



**INSTITUTE OF NANO SCIENCE AND TECHNOLOGY**

**Habitat Centre, Sector-64, Phase-X, Mohali-160062**

**Tender document for the**

**NAME OF WORK:** Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. **SH: Horticulture and Landscaping Works.**

**(Two Bid System)**

**Percentage Rate Tender for Works**

**PART A**

**Technical / Eligibility Bid**

**Notice Inviting Tender, Eligibility Criteria, General Conditions of Contract**

**PART B**

**Particular Specifications**

**Tender Drawings**

**PART C**

**Financial Bid**

**May, 2019**

**PART-A**  
**TECHNICAL/ELIGIBILITY BID**  
**NOTICE INVITING TENDER, ELIGIBILITY CRITERIA,**  
**GENERAL CONDITIONS OF CONTRACT FOR CONTRACTOR**

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PART B: for Particular Specifications, and

PART C: for Financial bid

INSTITUTE OF NANO SCIENCE & TECHNOLOGY

Habitat Centre, Sector-64, Phase-X, Mohali-160062

**1.0. Press Notice**

**NOTICE INVITING TENDER**

The Director, Institute of Nano Science & Technology, Mohali ( INST ), on behalf of INST, Mohali invites percentage rate bids from approved and eligible (Horticulture) contractors of CPWD, Punjab PWD Chandigarh UT( Administration) for the under Mentioned work.

**NIT NO: 01/INST/2019-20**

**Name of work:** Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. **SH: Horticulture and Landscaping Works.**

Estimated cost put to tender	: ₹1, 04, 30,538/-
Earnest Money	: ₹2, 08,610 /-.
Period of Completion	: 06 (Six) Months (180 days)
Pre Bid conference on	: 31-05-2019 at INST
Uploading of clarification on website	: 07-06-2019

Last Date and Time for Submission of Tender: **On or before 17-06-2019 till 3.00 PM**

For NIT/Tender Documents Details/downloads or any other correction /amendments /modification / extension till the last date of submission of bids, can be downloaded free of cost from the website: [www.inst.ac.in](http://www.inst.ac.in) or [www.eprocure.gov.in](http://www.eprocure.gov.in)

## 2.0. PART-A: TECHNICAL/ELIGIBILITY BID

### 2.1 NIT/TENDER DOCUMENT

The Director, Institute of Nano Science & Technology, Mohali (INST) invites percentage rate bids from approved & eligible (Horticulture) contractors of CPWD, Punjab PWD Chandigarh UT( Administration) for the under Mentioned work.: **N.I.T. No.: 01/INST/2019-20**

<b>Name of work:</b>	Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. <b>SH: Horticulture and Landscaping Works.</b>
<b>Estimated Cost put to tender</b>	₹ 1,04,30,538/-
<b>Period of Completion</b>	06 (Six) Months
<b>Earnest Money Deposit:</b>	₹ 2,08,610/-
<b>Performance Guarantee</b>	5% of tendered value of schedule
<b>Security Deposit</b>	2.5% of tendered value
<b>Tender to be uploaded on website</b>	On 23-05-2019
<b>Last Date of submission of pre-bid queries in excel sheet by e-mail only.</b>	On 28-05-2019 Up to 5:00 PM
<b>Date of Pre bid Meeting &amp; Venue</b>	on 31-05-2019 at 11:00 AM at INST Mohali
<b>Uploading Pre bid Clarification/ amendments, if any</b>	On 07-06-2019
<b>Date and time of opening of Financial bid</b>	To be intimated later
<b>Validity of offer</b>	60 days from the date of opening of Tender

Certified that this NIT contains Part - A from page 2 to 38, Part – B from page 1 to 39 and Part - C from page 1 to 6.

This NIT amounting to ₹1,04,30,538/- (Rupees One Crore Four Lakh Thirty Thousand Five Hundred Thirty Eight Only) is hereby approved.

