Municipal Corporation Visakhapatnam.**
- (f) The tenderer shall be required to furnish a declaration in online stating that the soft copies uploaded by them are genuine. Any incorrectness / deviation noticed will be viewed seriously and apart from canceling the work duly forfeiting the EMD, criminal action will be initiated including suspension of business.
- (g) Steps for registration and submission of bids are described in detail in the "Bidders Training Booklet" available with the department as well as at the above web site.

14) Qualification Requirements and Submission of Bids: -

To qualify for consideration of award of the contract each tenderer should fulfill the following criteria

1. Assessed available Bid capacity as per formula (2AN-B) should be greater than the Estimated Contract Value as specified in the Tender Document
The details and certificates are to be furnished as per the Performa/ formats available in the tender schedules.
The bidder should have satisfactorily completed similar works of value not less than **Rs.1,75,41,867/-** as a Prime Contractor in the same name and style in any one year during the financial 10 years i.e., from 2007-08 to 2016-17 price level. Sub contractor's / GPA holder's experience shall not be taken into account.
- (h) The Bidder should have executed the minimum quantities of items of work as given below in any one year during the 10 financial years 2007-08 to 2016-17. The bidder should enclose certificate issued by the Engineer-in-Charge of the State/Central Government Departments undertakings not below the rank of EE, or equivalent and countersigned by the officer of the rank of Superintending Engineer or equivalent.

(Combined Quantities)

Sl.No.	Item	For this work.
1	Supply, delivery, laying, lowering and jointing of 200mm dia and above DI pipe line	4400 Rmt

The bidder should submit the particulars invariably in the format specified in the tender schedule along with necessary certificates, failing which his tender shall be treated as incomplete and summarily rejected.

The tenderer should further demonstrate:

- i) Availability (either owned or leased) of the following key and critical equipment.

Equipment	Capacity	Required
Concrete mixers	1cum	2
Excavater (JCB) /Proclainer	3DX	2
Water Tanker	6 KL	1
Dewatering pump	5 HP	4
Pin vibrators	0	4
Centering materials wood / steel	Sqm	200

- ii) Availability of the following key technical personal with adequate experience one Graduate Engineer and Three Diploma holder.
- iii) Liquid assets / credit Facilities / Solvency certificate from Nationalised Bank/Scheduled Commercial Bank of value not less than Rs. 87,70,934/-
- iv) EMD in the shape of Bank guarantee in the standard format or DD for Rs.1,75,419/- issued by any Nationalized Bank/Scheduled Commercial Bank in favour of **the commissioner greater visakhapatnam municipal corporation visakhapatnam** be valid for 3 months from the date of NIT.

The Tenderer is subjected to be black listed and the EMD forfeited if he is found to have misled or furnished false information in the forms / statements / certificates submitted in proof of qualification requirements or record of performance such as abandoning of work not properly completed in earlier contracts, inordinate delays in completion of the works, litigation history and / or financial failures and /or participated in the previous tendering for the same work and had quoted unreasonable high bid prices.

Even while execution of the work, if found that the contractor had produced false/fake certificates of experience he will be black listed and the contract will be terminated.

8. All participants bidders shall pay 0.03% of ECV + 14.20% of Service Tax towards transaction fees at the time of Bid submission in the form of D.D. Payable to M/sVupadhi Techno Services Pvt. Ltd., and the successful bidders shall pay 0.04% of ECV towards Corpus Fund in the form of D.D. payable to the Managing Director, A.P.T.S at the time of concluding agreement and hand over the same to **the commissioner greater visakhapatnam municipal corporation visakhapatnam**
- 1 a) The bidders need to contact the **Chief Engineer, GVMC** for information on e-procurement.
- b) The bidders need to register on the electronic procurement market place of Government of A.P., that is, www.eprocurement.gov.in. On registration on the e-procurement market place they will be provided with a user ID and password by the system using which they can submit their bids on line.

c) While registering on the e-procurement market place, bidders need to scan and upload the required documents as per the tender requirements on to their profile.

The e-procurement market place provides an online self-service registration facility to such of the contractors who are already registered with respective participating departments for supply of specified goods and services. As an incentive for early registration, basic registration by suppliers, that allows them to participate in the e-procurement process, shall be enabled on the e-procurement market place with out levy of any registration or subscription fee up to 31st March 2003 or such later date as may be decided by the steering committee. However, the e-procurement market place may levy charges for such value added services as may be decided by the steering on the e-procurement as laid down in the GO Ms No.2, Information Technology and Communication department dated: 15/01/2003.

d) The tenderer shall be required to furnish a declaration in online stating that the soft copies supplied by them are genuine, any incorrectness / deviation noticed will be viewed seriously and apart from canceling the work duly forfeiting the Earnest money deposit, criminal action will be initiated including suspension of business.

e) The successful (L1) tenderer shall furnish the original hard copies of all the documents/certificates/statements uploaded by him before concluding agreement to the **Chief Engineer, GVMC.**

2. The tenderer shall hand over the (a) original DDs/BG for EMD and DD for transaction fee etc., (b) hard copies of all the uploaded documents to the **Chief Engineer, GVMC** directly or through his agent or by registered post or by courier service so as to reach before opening of the price bid.
3. The tenders will be opened by the CHIEF ENGINEER, Greater Visakhapatnam Municipal Corporation, **Visakhapatnam** or his nominee at his office in the presence of tenderers/or their authorized representatives on the date mentioned above.
4. The price bids of such tenderers who are determined to have complied with the eligibility criteria will only be opened.
5. If the office happens to be closed on the dates specified above, the respective activity will be performed at the designated time on the next working day without any notification.

INSTRUCTIONS TO TENDERERS

A – GENERAL

NAME OF WORK:- “Providing water supply to the Parawada housing colony from Desapathrunipalem Village”

Scope of work:

List out principal components of the work:

ECV put to tender: **Rs. 1,75,41,867/-**

- a) Give breakup of cost of major items covered in the ECV
 - (i) **Supply, delivery, lowering, jointing, testing and commissioning of 200mm dia and above Centrifugally cast (spun) ductile iron pipe line**
 - (ii)
- b) Period of completion: **6 months**
- c) **SSR adopted: Common SSR for the year 2014-15**
- d) Rates adopted for steel ,cement and Bitumen
 - i) Cement Rs. 6,970/ MT
 - ii) Steel Rs.57,600/ MT
- f) Reimbursable Items
 - i) VAT @ 5.00% Rs. 8,77,093.00
 - ii) Q.C @ 1.16% Rs. 2,03,486.00

The tenderer shall hand over the original DDs/BG for EMD and DD for transaction fee etc., to the Chief Engineer, Greater Visakhapatnam Municipal Corporation, Visakhapatnam directly or through his agent or by registered Post or by courier service so as to reach before opening of the price bid and the receipt of the same within the stipulated time shall be the responsibility of the bidder. Department will not take any responsibility for any delay or non-receipt.

The tenders will be opened by the Chief Engineer, Greater Visakhapatnam Municipal Corporation, Visakhapatnam or his nominee at his office in the presence of tenderers or their authorised representatives, on the dates mentioned in Notice Inviting Tender (NIT). If the office happens to be closed on the dates, the opening of tenders gets automatically postponed to the next working date, the time being unaltered, unless extended by a notification published in News papers or sent through Fax/telegrams to all those who purchased the tender documents.

- 1.1. The successful (L1) tenderer shall furnish the original hard copies of all the documents/certificates/statements uploaded by him before concluding agreement.
- 1.2. The successful tenderer is expected to complete the work within the time period specified in the NIT.

2. Firms eligible to tender:

2.1. The Firms who

- i) Possess the valid registration in the class and category mentioned in the NIT and satisfy all the conditions therein.
- ii) are not blacklisted or debarred or suspended by the Government for what ever the reason, prohibiting them not to continue in the contracting business
- iii) have complied with the eligibility criteria specified in the NIT. are the eligible tenderers.

2.2. Firms ineligible to tender:

- i) A retired officer of the Government of Andhra Pradesh or Government of India executing works is disqualified from tendering for a period of two years from the date of retirement without the prior permission of the Government.
- ii) The tenderer who has employed any retired officer as mentioned above shall be considered as an ineligible tenderer.
- iii) The contractor himself or any of his employees is found to be Gazetted Officer who retired from Government service and had not obtained permission from the Government for accepting the contractor's employment within a period of 2 years from the date of his retirement.
- iv) The contractor or any of his employees is found at any time after award of contract, to be such a person who had not obtained the permission of the Government as aforesaid before submission of the tender or engagement in the contractor's service.
- v) Contractor shall not be eligible to tender for works in the division/circle where any of his near relatives are employed in the rank of Assistant Engineer or Assistant Executive Engineers and above on the Engineering side and Divisional Accounts Officer and above on the administrative side. The Contractor shall intimate the names of persons who are working with him in any capacity or are subsequently employed. He shall also furnish a list of Gazetted /Non-Gazetted, State Government employees related to him. Failure to furnish such information tenderer is liable to be removed from the list of approved contractors and his contract is liable for cancellation.

Note: Near relatives include

1. Sons, step sons, daughters, and step daughters.
2. Son-in-law, and daughter-in-law.
3. Brother-in-law, and sister-in-law.
4. Brothers and Sisters.
5. Father and Mother.

6. Wife / Husband.
7. Father-in-law and Mother-in-law
8. Nephews, nieces, uncle and aunts
9. Cousins and
10. Any person residing with or dependent on the contractor.

3. Qualification data of the tenderers

3.1. The tenderer shall upload the following particulars in the formats enclosed, supported by documentary evidence as specified in the formats.

- a) Check slip to accompany the tender (in Annexure-I).
- b) Attested copies of documents relating to the Registration of the firm, Registration as Civil Contractor, Partnership deed, Articles of Association, VAT registration, Latest Commercial Tax clearance certificate etc., copy of **PAN CARD** and copy of **LATEST INCOME TAX RETURNS** submitted along with proof of receipt.

Note: The Partnership firms, which are registered as contractors shall intimate the change in partnership deed, if any as per GO Ms No.58, I & CAD department dated: 23/4/2002 within one month of such change. Failure to notify the change to the registration authority in time will entail the firms to forfeit their registration and their tender will be rejected. The intimation of change of partners if any and the acceptance by the registration authority may be enclosed.

- c) Value of all similar works executed every year during the last ten financial years (i.e., from 2007-08 to 2016-17) in Statement - I
- d) Details of similar nature of works completed in the name of the tenderer as Prime Contractor during the last ten financial years i.e., from 2007-08 to 2016-17 showing year wise break up of value of work executed in Statement - II
- e) Year wise specified quantities executed by the tenderer during the last ten financial years in Statement – III.
- f) Details of the existing commitments i.e., works on hand and works for which tenders are submitted in Statement - IV
- g) availability of Key & critical construction/quality control equipment in Statement - V
- h) availability of key personnel for administration/site management and execution viz., technical personnel required for the work (Statement - VI)
- i) information regarding any litigation, with Government during the last ten years in which the tenderer is involved in (Statement - VII)
- j) availability of working capital for the work [Liquid assets, credit facility and availability of other financial resources such as solvency etc]

- k) The proposed methodology and program of construction, backed with equipment planning and deployment, duly supported with broad calculations, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.
- l) The Particulars of Quality Control testing lab owned, or tie up with established quality control testing laboratories.

3.2. Joint ventures

Tenders from joint ventures are not acceptable

3.3. Qualification criteria for opening of the Price Bid.

As per NIT

NOTE: The bidders shall sign on all the statements, documents, certificates uploaded by him owning responsibility for their correctness/authenticity.

Bid capacity.

The tenderer who meets the above qualification criteria and whose available bid capacity is more than the estimated contract value will be qualified for opening of Price bid. The available bid capacity will be calculated as under:

Available Bid capacity : **(2AN-B)**

Where,

A= Maximum value of civil engineering works executed in its name in any one financial year during the last ten financial years (updated to current price level) taking into account the works completed as well as works in progress.

N= Number of years prescribed for completion of the work for which tenders are invited [**months : 6**].

B= Updated value (at current price level), of all existing commitments i.e., on going works, works likely to be awarded to be executed during the next **6 months** (Period of completion for which tenders are invited).

Annual turnover, cost of completed works and balance works on hand etc., shall be updated by giving weightage of 10% per year to bring them to current price level.

No relaxation will be given to any of the qualification criteria.

Note: a) Sub-contractor's experience in his name will be taken in to account in determining the tenderer's compliance to the qualification criteria, if it is as per GO Ms No. 94, dated: 01/07/2003

3.4. Even though the tenderers meet the above qualifying criteria, they are liable to be disqualified/debarred/suspended/blacklisted if they have

- Furnished false/fabricated particulars in the forms, statements and/annexures submitted in proof of the qualification requirements and/or

- Not turned up for entering into agreement, when called upon.
 - record of poor progress such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc. and/or
 - participated in the previous bidding for the same work and had quoted unreasonably high tender percentage and
 - even while execution of the work, if found that the work was awarded to the Contractor based on false/fake certificates of experience, the Contractor will be blacklisted and work will be taken over invoking clause 61 of PS to APSS.
- 3.5. Tenders with an excess of above **5%** of the estimated contract value shall summarily be rejected.
- 3.6. For tenders up to 25% less than the estimated contract value of work, no additional security deposit is required. But for tenders less than 25% of the estimated contract value of work, the difference between the tendered amount and 75% of the estimated contract value, shall be paid by the successful tenderer at the time of concluding agreement as an additional security to fulfill the contract through a Bank Guarantee or Demand Draft on a Nationalised/Scheduled Commercial Bank in the prescribed format valid till completion of the work in all respects
- 3.7. a) If the percentage quoted by a tenderer is found to be either abnormally high or with in the permissible ceiling limits prescribed but under collusion or due to unethical practices adopted at the time of tendering process, such tenders shall be rejected.
- b) A tenderer submitting a tender which the tender accepting authority considers excessive and or indicative of insufficient knowledge of current prices or definite attempt of profiteering will render himself liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide. The tenderer overall percentage should be based on the controlled prices for the materials, if any, fixed by the Government or the reasonable prices permissible for the tenderer to charge a private purchaser under the provisions of clause-6 of the hoarding and profiteering prevention ordinance of 1943 as amended from time to time and on similar principle in regard to labour supervision on the construction.

4. One Tender per Tenderer:

- 4.1. Each tenderer shall submit only one tender for the work. A tenderer who submits more than one tender will cause dis-qualification of all the tenders submitted by the tenderer.

5. Cost of Tendering

5.1. The tenderer shall bear all costs associated with the preparation and submission of his tender and the tender inviting authority will in no case be responsible and liable for those costs.

6. Site Visit.

6.1. The tenderer, at the tenderer's own responsibility and risk is advised to visit and examine the site of work and its surroundings and obtain all information that may be necessary for preparing the tender for entering into a contract, for construction of the work. The costs of visiting the site shall be at the tenderer's own expense.

B. TENDER DOCUMENT

7. Contents of tender document

7.1. One set of tender document, comprises of the following:

Technical bid

- 1) Notice Inviting Tenders (NIT)
- 2) Instructions to tenderers
- 3) Forms of tender and qualification information
- 4) Conditions of contract
- 5) Specifications
- 6) Drawings
- 7) Forms of Securities i.e., EMD, Additional Security etc.

Price bid

Bill of quantities and price bid

8. Clarification on tender documents

8.1. A prospective tenderer requiring any clarification on tender documents may contact the tender Inviting officer at the address indicated in the NIT. The tender inviting officer will also respond to any request for clarification, received through post.

9. Amendment to tender documents

9.1. Before the last date for submission of tenders, the tender Inviting officer may modify any of the contents of the tender Notice, tender documents by issuing amendment/addendum.

9.2. Any addendum/amendments issued by the tender inviting officer shall be part of the tender document and it shall either be communicated in writing to all the purchasers of the tender documents or notified in the News Papers in which NIT was published.

9.3. To give prospective tenderers reasonable time to take an addendum into account in preparing their bids, the tender inviting officer may extend if necessary, the last date for submission of tenders.

C. PREPARATION OF TENDERS

10. Language of the Tender

10.1. All documents relating to the tender shall be in the **English** language only.

11. Documents comprising of the tender

11.1. The bidders who are desirous of participating in e-procurement shall submit their technical bids, price bids etc., in the standard proscribed in the tender documents displayed at e market place.

The bidders should upload the scanned copies of all the relevant certificates, documents etc., in the e market place in support of their technical bids. **The bidders shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity.**

After uploading the technical/price bid, the original DDs/BG are to be submitted by the bidder to the concerned **Chief Engineer** so as to reach before opening of the price bid. Failure to furnish DDs/BG, entail rejection of the bid and forfeiture of the EMD. Similarly if any of the certificates, documents etc., furnished by the bidder is found to be false/fabricated/bogus, the bidder will be black listed and the EMD forfeited.

The technical bids will be opened on line by the concerned **Chief Engineer** at the time and date as specified in the tender documents. All the statements, documents, certificates, DD/BG etc., uploaded by the tenderers will be down loaded for technical evaluation. The clarifications, particulars if any required from the bidders will be obtained or in the conventional method by addressing the bidders. The technical bids will be evaluated against the specified parameters/criteria, same as in the case of conventional tenders and the technically qualified bidders will be identified. The result of technical bid evaluation will be displayed on the e market place, which can be seen by all the bidders who participated in the tenders.

12. Bid Offer:

12.1. Bill of quantities called Schedule "A" and the bid offer accompanies the tender document as Volume - II. It shall be explicitly understood that the tender inviting officer does not accept any responsibility for the correctness or completeness of this schedule 'A' and this schedule 'A' is liable to alterations by omissions, deductions or additions at the discretion of the **Chief Engineer** or as set forth in the conditions of the contract. The Schedule "A" shall contain the items of work indicated as part - I and LS provisions as part-II. The percentage quoted by the contractor shall be applicable only to part -I. However, the provisions contained in the part -II will be operable basing on the conditions provided in the tender document. The tenderers will have

to state clearly their willingness to execute the work at certain specific percentage of excess or less or at par of the ECV indicated in Part - I at the space provided therein in Schedule 'A'. The L.S amounts indicated in part - II are maximum reimbursable amounts. The tenderer should however quote his lump sum tender based on this schedule of quantities. He should quote his offer as an overall tender percentage. The overall tender percentage should be written both in words and figures.

The bid offers i.e., percentage shall be written both in figures and words legibly and free from erasures, over writings or corrections of figures. Corrections where unavoidable should be made by crossing out, and rewriting duly signed with date.

- 12.2. The Schedule - A (or price bid) contains not only the quantities but also the rates worked out by the department and the amount for each item and total value of the estimated contract. The tenderer should workout his own rates keeping in view the work, site conditions and quote his overall tender percentage with which he intends to execute the work.
- 12.3. The bid offer shall be for the whole work and not for individual items/part of the work.
- 12.4. All duties, taxes, and other levies payable by the contractor as per State/Central Government rules, shall be included in the tender percentage quoted by the tenderer, however keeping in view the maximum reimbursable amounts specified in Part - II of price bid.
- 12.5. The tendered contract amount as computed based on overall tender percentage is subject to variation during the performance of the Contract in accordance with variation in quantities etc.
- 12.6. **Charges payable to:**
 - (a) **Transaction Fee: It is mandatory for all the participating bidders to pay electronically the transaction fee to M/s C1 India Pvt, Ltd., through "Payment Gateway services on e-procurement platform". The electronic payment Gateway accepts all Master and Visa cards issued by any bank and direct debit facility/Net banking of ICICI bank, HDFC to facilitate the transaction. This is in compliance as per Go Ms No. 13 IT&C Dept dt 5.7.06. A service tax of 12.36% + Bank charges for credit card transaction of 1.85% on the transaction amount payable to Vayam Technologies Pvt., Ltd., shall be applicable.**
 - (b) Corpus fund charges towards 'e' procurement services at 0.04% of estimated contract value with a cap of **Rs.10,000/-** for all works with estimated contract value up to Rs.50.00 Crores and **Rs. 25,000/-** for works with estimated contract value above Rs. 50.00 Crores from successful bidder payable in the shape of DD drawn in favour of Managing Director, APTS, Hyderabad payable at Hyderabad at the time of concluding agreement.

13. Validity of tenders:

- 13.1. Tenders shall remain valid for a period of not less than **Four** months from the last date for receipt of Tender specified in NIT.
- 13.2. During the above mentioned period no plea by the tenderer for any sort of modification of the tender based upon or arising out of any alleged misunderstanding of misconceptions or mistake or for any reason will be entertained.
- 13.3. In exceptional circumstances, prior to expiry of the original time limit, the tender inviting officer may request the bidders to extend the period of validity for a specified additional period. Such request to the tenderers shall be made in writing. A Tenderer may refuse the request without forfeiting his E.M.D. A tenderer agreeing to the request will not be permitted to modify his Tender, but will be required to extend the validity of his E.M.D for a period of the extension.

14. Earnest Money Deposit (EMD)

- 14.1. The Tenderer shall furnish, Earnest Money Deposit equivalent to 1% of ECV along with the tender (As specified in the NIT). The DD/BG shall be from a Nationalised / Scheduled Commercial Bank valid for a period of 165 days. Xerox copy of the DD/BG is to be scanned and uploaded along with the Bid and the original DD/BG shall be sent to concern Chief Engineer so as to reach before opening of the Price Bid.

Note : If any tenderer fails to submit the hard copies of DD/BG for EMD, DD for transaction fee etc., hard copies of uploaded documents within the stipulated time, the tenderer will be suspended/disqualified from participating in the tenders on "e" procurement platform for a period of 12(Twelve) months from the date of bid submission. The suspension of tenderer shall be automatically enforced by the "e" procurement system

The balance EMD @ 1½% of ECV / TCV which ever is higher shall be paid at the time of concluding agreement by the successful tenderer. This EMD can be in the form of:

- a) a bank demand draft on any Nationalised Bank / Scheduled Commercial bank.
- b) a bank guarantee from a Nationalised Bank / Scheduled Commercial Bank.

The bank guarantee submitted by the successful bidder at the time of tender with conditional obligations shall not be accepted and retained against EMD for performance at the time of conclusion of contract

Unconditional and irrevocable bank guarantee shall be paid towards EMD for the entire specified amount at the time of concluding agreement.

- 14.2. The EMD of tenderers will be returned no sooner the tenders are finalized or end date of the tender validity period whichever is earlier.
- 14.3. The 1% E.M.D paid by the successful tenderer before opening of the price bid through DD will be discharged if the tenderer furnishes bank guarantee for the full EMD of 2½% at the time of concluding agreement.
- 14.4. The earnest money deposited by the successful tenderer will not carry any interest and it will be dealt with as provided in the conditions stipulated in the tender.

The E.M.D given in the form of bank guarantee on a nationalised/scheduled commercial bank shall be valid for the duration of contract period plus defect liability period of two years and in case any valid extension of contract period is granted, the validity of BG shall also be extended for the corresponding period. The bank guarantee on nationalised/scheduled commercial bank furnished by the tenderer towards additional security amount shall be valid till the work is completed in all respects.

- 14.5. The E.M.D. shall be forfeited.
 - (a) if the tenderer withdraws the tender during the validity period of tender.
 - (b) in the case of a successful tenderer, if he fails to sign the agreement for whatever the reason.
- 14.6. In consideration of the Executive Engineer/Superintending Engineer/ Chief Engineer/Commissionerate of tenders undertaking to investigate and to take into account each tender and in consideration of the work thereby involved, all earnest monies deposited by the tenderer will be forfeited to the Government in the event of such tenderer either modifying or withdrawing his tender at his instance within the said validity period of **three months**.

15. Signing of Tenders

- 15.1. If the tender is made by an individual, it shall be signed with his full name and his address shall be given. If it is made by a firm, it shall be signed with the co-partnership name by a member of the firm, who shall also sign his own name, and the name and address of each member of the firm shall be given, if the tender is made by a corporation it shall be signed by a duly authorised officer who shall produce with his tender satisfactory evidence of his authorisation. Such tendering corporation may be required before the contract is executed, to furnish evidence of its corporate existence. Tenders signed on behalf of G.P.A holder will be rejected.
- 15.2. The tender shall contain no alterations or additions, except those to comply with instructions issued by the tender inviting officer, or as necessary to correct errors made by the tenderer, in which case all such corrections shall be initialed by the person signing the tender.

- 15.3. No alteration which is made by the tenderer in the contract form, the conditions of the contract, the drawings, specifications or statements / formats or quantities accompanying the same will be recognised, and, if any such alterations are made the tender will be void.

D. SUBMISSION OF TENDERS.

16. Submission of Tenders:

- 16.1. The tenderer shall invariably ensure that the following are furnished in hard copy to the tender receiving authority, that is, the Chief Engineer, GVMC before opening of the price bid besides uploading them on line.

a) Original DD/BG towards EMD issued by a Nationalised Bank / Scheduled Commercial Bank which is valid for the required period .

b) Hard copies of uploaded documents.

If any bidder fails to submit the hard copies of DD/BG for EMD, transaction fee, hard copies of uploaded documents within the time stipulated , the bidder will be suspended/disqualified from participating in the tenders on 'e procurement platform' for a period of 12 months from the date of bid submission. The suspension of bidder shall be automatically enforced by the ' e procurement' system.

- 16.1.1. The tenderer shall invariably ensure that the following documents are uploaded online. The technical bid evaluation of the tenderers will be done on the certificates/documents uploaded through online towards qualification criteria furnished by them.

(a) Check slip showing the requisite particulars/certificates that are enclosed under Annexure – I Qualification Information.

(b) Copy of contractors registration certificate under appropriate class with Government of Andhra Pradesh

(c) Copy of **PAN CARD** along with a copy of **LATEST INCOME TAX** returns submitted along with proof of receipt.

(d) Copy of **VAT** registration and latest valid commercial tax clearance certificate

(e) The particulars of value of civil engineering works executed in the last ten financial years in the tenderers name in statement -I along with work done certificates in support of the figures.