**PMC Architect,  
(Tata Consulting Engineers)**

**(Sikka Architect Associates)**

**Consultant (Engineering)**

**Director,  
Institute of Nano Science &  
Technology**

## **2.2. INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR TENDERING FORMING PART OF BID DOCUMENT.**

The Director, Institute of Nano Science & Technology, Mohali (INST) invites percentage rate bids from approved & eligible (Horticulture) contractors of CPWD, Punjab PWD Chandigarh UT( Administration) for the under Mentioned work :

<b>S. No.</b>	<b>NIT No.</b>	<b>Name of work &amp; Location</b>	<b>Estimated cost put to Tender</b>	<b>Earnest Money</b>	<b>Period of Completion</b>	<b>Last date &amp; time of submission of tender</b>	<b>Period during which EMD, and other Documents shall be submitted</b>	<b>Time and date of opening of tender</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
1	01/INST/2019-20	NAME OF WORK: Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. <b>SH: Horticulture and Landscaping Works.</b>	₹ 1,04,30,538/-	₹ ₹2,08,610/-	180days	17-06-2019	Upto 03:00 PM on 17-06-2019	03.30 PM on 17-06-2019

- The bidder is required to quote his rate in percentage above / below the estimated cost of work i.e. ₹1,04,30,538/-
- The tender document consisting of specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be compiled with and other necessary documents can be seen and Downloaded from website [www.inst.ac.in](http://www.inst.ac.in) or [www.eprocure.gov.in](http://www.eprocure.gov.in) free of cost.
- The intending bidder should read the schedule of quantities, additional conditions, additional specifications, particular specifications, CPWD- 6 and other terms and conditions given in the NIT. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required. The bidder should also read the General Conditions of Contract for CPWD Works 2014 with up to date correction slips, which is available with Government of India Publications.
- Information and Instructions for bidders posted on website shall form part of bid document.
- The Tender can only be submitted after depositing of original EMD in the form of Demand Draft or Pay Order or Banker's Cheque or Fixed Deposit Receipts and Bank Guarantee of any scheduled Bank towards EMD in favour of Director, INST, Mohali, be submitted along with the tender documents.

## ELIGIBILITY CRITERIA

The contractors who fulfil the following requirements shall be eligible to apply. **Joint ventures are not accepted.**

- (a) CPWD Class – I ( Horticulture)
- (b) For other Contractor enlisted with CPWD (except Class-I Horticulture), PWD Punjab & U.T.Administration, Chandigarh, who fulfil the following requirements, shall also be eligible to tender.
  - (i) Three similar completed works each costing not less than **₹41.72** Lakh  
**OR**
  - (ii) Two similar completed works each costing not less than **₹62.58** Lakh  
**OR**
  - (iii) One similar completed work costing not less than **₹ 83.44** Lakh

Similar work shall mean completed work containing items of **Horticulture and Landscaping Works.**

The definite proof from the appropriate authority not less than Executive Engineer or equivalent rank of having satisfactorily completed the works as mentioned below during the last Seven years ending previous day of last day of submission of Bids

- (c) The enlistment of contractors should be valid on last date of submission of tenders. In case only the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of tender.

### Receipt of deposition of original EMD

(Receipt No...../ Date.....)

<b>1</b>	<b>Name of work</b>	Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. <b>SH: Horticulture and Landscaping Works.</b>
<b>2</b>	<b>NIT No</b>	01/INST/2019-20
<b>3</b>	<b>Estimated Cost</b>	₹ 1,04,30,538/-
<b>4</b>	<b>Amount of Earnest Money Deposit</b>	₹ 2,08,610 /-
<b>5</b>	<b>Last date of submission of bid</b>	Upto 3:00 PM on 17-06-2019

(# To be filled by EMD receiving Officer)

<b>1</b>	<b>Name of Contactor</b>		
<b>2</b>	<b>Form of EMD</b>		
<b>3</b>	<b>Amount Earnest Money Deposit</b>		
<b>4</b>	<b>Date of submission of EMD</b>		

Signature, Name and Designation of EMD

Receiving officer (FO. INST)

Along with Office Stamp

## CPWD-6 FOR TENDERING

Percentage rate bids are invited on behalf of Institute of Nano Science and Technology, Mohali from approved and eligible (**Horticulture**) contractors of CPWD, Punjab PWD & U.T. Administration, Chandigarh for the work of:- **Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].SH: Horticulture and Landscaping Works.**”

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1. The work is estimated to cost ₹1,04,30,538/-. This estimate, however, is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 which is available as a Govt. of India Publication and also available on CPWD website. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be 180 days from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. The architectural & structural drawing shall be made available in phased manner as per requirement of the same as per approved programme of completion submitted by the contractor after award of the work.
6. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from website: [www.eprocure.gov.in](http://www.eprocure.gov.in) or [www.inst.ac.in](http://www.inst.ac.in) free of cost.
7. When tenders are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
8. **Earnest Money ₹ 2,04,610 /-** can be paid in the form of Demand Draft or Pay order or Banker's Cheque or Fixed Deposit Receipt (**drawn in favour Director, INST, Mohali payable at Mohali**) along with Bank Guarantee of any Scheduled Bank, wherever applicable in accordance with the Form annexed hereto having validity for 6 months or more from the last date of receipt of tenders shall be submitted with the tender.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, 50% of earnest money **or ₹ 20 lakh**, whichever is less, will have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any schedule bank having validity **for 6 months or more from the last date of receipt of bids**.