(f) The details of similar works executed as prime contractor (in the same name) during the last ten financial years, showing year wise break up of value of work executed in Statement -II duly supported with work done certificates, work wise.

(g) The physical quantities of specified works executed as prime contractor (in the same name) in the last ten financial years with year wise break up work wise in statement - III duly supported with work done certificates.

(h) The information on 'existing commitments' with supporting certificates in statement - IV

(i) The availability of key/critical construction/quality control equipment in statement - V

(j) The availability of key personnel in statement - VI

(k) The information and litigation history in statement - VII

(l) Proof of liquid assets in the shape of solvency certificate for the required amount

NOTE: The bidders shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity.

17. Deleted

18. Last date / time for submission of the tenders.

- 18.1. Tenders must be submitted not later than the date and time specified in NIT. No tender will be received physically at any office of GVMC. They have quote their offer only on e-procurement platform at www.eprocurement.gov.in.
- 18.2. The Chief Engineer may extend the dates for issue and receipt of Tenders by issuing an amendment in which case all rights and obligations of the Chief Engineer and the Tenderers will remain same as previously.

19. Late tenders

- 19.1. Tenders are not accepted under any circumstances after the last date / time prescribed in NIT

20. Modification to the tender

- 20.1. No tender shall be modified after the last date / time of submission of tenders.

E. TENDER OPENING AND EVALUATION

21. Tender opening

21.1. The tenderers or their authorised representatives can be present at the time of opening of the tenders. Either the tenderer himself or one of his representative with proper authorisation only will be allowed at the time of tender opening. If any of the tenderer is not present at the time of opening of tenders, the tender opening authority will, on opening the tender of the absentee tenderer, reads out and record the deficiencies if any, which shall be binding on the tenderer.

21.1.1. The technical bid containing qualification requirements as per Annexures: I & II and statement I to VII will be evaluated by the tender opening authority and the minutes are recorded which will be signed by the tender opening authority as well as tenderers or their authorised representatives present.

22. Clarification on the technical bid

22.1.1. The tender opening authority may call upon any tenderer for clarification on the statements, documentary proof relating to the technical bid. The request for clarification and response thereto shall be in writing and it shall be only on the qualification information furnished by the tenderer. The clarification called for from the tenderers shall be furnished within the stipulated time, which shall not be more than a week.

22.1.2. The tenderer if so desirous, shall agree in writing to furnish the clarification called for within the stipulated time and, for disqualification and rejection of his tender in the event of failure to do so.

23. Examination of technical bids and determination of responsiveness

- 23.1.1. The **Chief Engineer** will evaluate whether each tenderer is satisfying the eligibility criteria prescribed in the tender document and declares them as a qualified tenderer.
- 23.1.2. If the technical bid of a tenderer is not satisfying any of the eligibility criteria it will be rejected by the **Chief Engineer**. However, the tender accepting authority detects any error in the evaluation of tenders by **Chief Engineer**, the tender accepting authority while returning the tenders may direct the Chief Engineer or Chief Engineer as the case may be, to re-evaluate the tenders.
- 23.1.3. If any alteration is made by the tenderer in the tender documents, the conditions of the contract, the drawings, specifications or statements / formats or quantities the tender will be rejected.

24. Price bid opening

- 24.1. Only the price bids of qualified tenderers whose technical Bids are found satisfying the eligibility criteria shall be opened in the presence of the qualified tenderers or their authorised representatives present on the date and time fixed. The bid offers are read out and minutes recorded and the signatures of the tenderers present are taken in the minutes.
- 24.2. The price bid of the unqualified tenderers will not be opened and kept in safe custody till the tenders are finalised and thereafter E.M.D will be returned to the tenderers.
- 24.3. Tenders shall be scrutinised in accordance with the conditions stipulated in the Tender document. In case of any discrepancy of non-adherence conditions the tender accepting authority shall communicate the same which will be binding both on the tender opening authority and the tenderer. In case of any ambiguity, the decision taken by the tender accepting authority on tenders shall be final.

25. Evaluation and comparison of price bids

- 25.1. The **Chief Engineer** will evaluate and compare the price bids of all the qualified tenderers.
- 25.2. Negotiations at any level are strictly prohibited. However, good gesture rebate, if offered by the lowest tenderer prior to finalisation of tenders may be accepted by the tender accepting authority.
- 25.3. Selection of tenderer among the lowest and equally quoted tenderers will be in the following orders:
 - a) The tenderer whose bid capacity is higher will be selected.
 - b) In case the bid capacity is also same the tenderer whose annual turnover is more will be preferred.

- c) Even if the criteria incidentally become the same, the turnover on similar works and thereafter machinery available for the work and then the clean track record will be considered for selection.

26. Discrepancy in tender percentage quoted

- 26.1. In case of any discrepancy between the overall tender percentage quoted in words and figures, the percentage quoted in words shall prevail. In case the tenderer has quoted overall tender percentage only in words and not in figures or vice versa, such tender shall be treated as incomplete and rejected.

27. Process to be confidential

- 27.1. Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of a contract shall not be disclosed to tenderers or any other persons not officially concerned with such process until the award to the successful tenderer has been announced by the tender accepting authority. Any effort by a tenderer to influence the processing of tenders or award decisions may result in the rejection of his tender.
- 27.2. No Tenderer shall contact the **Chief Engineer** or any authority concerned with finalisation of tenders on any matter relating to its tender from the time of the tender opening to the time the contract is awarded. If the tenderer wishes to bring additional information to the notice of the **Chief Engineer**, it should do so in writing.
- 27.3. Before recommending / accepting the tender, the tender recommending / accepting authority shall verify the correctness of certificates submitted to meet the eligibility criteria and specifically experience. The authenticated agreements of previous works executed by the lowest tenderer shall be called for.
- 27.4. Deleted.

F. AWARD OF CONTRACT

28. Award Criteria

- 28.1. The Chief Engineer will award or recommend to the competent tender accepting authority for award of the contract to the tenderer who is found technically qualified as per the tender conditions and whose price bid is lowest.
- 28.2. The tender accepting authority reserves the right to accept or reject any tender or all tenders and to cancel the tendering process, at any time prior to the award of contract, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the reasons for such action.

29. Notification of award and signing of agreement

- 29.1. The Tenderer whose Tender has been accepted will be notified of the award of the work by the Chief Engineer, prior to expiration of the Tender validity period by registered letter. This letter (hereinafter and in the Conditions of Contract called "Letter of Acceptance") will indicate the sum that the Government will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Amount").
- 29.2. When a tender is to be accepted the concerned tenderer shall attend the office of the **Chief Engineer** concerned on the date fixed in the Letter of acceptance. Upon intimation being given by the **Chief Engineer**, of acceptance of his tender, the tenderers shall make payment of the balance E.M.D./security deposit wherever needed by way of Demand Draft with a validity period of six (6) months or unconditional and irrevocable Bank Guarantee obtained from a Nationalised Bank with a validity period of (Period of Completion in months+24) months, and sign an agreement in the form prescribed by the department for the due fulfillment of the contract. Failure to attend the **Chief Engineer's** office on the date fixed, in the written intimation, to enter into the required agreement shall entail forfeiture of the Earnest Money deposited. The written agreement to be entered into between the contractor and the **GVMC** shall be the foundation of the rights and obligations of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the contractor and then by the proper officer authorised to enter into contract on behalf of the **GVMC**.
- 29.3. The successful tenderer has to sign an agreement within a period of 7 days from the date of receipt of communication of acceptance of his tender. On failure to do so his tender will be cancelled duly forfeiting the E.M.D., paid by him without issuing any further notice and action will be initiated for black listing the tenderer.

30. Corrupt or fraudulent practices

- 30.1. The Government/GVMC require that the bidders/suppliers/contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Government/GVMC
- (a) define for the purposes of the provision, the terms set forth below as follows:
- (i) "corrupt practices" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a Government/GVMC official in procurement process or in contract execution: and

- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government/GVMC and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish in Tender prices at artificial non-competitive levels and to deprive the Government/GVMC of the benefits of free and open competition.
- (b) Will reject a proposal for award if it determines that the tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- (c) Will blacklist / or debar a firm, either indefinitely or for a stated period of time, if at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing a Government/GVMC contract.
- (d) Further more, tenderers shall be aware of the provisions stated in the general conditions of contract.

QUALIFICATION INFORMATION

Annexure -I

CHECKLIST TO ACOMPANY THE TENDER

Sl. No	Description	Submitted
1	2	3
1	Copy of Contractors valid registration under appropriate Class with Government of Andhra Pradesh	Yes/No
2	EMD certificate	Yes/No
3	Transaction fee certificate	Yes/No
4	Copy of PAN card along with a copy of latest Income Tax returns submitted along with proof of receipt	Yes/No
5	Copies of VAT registration and latest ST/VAT clearance certificate in the prescribed proforma	Yes/No
6	Details of similar works executed during the last ten financial years on the tenderer's name in statement - I with supporting certificates	Yes/No
7	Details of similar works completed as prime contractor (in the same name) during the last ten financial years in statement - II with supporting certificates	Yes/No
8	Quantities of works executed in road works as prime contractor (in the same name) during the last ten financial years in statement - III with supporting certificates.	Yes/No

9	Details of existing commitments i.e., works on hand and works for which tenders are submitted in statement - IV with supporting certificates	Yes/No
10	Availability of critical equipment in statement - V	Yes/No
11	Scanned copy of declaration on critical equipment on non-judicial stamp paper worth of Rs.100/-	Yes/No
12	Availability of key personnel in statement - VI	Yes/No
13	Litigation history in statement - VII	Yes/No
14	Proof of liquid assets in the shape of Solvency certificates etc., for the required amount	Yes/No
15	Declaration in on line stating that the soft copies uploaded by them are genuine	Yes/No
16	Any other certificates required as per NIT	Yes/No

Notes:-

1. The statements furnished shall be in the formats appended to the tender document.
- 2) The information shall be filled-in by the tenderer in the checklist and statements I to VII, and shall be enclosed to the Technical bid for the purposes of verification as well as evaluation of the tenderer's Compliance to the qualification criteria as provided in the Tender document. All the Certificates, documents, statements as per check-list shall be submitted on line by the tenderer.
- 3) The bidders shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity.**

DECLARATION

I/WE Have gone through carefully all the tender conditions and solemnly declare that I/we will abide by any penal action such as disqualification or black listing or determination of contract or any other action deemed fit, taken by, the Department against us, if it is found that the statements, documents, certificates produced by us are false / fabricated.

I/WE hereby declare that, I/WE have not been blacklisted/debarred/Suspended / demoted in any department in Andhra Pradesh or in any State due to any reasons.

Signature of the Tenderer

STATEMENT – I

Details of value of Similar works executed in each year during the last ten financial years by the tenderer

Sl. No.	Financial Year	Value in Rs:
1.	2007-2008	
2.	2008-2009	
3.	2009-2010	
4.	2010-2011	
5.	2011-2012	
6.	2012-2013	
7.	2013-2014	
8.	2014-2015	
9.	2015-2016	
10.	2016-2017	

- a) Certificate from Chartered Accountant supported with annual balance sheet tallying with I.T clearance certificate.

Signature of the Tenderer

STATEMENT – II

Details of similar works completed in the name of the Tenderer during the last ten financial years.

Sl. No	Name of the work	Address of agreement concluding authority	Agreement number and date	Value of contract
1	2	3	4	5

Stipulated period of completion	Actual date of completion	Value of work done year wise during the last 'ten' years.										Total value of work done.
		1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	6 th Year	7 th Year	8 th Year	9 th Year	10 th Year	
6	7	8	9	10	11	12	13	14	15	16	17	18

Attach certificates issued by the Executive Engineer concerned and countersigned by the **Chief Engineer** showing work wise/year wise value of work done and date of completion.

Signature of the Tenderer

STATEMENT – III

Physical quantities executed by the Tenderer in the last ten financial years. [work wise/year wise].

Sl. No.	Financial year	Name of work	Agt. No			
				Supply , delivery, laying, jointing, testing of sewer lines	Construction of sewer manholes	
1	2	3	4	5	6	
1	2007-2008					
2	2008-2009					
3	2009-2010					
4	2010-2011					
5	2011-2012					
6	2012-2013					
7	2013-2014					
8	2014-2015					
9	2015-2016					
10	2016-2017					

Attach certificates in support of the above quantities issued by the Executive Engineer concerned and countersigned by the Chief Engineer duly showing the quantities executed year wise.

Signature of the Tenderer

STATEMENT – IV

Details of existing commitments

Details of works on hand and, yet to be completed as on the date of submission of the Tender and works for which Tender s have been submitted are to be furnished.

A) Existing Commitments on ongoing works:

Sl. No	Name of work	Address of Agt. concluding authority	Agt No & date	Value of contract	Stipulated period of completion	Value of work done so far.	Balance value of works to be completed	Anticipated date of completion	Updated value of balance work
1	2	3	4	5	6	7	8	9	10

Attach certificates issued by the Executive Engineer concerned and countersigned by Chief Engineer, indicating the balance work to be done, and likely period of completion.

Signature of the Tenderer

B) Details of works for which Tenders are submitted [awarded / likely to be awarded]

Sl. No.	Name of work	Address of Agt. Concluding authority	Estimated value of work	Stipulated period of completion	Date on which tender was submitted	Present stage of Tender.
1	2	3	4	5	6	7

Signature of the Tenderer**STATEMENT – V****Availability of Critical Equipment**

The tenderer should furnish the information regarding the Availability of Critical Equipment, required for construction.

A declaration regarding the equipment owned shall be produced by the Tenderer on a non-judicial stamp paper of Rs: 100/- as below:

DECLARATION

"I do hereby solemnly affirm and declare that I / We own the following equipment for using on the subject work and also declare that I / We will abide by any action such as disqualification or determination of Contract or blacklisting or any action deemed fit, if the department detects at any stage that I/we do not possess the equipment listed below.

Sl. No.	Details of each Equipment	Year of purchase	Regn. Number	Capacity	Any other data.	Is it in working condition
1	2	3	4	5	6	7

STATEMENT – VI.**Availability of Key Personnel**

Qualification and experience of Key Personnel proposed to be deployed for execution of the Contract.

Sl. No	Name	Designation	Qualification	Total Experience	Working with the tenderer since
1	2	3	4	5	6

Signature of the Tenderer**STATEMENT – VII**

Information on litigation history in which Tenderer is the Petitioner.

S. No	Case No. / Year	Court where filed.	Subject Matter / Prayer in the case.	Respondents i.e., SE / CE	Present Stage
1	2	3	4	5	6

Signature of the Tenderer

TENDER

Date:

To
The Chief Engineer
GVMC.

Sir,

I/We do hereby tender and if this tender be accepted, under take to execute the following work viz **"Providing water supply to the Parawada housing colony from Desapathrunipalem Village"** as shown in the drawings and described in the specifications deposited in the office of the Chief Engineer, GVMC with such variations by way of alterations or additions to, and omissions from the said works and method of payment as provided for in the "conditions of the contract" for the sum of **ECV** or such other sum as may be arrived under the clause of the standard preliminary specifications relating to "Payment on lump-sum basis or by final measurement at unit rates"

I/WE have also quoted percentage excess or less on E.C.V., in Schedule 'A' (in words and figures) for which I/We agree to execute the work when the lumpsum payment under the terms of the agreement is varied by payment on measurement quantities.

I/WE agreed to keep the offer in this tender valid a period of **three** month(s) mentioned in the tender notice and not to modify the whole or any part of it for any reason within above period. If the tender is withdrawn by me/us for any reasons whatsoever, the earnest money paid by me/us will be forfeited to Government

I/WE hereby distinctly and expressly, declare and acknowledge that, before the submission of my/our tender I/We have carefully followed the instructions in the tender notice and have read the MoRT&H (4th revision) / A.P.S.S. and the preliminary specifications therein and the A.P.S.S. addenda volume and that I/We have made such examination of the contract documents and the plans, specifications and quantities and of the location where the said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished as to enable me/us to thoroughly understand the intention of same and the requirements, covenants, agreements, stipulations and restrictions contained in the contract, and in the said plans and specifications and distinctly agree that I/We will not hereafter make any claim or demand upon the Government/GVMC based upon or arising out of any alleged misunderstanding or misconception /or mistake on my/or our part of the said requirement, covenants, agreements, stipulations, restrictions and conditions.

I / WE enclosed to my/our application for tender schedule a crossed demand draft /Bank Guarantee No.....dated:.....) for Rs:as earnest money not to bear interest.

I / WE shall not assign the contractor or sublet any portion of the same. In case if it becomes necessary such subletting with the permission of the Executive Engineer shall be limited to (1) Labour contract, (2) Material contract, (3) Transport contract and (4) Engaging specialists for special item of work enjoined in A.P.S.S.

IF MY / OUR tender is not accepted the sum shall be returned to me/us on application when intimation is sent to me/us of rejection or at the expiration of **four** months from last date of receipt of this tender, whichever is earlier. If my/our tender is accepted the earnest money shall be retained by the Government/GVMC as security for the due fulfillment of this contract. If upon written intimation to me/us by the Chief Engineer/Superintending Engineer / Executive Engineer's Office, I/We fail to attend the said office on the date herein fixed or if upon intimation being given to me/us by the Chief Engineer /Superintending Engineer/ Executive Engineer or acceptance of my/our tender, and if I/We fail to make the additional security deposit or to enter into the required agreement as defined in condition-3 of the tender notice, then I/We agree the forfeiture of the earnest money. Any notice required to be served on me/us here under shall be sufficiently served on me/us if delivered to me/us hereunder shall be sufficiently served on me/us if delivered to me/us personally or forwarded to me/us by post to (registered or ordinary) or left at my/our address given herein. Such notice shall if sent by post be deemed to have been served on me/us at the time when in due course of post it would be delivered at the address to which it is sent.

I/WE fully understand that the written agreement to be entered into between me/us and GVMC shall be the foundation of the rights of the both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by me/us and then by the proper officer authorised to enter into contract on behalf of Government/GVMC.

I AM/WE ARE professionally qualified and my/our qualifications are given below:

Name	Qualified

I/WE will employ the following technical staff for supervising the work and will see that one of them is always at site during working hours, personally checking all items of works and pay extra attention to such works as required special attention (eg) Reinforced concrete work.

Name of members of technical staff proposed to be employed	Qualification.

I/WE declare that I/WE agree to recover the salaries of the technical staff actually engaged on the work by the department, from the work bills, if I/We fail to employ technical staff as per the tender condition.

TENDERERS / CONTRACTOR'S CERTIFICATE

- (1) I/WE hereby declare that I/We have perused in detail and examined closely the MoRT&H (4th Revision) and Andhra Pradesh Standard Specifications, all clauses of the preliminary specifications with all amendments and have either examined all the standards specifications or will examine all the standard specifications for items for which I/We tender, before I/We submit such tender and agree to be bound and comply with all such specifications for this agreement which I/We execute.
- (2) I/WE certify that I/We have inspected the site of the work before quoting my Percentage excess or less on ECV, I /We have satisfied about the quality, availability and transport facilities for coarse aggregate, sand and other materials.
- (3) I / WE am/are prepared to furnish detailed data in support of all my quoted rates, if and when called upon to do so without any reservations.
- (4) I / WE hereby declare that I / We will pay an additional security deposit(ASD) in terms of condition 3.6 of instructions to tenderers.
- (5) I / WE hereby declare that I am / we are accepting to reject my tender in terms of condition 3.7 of instructions to tenderers.
- (6) I / WE hereby declare that I / We will not claim any price escalation.
- (7) I / WE hereby declare that I am / We are accepting for the defect liability period as 24 months instead of 6 months under clause 28 of APSS.
- (8)
 - a) I / WE declare that I/WE will procure the required construction materials including earth and use for the work after approval of the Engineer-in-Charge. The responsibility for arranging and obtaining the land for borrowing or exploitation in any other way shall rest with me/us for the materials for construction, I/WE shall ensure smooth and un-interrupted supply of materials.
 - b) I / WE declare that the responsibility for arranging and obtaining the land for disposal of spoil/soil not useful for construction purposes shall rest with me/us.
 - c) I / WE declare that I / WE shall not claim any compensation or any payment for the land so arranged for disposal of soil and the land for borrow area. My/our quoted percentage excess or less ECV are inclusive of the land so arranged and I/We will hand over the land so arranged for disposal of soil to the department after completion of work.
 - d) I / WE declare that I / WE will not claim any extra amount towards any material used for the work other than the quoted works for respective schedule 'A' items.
- (9) I / WE declare that I / WE will execute the work as per the mile stone programme, and if I / WE fail to complete the work as per the mile stone programme I abide by the condition to recover liquidated damages as per the tender conditions.

(10) I / WE declare that I / WE will abide for settlement of disputes as per the tender conditions.

DECLARATION OF THE TENDERER

- 1) I/WE have not been black listed in any department in Andhra Pradesh due to any reasons.
- 2) I/WE have not been demoted to the next lower category for not filing the tenders after buying the tender schedules in a whole year and my/our registration has not been cancelled for a similar default in two consecutive years.
- 3) I/WE agree to disqualify me/us for any wrong declaration in respect of the above and to summarily reject my/our tender.
- 4) I/WE have gone through carefully all the tender conditions and solemnly declare that I/WE will abide by any penal action such as disqualification or black listing or determination of contract or any other action deemed fit, taken by, the department against us, if it is found that the statements, documents, certificates produced by us are false/fabricated.
- 5) I/WE hereby declare that, I/WE have not been blacklisted/ debarred/ Suspended/ demoted in any department in Andhra Pradesh or in any State due to any reasons.

Address of the Tenderer:

Phone No.:

Fax No.:

CONTRACTOR

CONDITIONS OF CONTRACT

A. GENERAL

1. Interpretation:

1.1 In interpreting these Conditions of Contract, singular also means plural, male also means female, and vice-versa. Headings have no significance. Works have their normal meaning under the language of the contract unless specifically defined. The Engineers-in-charge will provide instructions clarifying queries about the conditions of Contract.

1.2 The documents forming the Contract shall be interpreted in the following order of priority:

- 1) Agreement
- 2) Letter of Acceptance, notice to proceed with the works
- 3) Contractor's Tender (Technical bid)
- 4) Conditions of contract
- 5) Specifications
- 6) Drawings
- 7) Bill of quantities (Price-bid)
- 8) Any other document listed as forming part of the Contract.

2. Engineer-in-Charge's Decisions:

2.1 Except where otherwise specifically stated, the Engineer-in-charge will decide the contractual matters between the Department and the contractor in the role representing the Department.

3. Delegation:

3.1 The Engineer-in-charge may delegate any of his duties and responsibilities to other officers and may cancel any delegation by an official order issued.

4. Communications:

4.1 Communications between parties, which are referred to in the conditions, are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act)

5. Sub-contracting:

5.1 If the prime contractor desires to sub-let a part of the work, he should submit the same at the time of filing tenders itself or during execution, giving the name of the proposed Sub-contractor, along with details of his qualification and experience. The Tender Accepting Authority should verify the experience of the Sub-contractor and if the Sub-contractor satisfies the qualification criteria in proportion to the value of work proposed to be sub-let, he may permit the same.

The total value of works to be awarded on sub-letting shall not exceed 50% of contract value. The extent of subletting shall be added to the experience of the sub-contractor and to that extent deducted from that of the main contractor.

6. Other Contractors:

6.1 The Contractor shall cooperate and share the Site with other contractors, Public authorities, utilities, and the Department. The Contractor shall also provide facilities and services for them as directed by the Engineer-in-charge.

7. Personnel:

7.1 The Contractor shall employ the required Key Personnel named in the Schedule of Key Personnel to carry out the functions stated in the Schedule or other personnel approved by the Engineer-in-charge. The Engineer-in-charge will approve any proposed replacement of Key Personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

7.2 Failure to employ the required technical personnel as per agreement by the contractor, amount will be recovered from the contractors bills towards technical personnel as per **SSR 2014-15**.

7.3 The technical personnel should be on full time and available at site whenever required by Engineer in Charge to take instructions.

7.4 The names of the technical personnel to be employed by the contractor should be furnished in the statement enclosed separately.

7.5 In case the contractor is already having more than one work on hand and has undertaken more than one work at the same time, he should employ separate technical personnel on each work.

7.6 If the contractor fails to employ technical personnel the work will be suspended or department will engage a technical personnel and recover the cost thereof from the contractor.

7.7 If the Engineer-in-charge asks the contractor to remove a person who is a member of Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the site forthwith and has no further connection with the work in the contract.

8. Contractor's Risks:

8.1 All risks of loss of or damage to physical property and of personnel injury and death, which arise during and in consequence of the performance of the contract are the responsibility of the contractor.

9. Insurance:

9.1 The Contractor shall provide, in the joint names of the Department and the contractor, insurance cover from the Start Date to the end of the Defects Liability Period i.e., 24 months after completion for the following events which are due to the Contractor's risks.

- a) loss of or damage to the Works, Plant and Materials;
- b) loss of or damage to the Equipment;
- c) loss of or damage of property in connection with the Contract; and
- d) Personal injury or death of persons employed for construction.

9.2 Policies and certificates of insurance shall be delivered by the Contractor to the Engineer-in-charge at the time of concluding Agreement. All such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.

- i) The contractor shall furnish insurance policy in force in accordance with proposal furnished in the Tender and approved by the Department/GVMC for concluding the agreement.
- ii) The contractor shall also pay regularly the subsequent insurance premium and produce necessary receipt to the Engineer-in-Charge, well in advance.
- iii) In case of failure to act in the above said manner the department/GVMC will pay the premium and the same will be recovered from the Contractors payments.

9.3 Alterations to the terms of insurance shall not be made without the approval of the Engineer-in-Charge.

10. Site Inspections:

10.1 The contractor should inspect the site and also proposed quarries of choice for materials source of water and quote his percentage including quarrying, conveyance and all other charges etc.

10.2 The responsibility for arranging the land for borrow area rests with the Contractor and no separate payment will be made for procurement or otherwise. The contractor's quoted percentage will be inclusive of land cost.

11. Contractor to Construct the Works:

11.1 The Contractor shall construct and Commission the Work in accordance with the specifications and Drawings.

12. Diversion of streams / Vagus / Drains.

12.1 The contractor shall at all times carry out construction of cross drainage works in a manner creating least interference to the natural flow of water while consistent with the satisfactory execution of work. A temporary diversion shall be formed by the contractor at his cost where necessary. No extra payment shall be made for this work.

- 12.2 No separate payment for bailing out sub-soils, water drainage or locked up rain water for diversion, shoring, foundations, bailing of pumping water either from excavation of soils from foundations or such other incidental will be paid. The percentage to be quoted by the contractor are for the finished item of work in situ and including all the incidental charges. The borrow pits are also to be de-watered by the contractor himself at his expense, if that should be found necessary.
- 12.3 The work of diversion arrangements should be carefully planned and prepared by the contractor and forwarded to the Chief Engineer, GVMC technically substantiating the proposals and approval of the Chief Engineer, GVMC obtained for execution.
- 12.4 The contractor has to arrange for bailing out water, protection to the work in progress and the portion of works already completed and safety measures for men and materials and all necessary arrangements to complete the work.
- 12.5 All the arrangements so required should be carried out and maintained at the cost of the contractor and no separate or additional payment is admissible.
- 12.6 Coffers Dams: Necessary coffer dams and ring bunds have to be constructed at the cost of contractor and same are to be removed after the completion of the work. The contractor has to quote his percentage keeping the above in view.
- 13. Power Supply.**
- 13.1 The contractor shall make his own arrangements for obtaining power from the Electricity dept., at his own cost. The contractor will pay the bills of Electricity Department for the cost of power consumed by him.
- 13.2 The contractor shall satisfy all the conditions and rules required as per Indian Electricity Act 1910 and under Rule-45(I) of the Indian Electricity Rules, 1956 as amended from time to time and other pertinent rules. The power shall be used for bonafide Departmental work only.
- 14. Temporary Diversions (Works on Highways)**
- 14.1 The contractor shall at all times carryout work on the highway in a manner creating least interference to the flow of traffic while consistent with the satisfactory execution of the same. For all works involving improvements to the existing highway, the contractor shall in accordance with the directions of the Engineer-in-charge provide and maintain during the execution of the work a passage for traffic, either along a part of the existing carriage way under improvement or along a temporary diversion constructed close to the highway.
- 14.2 If in the opinion of the Engineer-in-Charge, it is not possible to pass the traffic on part width of the carriageway for any reason, a temporary diversion close to the highway shall be constructed as directed. It shall be paved with the materials such as hard morrum, gravel and stone, metal to the specified thickness as directed by the Engineer-in-Charge. In all cases, the alignment, gradients and surface type of the diversion including its junctions, shall be approved by the Engineer-in-charge before the highway is closed to traffic.
- 14.3 The contractor shall take all necessary measures for the safety of traffic during construction and provide erect and maintain such barricades, including signs, markings, flags lights and information and protection of traffic approaching or passing through the section of the highway under improvement. Before taking up any construction, an agreed phased programme for the diversion of traffic on the highway shall be drawn up in consultation with the Engineer-in-charge.

- 14.4 The barricades erected on either side of the carriage way portion of the carriage way closed to traffic, shall be of strong design to resist violation and painted with alternative black and white stripe. Red lanterns or warnings lights of similar type shall be mounted on the barricades at night and kept lit throughout from sunset to sunrise.
- 15. Ramps:**
Ramps required during execution may be formed wherever necessary and same are to be removed after completion of the work. No separate payment will be made for this purpose.
- 16. Monsoon Damages:**
Damages due to rain or flood either in cutting or in banks shall have to be made good by the contractor till the work is handed over to the Department. The responsibility of de-silting and making good the damages due to rain or flood rests with the contractor. No extra payment is payable for such operations and the contractor shall therefore, have to take all necessary precautions to protect the work done during the construction period.
- 17. The works to be completed by the intended completion date:**
17.1 The contractor may commence execution of the works on the start date and shall carry out the works in accordance with the programme submitted by the contractor, as updated with the approval of the Engineer-in-Charge, and complete the work by the Intended completion date.
- 18. Safety:**
18.1 The Contractor shall be responsible for the safety of all activities on the site.
- 19. Discoveries:**
19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Government. The Contractor is to notify the Engineer-in-charge of such discoveries and carry out the Engineer-in-Charge's instructions for dealing with them.
- 20. Possession of the Site.**
20.1 The Department shall give possession of the site to the Contractor. If possession of a part site is given, the Department will ensure that the part site so handed over is amenable to carryout the work at site by the Contractor.
- 21. Access to the Site:**
21.1 The Contractor shall provide the Engineer-in-Charge and any person authorised by the Engineer-in-Charge, access to the site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 22. Instructions:**
22.1 The Contractor shall carry out all instructions of the Engineer-in-charge and comply with all the applicable local laws where the Site is located.

23. Settlement of disputes:

- 23.1 If any dispute of difference of any kind whatsoever arises between the department and the Contractor in connection with, or arising out of the Contract, whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract, it shall in the first place, be referred to and settled by the Engineer-in-charge who shall, within a period of thirty days after being requested by the Contractor to do so, give written notice of his decision to the Contractor. Upon receipt of the written notice of the decision of the Engineer-in-Charge the Contractor shall promptly proceed without delay to comply with such notice of decision.
- 23.2 If the Engineer-in-Charge fails to give notice of his decision in writing within a period of thirty days after being requested or if the Contractor is dissatisfied with the notice of the decision of the Engineer-in-Charge, the Contractor may within thirty days after receiving the notice of decision appeal to the Department who shall offer an opportunity to the contractor to be heard and to offer evidence in support of his appeal, the Department shall give notice of his decision within a period of thirty days after the Contractor has given the said evidence in support of his appeal, subject to arbitration, as hereinafter provided. Such decision of the Department in respect of every matter so referred shall be final and binding upon the Contractor and shall forthwith be given effect to by the Contractor, who shall proceed with the execution of the works with all due diligence whether he requires arbitration as hereinafter provided, or not. If the Department has given written notice of his decision to the Contractor and no claim to arbitration, has been communicated to him by the Contractor within a period of thirty days from receipt of such notice the said decision shall remain final and binding upon the Contractor. If the Department fail to give notice of his decision, as aforesaid within a period of thirty days after being requested as aforesaid, or if the Contractor be dissatisfied with any such decision, then and in any such case the contractor within thirty days after the expiration of the first named period of thirty days as the case may be, require that the matter or matters in dispute be referred to arbitration as detailed below:

SETTLEMENT OF CLAIMS:

Arbitration : In case of any dispute of difference between the parties to the contract either during the progress or after the completion of the works or after the determination, abandonment, or breach of the contract, as to the interpretation of the contract, or as to any matter or things arising there under except as to the interpretation of the contract, or as to any Executive Engineer under clause 20,22,27

(C) 29,36,37 and 40 of the preliminary specification or as to the withholding by the Executive Engineer of payment of any bill to which the contractor may claim to be entitled, then either party shall forth given to the other notice of such dispute or difference, and such dispute or difference shall be and is hereby referred to the arbitration of the Superintending Engineer GVMC of the nominated circle and Superintending Engineer of Public Health Engineering Department mentioned in the "Articles of agreement" (hereinafter called the "Arbitrator") for claims Rs. 10,000/- and for Rs. 10,000/- to Rs. 50,000/- in value and the award of such Arbitrator shall be final and binding on the parties unless contested by either party in a court of law. The arbitrators' proceedings will be conducted in accordance with the provisions of the Arbitration Act, 1948 as amended from time to time. The arbitrator shall invariably give a speaking award.

Provided however that in cases where the Executive Engineer has entered into the contract on behalf of the GVMC the dispute or difference shall, in the first instant, be referred by or through the Executive Engineer to the Superintending Engineer GVMC of the Circle, in which the work lies and his decision thereon obtained before referring such dispute or difference to arbitration under this clause. Progress of the work shall not be suspended or delayed to arbitration under this clause. Progress of the work shall not be on account of the reference of any dispute or difference to the Superintending Engineer, GVMC of the Executive Engineer or Superintending Engineer, GVMC of the circle in which the work lies or to arbitration under this clause. The decision of the Executive Engineer or the Superintending Engineer, GVMC of the circle in which the work lies, as the case may be on such dispute or difference shall be conclusive until reserved by the Superintending Engineer, GVMC or the arbitrator. Either party may within a period, which shall be fixed by the arbitrator, file before the arbitrator a statement of the case and also all the documents relating to or having a bearing on the case. The months from the date of his entering passed, if reasonably possible, within a period of four is considered by him to be necessary, either suomoto or on the application of both party to from time to time consider reasonably necessary and any such extension shall forthwith be communicated by him in writing to each of the parties hereto. The arbitrator shall not be bound to observe the ordinary rules of procedure applicable to trials before Judicial Tribunals nor to hear or receive formal evidence but may pass on award on the documents arbitrator shall have power to view the subject matter of the dispute with or without the parties or their agents. The arbitrator shall also have power to open up, review and revise expressly excepted and to determine all matters in dispute which shall be submitted to him, and of which notice shall have been given as aforesaid, in the same manner

as if no such certificate, opinion, decision, requisition or notice had been given upon every any such discretion of the arbitrator, subject to the reference had been given upon every any such reference the costs of any incidental to the reference and award respectively shall be in the discretion of the arbitrator, subject to the reference and award respectively shall be in the discretion of the arbitrator, subject to the condition that the amount of such cost to be out below of any such award irrespective of the actual fees costs and expense incurred by either party; provided that where a monetary claim is disallowed in full, the said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs to be awarded or direct the same to be taxed as between solicitor and client or a party and party and shall direct by whom and to whom and in what manner the same shall be borne and paid.

The percentage above referred to in this clause are 5 percent on any such monetary award which does not exceed Rs. 10,000/- 3 percent on the next Rs. 40,000/- or any part thereof, 2 percent on the next Rs.50,000/- or any part thereof and 1 percent on any excess over Rs.1,00,000/- Provided that GVMC shall not be liable to any claim in respect of any such dispute or difference until liabilities, and the amount referred to is decided by the arbitrator. Provided that payment to the contractor based on the arbitration award shall be made only after acceptance of the award by the Superintending Engineer, GVMC if the value of the award is less than Rs. 20,000/- and the Government if the value is Rs. 20,000/- above.

Note 1: Arbitration awards whose value is below Rs. 20,000/-

The Superintending Engineer, GVMC is authorized to accept arbitration awards below Rs. 20,000/- in value. The Superintending Engineer, GVMC shall make a review of the arbitration award within 15 days of service of the notice of the making of the award for the filing of the award and take steps to contest the award.

If, for any reason, the Superintending Engineer, GVMC consider it inadvisable to act according to the advice of the local counsel, he shall refer the matter to the Government for examination within 15 days of the service of the notice of the making of the award.

Arbitration Awards whose value is Rs.20,000/- and below Rs.50,000/-. The Superintending Engineer, GVMC shall make a review of the arbitration awards whose value is Rs.20,000/- and above and submit a report to the GVMC within 10 days of service of the notice of the making of the award in such cases a summary of the case, a copy of the agreement for the work, the facts pressed before the arbitrator by the parties along with the recommendations of the Superintending Engineer,

GVMC should be furnished to the GVMC Municipal Standing Counsel whether the award should be accepted or not and communicate the same within 25 days of service of the notice of making of the award so as to enable the Superintending Engineer GVMC either to take action on the basis of the award or to file an application in the court within 30 days of service of the making of the award for filling of the award and for contesting it.

Claims above Rs.50,000/-.

All claims of above Rs.50,000/- are to be settled by a Civil Court of competent jurisdiction by way of Civil suit and not by arbitration.

A reference for adjudication under this clauses shall be made by the contractor within six months from the date of intimating the contractor of the preparation of final bill or his having accepted payment whichever is earlier.

B. TIME FOR COMPLETION

24. Program:

- 24.1 The total period of completion is as per NIT from the date of entering with agreement to proceed including rainy season.
- 24.2 The attention of the tenderer is directed to the contract requirement at the time of beginning of the work, the rate of progress and proportionate value of work done from time to time as will be indicated by the Commissioner/Chief Engineer's GVMC Certificate for the value of work done will be required. Date of commencement of their programme will be the date for concluding agreement but not the date of handing over site.
- 24.3 After signing the agreement, the contractor shall forthwith begin the work, shall regularly and continuously proceed with them.
- 24.4 Rate of progress:
- i) Work programme of achieving the milestones (Statement).
 - ii) Site schedule of programme of handing over site to the contractor. (Statement)
 - iii) The contractor shall achieve the financial progress, otherwise Liquidated Damages shall be levied as per the condition No.48.3 of conditions of contract.

MILESTONE PROGRAMME TO BE DRAWN IN CONSULTATION WITH THE EXECUTING AGENCY AT THE TIME OF CONCLUDING THE AGREEMENT.

- 24.5 The contractor shall commence the works on site within the period specified under condition 24.1 to 24.3 above after the receipt by him of a written order to this effect from the Chief Engineer and shall proceed with the same with due expedition and without delay, except as may be expressly sanctioned or ordered by the Chief Engineer.
- 24.6 The extent of portions of the site of which the contractor is to be given possession from time to time and the order in which such portions shall be made available to him and, Subject to any requirement in the contract as to the order in which the works shall be executed, the Executive Engineer will, with the Chief Engineer's written order to commence the works, give to the contractor possession of so much of the site as may be required to enable the contractor to commence proceed with the execution of the works in accordance with the programme if any, and otherwise in accordance with such reasonable proposals of the contractor as he shall by written notice to the Chief Engineer, make and will from time to time as the works proceed, give to the contractor possession of such further portions of the site as may be required to enable the contractor to proceed with the execution of the works with due dispatch in accordance with the said programme or proposals as the case maybe ; if the contractor suffers delay or incurs cost from failure on the part of the Chief Engineer to give possession in accordance with the terms of this clause, the Chief Engineer shall grant an extension of time for the completion of works.
- 24.7 The contractor shall bear all costs and charges for special or temporary way leases required by him in connection with access to the site. The contractor shall also provide at his own cost any additional accommodation outside the site required by him for the purposes of the work.
- 24.8 Subject to any requirement in the contract as to completion of any section of the works before completion of the whole of the works shall be completed in accordance with provisions of clauses in the Schedule within the time stated in the contract calculated from the last day of the period named in the statement to the tender as that within which the works are to be commenced or such extended time as may be allowed.
- 24.9 **Delays and extension of time:**
No claim for compensation on account of delays or hindrances to the work from any cause whatever shall lie, except as hereafter defined. Reasonable extension of time will be allowed by the officer competent to sanction the extension, for unavoidable delays, such as may result from causes, which in the opinion of the Executive Engineer, are undoubtedly beyond the control of the contract. The Executive Engineer shall assess the period of delay or hindrance caused by any written instructions issued by him, at twenty five percent in excess or the actual working period so lost.

In the event of the Executive Engineer failing to issue necessary instructions and thereby causing delay and hindrance to the contractor, the latter shall have the right to claim an assessment of such delay by the Chief Engineer, GVMC, whose decision will be final and binding. The contractor shall lodge in writing with the Executive Engineer a statement of claim for any delay or hindrance referred to above, within fourteen days from its commencement, otherwise no extension of time will be allowed.

Whenever authorized alterations or additions made during the progress of the work are of such a nature in the opinion of the Executive Engineer as to justify an extension of time in consequence thereof.

If there are valid reasons for extending the contract period, proposals for extension of time should be sent to the authority competent to accord administrative sanction, sufficiently in advance and in any case at least one month before the expiry of the contract period.

25. Construction Programme:

- 25.1 The Contractor shall furnish within one month of the order of the work a programme showing the sequence in which he proposed to carry out the work, monthly progress expected to be achieved, also indicating date of procurement of materials plant and machinery. The schedule should be such that it is practicable to achieve completion of the whole work within the time limit fixed and in keeping with the Mile stone programme specified and shall obtain the approval of the Engineer-in-charge. Further rate of the progress as in the program shall be kept up to date. In case it is subsequently found necessary to alter this program, the contractor shall submit sufficiently in advance the revised program incorporating necessary modifications and get the same approved by the Engineer - in - Charge. No revised program shall be operative without approval of Engineer - in - Charge.
- 25.2 The Chief Engineer, GVMC, shall have all times the right, without any way violating this contract, or forming grounds for any claim, to alter the order of progress of the works or any part thereof and he contractor shall after receiving such directions proceed in the order directed. The contractor shall also report the progress to the Chief Engineer, GVMC, within 7 days of the Executive Engineers direction to alter the order of progress of works.
- 25.3 The contractor shall give written notice to the Engineer-in-Charge whenever planning or progress of the works is likely to be delayed or disrupted unless any further drawings or order including a direction, instruction or approval is issued by the Engineer - in - Charge within a reasonable time. The notice shall include details of the drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

26. Speed of Work

26.1 The Contractor shall at all times maintain the progress of work to conform to the latest operative progress schedule approved by the Engineer - in - Charge. The contractor should furnish progress report indicating the programme and progress once in a month. The Engineer - in - Charge may at any time in writing direct the contractor to slow down any part or whole of the work for any reason (which shall not be questioned) whatsoever, and the contractor shall comply with such orders of the Engineer - in - Charge. The compliance of such orders shall not entitle the contractor to any claim of compensation. Such orders of the Engineer - in - Charge for slowing down the work will however be duly taken into account while granting extension of time if asked by the contractor for which no extra payment will be entertained.

26.2 Delays in Commencement or progress or neglect of work and forfeiture of earnest money, Security deposit and withheld amounts:

If, at any time, the Engineer - in - Charge shall be of the opinion that the contractor is delaying commencement of the work or violating any of the provisions of the contract or the contractor is neglecting or delaying the progress of the work as defined by the tabular statement. "Rate of progress" in the "Articles of Agreement", he shall so advise the contractor in writing and at the same time demand compliance in accordance with conditions of Tender Notice. If the contractor neglects to comply with such demand within seven days after receipt of notice, it shall then or at any time thereafter, be lawful for the Engineer-in-Charge to take suitable action in accordance with Clause.60 of APSS.

27. Suspension of works by the Contractor.

27.1 If the Contractor shall suspend the works, or sublet the work without sanction of the Engineer-in-Charge, or in the opinion of the Engineer - in - Charge shall neglect or fail to proceed with due diligence in the performance of his part of the Contract as laid down in the Schedule rate of progress, or if he shall continue to default or repeat such default in the respects mentioned in clause.26 of the APSS, Engineer - in - Charge shall take action in accordance with Clause 61 of APSS.

27.2 If the Contractor stops work for 28 days and the Stoppage has not been authorised by the Engineer - in - Charge the Contract will be terminated under Clause 61 of APSS.

27.3 If the Contractor has delayed the completion of works the Contract will be terminated under Clause.61 of APSS.

28. Extension of the Intended Completion Date:

28.1 The Engineer - in - Charge shall extend or recommend for extension, in accordance with the Government orders in force, the Intended Completion Date if a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date.

28.2 The Engineer - in - Charge shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

29. Delays Ordered by the Engineer-in-Charge:

29.1 The Engineer - in - Charge may instruct the Contractor to delay the start or progress of any activity within the Work.

30. Early Warning:

30.1 The contractor is to warn the Engineer - in - Charge at the earliest opportunity of specific likely future events or circumstances that may adversely affect the execution of works.

30.2 The Contractor shall cooperate with the Engineer - in - Charge in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer - in - Charge.

31. Management Meetings:

31.1 The Engineer - in - Charge may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the programme for remaining work and to deal with matters raised in accordance with the early warning procedure.

C. QUALITY CONTROL

32. Identifying Defects:

32.1 The Engineer - in - Charge shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer - in - Charge may instruct the Contractor to verify the Defect and to uncover and test any work that the Engineer considers may be a Defect.

33. Tests:

33.1 If the Engineer - in - Charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the contractor shall pay for the test and any samples.

34. Correction of Defects:

34.1 The Engineer - in - Charge shall give notice to the contractor of any defects before the end of the defects liability period, which begins on completion. The defects liability period shall be extended for as long as defects remain to be corrected by the contractor.

34.2 Every time notice of a defect is given, the contractor shall correct the notified defect within the length of time specified by the Engineer - in - Charge's notice.

35. Uncorrected defects

35.1 If the contractor has not corrected the defect within the time specified in the Engineer-in-Charge's notice, the Engineer-in-Charge will assess the cost of having the defect corrected and the contractor will pay this amount.

35.2 The Engineer - in - Charge shall introduce O.K cards and prescribed the formats there of. O.K cards shall relate to all major components of the work. The contractor/his authorised representative shall be required to initiate and fill in and present the O.K card to the construction staff that would check the respective items and send to the quality control staff for final check and clearance/O.K. Any defects pointed out by the construction supervision staff or by the Quality Control staff shall promptly be attended to by the contractors and the fact of doing so be duly recorded on the back of O.K card.

35.3 The Engineer - in - Charge may also introduce check lists which shall be kept in Bound registers by the construction supervision staff. The contractor may be required to fill up these lists in the first instance and shall be subsequently checked by the Construction / Quality Control engineers.

36. Quality Control:

In addition to the normal inspection by the regular staff in-charge of the construction of work, the work will also be inspected by the Executive Engineer/Superintending Engineer /Chief Engineer Quality control Circle or by the State or District level Vigilance Cell Unit and any other authorised external Agency if any sub-standard work or excess payments are noticed with reference to measurement books etc., during inspection, action will be taken based on their observations and these will be effected by the Engineer-in-Charge of the execution of the work.

D. Cost Control

37. Bill of Quantities:

37.1 The Bill Quantities shall contain items for the construction work to be done by the Contractor.

37.2 The Contractor is paid for the quantity of the work done at the estimate rate in the Bill of Quantities for each item plus or minus Tender percentage.

38. Changes in the Quantities:

38.1 The contractor is bound to execute all supplemental works that are found essential, incidental and inevitable during execution of main work.

38.2 The payment of rates for such supplemental items of work will be regulated as under; Supplemental items directly deducible from similar items in the original agreement.

- 38.2.1 The rates shall be derived by adding to or subtracting from the agreement rate of such similar item the cost of the difference in the quantity of materials labour between the new items and similar items in the agreement worked out with reference to the Standard Schedule of Rates adopted in the sanctioned estimate with which the tenders are accepted plus or minus over all tender percentage.
- 38.2.2 (a) Similar items but the rates of which cannot be directly deduced from the original agreement.
- (b) Purely new items which do not correspond to any item in the agreement.
- 38.2.3 The rates of all such items shall be Estimated Rates plus or minus overall Tender premium.

39. Extra Items:

- 39.1 Extra items of work shall not vitiate the contract. The contractor shall be bound to execute extra items of work as directed by the Engineer - in - Charge. The rates for extra items shall be worked out by the Executive Engineer as per the conditions of the Contract and the same are binding on the Contractor.
- 39.2 The contractor shall before the 15th day of each month, submit in writing to the Executive Engineer a statement of extra items if any that they have executed during the preceding month failing which the contractor shall not be entitled to claim any.
- 39.3 Entrustment of additional items:
- 39.3.1 Where ever additional items not contingent on the main work and outside the scope of original agreement are to be entrusted to the original contractor dispensing with bids and if the value of such items exceeds the limits up to which the officer is empowered to entrust works initially to contractor without calling for tenders, approval of **next higher authority** shall be obtained. Entrustment of such items on nomination shall be at rates not exceeding the estimated rates.
- 39.3.2 Entrustment of the additional items contingent on the main work will be authorised by the officers up to the monetary limits up to which they themselves are competent to accept items in the original agreement so long as the total amounts up to which they are competent to accept in an original agreement rates for such items shall be worked out in accordance with the procedure (I) For all items of work in excess of the quantities shown in the Bill of Quantities of the Tenders, the rate payable for such items shall be estimate rates for the items (+) or (-) over all tender percentage accepted by the competent authority.
- 39.3.3 Entrustment of either the additional or supplemental items shall be subject to the provisions of the agreement entered into by a Competent Authority after the tender is accepted. The Chief Engineer, who entered into the agreement approves the rate for the items / variation in quantity in the current agreement. The items shall not be ordered by an officer on his own responsibility if the revised estimate or deviation statement providing for the same requires the sanction of higher authority.

Note: It may be noted that the term Estimate Rate used above means the rate in the sanctioned estimate with which the tenders are accepted, or if no such rates is available in the estimate, the rate derived will be with reference to the Standard Schedule of Rates adopted in the sanctioned estimate with which tenders are accepted.

40. Cash flow forecasts:

40.1 When the program is updated, the contractor is to provide the Engineer-in-charge with an updated cash flow forecast.

41. Payment Certificates:

41.1 The Contractor shall submit to the Engineer - in - Charge monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

41.2 The Engineer - in - Charge shall check the Contractor's monthly statement within 14 days.

41.3 The value of work executed shall be determined by the Engineer - in - Charge.

41.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

41.5 The Engineer - in - Charge may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Payments:

42.1 Payment for the work done by the contractor will be made for the finished work based on the measurements recorded in measurement books by any officer of the department not lower in rank than a Assistant Engineer and check measured by any officer not lower in rank than a Deputy Executive Engineer. The measurement shall be recorded at various stages of the work done and also after work is completed. The contractor shall be present at the time of recording of each set of measurement and their check measurement and accept them then and there so as to avoid disputes at a later stage. If the contractor is not available at the work spot at the time of recording measurements or check measurements the particulars of measurements shall be signed by the authorised agent of contractor based on which the contractor shall accept the set of measurements without any further dispute. If for any reason the contractor's authorised agent is also not available at site when the department decides to suspend the work recording of measurements in the absence of the contractor or his authorised representative the department shall not entertain any claim from the contractor for any loss incurred by him on this account. The Contractor shall however note that the Department cannot indefinitely wait for recording the measurement due to the absence of the Contractor and his authorised agent and check measure them even in the absence of the contractor.

42.2 Deleted.

42.3 Payments and Certificates:

- 42.3.1 Payments shall be adjusted for recovery of advance payments, liquidated damages in terms of tender conditions and security deposit for the due fulfillment of the contract. Payment will be made to the Contractor under the certificate to be issued at reasonably frequent intervals by the Engineer - in - Charge, and intermediate payment will be the sum equal to 92½% of the value of work done as so certified and balance of 7½% will be withheld and retained as security for the due fulfillment of the contractor under the certificate to be issued by the Engineer-in-Charge. On completion of the entire works the contractor will receive the final payment of all the moneys due or payable to him under or by virtue of the contract except earnest money deposit retained as security and a sum equal to 2½ percent of the total value of the work done. The amount withheld from the final bill will be retained under deposits and paid to the contractor together with the earnest money deposit retained as security after a period of 24 months as all defects shall have been made good according to the true intent and meaning there of.
- 42.3.2 In case of over payments or wrong payment if any made to the contractor due to wrong interpretation of the provisions of the contract, APSS or Contract conditions etc., such unauthorised payment will be deducted in the subsequent bills or final bill for the work or from the bills under any other contracts with the Government or at any time there after from the deposits available with the Government.
- 42.3.3 Any recovery or recoveries advised by the Government Department either state or central, due to non-fulfillment of any contract entered into with them by the contractor shall be recovered from any bill or deposits of the contractor.
- 42.3.4 No claim shall be entertained, if the same is not represented in writing to the Engineer-in-Charge within 15 days of its occurrence.
- 42.3.5 The contractor is not eligible for any compensation for inevitable delay in handing over the site or for any other reason. In such case, suitable extensions of time will be granted after considering the merits of the case.

42.4 Intermediate Payments:

- 42.4.1 For intermediate Stage of work, only part rates as fixed by the Engineer - in - Charge will be paid.
- 42.4.2 Part rates shall be worked out for the work done portion based on the actual operations involved keeping in view the value of the balance work to be done, to avoid unintended benefit to the Contractor in initial Stage.
- 42.4.3 Full rate shall be paid when the work is completed to the full profile as noted in the drawings.

- 42.4.4 For earthwork in cutting, 10% of the quantity will be withheld for intermediate payments and the same will be released after completing the work to the profiles as per drawings and disposal of the spoil material at the specified places and handing over the balance useful stone. For this purpose a length of 25 mts. will be taken as a Unit.
- 42.4.5 For earth work, embankment formation work, 10% of the quantity will be withheld for intermediate payments and the same will be released after completing the bund to the profiles as per drawings including trimming of side slopes and all other works contingent to the bund profile. For this purpose, 25 mts of length will be taken as a Unit.
- 42.4.6 For the structure works either with masonry or concrete where the height of structure is more than three meters, the quantities executed in the lower level will be withheld at the rate of one percent for every three meters height, if the balance height of the structure work is more than three meters in being over the executed level and the same will be released only after the entire work is completed as certified by the Engineer-in-Charge.
- 42.4.7 For C.M. & C.D. works and for lining works, spread over more than 2 Km. In length 5 percent of the concrete and Masonry quantities will be withheld and the same will be released after completion of all C.M. & C.D. works and lining for the entire length certified by the Engineer-in-Charge.
- 42.4.8 Where payment is intended for aggregates by Bill of Quantities item based on stack measurements, 10% of the quantity measured will be withheld. No payment or advance will be made for unfixed materials when the rates are for finished work in site.

43. Interest on Money due to the Contractor:

- 43.1 No omission by the Executive Engineer or the sub-divisional officer to pay the amount due upon certificates shall vitiate or make void the contract, nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrear, nor upon any balance which may, on the final settlement of his accounts, found to be due to him.

44. Certificate of Completion of works:

- 44.1 Certificate of Completion of works:
- 44.1.1 When the whole of the work has been completed and has satisfactorily passed any final test that may be prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer-in-Charge accompanied by an undertaking to carry out any rectification work during the period of maintenance, such notice and undertaking shall be in writing and shall be deemed to be request by the Contractor for the Engineer-in-Charge to issue a Certificate of completion in respect of the Works.

The Engineer-in-Charge shall, within twenty one days of the date of delivery of such notice either issue to the Contractor, a certificate of completion stating the date on which, in his opinion, the works were completed in accordance with the Contract or give instructions in writing to the Contractor specifying all the Works which, in the Engineer-in-Charge's opinion, required to be done by the Contractor before the issue of such Certificate. The Engineer-in-Charge shall also notify the Contractor of any defects in the Works affecting completion that may appear after such instructions and before completion of the Works specified there in. The Contractor shall be entitled to receive such Certificate of the Completion within twenty one days of completion to the satisfaction of the Engineer-in-Charge of the Works so specified and making good of any defects so notified.

44.1.2 Similarly, the Contractor may request and the Engineer-in-Charge shall issue a Certificate of Completion in respect of:

- a) Any section of the permanent works in respect of which a separate time for completion is provided in the Contract, and
- b) Any substantial part of the permanent works which has been both completed to the satisfaction of the Engineer-in-Charge and occupied or used by the department.

44.1.3 If any part of the Permanent Works shall have been completed and shall have satisfactorily passed any final test that may be prescribed by the Contract, the Engineer-in-Charge may issue such certificate, and the Contractor shall be deemed to have undertaken to complete any outstanding work in that part of the Works during the period of Maintenance.

45. Taxes

45.1 The percentage quoted by the contractor is inclusive of Value Added Tax (VAT) and other taxes on all materials that the contractor will have to purchase for performance of this contract.

45.2 All Taxes such as sales tax, seigniorage, royalties, tools, control, etc., in respect of materials to be consumed on the work and also in the finished item of work etc., must be borne by the contractors.

45.3 As per section 194-C of income tax act 1961, deduction at the rate of 2.24% in respect of individual contractors and 2.30% in respect of firms on the gross amounts of payments will be made towards income tax. The tax will be recovered at the rates as per the income tax act during course of execution.

46. Price Adjustment:

46.1 In terms of Go.Ms.No.435 Dt:18-08-2006 of MA&UD Department price adjustment clause for steel, cement, bitumen and POL is permitted to this contract

46.2 This contract is also permitted for price adjustment clause for materials such as metals, sand and etc., in terms of minutes of meeting of Chief Minister communicated vide memo No.13534/k2/2007 Dt:19-07-07 of MA&UD Department.

46.3 Service tax and its cess if any will be reimbursed in terms of the Government orders issued time to time.

47. Retention

47.1 The department shall retain from each payment due to the contractor @ the rate of 7.5% of bill amount until completion of the whole of the Works.

47.2 On completion of the whole of the Works half the total amount retained is re-paid to the Contractor and half when the Defects Liability Period has passed and the Engineer-in-Charge has certified that all the Defects notified by the Engineer-in-Charge to the Contractor before the end of this period have been corrected.

47.3 On completion of the whole works, the Contractor may substitute retention money with an **"on demand"** Bank Guarantee.

48. Liquidated Damages

48.1 If for any reason, which does not entitle the contractor to an extension of item, the rate of progress of works, or any section is at any time, in the opinion of the Chief Engineer too slow to ensure completion by the prescribed time or extended time for completion Chief Engineer shall so notify the contractor in writing and the contractor shall there upon take such steps as are necessary and the Chief 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 Chief Engineer under this clause the contractor shall seek the Commissioner/Chief Engineers permission to do any work at night or on Sundays, if locally recognised as days or rest, or their locally recognised equivalent, such permission shall not be unreasonably refused.

48.2 If the contractor fails to complete whole of the works or any part thereof or section of the works within the stipulated periods of individual mile stones (including any bonafide extensions allowed by the competent authority without levying liquidated damages), the Chief Engineer may without prejudice to any other method of recovery will deduct one tenth of one percent of contract value per calendar day or part of the day for the period of delays subject to a maximum of 10% of the contract value not as a penalty from any monies in his hands due or which may become due to the contractor. The payment or deductions 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 contract.

48.3 The liquidated damages for the whole of the work: **This may be filled at the time of concluding the agreement , As per NIT**

The maximum amount of liquidated damages for the whole of the works is Twenty five percent of final contract price.

49. Payment of Mobilization Advance

49.1 The contractors for works exceeding more than Rs.1.00 Crore of estimated contract value are permitted to avail the facility of mobilization advance in two installments equivalent to 10% of the contract amount (5% for labour mobilization and 5% for machinery and equipment) named in the letter of acceptance payable as per above. Payment of the loan will be done under separate certification by the Executive Engineer after (I) Execution of the form of agreement by the parties there to (ii) Provisions by the contractor of the further security in accordance with relevant condition and (iii) provision by the contractor of a Bank Guarantee from scheduled Bank acceptable to the Chief Engineer for an amount equal to 12% (which includes the interest charges) of a contract amount as indicated in the letter of acceptance towards the first installment of the advance mobilization loan, such bank guarantee to remain effective until the said advance loan has been completely repaid by the contractor out of the current earnings under the contract and certified accordingly by the Chief Engineer. The 'Advance mobilization loan' will be paid in 30 days after fulfilling the above – i, ii, and iii items. Advance mobilization loan will be paid only in case of contracts with estimated contract value exceeding Rs.100 lakhs.

49.2 A form of Bank Guarantee acceptable to Chief Engineer is indicated in format of securities. The advance mobilization loan shall be used by the contractor exclusively for mobilization expenditures, including the acquisition of constructional plant, in connection with the works. Payment of the second installment of advance mobilization loan equivalent to 5 percent of the contract amount will be due within a period of 9 months for local purchase of machinery and equipment and within one year in case the machinery and equipment has to be imported under separate certification by the Engineer-in-Charge after (I) the value of the machinery and equipment procured, and brought to site and/or ordered (satisfactory evidence to be produced) by the contractor assessed at 100% for new machinery and 50% for old machinery brought to site and in working condition is equivalent to 5 percent of the contract amount already paid as first advance loan and (ii) furnishing by the contractor of a bank guarantee for an amount equal to 6 percent (one percent towards interest) of the contract value.

- 49.3 Should the contractor misappropriate any portion of the advance loan, it shall become due to the Chief Engineer and payable immediately in one lump by the contractor and no further loan will be considered thereafter.
- 49.4 **The above advance shall bear an interest of 15.50% per annum or Government borrowing rate for the year 2007-08 whichever is more.** The interest on the amounts paid as advance is chargeable from the date the amount is paid. However if completion is delayed by circumstances beyond control of the contractor for which an extension has been granted by the Chief Engineer the interest charges on such advances shall be waived for the period of extension.
- 49.5 The value of Bank Guarantee for the advance payment given to the contractor can be progressively reduced by the amount repaid by the contractor as certified by the Chief Engineer.
- 49.6 Recovery of advances :
- 49.6.1 The advance loan together with interest at the rate specified in the above para shall be repaid within percentages deductions from the intermediate payments under the contract. Deduction shall commence in the next interim payment following that in which the total of all such payments to the contractor have reached 10 percent of the contract amount and shall be made at the rate of 20 percent of amount of all interim payments in which the loan was made together with interest payable upto that date, until such time as the loan together with interest at the rate specified in para above shall be completely repaid prior to the expiry of the original time for completion.
- 49.7. **Payment of Mobilization Advance**
- 49.7.1 Mobilisation Advance on machinery is payable against production of invoices in proff of purchase of the machinery by the contractor / firm / joint venture.
- 49.7.2 The invoices should be on the name of the contractor / firm / joint venture only and the machinery should have been purchased only after the date of conclusion of the agreement for the work on which the payment of mobilization advance is proposed.
- 49.7.3 Mobilisation advance is payable against copies of bills in respect of new machinery purchased @ 100% value and in respect of old machinery at 50% of the value as per the registered sale deed.
- 49.7.4 No mobilization advance is payable on the pre-owned machinery prior to conclusion of the agreement for the work or leased machinery or purchased by an individual firm in respect of joint ventures though that individual firm happens to be a partner in the joint venture.
- 49.7.5 The contractor / firm / joint venture should submit an undertaking to the effect that they have not obtained any mobilization advance from the Government against the machinery for which they are presently claiming, payment of mobilization advance.

49.7.6 Any wrong declaration, when comes to light, entails recovery of the entire amount paid in lump from their immediate next work bill.

50 Securities:

50.7 The Earnest Money Deposit and Additional Security (for discount tender percentage beyond **25%**) shall be provided to the Department not later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank acceptable to the Department. The Earnest Money shall be valid until a date 28 days from the date of expiry of Defects Liability Period and the additional security shall be valid until a date 28 days from the date of issue of the certificate of completion.

51 Cost of Repairs:

51.7 Loss or damage to the works or materials to the works between the start date and the end of the defects correction periods shall be remedied by the contractor at the contractor's cost if the loss or damage arises from the contractor's acts or omissions.

E. FINISHING THE CONTRACT

52 Completion:

52.7 The Contractor shall request the Engineer-in-Charge to issue a Certificate of completion of the Works and the Engineer-in-Charge will do so upon deciding that the work is completed.

53 Taking Over:

53.7 The Department shall takes over the Site and the Works within seven days of the Engineer-in-Charge issuing a certificate of Completion.

54 Final Account:

54.1 The Contractor shall supply to the Engineer-in-Charge a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer-in-Charge shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer-in-Charge shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the final Account is still unsatisfactory after it has been resubmitted, the Engineer-in-Charge shall decide on the amount payable to the Contractor and issue a payment certificate with in 56 days of receiving the Contractor's revised account.

55 Termination:

55.1 The Department may terminate the Contract if the contractor causes a fundamental breach of the Contract.

55.2 Fundamental breaches of Contract include, but shall not be limited to the following.

- a) The Contractor stops work for 28 days when no stoppage of work is shown on the current program and the stoppage has not been authorised by the Engineer-in-Charge.
- b) The Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation.
- c) The Engineer-in-Charge gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer-in-Charge and
- d) The Contractor does not maintain a security which is required and
- e) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined.
- f) If the contractor, in the judgement of the Department has engaged in corrupt or fraudulent practices in competing for or in the executing the contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition.

55.3 Notwithstanding the above the Department may terminate the contract for convenience.

55.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secured leave the Site as soon as reasonably possible.

56 Payment upon Termination:

56.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer-in-Charge shall issue a certificate for the value of the work done less advance payments received upon the date of the issue of the certificate, less other recoveries due in terms of the Contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed. Additional Liquidated Damages shall not apply. If the total amount due to the Department exceeds any payment due to the Contractor the difference shall be a debt payable to the Department.

57 Property:

57.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Department if the Contract is terminated because of Contractor's default.

58 Release from Performance:

58.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Department or the Contractor the Engineer-in-Charge shall certify that the contract has been frustrated. The Contractor shall make the site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS**59 Water Supply:**

The Contractor has to make his own arrangements for water required for the work and to the colonies and work sites, which are to be established by the Contractor.

60 Electrical Power:

The Contractors will have to make their own arrangements for drawing electric power from the nearest power line after obtaining permission from the Andhra Pradesh State Electricity Board at his own cost. In case of failure of electricity, the Contractor has to make alternative arrangements for supply of electricity by Diesel Generator sets of suitable capacity at place of work. If the supply is arranged by the Department, necessary Tariff rates shall have to be paid based on the prevailing rates. The contractor will pay the bills of Electricity Board for the cost of power consumed by him. The contractor shall satisfy all the conditions and rules required as per Indian Electricity Act 1910 and under rule -45(l) of the Indian Electricity Rules, 1956 as amended from time to time and other pertinent rules.

The power shall be used for bonafide Departmental works only.

60.1 Electric Power for Domestic Supply:

- a) The contractor has to make his own arrangements for the supply of electric power for domestic purposes and the charges for this purpose have to be paid by him at the rates as fixed by the Andhra Pradesh State Electricity Board from time to time.
- b) The contractor will have to make his own arrangements to lay and maintain the necessary distribution lines and wiring for the camp at his own cost. The layout and the methods of laying the lines and wiring shall have the prior approval of the Engineer-in-Charge. All camp area shall be properly electrified. All lines, streets, approaches for the camp etc., shall be sufficiently lighted for the safety of staff and labour of the contractor, at the cost of the Contractor and it will be subject to the approval of the Engineer-in-Charge.

61 Land:

61.1 Land for Contractor's use:

The contractor will be permitted to use Government land for execution of work. The contractor shall have to make his own arrangements for acquiring and clearing the site, leveling, providing drainage and other facilities for labour staff colonies, site office, work-shop or stores and for related activities. The Contractor shall apply to the Department within a reasonable time after the award of the contract and at least 30 days in advance of its use, the details of land required by him for the work at site and the land required for his camp and should any private land which has not been acquired, be required by the contractor for his use. The same may be acquired by the contractor at his own cost by private negotiations and no claim shall be admissible to him on this account.

The Engineer-in-Charge reserves the right to refuse permission for use of any government land for which no claim or compensation shall be admissible to the contractor. The contractor shall, however, not be required to pay cost or any rent for the Government land given to him.

61.2 Surrender of occupied land

- a) The Government land as here in before mentioned shall be surrendered to the Engineer-in-Charge within seven days, after issue of completion certificate. Also no land shall be held by the contractor longer than the Engineer-in-Charge shall deem necessary and the contractor shall on the receipt of due notice from the Engineer-in-Charge, vacate and surrender the land which the Engineer-in-Charge may certify as no longer required by the Contractor for the purpose of the work.
- b) The contractor shall make good to the satisfaction of the Engineer-in-Charge any damage to areas, which he has to return or to other property or land handed over to him for purpose of this work. Temporary structures may be erected by the contractor for storage sheds, offices, residences etc., for non-commercial use, with the permission of the Executive Engineer on the land handed over to him at his own cost. At the completion of the work these structures shall be dismantled site cleared and handed over to the Executive Engineer. The land required for providing amenities will be given free of cost from Government lands if available otherwise the contractor shall have to make his own arrangements.

61.3 Contractor not to dispose off Spoil etc.,

The contractor shall not dispose off or remove except for the purpose of fulfillment of this contract, sand, stone, clay ballast, earth, trees and shrubs or other materials obtained in the excavation made or lying on the site of the work, and all such materials and produce shall remain property of the Government.

The Department may upon request from the contractor, or if so stipulated in the conditions of the contract allow the contractor to use any of the above materials for the works either free of cost or after payment as may be specifically mentioned or considered necessary during the execution of the work.

62 Roads:

In addition to existing public roads and roads Constructed by Government, if any, in work area all additional approach roads inside work area and camp required by the Contractor shall be constructed and maintained by him at his own cost. The layout design, construction and maintenance etc. of the roads shall be subject to the approval of the Engineer-in-Charge. The contractor shall permit the use of these roads by the Government free of charge.

It is possible that work at, or in the vicinity of the work site will be performed by the Government or by other contractors engaged in work for the Government during the contract period. The contractor shall without charge permit the government and such other contractor and other workmen to use the access facilities including roads and other facilities, constructed and acquired by the contractor for use in the performance of the works.

The contractor's heavy construction traffic or tracked equipment shall not traverse any public roads or bridges unless the contractor has made arrangement with the authority concerned. In case contractor's heavy construction traffic or tracked equipment is not allowed to traverse any public roads or bridges and the contractor is required to make some alternative arrangements, no claim on this account shall be entertained.

The contractor is cautioned to take necessary precautions in transportation of construction materials to avoid accidents.

63 Payment for Camp Construction

No payment will be made to the contractor for construction, operation and maintenance of camp and other camp facilities and the entire cost of such work shall be deemed to have been included in the tendered rate for the various items of work in the schedule of quantities and bids.

64 Explosive And Fuel Storage Tanks

No explosive shall be stored within 1/2 (half) KM of the limit of the camp sites. The storage of gasoline and other fuel oils or of Butane, Propane and other liquefied petroleum gases, shall conform to the regulations of Andhra Pradesh State Government and Government of India. The tanks, above ground and having capacity in excess of 2000 liters, shall not be located within the camp area, nor within 200m, of any building.

65 Labour:

The contractor shall, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

Labour importation and amenities to labour and contractor's staff shall be to the contractor's account. His quoted percentage shall include the expenditure towards importation of labour amenities to labour and staff; The contractor shall, if required by the Engineer-in-Charge, deliver to the Engineer-in-Charge a written in detail, in such form and at such intervals as the Engineer-in-Charge may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the contractor on the Site and such information respecting Contractor's Equipment as the Engineer-in-Charge may require.

65.1 Transportation of Labour:

- I. The contractor shall make his own arrangement for the daily transportation of the labour and staff from labour camps colonies to the work spot and no labour or staff of the contractor shall stay at the work spot. No extra payment will be made to the contractor for the above transportation of the labour and his quoted percentage to the work shall include the transportation charges of labour from colonies to work spot and back.
- II. The contractor will at all times duly observe the provisions of employment of children Act XXVI of 1938 and any enactment or modification of the same and will not employ or permit any person to do any work for the purpose under the provisions of this agreement in contravention of said Act. The contractor here by agrees to indemnify the department from and against all claims, penalties which may be suffered by the department or any person employed by the department by any default on the part of the contractor in the observance and performance of the provisions of the employment of children Act. XXVI of 1938 or any enactment or modification of the same.

As per Govt. memo No.721/Gr.(1)/81-35, dt:17.11.87. The contractor shall obtain the insurance at his own cost to cover the risk on the works to labour engaged by him during period of execution against fire and other usual risks and produce the same to the Executive Engineer concerned before commencement of work.

66 Safety Measures:

1. The contractor shall take necessary precautions for safety of the workers and preserving their health while working in such jobs, which require special protection and precautions. The following are some of the measures listed but they are not exhaustive and contractor shall add to and augment these precautions on his own initiative where necessary and shall comply with directions issued by the Executive Engineer or on his behalf from time to time and at all times.

2. Providing protective foot wear to workers situations like mixing and placing of mortar or concrete sand in quarries and places where the work is done under much wet conditions.
3. Providing protective head wear to workers at places like underground excavations to protect them against rock falls.
4. Providing masks to workers at granulates or at other locations where too much fine dust is floating about and sprinkling water at frequent intervals by water hoses on all stone crushing area and storage bins abate to dust.
5. Getting the workers in such jobs periodically examined for chest trouble due to too much breathing in to fine dust.
6. Taking such normal precautions like fencing and lightening in excavation of trenches, not allowing rolls and metal parts of useless timber spread around, making danger areas for blasting providing whistles etc.
7. Supply work men with proper belts, ropes etc., when working in precarious slopes etc.
8. Avoiding named electrical wire etc., as they would electrocute the works.
9. Taking necessary steps towards training the workers concerned on the machinery before they are allowed to handle them independently and taking all necessary precautions in around the areas where machines hoists and similar units are working.

67 Fair Wage Clause:

1. The contractor shall pay not less than fair wages to labourers engaged by him on the work.
2. "Fair" wages means wages whether for time or piecework notified by the Government from time to time in the area in which the work is situated.
3. The contractor shall notwithstanding the revisions of any contract to the contrary cause to be paid to the labour, in directly engaged on the work including any labour engaged by the sub-contractor in connection with the said work, as if the labourers had been directly employed by him.
4. In respect of labour directly or indirectly employed in the works for the purpose of the contract part of the agreement the contractor shall comply with the rules and regulations on the maintenance of suitable records prescribed for this purpose from time to time by the Government. He shall maintain his accounts and vouchers on the payment of wages to the labourers to the satisfaction of the Executive Engineer.
5. The Executive Engineer shall have the right to call for such record as required to satisfy himself on the payment of fair wages to the labourers and shall have the right to deduct from the contract amount a suitable amount for making good the loss suffered by the worker or workers by reason of the "fair wages" clause to the workers.
6. The contractor shall be primarily liable for all payments to be made and for the observance of the regulations framed by the Government from time to time without prejudice to his right to claim indemnity from his sub-contractors.

7. As per contract labour (Regulation and abolition) Act. 1970 the contractor has to produce the license obtained from the licensing officers of the labour department along with the tender or at the time of agreement.
8. Any violation of the conditions above shall be deemed to be a breach of his contract.
9. Equal wages are to be paid for both men and women if the nature of work is same and similar.
10. The contractor shall arrange for the recruitment of skilled and unskilled labour local and imported to the extent necessary to complete the work within the agreed period as directed by the Executive Engineer in writing.

68 Indemnity Bond:

NAME OF WORK: **“Providing water supply to the Parawada housing colony from Desapathrunipalem Village.**

I _____ contractor S/o. _____ aged _____ Resident of _____ do hereby bind myself to pay all the claims may come (a) under Workmen's Compensation Act. 1933 with any statutory modification there of and rules there under or otherwise for or in respect of any damage or compensation payable in connection with any accident or injury sustained (b) under Minimum wages Act 1948 (c) under payment of wages Act.1936 (d) under the Contractor labour (Regulation and Abolition) Act. 1970 by workmen engaged for the performance of the business relating to the above contract i.e., failing such payment of claims of workmen engaged in the above work, I abide in accepting for the recovery of such claims, effected from any of my assets with the departments.

Signature of the tenderer

69 Compliance With Labour Regulations:

During continuance of the contract, the contractor and his sub contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notifications that may be issued under any labour law in future either by the State or the Central Government or the local authority and also applicable labour regulations, health and sanitary arrangements for workmen, insurance and other benefits. Salient features of some of the major labour laws that are applicable to construction industry are given below. The contractor shall keep the Department indemnified in case any action is taken against Department by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments.

If the Department is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provision stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the contractor, the Engineer-in-charge /Department shall have the right to deduct any money due to the contractor including his amount of performance security. The Department/Engineer-in-Charge shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the Department.

The employees of the Contractor and the Sub-contractor in no case shall be treated as the Department of the Department at any point of time.

70 Salient features of some major labour laws applicable to establishment engaged in buildings and other construction work:

- (a) Workmen compensation Act 1923: The Act provides for compensation in case if injury by accident arising out of and during the course of employment.
- (b) Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if any employee has completed 5 years service or more, or on death, the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments, employing 10 or more employees.
- (c) Employees P.F. and Miscellaneous provision Act 1952: The Act provides for monthly contributions by the Department plus workers @ 10% or 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.,
- (d) Maternity Benefit Act 1951: The Act provides for leave and some other benefits to women employees in case of confinements or miscarriage etc.
- (e) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided by the Principal Department by Law. The Principal Department is required to take certificate of Registration and the contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Department if they employ 20 or more contract labour.

- (f) Minimum wages Act 1948: The Department is supposed to pay not less than the Minimum wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment construction of Buildings, Roads, Runways are scheduled employments.
- (g) Payment of wages Act 1936: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- (h) Equal Remuneration Act 1979: The Act provides for payment of equal wages for work of equal nature to Male or Female workers and for not making discrimination against Female employee in the matters of transfers, training and promotions etc.
- (i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payment of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs. 3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per months or above and up to Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per monthly only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for ten years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- (j) Industrial Disputes Act 1947: The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (k) Industrial Employment (Standing Orders) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Department on matters provided in the Act and get the same certified by the designated Authority.
- (l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and Departments. The Trade Unions registered under the act have been given certain immunities from civil and criminal liabilities.
- (m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes, Employment Child Labour is prohibited in Building and Construction Industry.

- (n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of service) Act 1979: The Act applicable to an establishment, which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another State). The inter State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home up to the establishment and back, etc.
- (o) The Building and Other Construction workers (regulation of Employment and conditions of service) Act 1996 and the Cess Act of 1996: All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Department of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Department to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- (p) Factories Act 1948: The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 person or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

71 Liabilities of the Contractor

71.1 Accident Relief and workmen compensation:

The contractor should make all necessary arrangements for the safety of workmen on the occurrence of the accident, which results in the injury or death of any of the workmen employed by the contractor, the contractor shall within 24 hours of the happenings of the accident and such accidents should intimate in writing to the concerned Asst. Engineer / Asst. Executive Engineer of the Department the act of such accident. The contractor shall indemnify Government against all loss or damage sustained by the Government resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines if any payable by Govt. as a consequence of Govt. failure to give notice under workmen's compensation Act or otherwise conform to the provisions of the said Act. In regard to such accident.

- 71.1 In the event of an accident in respect of which compensation may become payable under the workmen's compensation Act VIII 23 whether by the contractor, by the Government it shall be lawful for the Executive Engineer to retain such sum of money which may in the opinion of the Executive Engineer be sufficient to meet such liability. The opinion of the Executive Engineer shall be final in regard to all matters arising under this clause.
- 71.2 The contractor shall at all times indemnify the Govt. of A.P. against all claims which may be made under the workmen's compensation act or any statutory modification thereafter or rules there under or otherwise consequent of any damage or compensation payable in consequent of any accident or injuries sustained or death of any workmen engaged in the performance of the business relating to the contractor.

72 Contractor's Staff, Representatives and Labour:

- (a) The contractor shall, at all times, maintain on the works, staff of qualified Engineers, and Supervisors of sufficient experience of similar other jobs to assure that the quality of work turned out shall be as intended in the specifications. The contractor shall also maintain at the works, a Work Manager or sufficient status, experience and office and duly authorise him to deal with all aspects of the day-to-day work. All communications to any commitments by the Work Manager shall be considered as binding on the Contractor.
- (b) The Contractor shall at all times submit details of skilled and unskilled labour and equipment employed to the Engineer-in-Charge in prescribed proforma as he may require to assess and ensure the proper progress of work.
- (c) If the contractor does not employ the technical person agreed to on the work a fine of Rs.25,000/- will be imposed. If he does not employ for 30 days, thereafter it becomes a fundamental breach of contract.

73 Accommodation and food:

The contractor should arrange accommodation he needs, at his own cost. The contractor shall make his own arrangements for supply of food grains, fuel and other provision to his staff and labourers including controlled commodities.

74 Relationship:

Contractor shall have to furnish information along with tender, about the relationship he is having with any officer of the Department, Government of Andhra Pradesh of the rank Assistant Engineer and above engaged in the work and any officer of the rank of Assistant Secretary and above of the Department of Government of Andhra Pradesh.

75 Protection of adjoining premises:

The contractor shall protect adjoining sites against structural, decorative and other damages that could be caused by the execution of these works and make good at his cost any such damages.

76 Work during night or on Sundays and holidays:

The works can be allowed to be carried out during night, Sundays or authorised holidays in order to enable him to meet the schedule targets and the work shall require almost round the clock working keeping in view:

- (i) The provisions of relevant labour laws being adhered to:
- (ii) Adequate lighting, supervision and safety measures are established to the satisfaction of the Engineer-in-Charge and
- (iii) The construction programme given by the Contractor and agreed upon by the Engineer-in-Charge envisages such night working or working during Sundays or authorised holidays.

77 Layout of materials stacks:

The contractor shall deposit materials for the purpose of the work on such parts only of the ground as may be approved by the Engineer-in-Charge before starting work. A detailed survey, clearly indicating position and areas where materials shall be stacked and sheds built is to be conducted by the contractor at his own cost and only after obtaining necessary approval of the plan for use of sites by the Engineer-in-Charge, the Contractor can use the sites accordingly.

78 Use of blasting materials:

Procurement of blasting materials and its storage is the responsibility of the contractor. The contractor shall engage licensed blaster for blasting operation. The contractor is to act in accordance with Indian Explosive Act and other rules prevailing, during the execution of work. It is the responsibility of the contractor to see, that works by other agencies in the vicinity are not hampered, in such cases if any claim is made by other agencies that should be borne by the contractor. Carriage of blasting materials, from the magazine to the work site, is the responsibility of the contractor.

79 Equipment:

79.1 The contractor shall have sufficient equipment and labour and shall work such hours and shifts as may be necessary to maintain the progress on the work as per the approval progress schedule. The working and shifts hours shall comply with the Govt. Regulations in force.

79.2 It is to expressly and clearly understood that contractor shall make his own arrangements to equip himself with all machinery and special tools and plant for the speedy and proper execution of the work and the department does not undertake responsibility towards their supply.

79.3 The department shall supply such of the machinery that may be available on hire basis but their supply cannot be demanded as matter of right and no delay in progress can be attributed to such non-supply of the plant by the department and the department cannot be made liable for any damage to the contractor. The Contractor shall be responsible for safe custody of the departmental machinery supplied to him (which will be delivered to contractor at the machinery yard at site of work) and he has to make good all damages and losses if any other than fire, wear and tear to bring it to the conditions that existed at the time of issue to the contractor before handing over the same to the department. The hire charges for the machinery handed over to the contractor will be recovered at the rate prevalent at the time of supply. The contractor will have to execute supplemental agreement with Executive Engineer at the time of supply of the machinery.

79.4 The acceptance of departmental machinery on hire is optional to the contractor.

80 Steel/Plywood forms:

Steel/ Plywood forms should be used for all items involving and use of centering and shuttering shall be single plane without any dents and undulations.

81 Inconvenience to public:

The contractor shall not deposit materials at any site, which will cause inconvenience to public. The Engineer-in-Charge may direct the contractor to remove such materials or may undertake the job at the cost of the contractor.

82 Conflict of interest:

Any bribe, commission, gift or advantage given, promised or offered by on behalf of contractor or his partner, agent or servant or any one on his behalf to any officer, servant, representatives, agents of Engineer-in-Charge, or any persons on their behalf, in relation to the obtaining or to execution of this, or any other contract with Engineer-in-Charge shall in addition to any criminal liability, which it may occur, subject to the cancellation of this or all other contracts and also to payment of any loss or damage resulting from any such cancellation. Engineer-in-Charge shall then be entitled to deduct the amount, so payable from any money, otherwise due to the contractor under this or any other contract.

83 Contract documents and materials to be treated as confidential:

All documents, correspondences, decisions and orders, concerning the contract shall be considered as confidential and/or restricted in nature by the contractor and he shall not divulge or allow access to them by any unauthorised person.

84 General obligations of Contractor:

84.1 The contractor shall, subject to the provision of the contract and with due care and diligence, execute and maintain the works in accordance with specifications and drawings.

84.2 The contractor shall promptly inform the Department and the Engineer-in-Charge of any error, omission, fault and such defect in the design of or specifications for the works which are discovered when reviewing the contract documents or in the process of execution of the works.

84.3 If Contractor believes that a decision taken by the Engineer-in-Charge was either outside the authority given to the Engineer-in-Charge by the Contract or that the decision was wrongly taken, the decision shall be referred to the technical expert within 14 days of the notification of the Engineer-in-Charge's decisions.

84.4 Pending finalisation of disputes, the contractor shall proceed with execution of work with all due diligence.

85 Security measures:

- a) Security requirements for the work shall be in accordance with the Government's general requirements including provisions of this clause and the Contractor shall conform to such requirements and shall be held responsible for the actions of all his staff, employees and the staff and employees of his sub-contractors.
- b) All contractors' employees, representatives and sub-contractor's employees shall wear identifications badges provided by the contractor. Badges shall identify the contractor, showing and employee's number and shall be worn at all times while at the site. Individual labour will not be required to wear identification badges.
- c) All vehicles used by the contractor shall be clearly marked with contractor's name.
- d) The contractor shall be responsible for the security of the works for the duration of the contract and shall provide and maintain continuously adequate security personnel to fulfill these obligations. The requirements of security measures shall include, but not limited to maintenance of order on the site, provision of all lighting, fencing, guard flagmen and all other measures necessary for the protection of the works within the colonies, camps and elsewhere on the site, all materials delivered to the site, all persons employed in connection with the works continuously throughout working and non working period including nights, Sundays and holidays for duration of the contract.
- e) Other contractors working on the site concurrently with the contractor will provide security for their own plant and materials. However, their security provisions shall in no way relieve the contractor of his responsibilities in this respect
- f) Separate payment will not be made for provision of security services.

86 Fire fighting measures:

- a) The contractor shall provide and maintain adequate fire fighting equipment and take adequate fire precaution measures for the safety of all personnel and temporary and permanent works and shall take action to prevent damage to destruction by fire of trees shrubs and grasses.
- b) Separate payment will not be made for the provision of fire prevention measures.

87 Sanitation:

The contractor shall implement the sanitary and watch and ward rules and regulations for all forces employed under this contract and if the Contractor fails to enforce these rules, the Engineer-in-Charge may enforce them at the expenses of the Contractor.

88 Training of personnel:

The contractor, shall, if and as directed by the Engineer-in-Charge provide free of any charge adequate facilities, for vocational training of Government Officers, students, Engineers, supervisors, foremen, skilled workmen etc. not exceeding six in number at any one time on the contractor's work. Their salaries, allowances etc. will be borne by the Government and the training schemes will be drawn up by the Engineer-in-Charge in consultation with the contractor.

89 Ecological balance:

- a) The contractor shall maintain ecological balance by preventing de-forestation, water pollution and defacing of natural landscape. The contractor shall so conduct his construction operation as to prevent any unnecessary destruction, scarring, or defacing of the natural surrounding in the vicinity of the work. In respect of the ecological balance, Contractor shall observe the following instructions.
 - i) Where unnecessary destruction, scarring, damage or defacing may occur, as result of the operation, the same shall be repaired replanted or otherwise corrected at the contractor's expense. The contractor shall adopt precautions when using explosives, which will prevent scattering of rocks or other debris outside the work area. All work area including borrow areas shall be smoothed and graded in a manner to conform to the natural appearances of the landscape as directed by the Engineer-in-Charge.
 - ii) All trees and shrubbery which are not specifically required to be cleared or removed for construction purposes shall be preserved and shall be protected from any damage that may be caused by the contractor's construction operation and equipment. The removal of trees and shrubs will be permitted only after prior approval by the Engineer-in-Charge. Special care shall be exercised where trees or shrubs are exposed to injuries by construction equipment, blasting, excavating, dumping, chemical damage or other operation and the contractor shall adequately protect such trees by use of protective barriers or other methods approval by the Engineer-in-Charge. Trees shall not be used for anchorages. The contractor shall be responsible for injuries to trees and shrubs caused by his operations. The term "injury" shall include, without limitation bruising, scarring, tearing and breaking of roots, trunks or branches. All injured trees and shrubs be restored as nearly as practicable without delay to their original condition at the contractor's expense.

- (iii) The contractor's construction activities shall be performed by methods that will present entrance or accidental spillage of solid matter contaminants, debris and other objectionable pollutants and wastage into river. Such pollutant and waste include earth and earth products, garbage, cement concrete, sewage effluent, industrial wastes, radio-active substances, mercury, oil and other petroleum products, aggregate processing, mineral salts and thermal pollution. Pollutants and wastes shall be disposed off in a manner and at sites approved by the Engineer-in-Charge.
 - (iv) In conduct of construction activities and operation of equipments the contractor shall utilise such practicable methods and devices as are reasonably available to control, prevent and otherwise minimise the air pollution. The excessive omission of dust in to the atmosphere will not be permitted during the manufacture, handling and storage of concrete aggregates and the contractor shall use such methods and equipment as a necessary for collection and disposal or prevention of dust during these operation. The contractor's methods of storing and handling cement shall also include means of eliminating atmospheric discharges of dust, equipment and vehicles that give objectionable omission of exhaust gases shall not be operated. Burning of materials resulting from clearing of trees, bushes, combustible construction materials and rubbish may be permitted only when atmospheric conditions for burning are considered favourable.
- b) Separate payment will not be made for complying with the provisions of this clause and all cost shall be deemed to have been included in the unit rates and prices included in the contract if any provision is not complied with within a reasonable time even after issue of a notice in this respect, the necessary operations would be carried out by the Engineer-in-Charge at the cost of the Contractor, Orders of the Engineer-in-Charge in this respect would be final and binding on the contractor.

90 Preservation of existing Vegetation:

- a) The contractor will preserve and protect all existing vegetation such as trees, on or adjacent to the site which do not unreasonably interfere with the construction as may be determined by the Engineer-in-Charge. The contractor will be held responsible for all unauthorised cutting or damage of trees, including damage due to careless operation of equipment, stockpiling of materials or trekking of grass areas by equipment. Care shall be taken by the Contractor in felling tress authorised for removal to avoid any unnecessary damages to vegetation and tress that are to remain in place and to structures under construction or in existence and to workmen.

- b) All the produce from such cutting of trees by the contractor shall remain the property of Government and shall be properly stacked at site, approved by the Engineer-in-Charge. No payment whatsoever, shall be made for such cutting and its stacking by the Contractor. If any produce from such cutting is not handed over to the Government by the contractor, he shall be charged for the same at the rates to be decided by the Engineer-in-Charge. The recovery of this amount shall be made in full from the intermediate bill that follows.
- c) The contractor shall also make arrangements of fuel deposits for supply of required fuel for the labourer to be employed for cooking purpose at his own cost in order to prevent destruction of vegetation growth in the surrounding area of the work site.

91 Possession prior to Completion:

The Engineer-in-charge shall have the right to take possession of or use any completed part of work or works or any part there of under construction either temporarily or permanently. Such possession or use shall not be deemed as an acceptance of any work either completed or not completed in accordance with the contract with in the interest of Clause 28 of APSS except where expressly otherwise specified by the Engineer-in-charge.

92 Payment upon Termination:

If the contract is terminated because of a fundamental breach of contract by the contractor, the Engineer-in-Charge shall issue a certificate for the value of the work done less advance payment received upon the date of the issue of the certificate and less the percentage to apply to the work not completed as indicated in the contract data. Additional liquidated damages shall not apply. If the total amount due to the Department exceeds any payment due to the contractor the difference shall be a debt payable to the Department. In case of default for payment within 28 days from the date of issue of notice to the above effect, the contractor shall be liable to pay interest at 12% per annum for the period of delay.

93 Access to the contractor's books:

Whenever it is considered necessary by the Engineer-in-Charge to ascertain the actual cost of execution of any particular extra item of work or supply of the plant or material on which advance is to be made or of extra items or claims, he shall direct the contractor to produce the relevant documents such as payrolls, records of personnel, invoices of materials and any or all data relevant to the item or necessary to determine its cost etc. and the contractor shall when so required furnish all information pertaining to the aforesaid items in the mode and manner that may be specified by the Engineer-in-Charge.

94 Drawing to be kept at site:

One copy of the drawings furnished to the contractor shall be kept by the contractor on the site and the same shall at all reasonable time be available for inspection and use by the Engineer-in-Charge and the Engineer-in-Charge's representative and by any other persons authorised by the Engineer-in-Charge in writing.

95 B.I.S. [I.S.I.] books, MoRT&H / APSS to be kept at site:

A complete set of Indian Standard specification, MoRT&H Specification (4th revision referred to in "Technical Specifications" and A.P.S.S. shall be kept at site for reference.

96 Site Order Book:

An order book shall be kept at the site of the work. As far as possible, all orders regarding the work are to be entered in this book. All entries shall be signed and dated by the Department Officer in direct charge of the work and by the contractor or by his representative. In important cases, the Executive Engineer or the Chief Engineer will countersign the entries, which have been made. The order book shall not be removed from the work, except with the written permission of the Executive Engineer.

97 Variations by way of modification, omissions or additions:

For all modifications, omissions from or additions to the drawings and specifications, the Executive Engineer will issue revised plans, or written instructions, or both and no modification, omission or addition shall be made unless so authorised and directed by the Executive Engineer in writing.

The Executive Engineer shall have the privilege of ordering modifications, omission or additions at any time before the completion of the work and such orders shall not operate to annul those portions of the specifications with which said changes do not conflict.

Engineer-in-Charge's Decision:

It shall be accepted as in separable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract drawings and contract specification, mode of the procedure and the carrying out of the work, the decision of the Engineer-in-Charge, which shall be given in writing shall be binding on the contractor.

98 Care and diversion of River/Stream:

The contractor shall submit details regarding the diversion and care of river or stream during construction of the work along with a separate print-out of the time table showing earliest and latest start and finish dates of various activities. He should submit a detailed layout plan with drawings for the diversion and care of river during construction of work. The above arrangements shall be at contractor's cost.

99 Income tax;

- a) During the currency of the contract deduction of income tax at 2.24% shall be made from the gross value of each bill of the contract, the contract value of which is in excess of Rs.10,000/- for deduction of tax at rates lower than 2.24% procedure stipulated under section 194-C(4) of Income Tax Act, 1961 shall be followed.
- b) Income Tax clearance certificate should be furnished before the payment of final bill.
- c) The contractor's staff, personnel and labour will be liable to pay personnel income taxes in respect of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

71 Seigniorage charges: Go. Ms No.100, I & C(M1) Dept., Dt.31-10-2015

100.1 Seigniorage charges will be recovered as per rules from the work bills of the contract or based on the theoretical requirement materials at the following rates.

S. No.	Material	Seigniorage
1.	Sand	Rs.50.00
2.	Metal/ Stone dust	Rs.75.00
3.	R.R stone for masonry	Rs.75.00
4.	C.R.S stone/ Revetment stone	Rs.75.00
5.	Gravel / Earth	Rs.30.00

100.2 The rates are liable to be revised and amended from time to time by the State Government by notification in the Andhra Pradesh Gazetted, If the revised seigniorage fee is more than the above mentioned, the recovery from the contractor's bill is as per revised rates.

100.3 An amount of 0.10% of the gross bills will be deducted from contractors as their contribution to the **National Academy of Construction (NAC)**, Hyderabad and 0.15% towards Chief Ministers Relief fund as per G.O.Ms.No.159 T(R&B) R.III Dept., dt.30.10.2004.

101 Value Added Tax (VAT):

101.1 Value Added Tax during the currency of the contract deduction towards Andhra Pradesh Value Added Tax under section A.P. VAT Act 57, according to which tax has to be deducted.

102 Supply of construction materials:

- i) The contractor has to make his own arrangements for procurements, supply and use of construction materials.
- ii) All materials so procured should confirm to the relevant specifications indicated in the bidding documents.

- iii) The contractor shall follow all regulations of the Department/Government of India in respect of import licenses etc., of the procurement of the materials is through imports and he shall be responsible for the payment of applicable duties and taxes, port clearances, inland transportation etc.
- iv) The contractor shall make his own arrangements for adequate storage of the materials.
 - a. The contractor shall purchase Bitumen / Emulsion only from the reputed firm i.e., HPCL, BPCL and IOCL.
 - b. The contractors shall produce original bills towards purchase of bitumen / emulsion while submitting the bills for payment.

Executive Engineer Concerned should endorse the name of work on the bills / vouchers / invoices for which the bitumen / emulsion is utilized to avoid reuse of bills on other works. The contractors shall order and procure the bitumen / emulsion work wise so that the contractor obtain invoice / bills work wise and submit the same to the Executive Engineer concerned while preparing the bills.
 - c. The contractor shall procure required quality control equipment, which is required for day-to-day laboratory tests and also to procure any other equipment, which is essential during the work period.

FOOT NOTE ON SPECIAL CONDITIONS

- 1. Each allottee of the house knows his/her particular allotted houses. As such the allottee will be participating in the day to day construction. In addition to the department officers. External quality control personnel will be inspecting the site. The successful tenderer should not feel as a hindrance but should cooperate for the participation and suggestions given by the allottees and quality control authorities. The department will pay to the amount to the work done bills as on when the funds available in the corporation. The interest the pending bills not paid to the contractor.
- 2. The deposit amount will be returned to the unqualified unsuccessful tenderers only after 3 months from the date of opening of tenders of finalization of the tender whichever is earlier.
- 3. All test charges as directed by the Department from time to time should be born by the contractor.
- 4. Water suitable for construction should be procured by the contractor and department will not show the source and will not entertain any expenditure for getting suitable water.
- 1. The contractor shall make his own arrangements for obtaining temporary power supply from APSEB.

6. Any suspected right formation by the contractors altogether be discourage and if found all the tenders will be cancelled duly forfeiting the amounts deposited.
7. All certificates ((including (2 AN-B)) if found false, the deposited amount by the contractor will be forfeited in additional to recommend for black listing.
8. **The successful tenderer should conclude the Agreement with in seven days of time from the date of receipt of letter of acceptance (LOA) from the Chief Engineer , GVMC duly filling the formalities like Bank Guarantee etc., on failure to do so his tender will be cancelled duly forfeiting the EMD paid by him with out assigning any further notice.**
9. **The date of agreement will be taken as handing over of site and commencement of the scheme for all purposes.**
10. If the contractor fails to complete whole of the works are any part there of or section of the works within the stipulated periods, the Commissioner, GVMC may be out prejudice to any other method of recovery will deduct 1.10 of 1% of contract value per calendar day or part of the day for the period of delays subject to a maximum of 10% of the contract value.
11. The contractor is bound to execute all supplemental items that are found essential, incidental, contingent to work and inevitable during the execution of work either in connection with civil or amenities with out any financial and quantitative limitations of the department insists during the agreement period. He should not claim any extra over the supplemental rate as derived form the agreement conditions/APSS.
12. The successful tenderer is bound to Execute 50% of the houses in excess at agreement rates and specifications as in Schedule-A without any escalation in rates. Necessary EOT will be granted without imposing any liquidated damages with in the specified time.
13. A minimum quantity of 380 Kgs. of cement per one cubic meter shall be used for VRCC M30 Grade design Mix.
14. All the items mentioned in the Schedule-A include all leads and lifts and depositing the earth as directed by the department, shoring shuttering, bailing out water and cost & conveyance of all materials at site of work scaffolding steel centering, machine mixing, laying, vibration with Pin/Pan Vibrator, curing, tamping ramming etc., with all incidental re-handing operations etc., complete required for finished item of works. All RCC items should be finished neatly, if needed at the contractors cost.
15. All rates quoted should include water leads if any contractor should make his own arrangement for obtaining water at site, department will not pay charges extra towards water leads and will not under take to indicate source.

16. Water used for mixing Mortar or Concrete and for curing shall be clean and free from injurious amounts of deleterious materials such as oils, acids, alkalis, salts, site an organic matter etc., and materials which may cause discoloration as per APSS No 129
17. FOUNDATIONS & BASEMENT FILLINGS: The rate should include earthing, unloading, conveyance, spreading, watering, tamping etc., all operations complete. Clay and expansive type of soils shall not be used for filing purpose.
18. All the brick work should be with Fal-G bricks of size as required and of crushing strength not less than 50 Kgs./sq/cm.
19. All special specifications as directed by the Commissioner, GVMC concerned and as per drawing supplied form time to time during the execution of work.
20. The fixtures and furniture's to be provided for the Doors & Windows by the contractors as per ISI standards.
21. All stones used shall be cleaned and are of uniform Colours, texture, strong hard and durable as indicated in clause 107.1 table 107.A and nominal sizes and corresponding grading for single sized and graded aggregated in clause 108 (1 – 1) table 108 – A and Table 108 – B of A.P.S.S.
22. The site should be cleared and leveled up to the extent of the plot of the building before the excavation is started and also when building is completed, no extra payment will be made for such leveling of site and rate of excavation of foundation should be quoted taking this contingency into account in case of sloped grounds.
23. Dead mortar shall be removed every day after day's work.
24. For reinforced cement mortar, pre-case jallies items the rate is inclusive of steel and cement etc., complete and no separate issue of steel and cement will be made towards these items.
25. Final payment shall be made on checking of surfaces and slopes etc., complete by the authority of department.
26. Contractor shall maintain a Register indicating results of Quality Control tests including cement, steel water, Fine aggregated and Coarse Aggregate. The test charges born by the contractors.
27. PLASTERING: In case of discontinuity in back ground (i.e., at the junction of brick masonry portion and RCC Portion. The two portions shall be separated by a neat cut or grove in plastering when it is green at all such junction portion. The rate for internal and external plastering shall be inclusive of making a neat cut grove. No separate rate will be paid for making neat cut or grove except the agreement rate for external or internal plastering vide A.P.D.S.S. specification No. 901.3.5
28. The contractor should bring his own concrete mixtures, Plate Vibrator, Pin Vibrator.

29. Seigniorage charges will be deducted from the work bills as per G.O.Ms. No. 217 Industries & Commerce (M-1) Department dt 29.9.2004 and Memo NO. 1398/TAR/2004 dt 4.10.2004 Deputy Director of Mines and Geology, Visakhapatnam.
30. Test charges of Fal-G brick, Sand, Motor, Concrete, Cement & Steel and any material supplied by the contractor and finished work done by the contractor should be borne by the contractor only.
31. No charges towards re handling of excavated soil will be payable. All excavated materials will have to be deposited at places shown by the Engineer.
32. Sales tax will be recovered from the bills as per existing APGST rules.
33. The rates of above items should be inclusive of all taxes and Seigniorage charges.
34. It is to be expressly understood that the measured work is to be taken net (not withstanding any custom or practice to the contrary) according to the actual quantities placed and finished according to the drawings or may be ordered from time to time by the Deputy Executive Engineer and the cost calculated by measurement or weight at the respective prices without any additional charge for any necessary or contingent works connected therewith.
35. All items of work will have to be executed as per standard specifications laid down in APSS and the special specifications and general features of design attached herewith. The quoted offer shall include all operations described in the said specifications and general features and shall be inclusive of all charges such as leads, lifts, classification, incidental charges, all taxes, royalties, hire and operational charges of all T & P security measures etc., complete.
36. Vernacular signature should be translated into English.
37. Additions and alternations in schedules or conditions will disqualify the tender.
38. Steel/Plywood centering should be used for all members involving the user of centering.
39. The tenderer should inspect the site & checkup the possible water sources for carrying out work throughout the year, monsoons, or non-monsoon seasons irrespective of the quantum of rainfall and quote their offer accordingly. No subsequent claims for extra water leads will be entertained under any circumstances.
40. The contractor will not be entitled to claim any interest on arrears which he may be get on the final settlement of accounts.
41. The contractor shall make his own arrangements for the acquisition of stone and other quarries etc., at his own cost.
42. An amount of 0.10% of the gross bills will be deducted from contractors as their contribution to the **National Academy of Construction (NAC)**, Hyderabad and 0.15% towards Chief Ministers Relief fund as per G.O.Ms.No.159 T(R&B) R.III Dept., dt.30.10.2004.

43. All RCC items of works should carryout as per the specifications of IS 456 – 1978 & 2000 and BIS 1983 and other relevant IS codes as amended upto date.

TECHNICAL SPECIFICATIONS

[TO BE INCORPORATED AS PER REQUIREMENT OF THE WORK PUT TO TENDER DULY QUOTING THE RELEVANT SPECIFICATION NUMBER OF APSS./ BSI Code No. , MoRT&H, etc. STANDARD SPECIFICATION NO.]

1.1 SCOPE

“Providing water supply to the Parawada housing colony from Desapathrunipalem Village” for laying of pipeline for water supply lines to Parawada housing colony.

1.2 DESCRIPTION OF WORK

The works to be undertaken in each section of the contract are more particularly described on the Drawings and other parts of the Contract Documents. The descriptions given below shall not be considered as limiting or restricting the extent of the Works in any manner.

1.2.1 The major works covered under this tender are detailed below:

- i) Supply, delivery, lowering, jointing, testing and commissioning of 200mm dia and above Centrifugally cast (spun) ductile iron pipe line.

PREAMBLE

SITE INFORMATION

The information given hereunder and provided elsewhere in these documents is given in good faith by the Employer but the Contractor shall satisfy himself regarding all aspects of site conditions and no claim will be entertained on the plea that the information supplied by the Employer is erroneous or insufficient.

GENERAL REQUIREMENTS

The Technical Specifications in accordance with which the entire work described hereinafter shall be constructed and completed by the Contractor shall comprise of the following:

PART-I: General Technical Specifications

The General Technical Specifications shall be the "SPECIFICATIONS FOR ROAD AND BRIDGE WORKS FOURTH REVISION, AUGUST 2001 issued by the Ministry of Road Transport and Highways (MORTH) formerly the Ministry of Surface Transport and published by the Indian Roads Congress.

PART-II: Supplementary Technical Specifications

The Supplementary Technical Specifications shall comprise of various Amendments/Modifications/ Additions to the "General Technical Specifications"

referred to in PART - I above and Additional Specifications for particular item of works not already covered in PART-I.

A particular clause or a part thereof in "SPECIFICATIONS FOR ROAD AND BRIDGE WORKS (FOURTH REVISION, AUGUST 2001 and incorporated in PART-II, referred to above, such Amendment/Modification/Addition supersedes the relevant Clause or part of the Clause.

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

When an Amended/Modified/Added Clause supersedes a Clause or part thereof in the said Specifications, then any reference to the superseded Clause shall be deemed to refer to the Amended/Modified/Added Clause or part thereof.

In so far as Amended/Modified/Added Clause may come in conflict or be inconsistent with any of the provisions of the said Specifications under reference, the Amended/Modified/ Added Clause shall always prevail.

Additional Specifications

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

AMENDMENTS/MODIFICATIONS/ADDITIONS TO EXISTING CLAUSES OF GENERAL TECHNICAL SPECIFICATIONS

Clause 102 DEFINITIONS

The following abbreviations shall be added in this Clause: GVMC : Greater Visakhapatnam Municipal Corporation.

Clause 108.4 Delete first two sentences.

Clause 109.9 Delete 2nd and 3rd sentence and add the following "setting out of the road alignment and measurement of angles shall be done by using total station".

Clause 110 Encumbrances in Construction Area, including Trees and Utilities

Replace whole of this clause with the following:

Clause 110.1 The contractor shall be responsible to coordinate with service provider / concerned authorities for cutting of trees, shifting of utilities and removal of encroachments etc. and making the site unencumbered from the project construction area required for completion of work. This will include initial and frequent follow-up meetings / actions / discussions with each involved service provider / concerned authorities. The contractor will not be entitled for any additional compensation for delay in cutting of trees, shifting of utilities and removal of encroachments by the service provider / concerned authorities.

Payment for cutting of trees and shifting of utilities as required by the concerned department shall be made by the Employer.

Clause 110.2 Drawings scheduling the affected encumbrances such as trees and services like water pipes, oil pipelines, cables, gas/oil pipes, electricity lines, accessories, telephone poles and OFC cables etc. shall be verified by the willing bidder in the office of the Employer. Copy of the drawings, however, will be issued to successful bidder under clause 107 of specification, for verification by him for accuracy, necessary co-ordination and work.

Clause 110.3 The Employer will make payments to the respective service provider / authorities for cutting of trees and shifting of utilities, wherever required. The contractor will obtain necessary approval from such

Authorities after payments by the Employer and also in cases where payments are not required to be made for such shifting. The Employer will also write to all concerned departments / service provider organization for expediting and facilitating cutting of trees, utilities shifting and removal of encroachment etc.

Clause 110.4 Any services affected by the Works must be temporarily supported by the Contractor who must also take all measures reasonably required by the various bodies to protect their services and property during the progress of the Works. It shall be deemed to be part of the Contract and no extra payment shall be made for the same.

Clause 110.5 The Contractor may be required to carry out certain works for and on behalf of the various bodies and he shall also provide, with the prior approval of the Engineer, such assistance to the various bodies as may be authorized by the Engineer.

Clause 111 Precautions for Safeguarding the Environment

This whole clause shall be substituted by following:

Clause 111.1 General

The contractor shall take all precautions for safeguarding the environment during the course of the construction of works. He shall abide by all rules, regulations and laws in force governing pollution and environmental protection that are applicable to the area where the works are situated.

NOISE :

The Contractor shall mitigate against any sustained increase in base line ambient sound levels at sensitive receptors during construction of work.

All construction operations shall be performed in a manner to minimize noise and vibration. The parameters for noise are detailed below.

- 70 dB (decibel) (A) for day and night;
- 50 dB (decibel) (A) for day and 45 dB (A) for night for residential and silence zone areas.

If the noise level are found to be above these standards and it is determined by the Engineer that these levels are due to the equipment's or plants being deployed by the contractor, he shall undertake, at his own cost measures as approved by the Engineer, to bring these levels down to the specified levels.

Contractor shall ensure:

-Stationery equipment will be placed at least 115m away from inhabitant areas & 200m from sensitive areas to minimum noise impacts.

Construction activities generally prohibited between 10 p.m. to 6 a.m. near habitation.

Provision of using ear plugs, helmets by workers exposing high noise levels.

Erecting sign boards at sensitive and residential locations prohibiting use of air horns. Labour shall be warned against the hunting of wild life, if any. No archaeological site shall be disturbed.

Clause 111.2 Borrow Pits for Embankment Construction

Borrow pits shall not be dug within the right-of-way of the road. Contractor will ensure that proper excavation techniques are used to improve stability and safety of the borrow area. The excavation shall be carried out in such a way that the area does not inundate during monsoons generate cesspools of water for breeding site. The area after excavation shall be properly landscaped. The stipulations in Clause – 305.2.2 shall govern.

Clause 111.3 Quarry Operations

The contractor shall obtain material from licensed quarries only after the consent of the forest department or other concerned authorities. The quarry operation shall be undertaken within the purview of the rules and regulations in force. Contractor shall ensure scheduling the movement of transport carrying material to and from site during non-peak hours. The trucks carrying dusty material fly ash shall be covered with tarpaulin and provided with adequate free board to prevent spillage. End boards shall be provided in loaders to prevent spillage. Stockpiling of material shall be properly planned so as to ensure that no traffic jam takes place on the highway.

Clause 111.4 Control of Soil Erosion & Sedimentation

The contractor shall carry out the works in such a manner that soil erosion is fully controlled. The stipulations in Clause – 306 shall govern.

Clause 111.5 Precautions against Dust

The contractor shall take all reasonable steps to minimize dust nuisance during the construction of the works. All existing highway and roads used by vehicles of the contractor or any of his sub-contractor or suppliers of materials or plant, and similarly any new roads which are part of the works and which are being used by traffic, shall be kept clean and clear of all dust/mud or other extraneous material dropped by the said vehicles or their tyres. Similarly, all

dust or mud or other extraneous material from the works spreading on these highways shall be immediately cleared by the contractor. Clearances shall be effected immediately by manual sweeping and removal of debris, or, if so directed by the Engineer, by mechanical sweeping and clearing equipment, and all dust, mud and other debris shall be removed entirely from the road surface. Additionally, the road surface shall be hosed or watered using suitable equipment to avoid dust pollution. Special care shall be taken to combat dust problem originating from use of fly ash.

Clause 111.6 Pollution from Hot Mix Plant, Batching Plant & Other Construction Machinery

The Contractor shall ensure the use of relatively new, well maintained hot mix plant (batching plant) so that emission conforms to the CPCB norms and be fitted with dust extraction unit avoid prolonged engine powered equipment idleness. Asphalt mixing sites shall be located more than 500m from any community or residence. The hot mix plant shall be founded on compacted/paved surface so that the spills do not affect the aquifer. Properly sizing and maintenance of mufflers, engine intake, silencers and engine enclosures shall be carried out. The contractor shall take every precaution to reduce the levels of noise, vibration, dust and emission from his plant. The contractor shall be fully responsible for any claims for damages caused to the owner of property, fields and residence in the vicinity.

All vehicles, equipments and machinery need for construction will be regularly maintained to ensure that pollution emission levels conform to CPCB norms. All vehicles should be fitted with silencer and dust removal device.

Construction vehicles, machinery & equipment will move or be stationed in the designated area to avoid Compaction of soil ensuring the perseverance of the top soil for agriculture.

Clause 111.7 Road Safety

The contractor shall provide adequate circuit for traffic flow around construction areas, control speed of construction vehicles through road safety and training of drivers, provide adequate signage, barriers and flag persons for traffic control. If there are traffic jams during construction, measures shall be taken to relieve the congestion with the assistance of traffic police. Safety of workers undertaking various operations during construction will be ensured by providing helmets, masks, safety goggles etc.

Clause 111.8 Sanitation & Waste Disposal in Construction Camp

Contractor shall ensure that construction camps are located at a distance of minimum 200m from water sources. Special attention shall be paid to the sanitary conditions of the camps. The contractor shall ensure that sufficient measures are taken i.e. provision of garbage tanks and sanitation facility. Waste in septic tanks shall be cleaned periodically. Garbage shall be

collected in four soakage pits at each construction site and disposed of daily. Contractor shall provide adequate measures for the health care of workers and arrange their regular medical check-up to ensure that they do not suffer from communicable disease. At every work place, good & sufficient potable water supply will be maintained to avoid waterborne/water related diseases.

If any pits are dug at construction/camp site which are not filled and may turn into mosquito breeding sites during monsoons, either these shall be filled up properly so that no water gets accumulated or sprayed frequently with pesticides to prevent mosquito breeding. Prior permission of the Engineer and regulatory authority shall have to be taken by the contractor for discharging or disposing of any material arising from the execution of workers.

Clause 111.9 Substance Hazardous to Health

The contractor shall not use or generate any material in the work, which are hazardous to the health of persons, animals or vegetation. Where it is necessary to use some substance, which can cause injury to the health of the workers, the contractor shall provide suitable clothing or appliances to his workers, viz. ear plugs, helmets or dust masks.

Clause 111.10 Any structural damage caused to the existing roads/structures by his construction equipment shall be made good without any extra cost.

Clause 111.11 Use of Nuclear Gauges

Nuclear gauges shall be used only where permitted by the Engineer. The contractor shall provide the Engineer with a copy of the regulations governing the safe use of nuclear gauges he intends to employ and shall abide by such regulations.

Clause 111.12 Environmental Monitoring

In order to carry out periodic checks environmental monitoring will be carried out by the Engineer as per schedule and if any parameter is found above the acceptable standards, mitigation measures/control measures as decided by the Engineer shall be complied with by the contractor.

Clause 111.13 Protection of Existing Trees

Many of the existing trees within the right of way will be cut for construction of roadway by Forest Department or any other agency (Refer clause 110 also). The contractor shall take all necessary measures to ensure safety and protection of the remaining trees from any action whatsoever relating to his construction operations in the adjoining areas

Adequate supply of fuel (Kerosene, LPG) shall be provided to the construction laborers to avoid felling of trees for cooking and other household activities.

Clause 111.14 Disposal of Materials Outside Work Site

Notwithstanding other relevant provision in the contract, the excess material generated by dismantling, excavation, waste material and lubricants, used oil, gasoline and other such substance etc., shall be removed from site, outside the right or way at regular intervals and site shall kept clean from all such disposable materials, grease, cotton and other wastes construction material will be disposed off in shallow soakage wells constructed in each construction site. Such intervals shall not exceed one month under any circumstances. The selection of the disposal site shall be the responsibility of the contractor and he shall ensure that the selected site does not result in any claim for damages to the employer or violation of any existing laws.

Clause.111.15 Compliance with the foregoing will not relieve the contractor of any responsibility for complying with the requirement of any highway authority in respect of the roads used by him.

Clause 112.1 General

Delete the last sentence and add the following:

“Two weeks before undertaking work which would involve any obstruction whatsoever to traffic the Contractor shall submit, for the Engineers approval, a Traffic Control Plan.

The plan shall include:

- i. Typical drawings for temporary diversions in accordance with Sub-Clause 112.3
- ii. Typical details of arrangements for construction under traffic including details of traffic arrangements proposed to be in place after the cessation of work each day.

Special consideration shall be given in the preparation of the Traffic Control Plan to the safety of pedestrians and workers and delineation of the roadway at night.

Temporary diversions will be constructed only with the approval of the Engineer and will generally only be constructed at bridge sites where new bridges are to be located on the existing road alignment. Road works shall generally be constructed under traffic.”

Clause 121 FIELD LABORATORY

Clause 121.2 Description

Add the following at the end of this Clause: Within 14 (fourteen) days of the Start Date, the Contractor shall prepare detailed working drawing of the laboratory building and make/supplier of the equipment to the Engineer for his approval.

The field laboratory to be provided under the Contract shall be handed over to the Engineer in finished and fully equipped condition not later than 2 months after the receipt of Notice to Proceed or 2 months from the date when the land for the construction of field laboratory is provided, whichever is later, and such building shall be to the entire satisfaction of the Engineer. The laboratory and its associate work including its administration shall be to the complete satisfaction of the Engineer throughout the project period till such time all the take over certificates are issued. The contractor must satisfy the engineer in any non-compliance whatsoever. During the period specified, the laboratory tests shall be performed in another laboratory proposed by the Contractor and approved by the Engineer.”

Clause 121.3 Laboratory Equipment

This Clause shall read as under:

"The following items of laboratory equipment shall be provided in the field laboratory."

A :General	
(i) Balance	
(a) 7 kg to 10 kg capacity semi-self indication Type- Accuracy 1 gm Electronic	2 Nos
(b) 500 gm capacity semi-self- indicating Electronic Type- Accuracy 0.01 gm.	2 Nos.
(c) Pan balance 5 kg capacity Accuracy 0.5 gm.	3 Nos.
(d) Platform Scale - 300 kg capacity	1 No.
(e) Chemical Balance 100 gm. capacity - accuracy 0.001	1 No.
(ii) Ovens-Electrically operated, thermostatically controlled	
(a) From 100°C to 220°C Sensitivity 1°C	1 No.
(iii) Sieves: as per I.S. 460-1962	
(a) I.S. Sieves 450 mm internal dia of sieve sets as per ISI of required sieve sizes complete with lid and pan	2 Sets
(b) I.S. sieve 200 mm internal dia (brass frame and steel or brass wire cloth mesh) consisting of sieve sets of required sieve sizes complete with lid and pan	2 Sets
(iv) Sieve shaker capable of taking 200 mm and 450 mm dia sieves electrically operated with time switch assembly (As per IS)	1 No
(v) 200 tonnes compression testing machine	1 No.
(vi) Stop watches 1/5 sec. Accuracy	2 Nos.
(vii) Glassware comprising of Beakers, Pipettes, dishes, measuring cylinders (100 to 1000 cc capacity) glass rods and funnels, glass thermometers range 0oC to 100°C and metallic thermometers range upto300°C	1 Doz each
(viii) Hot plates 200 mm dia (1500 watt)	2 Nos.
(ix) Enamel trays:	
(a) 600 mm x 450 mm x 50 mm	6 Nos.
(b) 450 mm x 300 mm x 40 mm	6 Nos.
(c) 300 mm x 250 mm x 40 mm	6 Nos.
(d) Circular plates of 250 mm dia	6 Nos
(x) Water Testing kit	1 No.

B : For Soils	
(i) Water still	1 No.
(ii) Liquid limit device with and A.S.T.M grooving tools as per ISI-2720	2 Nos.
(iii) Sampling pipettes fitted with pressure and suction inlets, 10 capacity	1 set
(iv) Compaction apparatus (Proctor) as per ISI 2720 (Part 8) complete with collar, base plate and hammer	2 Nos.
(v) Modified AASHTO Compaction apparatus as per I.S. 2720 (Part 7) 1974 or Heavy Compaction Apparatus as per IS complete with collar, base plate hammer.	2 Nos.
(vi) Sand pouring cylinder with conical funnel and tap and complete as per I.S. 2720 (Part 28) 1974 including modified equipment.	6 Nos.
(vii) Sampling tins with lids 100 mm dia x 75 mm ht 1/2 kg capacity and miscellaneous items like moisture, tins with lid (50 grams) etc.	24 Nos.
(viii) Lab C.B.R. testing equipment for conducting CBR testing, load frame with 5 Tonne capacity, electrically operated with speed control as per I.S. 2720 (Part 16), and consisting of following:	1 set
(a) CBR moulds 150 mm dia - 175 mm ht. complete with collar, base plate etc.	8
(b) Tripod stands for holding dial gauge holder	12
(c) CBR plunger with settlement dial gauge holder	2
(d) Surcharge weight 147 mm dia 2.5 kg. wt with central hole	12
(e) Spacers disc 148 mm dia. 47.7 mm ht. with handle	3
(f) Perforated plate (Brass)	12
(g) Soaking tank for accommodating 6 CBR moulds	
(h) Proving rings of 1000 kg, 2500 kg and 5000 kg capacity	1 each
(i) Dial gauges, 25 mm travel - 0.01 mm/division	10
(ix) Standard Penetration test equipment	1 No.
(x) Nuclear Moisture Density meter or equivalent	1 No.
(xi) Rapid moisture meter complete with chemicals	2 Nos.
(xii) Unconfined Compression Test Apparatus	1 Set
C : For Cement, Cement Concrete and Materials	
(i) Water still	1 No.
(ii) Vicat needle apparatus for setting time with plungers, as per I.S. 269-1967	1 No.
(iii) Moulds	
a) 150 mm x 300 mm ht cylinder with capping component	As reqd.
b) Cubicals 150mm, 100 mm (each size)	As reqd
(iv) Concrete permeability apparatus	1 No.

(v) High frequency mortar cube vibrator for cement testing	1 No.
(vi) Concrete mixer power driven, 1 cu ft capacity	1 No.
(vii) Variable frequency and amplitude vibrating table size 1 metre x 1 metre, as per the relevant British Standard	1 No.
(viii) Flakiness index test apparatus	1 No.
(ix) Aggregate impact test apparatus as per IS 2386 (Part 4) 1963.	1 No.
(x) Los Angeles abrasion apparatus as per IS. 2386 (Part 4) 1963	1 No.
(xi) Flow table as per IS 712-1973	1 No.
(xii) Equipment for slump test	4 Nos.
(xiii) Equipment for determination of specific gravity for fine and coarse aggregate as per IS: 2386 (Part 3) 1963.	4 Nos.
(xiv) Compression and flexural strength testing machine of 200 T capacity with additional dial for flexural testing	1 No.
(xv) Core cutting machine with 10 cm dia diamond cutting edge	2 Nos.
(xvi) Needle vibrator	4 Nos.
(xvii) Air entrainment meter	1 No.
(xviii) 0.5 Cft, 1 Cft cylinder for checking bulk density of aggregate with tamping rod	As reqd
Soundness testing apparatus for cement	1 set
E : For Control of Profile and Surface Evenness	
(i) Total Station	1 No.
(ii) Precision automatic level with micrometer attachment	2 sets
(iii) Distomat or equivalent	1 set
(iv) Theodolite - Electronically operated with computerised output attachment.	1 set
(v) Precision staff	3 sets
(vi) 3 metre straight edge and measuring wedge	3 sets
(vii) Camber templates 2 lane	
(a) Crown type cross-section	1 set
(b) Straight run cross-section	2 sets
(viii) Steel tape	
(a) 5 m long	2 sets
(b) 10 m long	2 sets
(c) 20 m long	2 sets
(d) 30 m long	2 sets
(e) 50 m long	2 sets
F : Any other items as may be required for carrying out the testing for the works.	

Clause 121.4 Ownership

This Clause shall read as under:

The field laboratory building shall be and remain the property of the contractor. It shall be dismantled at his own cost to the satisfaction of Engineer within two months of issuance of taking over certificate. However, the equipment provided for tests shall be the property of the contractor, which will be removed by him at his own cost after issuance of taking over certificate."

Clause 121.5 Maintenance

This Clause shall read as under:

"The Contractor shall arrange to maintain the field laboratory including sample store yards in a satisfactory manner until the issue of Taking over Certificate for the complete work. Maintenance includes all activities described in Clause 120.4 and maintenance of equipment and running of the same including chemicals and consumables."

Clause 121.7 This clause shall be read as under:

"The cost of provision of field laboratory including supply of laboratory quipment and also provision of adequate number of qualified personnel, erection, maintenance and running of laboratory including all consumable like chemicals and reagents shall be deemed to have been included in the contract price.

Clause 201 CLEARING AND GRUBBING

Clause 201.1 Scope

Delete the last sentence and replace with as under:

"Clearing and grubbing shall be performed less than one month in advance of earthwork operations and in accordance with the requirements of these specifications. If any vegetation grows after clearing and grubbing and before earthwork, the Contractor shall repeat the work to the satisfaction of the Engineer without any extra cost". Areas requiring clearing and grubbing shall be determined by the Engineer.

Clause 304 EXCAVATIONS FOR STRUCTURES

Clause 304.3.4 Preparation of Foundation

In para 2 and 3 of clause 304.3.4 substitute 'concrete M-15' in place of '1:3:6 nominalmix'.

Clause305.2.2.2 Borrow Materials

Replace the Para 1 of this Clause by the following:

"No borrow area shall be made available by the Employer for this work. The arrangement for the source of supply of the material for embankment and sub-grade as well as compliance to the different environmental requirements in respect of excavation and borrow areas as stipulated, from time to time, by the Ministry of Environmental and Forest, Government of India and the local bodies, as applicable shall be the sole responsibility of the Contractor."

Replace the Para 8 of this Clause given below Table 300-2 by the following:

"The contractor shall atleast 7 working days before commencement of Compaction submit the following to the Engineer for approval:

- i) The Values of maximum dry density and optimum moisture content obtained in accordance with IS:2720 (Part 8) for each fill material he intends to use.
- ii) The graphs showing values of density plotted against moisture content from which each of the values in (i) above of the maximum dry density and optimum moisture content were determined.
- iii) The dry density-moisture content-CBR relationship for each of the fill materials he intends to use in the sub-grade'.

Clause 305.3 Construction Operations

Clause 305.3.4 Compacting Ground Supporting Embankment/Sub-grade

Replace the Para 1 of this clause by the following:-

Where necessary, the original ground shall be scarified to a depth of 250mm levelled, mixed with water and then compacted by rolling to facilitate placement of 1st layer embankment and its Compaction in accordance with the requirement as given in table 300.2.

Add the following sentence at the end of para 2.

"Where necessary to facilitate Compaction of the sub-grade to 97% relative Compaction as stated above, a further depth of maximum of 250mm thickness shall be loosened, watered and compacted in accordance with Clause 305.3.5 and 305.3.6 to not less than 95% of maximum dry density, determined in accordance with IS: 2720 (Part 8)."

Clause 306.4 Measurement for Payment

Substitute Clause 306.4 as follows:

"All temporary sedimentation and pollution control works shall be deemed as incidental to the earthwork and other items of work and as such no separate payment shall be made for the same."

Clause 401.2 Materials

Clause 401.2.1 Para 1 of this clause shall read as under:

"The material to be used for the work shall be natural sand, moorum, gravel, crushed stone, crushed laterite stone or combination thereof depending upon the grading required. The material shall be free from organic or other deleterious constituents and conform to Grading given in Table 400-2

Clause 401.3 The clause shall read as follows:

"It shall be ensured prior to actual execution that the material to be used in the sub-base has a minimum field CBR value of 30% when compacted and finished. When directed by Engineer, this shall be verified by performing CBR tests in the laboratory. The CBR tests shall be conducted on specimen when compacted to 98% of the maximum dry density as per IS: 2720 (Part 8) and soaked for 4 days in water."

Clause 504.2.2 Coarse Aggregates

- i) Delete the words from 2nd line of 1st para "crushed gravel or other hard material retained on the 2.36 mm sieve".
- ii) Delete the entire para 3 of Clause 504.2.2
- iii) From the table 500.3 delete at the bottom of the table asterisk "Aggregate may satisfy requirements of either of these two tests" and modify as under:
"Aggregate should satisfy both the tests value of Los Angeles Abrasion Value and Aggregate Impact Value."

Clause 504. 8 Rate

Add at the end of para "The rate shall include the provision of bitumen, at 3.25 per cent by weight of the total mixture.

Clause 901 GENERAL

Clause 901.1 This clause shall read as under:

"All materials to be used, all methods adopted and all works performed shall be strictly in accordance with the requirements of these Specifications. The Contractor shall set up a field laboratory at locations approved by the Engineer and equip the same with adequate equipment and personnel in order to carry out all required tests and Quality Control work as per Specifications and/or as per Clause 121 and/or as directed by the Engineer. The list of laboratory equipment and the facilities to be provided shall be as per Clause 121 and shall be got approved from the Engineer in advance.

Clause 901.5 This Clause shall read as under:

"The Contractor shall provide necessary co- operation and assistance in obtaining the samples for tests and carrying out the field tests as required by the 'Engineer' from time to time. This may include provision of laboratory, equipment, transport, consumables, personnels, including labour, attendants, assistance in packing and despatching and any other assistance considered necessary in connection with the tests."

Clause 903 QUALITY CONTROL TESTS DURING CONSTRUCTION

Clause 1006 CEMENT

The first para of this Clause shall read as under:

"Cement to be used in the works, shall be any of the following with the prior approval of the 'Engineer':

- a) Ordinary Portland Cement 33 grade conforming to IS: 269.
- b) Ordinary Portland Cement 43 grade, conforming to IS: 8112.
- c) Ordinary Portland cement 53 grade, conforming to IS: 12269.

Delete para 4 and 5 from Clause 1006."

Clause 1007 COARSE AGGREGATES

- (i) Delete from the first sentence "crushed gravel..... inert material" appearing in 4th and 5th line.
- (ii) Add the following at the end of the Clause:
 "Primary and secondary stone crusher should be employed for getting proper size and grading of coarse aggregates." Proper stone crusher like impact crusher shall be chosen so that the production of the flaky materials can be controlled.

Clause 1010 WATER

In para (c) the permissible limit for Chlorides (C1) shall be read as "250 mg/lit for structures having length more than or equal to 30 m," instead of "500 mg/lit."

Clause 1014 STORAGE OF MATERIALS

Clause 1014.3 Aggregates

The following shall be added to this Clause:

"Aggregates shall be stored or stockpiled in such a manner that segregation of fine and coarse sizes will be avoided and also that the various sizes will not become intermixed before proportioning. They shall be stored, stockpiled and handled in such a manner that will prevent contamination by foreign materials."

Clause 1502 MATERIALS

This Clause shall read as under:

"All materials shall comply with the requirements of IRC-87.

Material and components used for formwork shall be examined for damage or excessive deterioration before use/reuse and shall be used if found suitable after necessary repair.

Only steel formwork shall be used. The steel used for forms shall be of such thickness that the forms remain true to shape. All bolts should be countersunk. The use of approved internal steel ties or plastic spacers shall be permitted. Structural steel tubes used as support for forms shall have a minimum wall thickness of 4 mm."

Clause 1503 DESIGN OF FORMWORK

Clause 1503.2 The following shall be added to this Clause

"For distribution of load and load transfer to the ground through staging, an appropriately designed base plate must be provided which shall rest on firm sub-stratum".

Clause 1509 RE-USE OF FORMWORK

This Clause shall read as under:

"After forms are stripped, all materials to be reused shall be thoroughly cleaned. Holes bored through sheathing for form ties shall be plugged by driving in common corks or foamed plastics. Patching plaster may also be used to fill small holes. After cleaning and before refixing, each formwork shall be got approved from the Engineer.

Formwork and staging shall be so used so as to maintain quality of the exposed surface. However, if in the opinion of the Engineer, any particular panel/member has become unsatisfactory for use at any stage, the same will be rejected.

All bent steel props shall be straightened before reuse. The maximum deviation from straightness is 1/600 of length. The maximum permissible axial loads in used props shall be suitably reduced depending upon their condition.

Clause 1513 RATE

Add the following at the end of the first para:

"The unit rate shall also include all costs for preparation of erection scheme, designs of falsework and formwork and their approval."

Clause 1704 PROPORTIONING OF CONCRETE

Add the following at the end of this Clause.

"In proportioning concrete, the quantity of both cement and aggregate shall be determined by weight. Where the weight of cement is determined by accepting the manufacturer's weight per bag, a reasonable number of bags shall be weighed separately to check the net weight. Where cement is weighed from bulk stock at site and not by bag, it shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean, and serviceable condition. Their accuracy shall be periodically checked".

"It is most important to keep the specified water- cement ratio constant and at its correct value. To this end, moisture content in both fine and coarse aggregates shall be determined as frequently as possible, frequency for a given job being determined by the Engineer according to the weather conditions. The amount of mixing water shall then be adjusted to compensate for variations in the moisture content. For the determination of moisture content in the aggregates, IS: 2386 (Part III) shall be referred to. Suitable adjustments shall also be made in the weight of aggregates to allow for the variation in weight of aggregates due to variation in their moisture content".

Clause 1704.4 Additional Requirement

In para (a) substitute "0.06%" for "0.1%", "0.06%" for "0.2%"; and: 0.1%" for "0.3% for the three items respectively.

Clause 1705 ADMIXTURES

This Clause shall read as under:

"Duly tested admixtures/additives conforming to IS: 6925 and IS: 9103 (without replacement of cement) may be used subject to satisfactory proven use, with the approval of the Engineer. Admixtures generating Hydrogen or Nitrogen and containing chlorides, nitrates, sulphides, sulphates and any other material liable to affect the steel or concrete shall not be permitted"

"The general requirements, physical and chemical requirements shall be as per Clause 1012."

Clause 1706 Size of Coarse Aggregate

Table 1700-7 in this clause shall read as under:

Components	Maximum Nominal size of coarse Aggregate (mm)
i) Solid type piers & abutments	40
ii) RCC work in slabs, Kerb, approach slab, piers And abutments, pier/abutment caps, piles	20
iii) RCC work in handrails	12.5
iv) Any other work as specified or as directed by the Engineer	

Clause 1707 EQUIPMENT

Para 1 of this Clause shall read as under:

"Unless specified otherwise, equipment for production, transportation and Compaction of concrete shall be as under": a) For production of concrete.

- i) "Batching and mixing of the concrete shall be done in a concrete batching and mixing plant fully automatic with a minimum capacity of 15 cum. per hour. The plant shall be approved by the Engineer".
- ii) In special cases, for culverts, the Engineer may allow mixing of concrete by a diesel or electrically operated mechanical mixer with integrated weigh batching facility having a capacity of 500 litres and automatic water measuring system."

Para 3 of this clause shall read as under:

Measurement of cement	± 3 percent of quantity of cement in each batch
Measurement of water	± 3 percent of quantity of water in each batch
Measurement of aggregate	± 3 percent of quantity of aggregate in each
Measurement of admixture	± 3 percent of quantity of admixture in each batch.

Clause 1709 Transporting, Placing and Compaction of Concrete Add the following paragraph at the end of 2nd para of clause 1709.

For placing Concrete with Pumps: Pipe Lines from the pump to the placing area should be laid out with a minimum of bends. For large concrete placements standby pumps shall be available. Suitable valves (air release valves, shutoff valves etc.) shall be provided as per site needs. The pumping of concrete shall be preceded by a priming mix to lubricate the pump and pipeline. A rich mix of creamy consistency shall be required for lubricating the pipelines. Continuous pumping shall be done to the extent possible. After concrete has been placed the lines and all related equipment shall be cleaned immediately. A plug sponge ball shall be inserted in the end near the pump and shall be forced through the line by either water or air pressure. Pipes for pumping should not be made from materials which can harm concrete; aluminum alloy pipelines shall not be used.

Clause 1713 PROTECTION AND CURING

Clause 1713.1 Water Curing

Add the following at the end of para 1.

"Wherever possible, use of water sprinklers or perforated pipes should be encouraged for curing of concrete. Such arrangement must be maintained for a minimum period of 14 days after concreting."

"Approved concrete curing compounds should be preferred where water curing cannot be done reliably" subject to the approval of the Engineer.

Clause 2009 MEASUREMENTS FOR PAYMENT

Add the following after para 2.

"Paper bearings shall be measured in square meters".

Clause 2504 Pitching/Revetment on Slopes

The heading of this clause shall read as under:

- a) Pitching/Revetment on slopes and filter media.

TECHNICAL SPECIFICATIONS – FOR HOUSING PROJECT

1.0 Materials, Workmanship, period and certificate of maintenance and defect liability Quality

All the materials and workmanship shall be of the respective kinds described in the contract and in accordance with Executive Engineer instruction and shall be subjected from time to time to such tests as the Executive Engineer 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 contract 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 the work and the quality weight or quantity of any materials used and shall supply samples of materials before in corporation in the works for testing as may be selected and required by the Executive Engineer.

2.0 Tests, Inspection of defective materials

The contractor shall without extra cost provide samples and co-operate in the testing of materials. The Executive Engineer /Deputy Executive Engineer shall have access at all times to the places of storage and where materials are being manufactured and proceeded for use in the works under contract to determine whether their manufacture and process are proceeding in accordance with the drawings and specifications. The Executive Engineer / Deputy Executive Engineer shall during the progress of the works have power to orders in writing from time to time in respect of the following.

- a) The removal from the site, within such time or times as may be specified in the order, of any materials which in opinion of the Deputy Executive Engineer are not in accordance with contract.
- b) The subscription of proper and suitable materials and
- c) The removal and proper re-execution, notwithstanding of any work which in respect materials or workmanship is not in the opinion of the Executive Engineer, in accordance with contract.

The Contractor shall carry out such order at no extra cost to the Executive Engineer. In case of default on the part of the contractor in carrying out such order, the Executive Engineer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental there to shall be recoverable from the contractor by Executive Engineer or may be deducted by the Executive Engineer from any monies due to or which may become due to the contractor.

In lieu of removing the work or materials not in accordance with the contract, the Executive Engineer / Deputy Executive Engineer may order such work of materials to remain and in that case such may be paid at the reduced rates as may be decided by Executive Engineer. However any action by the Executive Engineer /Deputy Executive Engineer under this para shall not in any way absolve the contractor from his responsibility and liabilities as per conditions of contract.

3.0 Cement

The contractor has to make his own arrangements for the procurement of cement of required to be specifications required for works subject to the following.

a) The contractor shall procure OPC cement required for the works, only from reputed cement factories (Main Producers) acceptable to the Executive Engineer.

The contractor shall be required to furnish to the Executive Engineer bill of payments and test certificates issued by the manufacturers to authenticate procurement of quality cement from the approved cement factory. One copy of gate pass shall be handed over to Executive Engineer. The contractor shall make own arrangement for adequate storage of cement.

b) The contractor shall procure cement in standard packing (50kg per bag) from the authorized manufacturers. The contractor shall make necessary arrangement at his own cost to the satisfaction of Executive Engineer / Deputy Executive Engineers for actual weighing of random sample from the available stock and shall confirm with the specification laid down by the Bureau of Indian Standards or other standard institutions as the case may be. Cement shall be got tested for all the tests as directed by the Executive Engineer atleast once in a month in advance before the use of cement bags brought and kept it at site godown. Cement bags required for testing shall be supplied by the contractor free of cost.

c) The contractor should store the cement of 60 days requirement atleast one month in advance to ensure the quality of cement so brought to site and shall not remove the same without the written permission of the Executive Engineer Dy.Executive Engineer.

d) The contractor will have to construct sheds for storing his cement at appropriate locations at the work site. The Executive Engineer / Deputy Executive Engineer or his representatives shall have free access to such stores at all times.

e) The contractor shall further at all times satisfy the Executive Engineer /Deputy Executive Engineer on demand by production of records and books or by submission of returns and other proofs as directed that the cement is being used as tested and approved by Executive Engineer for the purpose and the contractor shall at all times keep his records upto date to enable the Executive Engineer /Deputy Executive Engineer to apply such checks as he may desire.

f) Cement which has been unduly long in storage with the contractor or alternatively has deteriorated has due to inadequate storage and thus become unfit for use on the work shall be rejected by the department and no claims will be entertained. The contractor shall forthwith remove from the work area any cement the Executive Engineer /Deputy Executive Engineer may disallow for use on work and replace it by cement complying with the relevant Indian Standards.

4.0 Steel

The contractors shall procure mild steel (MS) bars and HYSD, Fe-415 reinforcement bars, High yield strength deformed bars (HYSD bars), rods and structural steel etc., required for the works, only from the main or secondary producers manufacturing steel to the prescribed specifications of Bureau of Indian Standard or equivalent certifications marks and acceptable to the Chief Engineer, Greater Visakhapatnam Municipal Corporation, . Necessary test certificated are to be produced to the Engineer - in - Charge before use on works. The Original bills of procurement should be submitted to the Chief Engineer, Greater Visakhapatnam Municipal Corporation for making payments of the item.

The Diameter and Weight of Steel should be as follows:

S.No	Diameter of rod	Sectional weight in KG / RM both for Plain and HYSD steel
1	6 MM	0.22
2	8 MM	0.39
3	10 MM	0.62
4	12 MM	0.89
5	14 MM	1.21
6	16 MM	1.38
7	18 MM	2.00
8	20 MM	2.47
9	22 MM	2.98
10	25 MM	3.85
11	28 MM	4.83
12	32 MM	6.31
13	33 MM	6.71
14	36 MM	7.99
15	34 MM	9.86
16	36 MM	10.88

Note: If any rods other than those diameters specified above are procured the weights shall be as per Standard Steel tables.

5. The work to be carried out as per following specification materials to be procured

Sl No.	Short Title	I.S.Number
I	CEMENT:	
1.	43 Grade ordinary port land cement	8112-1989
2.	Methods of physical tests for hydraulic cement	4031 (part 1 to 15)1988
II	AGGREGATES:	
1.	Aggregates (coarse and fine) from natural source for concrete.	383-1970
2.	Specification for sand for masonry:	2116- 1980
3.	Method of tests for aggregates for concrete:	2386 (part 1 to partiv)1963
III	BUILDING STONES:	
1.	Method of Tests for determination of strength Properties of natural building stones Part-1 : Compressive strength	1121 (part1 to IV) 1974

	Part-II:Transverse strength	
	Part-III:Tensile strength	
	Part-IV:Shear strength	
2.	Quarrying stones for construction purpose	
	Recommended practice	83831-1977
3.	Measurement of buildings and civil	
	Engineering works	1200-(part-IV)1976
4.	Stone Masonry: specifications for dressing	
	Natural building stones	1129-1972(part-IV)
5.	Drilling and permeability tests	5529(partiii)-1973
5.	Code of practice for permeability tests	
	(during and after construction)	11216-1985.
IV	STEEL:	
1.	Code of practice for bending and fixing of bars	
	Concrete reinforcement	2502-1963
2.	Specifications for High Strength Deformed	1781-1985
	steel bars and wires for concrete reinforcement	
3	Recommendation for detailing of reinforcement	
	In reinforced cement concrete works	5525-1969
4.	Mild steel and medium tensile steel bars for	432 (part-VIII)-1982
	concrete reinforcement	
5.	Measurement of building and Civil Engineering	
	Works(part-VII steel works and iron work)	1200(part-VIII)1993.
V	MASONRY:	
1.	Code of practice for construction of stone masonry	1597(part-1)-1992
	Rubble stone masonry	
2.	Measurement of building and Civil Engineering	
	works plastering and pointing	1200(part-XII)-1976
VI	CONCRETE:	
1.	Measurement of building and civil Engineering	1200(part-ii)-1974
	works method of concrete works	
2.	Concrete works: code of practice for plain	456-2000
	and reinforced concrete	
3.	Precast concrete coping blocks	5751-1984
4.	Method of Testing for strength of concrete	516-1959
5.	Specification for –Admixtures for concrete	9103-1979
6.	Method of sampling and analysis of concret	1791-1963
7.	Concrete mixer – batch type	1791-1963
8.	Concrete vibrators- immersible type	2505-1980

VII EARTH WORK:

1. Measurement of building and Civil Engineers works method for earth work 1200(part-1)-1974
2. Safety code for filling and other deep foundations 5121-1969
3. Safety code for excavation works 3701-1966
4. Code of practice for earth work on canals 4701-1982
5. Method of testing for soils determinations of water content 2720(part11)-1973
6. Determination of water content dry density relation using light compaction 2720(part-VIII)-1980
7. Determination of dry density of soils in place by sand replacement method (first revision) 2720(partXXvii)-1974
8. Determination of Dry density of soils in – situ by the core cutting method (first revision) 270(part-xx1x)-1975

VIII. OTHER SUBJECTS:

1. Safety code for scaffolds 3698(part-1)-1968
2. Safety code for ladders 3696(part-ii)-1966
3. Recommendation of stacking and storage of construction materials at site 4082-1977

IV. I.S. 383 / 1970 TABLE - 1

25.1

COARSE AGGREGATE

I.s.Sieve Designation	Percent passing for Single – Sized Aggregate of Metal Size							Percent passing for graded - Aggregate of Nominal Size		
	63 mm	40 mm	20 mm	16 mm	12.50 mm	10 mm	40 mm	20 mm	16 mm	12.50 mm
80 mm	100	--	--	--	--	--	100	--	--	--
63 mm	85-100	100	--	--	--	--	--	--	--	--
40 mm	0-30	85-100	100	--	--	--	95-100	100	--	--
20 mm	0-5	0-20	85-100	100	--	--	30-70	95-100	100	100
16 mm	--	--	--	85-100	100	--	--	--	90-100	--
12.5 mm	--	--	--	--	85-100	100	--	--	--	90-100
10 mm	0-5	0-5	0-20	0-30	0-45	85-100	10-35	25-55	30-70	40-85
4.75 mm	--	--	0-5	0-50	0-10	0-20	0-5	0-10	0-10	0-10
2.36 mm	--	--	--	--	--	0-5	--	--	--	--

TABLE - II
X. FINE AGGREGATE

I.S sieve Designation	Grading Zone - I	Grading Zone - II	Grading Zone - III	Grading Zone - IV
10 mm	100	100	100	100
4.75 mm	90-100	90-100	90-100	95-100
2.36 mm	60-95	75-100	85-100	95-100
1.18 mm	13-70	55-90	75-100	90-10
600.00 microns	15-34	35-59	60-79	80-100
300.00 microns	5-20	8-30	12-40	15-50
150.00 microns	0-100	0-10	0-10	0-15

TABLE – III

XI ALL - IN AGGREGATE GRADING

I.S sieve Designation		40 mm Nominal		20 mm Nominal
80 mm		100		--
40.00 mm		95-100		95-100
20.00 mm		45-75		30-50
4.75 mm		24-75		10-35
600.00 microns		8-30		0-6
150.00 microns		0-60		--

XII For Vibrated Reinforced Concrete items (V.R.C.C.)

TABLE – IV

CHARACTERISTIC STRENGTH OF CUBE AT THE AGE OF 28 DAYS OF CURING

M-25	25 N/ mm ²	=	250 kgs/cm ²
M-20	20 N/ mm ²	=	200 kgs/cm ²
M-15	15 N/ mm ²	=	150 kgs/cm ²

6.0 Conditions of Roof, Slabs and stripping of time

The R.C.C. Slab laid should be leak proof. After observing for one rainy season, if the roof or floor is found to be perfectly leak proof and no moisture or dampness is seen underneath at ceiling of the slab, the contractor can ask for refund of E.M.D.or F.S.D. from the Corporation. If there are any defects noticed after laying of roof, they must be attended to by the contractor at his own cost. Further the contractor must arrange to get the structure treated as per clause 21 of ISI code No.456/2000 at his own cost on the instructions of the department.

When R.C.C. Slab is laid the following tests may be carried out by the contractor at his own cost to prove that the slab is impervious.

- (a) After the centering is removed and curing period is over the slab shall be put to test by pouring water 15 CMs depth and watched carefully for a period not less than a week.
- (b) If leakage is observed immediate action should taken to rectify it by the contractor at his own cost and again tested to see that there are no leakages.
- (c) The Officer observing the leakage test shall issue a certificate to this effect before final bill is made.
- (d) The variation thickness of R.C.C. roof slab due to varying spans or special covering materials should not effect the general roof bed which should be uniform unless otherwise shown to drawings or instructed.
- (e) For roof slab to be laid, MS hooks have to be provided as directed by the department for fixing fans and lights. G.I./PVC Pipes of 12 mm/20 mm diameter has to be provided in the masonry walls or concrete at the specified places as directed by the department for making electrical wiring. No payment will be made to the contractor for these sundry items of work.
- (f) For roof slabs, water has to be stagnated for 15 Cms depth for one week to test the leakages if any, if there are any leakages the contractor has to rectify the same as directed by the department at the cost of the contractor. No payment will be made to the contractor on this account either for testing or for rectification's thus stagnated.

7.1 Forms shall not be struck until the concrete has reached a strength at least twice the stress to which the concrete may be subjected at the time of removal of form of work. The strength referred to shall be that of concrete using the same cement and aggregates, with the same proportions and cured under conditions of temperature and moisture similar to those existing on the work. Where possible, the form work shall be left longer as it would assist the curing.

Note:-1. In normal circumstances and where ordinary Portland cement is used, formwork may generally be removed after the expiry of the following periods.

a)	Walls, Columns and Vertical faces of all structural members	16 to 24 hours as may be decided by the Engineer – in – Charge.
b)	Slabs (Props left under)	3 days
c)	Beam Soffits (Props left under)	7 days
d)	Removal of props under slabs	
	i) Spanning upto 4.5 mts	7 days
	ii) Spanning over 4.5 mts	14 days
e)	Removal of props under Beams and Arches :	
	i) Spanning upto 6 mts.	14 days
	ii) Spanning over 6 mts.	21 days

For other cements, the stripping time recommended for ordinary portland cement may be suitable modified.

Note 2:- The number of props left under, their sizes and description shall be such as to be able to safely carry the full dead load of the slab, beam or arch as the case may be together with any live load likely to occur during of further construction.

8.0 All cement concrete shall be machined mixed and machine vibrated.

8.1. The proportions of cement concrete specified in the above schedule are nominal and are indication of approximate proportion of cement, fine aggregate and coarse aggregate which may have to be altered suitably at site to obtain desired strength and workability. However, the quantity of cement shall not be less than specified below.

Design Mix	M-20 Grade		380 Kg./Cum
Nominal Mix			Cement in Bags of 50 kgs. Per on Cu.m (net) of cement concrete
a.	1:1.5:3	.....	8.84 bags of 50 kgs
b.	1:2:4	.....	6.62 bags of 50 kgs
c.	1:2.5:5	.....	5.30 bags of 50 kgs
d.	1:3:6	.....	4.42 bags of 50 kgs
e.	1:4:8	.....	3.31 bags of 50 kgs
f.	1:5:10	.....	2.65 bags of 50 kgs
g.	1:6:12	.....	2.21 bags of 50 kgs
h.	1:8:16	.....	1.66 bags of 50 kgs

8.2 Theoretical requirement of cement for

a.	C.R.S. Masonry in C.M. (1:6).....	1.54 bags per Cum
b.	C.R.S. Masonry in C.M. (1:8).....	1.15 bags per Cum
c.	Brick Masonry in C.M (1:4)	1.44 bags per Cum
d.	Brick Masonry in C.M. (1:6)	0.96 bags per Cum
e.	Brick Masonry in C.M. (1:8)	0.72 bags per Cum
f.	12 mm plastering in CM (1:5).....	1.02 bags per 10 Sqm
g.	12 mm plastering in CM (1:6).....	0.82 bags per 10 Sqm
h.	20 mm plastering in CM(1:6).....	1.15 bags per 10 Sqm
i.	12 mm plastering in CM (1:4).....	1.08 bags per 10 Sqm
j.	12 mm plastering in CM(1:6).....	0.72 bags per 10 Sqm

10. Dewatering

Bailing or pumping out water shall be done as and when necessary to keep the excavation pit free from sub-soil or surface water including rain etc. i.e., water from any source. While execution of works, if so encountered, the contractor shall provide for the purpose of excavation under water all the necessary dewatering equipments like well points, pumps (including stand byes), pipes, conduits, etc. and make necessary arrangement of proper drainage of the pumped water from the well points and its easy disposal without affecting the site and the adjoining areas.

The Contractor shall take any permission required for such disposal of water to other areas, from the respective authorities. The Contractor shall engage the dewatering equipments in such a way that the excavated pit should always remain dry while the excavation and concrete work for columns and walls upto ground floor level are carried out. The dewatering process shall be carried out during inspection and measurements, when concrete and masonry works are in progress and till the works come above the natural water level and till the Engineer considers that the concrete work, mortar is sufficiently set and or other work in the area is completed including backfilling on sides foundation including ramming, compaction by 15 cm layers is completed to satisfaction and approval of Engineer and as directed by the Engineer, at no extra cost to the Employer. Dewatering by pumps as required at site shall be included in the rate wherever specified in the item(s) of excavation.

9.1 Stacking and Disposal of Excavated Material

All materials excavated will remain the property of the Board and rate or excavation includes sorting out of useful materials and stacking them on site as directed. Materials suitable and useful for backfilling, plinth filling area development, embankment or other use shall be stacked in convenient places but in such a way as not to obstruct free movement of men, animals and vehicles or encroach on the area required for constructional purpose.

10. Earthwork in Filling and Site Clearing.

The areas where excavation and filling is to be carried out shall be excavated upto the level as shown in the drawing. All old foundations boulders etc. encountered during excavation shall be removed as directed by the Engineer.

11. Plinth Filling with Sand/Moorum/Crushed Stone Aggregate

11.1 Sand

Sand shall be clean and free from dust, organic and foreign matter and corresponding to grading Zone V or IV, meeting the approval of the Engineer.

11.2 Moorum

Moorum shall be approved quality and shall be brought from approved source or obtained after excavation.

11.3 Filling with Sand/Moorum

Sand/moorum filling shall be done in a manner similar to earth filling in plinth as specified in (Xii) except that flooding with water shall do consolidation. The surface of the consolidated sand, moorums shall be dressed to required level or slope. Concreting of floor shall not be started till the Engineer has inspected and approved of the sand/moorum filling.

No excavation of foundation shall be filled in or covered up until all measurements of excavations; masonry, concrete and other works ground level are taken up jointly.

12. Area Filling, Embankment and Land Development

These items of works when directed shall be done with available earth from area arranged or specified by the Engineer or carried earth arranged by contractor from his own sources and approved by Engineer and laid in layer not exceeding 150 mm in loose thickness.

Successive layers shall not be placed until the layer under construction becomes thoroughly compacted up to required density. Power Rollers shall do the degree of compaction or mechanical tampers where heavy equipments is inaccessible.

13. Surplus Excavated Materials

The contractor from the site shall remove all excavated materials certified as surplus and not useful in an approved manner as per direction of the Engineer.

The contractor shall under take the items of removal of surplus excavated materials only when specific instruction in this regard including the quantity to be removed, has been obtained from the Engineer.

14. Measurement for Payment

Assist Engineer/AEE shall measure quantity of work required and check measured by Dy. Engineer for payment in related items in the schedule either by tape-measurement or by cross-section derived from initial and final levels as directed. In case of earth filling from area, provided by owner the borrow pit measurement shall be made for payment. Earth arranged by contractor from his own sources shall be measured for payment in Stacks after deduction of the volume of voids or as directed by Engineer.

Layout / Setting out of works, clearing sites, removal of tree, bushes, vegetation etc., conducting tests shall not be separately measured and paid for and will deem to be included in the related completed items in the schedule.

15. QUALITY CONTROL LAB- TEST PARTICULARS

The materials like coarse aggregate Fine aggregate, R.C.C./ C.C Steel, Bricks, Stone blocks, fly ash Bricks / Blocks, Wood, Tiles etc. will be tested in the Engineering College Laboratory as noted below:

16. BUILDING WORKS

1. For reinforced Cement Concrete / Plain Cement Concrete: Compressive Strength

Quantity of Concrete in the work	No. Of Samples Each Sample Consists of 3 cubes
1-5	1
6-15	2
16-30	3
31-50	4
51 and above	5

2. For Bricks / FAL-G Bricks: Dimensions / Compressive strength / Absorption of water / Efflorescence

Lot size	No. Of Samples Each Sample Consists of 3 specimens
2,001-10,000	5
10,000-35,000	10
35,001-50,000	15

3. For Stone Blocks / FAL-G Blocks: Compressive Strength

Quantity	No. Of Samples Each Sample Consists of 3 Stone Blocks / FAL-Blocks
For every 1000 Nos. of stone Blocks / FAL- G Blocks Masonry	1

3. Steel: Diameter

Quantity	No. Of Samples Each Sample Consists of 3 pieces of one meter length
For every consignment not exceeding 10 M. T for each Diameter	1

5.Cement: Normal Consistency / Compressive strength @ 3days & 7 days and 28 days Ordinary Portland cement of 43/53 Grade confirming to relevant I.S. Codes

Quantity	No. of Samples
For every 20 M.T. of procurement	One sealed Bag

6. Wood: Water Absorption / Compressive strength

Quantity	No. of Samples Each Sample Consists of 3 pieces of required size
For every consignment	1

7. Tiles: Water Absorption / Compressive strength

Lot size	No. Of Samples Each sample consists of 3 tiles
Up to 1,000	5
1,000 to 1,000	10
5,001- 10,000	15

8. Concrete Mix Design

Stage of construction	No. Of Samples
Before commencement of RCC work. Note: In case of change of source of material. Cement Brand / Grade additional lost test has to be done as per the direction of Engineer In charge.	1

9. Coarse Aggregate: Sieve Analysis / Bulk Density / Flakiness and Elongation

For every 10 cum of R.C.C. work – or part there of 1 No.

10. Fine Aggregate Sieve Analysis / Bulking of sand / silt content

For every 10 cum of R.C.C. work – or part thereof - 1 No.

- Note:
- The required quantity of test cubes / Bricks / Stone blocks / Fly ash Blocks / Coarse Aggregate / Fine Aggregate are to be supplied by the contractor at free of cost.
 - The contractor should make necessary arrangements and hand over the samples to the Engineering College laboratory as directed by the department by the department officers
 - The test results should satisfy as per relevant I.S. Codes.

17. TESTING CHARGES

S.No	Material	Tests conducted	
1	Cement	Normal consistency & Compressive strength (6 cubes will be cast and tested for 3 days & 7 days strength)	
2	Steel	Diameter & Weight	
2.	Concrete	Compressive Strength	
4	Bricks/ Stone blocks / Flyash G Blocks	Dimensions, Compressive strength, Water Absorption	

5	Concrete	Mix Design	
6	Coarse Aggregate	Sieve Analysis	
		Bulk Density	
		Flakiness & Elongation	
7	Fine Aggregate	Sieve Analysis	
		Bulking of sand	
		Silt Content	
8	Wood	Water Absorption	
		Compressive Strength	

Note: The Charges towards tests conducted have to be borne by the contractor

DRAWINGS

1. Typical cross section of CC Road of 150mm thick
2. Typical cross section of CC Road of 100mm thick
3. Lay out of Housing location duly showing the UGD lines
4. Layout of Housing location duly showing the water supply distribution system
5. Drain Cross section of 600mm and 450mm
6. Cross section of culverts

(Separated sheets enclosed)

DRAWINGS:

- 1.1 The plans enclosed with the tender are liable to be altered during execution of work as per necessity of site conditions. The premium quoted by the contractor for various items shall hold good for execution of work even with altered plans.

- 1.2 One set of drawings, on the basis of which actual execution of the work is to proceed shall be furnished free of cost to the contractor by the Chief Engineer / Executive Engineer progressively according to the work program submitted by the contractor and accepted by the Chief Engineer / Executive Engineer. Drawings for any particular activity shall be issued to the contractor at least 30 days in advance of the scheduled date of the start of the activity.

However, no extra claims by the contractor toward any delay in issue of drawing or issue of any revision / change to the drawings issued earlier shall be admissible. The Chief Engineer shall intimate the contractor 7 days in advance regarding any delay to issue of drawings, for any particular stage of works. If work gets effected due to delay to issue of drawings, for any particular stage of work the contractor shall be granted extension of time in terms of condition 14.7 of tender notice.

- 1.3 Signed drawings above shall not be deemed to be an order for work unless they entered in the agreement or schedule of drawings under proper alterations of the contractor and Executive Engineer or unless they have been sent of the contractor by the Executive Engineer with a covering letter confirming that the drawing in and authority for work in contract.

1.0 DISCREPANCIES:

- 2.1 In case of discrepancies between documents the following order of procedure shall apply:-

2.1.1 Between the written description of written dimensions in the drawings and the corresponding one in the specifications, the latter shall apply.

2.1.2 Figured dimensions shall supersede scaled dimensions. The drawings on a larger scale shall take precedence over those on a smaller scale.

2.1.3 Drawings issued as construction drawings from time to time shall supersede tender drawings and also the correspondence drawings previously issued.

Note: The contractor should not execute any component of work without obtaining the working drawings. Any work done without drawings shall be at the contractors responsibility only. Acceptance for such work will be at the discretion of the Executive Engineer.

2.0 SECRECY CLAUSE

The drawings and specifications made available to the tenderer shall exclusively be used on the work and they are retained from passing on each plan to any unauthorised hand either in parts or in full under the provisions of Section-3 and 5 of the official secrets Act 1923. Any violation in this regard will entail suitable action under appropriate clause or official secret Act 1923.

SCHEDULE-A PART- I
BILL OF QUANTITIES (BOQ)

PREAMBLE

NAME OF WORK:- **“Providing water supply to the Parawada housing colony from Desapathrunipalem Village.**

1. The Bill of Quantities shall be read in conjunction with the instructions to Tenderers, General and Special conditions of Contract Technical Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional and are given to provide common basis for tendering. The quantities here given are those upon which the lump sum tender cost of the work is based but they are subject to alterations, omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The basis of payment will be actual quantities of work ordered and carried out as measured by the Contractor and verified by the Engineer and valued at the estimate rate plus or minus tender percentage quoted in the Bill of Quantities where applicable, and otherwise at such rates and prices as the Engineer-in-Charge may fix within the terms of Contract.
3. The estimate rates in the Bill of Quantities shall, except in so-far as it is otherwise provided under the Contract include cost of all constructional material, labour, machinery, transportation, erection, maintenance, profit, taxes and duties together with all general risks, liabilities and obligations set out or implied in the Contract.
4. The plans enclosed with the tender are liable to be altered during execution of work as per necessity of site conditions. The Tender percentage quoted by the tenderer shall hold good for execution of work even with altered plans.
5. The whole cost of complying with the provisions of the Contract shall be included in the estimated rates for items provided in the Bill of Quantities and where no items are provided in the Bill of Quantities, their cost shall be deemed to be distributed among the estimate rates entered for the related items of work.
6. General directions and descriptions of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering estimate rate against each item in the Bill of Quantities.
7. The method of measurements of completed work for payment shall be in accordance with the relevant B.I.S. Codes, A. P. S. Specifications & MoRT&H (4th Revision)
8. All items of work are to be executed as per the drawings / specifications supplied with the contract documents. If there is any contradiction between the drawings and the text of the specifications, the later shall prevail.

9. The Tenderer should inspect and select the quarries of his choice before he quotes the tender percentage in the Schedule of Bill of Quantities and satisfy himself about the availability of required quantum of materials.
10. Diversion drains should be excavated before completion of the embankments and the useful soils should be used in the nearby embankments.
11. The actual mix proportion by weight to be adopted during execution will be got designed in the laboratories to suit the grade of concrete and mortar to be used. It will be the responsibility of the contractor to manufacture concrete and mortar of required strength.
12. The quantum of measurement for all items of earthwork involving conveyance manually or by machinery shall be as assessed by level measurement. The measurements for the embankment will be for the consolidated banks only.
13. Wherever bailing out of water is involved either for excavation or for foundations or for constructions, the percentage quoted shall take into account the dewatering charges necessary. No separate payment will be made for dewatering.
14. Wherever embankment work is involved, useful soils approved by the Engineer-in-Charge from the cutting reaches and diversion drains shall be taken and used for forming nearby embankments soils used for constructions will be at free of cost.
15. The quoted tender percentage shall also include the work of any kind necessary for the due and satisfactory construction, completion and maintenance of the works according to the drawings and these specifications and further drawings and orders that may be issued by the Engineer-in-Charge from time to time. The quoted tender percentage shall include compliance by the Contractor with all the general conditions of contract, whether specifically mentioned or not in the various clauses of these specifications, all materials, machinery, plant, equipment, tools, fuel, water, strutting, timbering, transport, offices, stores, workshop staff, labour and the provision of proper and sufficient protective works, diversions, temporary fencing and lighting. It shall also include safety of workers, first aid equipments suitable accommodation for the staff and workmen, with adequate sanitary arrangements, the effecting and maintenance of all insurances, the payment of all wages, salaries, fees, royalties / Taxes, duties or other charges arising out of the execution of works and the regular clearance of rubbish, reinstatement and clearing-up of the site as may be required on completion of works safety of the public and protection of the works and adjoining land. The work of Building in quality control / assurance shall be deemed to be covered in the quoted percentage.

16. The Contractor shall ensure that, the quoted tender percentage shall cover all stages of work such as setting out, selection of materials, selection of construction methods, selection of equipment and plant, deployment of personnel and supervisory staff, quality control testing etc. The work quality assurance shall be deemed to be covered in the tender percentage.
17.
 - a) The special attention of the tenderer is drawn to the conditions in the tender notices wherein reference has been made to the MoRT&H (4th revision) & Andhra Pradesh Standard Specifications [APSS] and the Standard preliminary specifications containing therein. These preliminary specifications shall apply to the agreement to be entered into between the contractor and the Government of Andhra Pradesh and shall form an in-separable condition of the contract along with the estimate. All these documents taken together shall be deemed to form one contract and shall be complimentary to another.
 - b) The tenderer shall examine, closely the A.P.S.S / MoRT&H and also the standard preliminary specifications contained therein and sign the Chief Engineer's office copy of the APSS / MoRT&H and its addenda volume in token of such study before submitting his overall tender percentage which shall be for finished work in-situ. He shall also carefully study the drawings and additional specifications and all the documents, which form part of the agreement to be entered into by the successful tenderer. The APSS / MoRT&H and other documents connected with contract such as estimate plans, specifications, can be seen on all working days in the office of the Chief Engineer ,GVMC.
18. The tenderers attention is directed to requirements for materials under the clause 'materials and workmanship' in the preliminary specifications of APSS & MoRT&H (4th revision). Materials conforming to the Bureau of Indian Standards specifications, APSS and MoRT&H (4th revision) etc., shall be used on the work and the tenderers shall quote his overall tender percentage accordingly.
19. The tenderer has to do his own testing of materials and satisfy himself that they conform to the specifications of respective I.S.I. Codes before tendering.
20. The contractor shall himself procure the required construction materials of approved quality including the earth for formation of embankment and water from quarries / sources of his choice. All such quarries / sources of materials required for the work shall be got approved by the Engineer-in-Charge in writing well before their use of the work.

21. The contractor shall himself procure the steel, cement, Bitumen, Blasting materials, sand, metal, soils, etc., and such other materials required for the work well in advance. The contractor has to bear the cost of materials for conveyance. The department will not take any responsibility for fluctuations in market in cost of the materials, transportation and for loss of materials etc.
22. Inspection of site and quarries by the tenderer: Every tenderer is expected before quoting his overall tender percentage, to inspect the site of proposed work. He should also inspect the quarries and satisfy himself about the quality, and availability of materials. The best class of materials to be obtained from quarries, or other sources shall be used on the work. In every case the materials must comply with the relevant standard specifications. Samples of materials as called for in the standard specifications or in this tender notice, or as required by the Executive Engineer, in any case, shall be submitted for the Executive Engineer's approval before the supply to site of work is begun.
23. The tenderer's particular attention is drawn to the sections and clauses in the A.P. standard specification dealing with
 - a) Test, inspection and rejection of defective materials and work.
 - b) Carriage
 - c) Construction plant
 - d) Water and lighting
 - e) Cleaning up during the progress and for delivery.
 - f) Accidents
 - g) Delays
 - h) Particulars of payments.

The contractor should closely peruse all the specification clauses, which govern the overall tender percentage he is tendering.

24. The defect liability period of contract in terms of GO Ms No: 8, T(R&B) department dated: 8.1.2003 is twenty four months.
25. The estimate rates for items shown in the Schedule "A" include all construction materials. No escalation in rates will be paid unless specified in the tender document. The tenderer has to quote an overall tender percentage considering all the aspects of the tender to complete the finished item of work as per the APSS / MoRT&H / B.I.S. specifications, the special specifications appended, Drawings etc.
26. If there is any contradiction between APSS / MoRT&H and B.I.S. specifications, listed and detailed technical specifications, the latter shall prevail.
27. In case of a job for which specifications are not available with the Schedule or in APSS / MoRT&H or B.I.S. code and are required to be prescribed, such work shall be carried out in accordance with the written instructions of the Engineer-in-charge.

28. The contractor should use the excavated useful soils and stone for construction purpose. Soils used for construction either for homogeneous section in hearting or in casing zone based on the suitability will be at free of cost and the cost of stone used for construction purpose will be recovered from the contractors bill.
The contractor should quote his tender percentage keeping in view of the above aspects.
29. Additions and alternations by the Tenderer in the Schedule of quantities will disqualify the tender.
30. In the case of discrepancies between the written description of the item in the Schedule "A" and the detailed description in the specification of the same item, the latter shall be adopted.
31. The Unit rates noted below are those governing payment of extras or deductions for omissions according to the conditions or the contract as set-forth in the preliminary specifications of the A.P. standard specifications and other conditions of specification of this contract.
32. It is to be expressly understood that the measured work is to be taken according to the actual quantities when in place and finished according to the drawings or as may be ordered from time to time by the Executive Engineer and the cost calculated by measurement or weight at their respective rates without any additional charge for any necessary or contingent works connected herewith. The Percentage Excess or less on ECV quoted are for works in situ and complete in every respect.
33. For all items of work in excess of the quantities indicated the rates payable for such excess quantities will be tendered rates i.e., estimate rates plus or minus tender percentage.
34. For all items of work, intermediate payment will be made provisionally as per relevant clause. Full-accepted agreement rates will be paid only after all the items of works are completed.
35. The contractor is bound to execute all supplemental works that are found essential incidental and inevitable during execution of main work.
36. The payment of rates for supplement items of work will be regulated as under.
Supplemental items directly deductible from similar items in the original agreement.
The rates shall be derived by adding to or subtracting from the agreement rate of such similar item the cost of the difference in the quantity of materials labour between the new items and similar items in the agreement worked out with reference to the schedule of rates adopted in the sanctioned estimate with which the tenders are compared.
 - a) Similar items but the rates of which cannot be directly deducted from the original agreement.
 - b) Purely new items which do not correspond to any item in the agreement.
The rate of all such items shall be estimated rates plus or minus overall tender percentage.
37. ENTRUSTMENT OF ADDITIONAL ITEMS.
 - a) Where ever additional items not contingent on the main work and outside the scope of original agreement are to be entrusted to the original contractor dispensing with tenders and if the value of such items exceeds the limits upto which the officer is empowered to entrust works initially to contractor without calling for tenders approval of next higher authority shall be obtained. Entrustment of all such items on nomination shall be rates not exceeding the estimate rates.

- b) Entrustment of supplement items contingent on the main work will be authorised by the officers upto the monetary limits upto which they themselves are competent to accept items in the original agreement so long as the total amounts upto which they are competent to accept in an original agreement rates for such items shall be worked in accordance with the procedure prescribed in GO Ms.No.1493 PWD, dated:25.10.1971 and as amended in Govt. Memo number 544 cod 72-22 dt:6.7.1973.
- c) Entrustment of either the additional supplemental items shall be further subject to the provisions under para 176(b) of APWD Code Viz., the items shall not be ordered by an officer on his own responsibility if the revised estimate or deviation statement providing for the same requires the sanction of higher authority.

Note: It may be noted that the term estimate rate used above means the rate in the sanctioned estimate with which the tender's compared or if no such rate is available in the estimate the rate derived will be with reference to the schedule of rates adopted in the sanctioned estimate with which tenders are compared.

SCHEDULE-A
BILL OF QUANTITIES (BOQ)

[Part-I]

NAME OF WORK: "Providing water supply to the Parawada housing colony from Desapathrunipalem Village.

Sl.No	Approximate quantity In figures/ words	Description of work	Specification No / CPHEEO/ APSS / BIS / MoRT&H	Unit In figures / words	Estimate Rate In figures / words	Amount in Rs.
		SEPARATE SHEETS ENCLOSED				

NAME OF WORK: **“Providing water supply to the Parawada housing colony from Desapathrunipalem Village.**

BILL OF QUANTITIES

Part-II

Reimbursable Items

i)	VAT @ 5.00%	Rs. 8,77,093.00
ii)	QC @ 1.16%	Rs. 2,03,485.00

The tenderers are eligible for reimbursement of amounts towards insurance, and engaging technical personnel not exceeding the amounts indicated above, subject to production of insurance policies, copies of appointment order & payment voucher for technical personnel etc., failing to comply with the above, reimbursement shall not be allowed but suitable penalty shall be imposed for not engaging technical personnel and the Engineer-in-Charge shall take insurance policy at the cost of Contractor duly deducting the premium from the Contractor bills. Contractor has to take the insurance policy in favour of the Department. The tenderers are also eligible for reimbursement of amount towards awareness meetings not exceeding the amount indicated above as per Govt.memo.No.14333/General/2004-1 dt.31.1.2005 of T&B Department.

FORMATS OF SECURITIES

PROFORMA

BANK GUARANTEE FOR EARNEST MONEY DEPOSIT(EMD)

Whereas (Name of the contractor) (here in after called "the tenderer") has submitted his tender response to NIT No:..... dated:..... for the work "....." (Name of work) (hereinafter called "the tender").

Known all men by these present that we (Name and address of bank) (hereinafter called "the bank" are bound unto / (name of the designated APAO) in the sum of * for which payment will and truly to be made to the said department, the Bank binds itself, his successors and assigns by these presents.

Sealed with the common seal of the bank this day of200....

The conditions of this obligation are:

- (1) If after tender opening the tenderer withdraws or modifies his Bid during the period of bid validity specified in the form of tender.
- (2) If the tenderer having been notified of the acceptance of his bid by the department during the period of validity.
 - (a) fails or refuses to execute the form of agreement in accordance with the Instructions to tenderers, if required, or
 - (b) fails or refuses to furnish the balance EMD and additional performance security in accordance with the instructions of tenderers.

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

This guarantee will remain in force up to and including the date** after the dead line for submission of tenders as such deadline is stated in the Instructions to tenders or as it may be extended by the department, notice of which extension(s) to the bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE:

SIGNATURE OF THE BANK

WITNESS:

SEAL

(Signature, name and address)

* The tenderer should insert the amount of the EMD in words and figures denominated in Indian rupee. This figure should be the same as shown in the NIT.

** 6 months for the deadline date for submission of tender. Date should be inserted by the department before the tender documents are issued.

PROFORMA
BANK GUARANTEE FOR BALANCE E.M.D

_____ (name and address of the department)

Whereas _____
_____ (name and address of the contractor) (hereinafter called "the contractor") has undertaken, in pursuance of contract No: _____ dated: _____ to execute the work of _____ (name of work)

And whereas it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a schedule bank for the sum specified therein as balance EMD / EMD 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) _____ (in words), such sum being 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.

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 which 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 up to i.e., until 28 days from the date of expiry of the defects liability period.

Signature and seal of the guarantor _____

Name of the bank _____

Address _____

Date _____

PROFORMA

BANK GUARANTEE FOR ADDITIONAL FURTHER SECURITY (ASD)

_____ (name and address of the department)

Whereas _____ (name and address of the 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 contractor");

And whereas it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a schedule bank for the sum specified therein as additional further security bank guarantee 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 Rs:_____ (amount of guarantee) _____ (in words), such sum being 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.

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 which 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 up to and until 28 days from the date completion.

Signature and seal of the guarantor _____
Name of the bank _____
Address _____
Date _____

PROFORMA

BANK GUARANTEE FOR MOBILISATION ADVANCE

To

(Name and address of agreement authority)

Sub: _____ (name of the work)

Gentlemen:

In accordance with the provisions of the conditions of contract, mobilisation advance for the above mentioned contract, _____ (name and address of contractor) (hereinafter called "the contractor") shall deposit with _____ (name of the department) a bank guarantee to guarantee his proper and faithful performance under the said contract for an amount of Rs: _____ (amount of guarantee)¹ _____ (in words).

We, the _____ (bank), as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to _____ (name of the department) on his first demand without whatsoever right of objection on our part and without his first claim to the contractor, for the amount not exceeding _____ (amount of guarantee)³ _____ (in words).

We further agree that no change or addition to or other modification of the terms of the contract or of works to be performed there under or of any of the contractor documents which may be made between _____ (name of the department) 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 remain valid and in full effect from the date of the advance payment under the contract until _____ (name of the department) receives full repayment of the same amount from the contractor.

Yours truly,

Signature and seal: _____

Name of the bank / financial institution: _____

Address: _____

Date: _____

¹ An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.

FORM OF SOLVENCY CERTIFICATES BY MANDAL REVENUE OFFICER

ANNEXURE – I (A)

I, _____ Mandal Revenue Officer, of _____ do hereby certify, on being satisfied by the examination of revenue and other records and local enquiries that _____ (here the name and address of the contractor should be mentioned) is solvent to the extent of Rs: _____ (Rupees _____).

Date:

Place:

MANDAL REVENUE OFFICER

SEAL OF THE OFFICE

ANNEXURE – I (B)

FORM OF SOLVENCY CERTIFICATE BY BANKS

I, _____ Managing Director / Manager / General Manager / Agent of _____ bank limited do hereby certify that a _____ (here the names and addresses of the contractor) to be solvent to the extent of Rs: _____ (Rupees _____) as disclosed by the information and record which are available with the aforesaid bank.

For the _____ bank

Date:

Place:

Signature of the bank manager
(Authorised to sign)