The original EMD can be deposited by the bidder, before opening of Eligibility/ Technical Bid, in the office of the **Director, Institute of Nano Science and Technology, Mohali**, or along with tender documents in separate envelope, failing which the tender shall be rejected.

<b>The INST bank details of are as follows:</b>	
1. Account Name :	<b>Director, INST, Mohali</b>
2. Name of Bank :	<b>Canara Bank</b>
3. Bank Address :	<b>Sector-34A, Chandigarh-160022</b>
4. Type of Account :	<b>Current Account</b>
5. Account No. :	<b>2452201001102</b>
6. IFSC Code :	<b>CNRB0002452</b>
7. MICR Code :	<b>160015003</b>

Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice shall be submitted with the tender. However, certified copy of all the documents as specified in press notice shall have to be submitted by the lowest bidder only within a week physically in the office of the tender opening authority.

Bid/ tender documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited along with the tender and other documents placed envelope are found in order.

The bid documents are to be deposited upto **3:00 PM on 17.06.2019** and shall be opened at **3:30 PM on 17.06.2019**.

#### 9.0 “Submission of Tender”

Tender shall be submitted by the bidders in three envelopes along with letter of transmittal as attached with this document in the following manner:

**Envelope No- 1** shall contain the EMD

**Envelope No-2** shall contain signed and stamped documents confirming the eligibility of the bidder (**Technical Bid**)

**Envelope No-3** shall contain signed and stamped price bid (**Financial Bid**).

Bidder shall clearly mention the envelope No. on each envelope. All envelopes shall be put together in one large envelope and submitted. Addressed to:

The Director,

Institute of Nano Science &  
Technology Habitat Centre,  
Sector-64, Phase-X,  
Mohali-160062

**Sub:** NIT No.: 1/INST/2019-20 for the work “Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali. (Punjab)].**SH: Horticulture and Landscaping Works.”**

10. The bid submitted shall become invalid if:
- (i) The bidders is found ineligible.
  - (ii) The bidder does not deposit original EMD with the office of Director INST, Mohali or along with the tender documents in a separate envelope.
  - (iii) The bidder does not submit all the documents as stipulated in the bid document including the copy of receipt for deposition of original EMD in the INST, Office.
  - (iv) If any discrepancy is noticed between the documents at the time of submission of bid by the lowest tenderer in the office of tender opening authority.
  - (v) if a bidder does not quote any percentage above / below on the total amount of the tender or any section / Sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
  - vi In the event of tender being submitted by a firm, it must signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender and it must disclose that the firm is duly registered under the Indian Partnership Act.

#### 11. **Opening of technical bid and financial**

After technical evaluation of applications of bidders, a list of short listed bidders will be prepared, whose eligibility documents are found to be in order.

Thereafter the financial bids of only the verified eligible bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives.

The bid shall remain valid for a period of 60 days from the date of opening of Technical bid.

12. The contractor whose Bid is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs. 1, 00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with the tender shall be returned after receiving aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registration or proof of applying for obtaining labour license, registration with EPFO, ESIC and BOCW Welfare Board and Programme Chart (Time and Progress) within the period specified in Schedule F.
13. The letter of award shall be issued to the lowest contractor only on receipt of applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or on submitting the proof of applying thereof. No running Account Bill shall be paid for the work till the labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are received from the contractor by the Officer-in-Charge.
14. The contractor shall submit a programme chart (Time & Progress) for each milestone along with performance guarantee and get it approved from the department.
15. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidders implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

16. The competent authority on behalf of the Director, INST, Mohali does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
17. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
18. The competent authority on behalf of Director, INST Mohali reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
19. The contractor shall not be permitted to bid for works in the INST / CPWD Circle (Division in case of contractors of Horticulture/ Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
20. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or before submission of the bid or engagement in the contractor's service.
21. The bid for the works shall remain open for acceptance for a period of **Sixty (60) days from the date of opening of technical bid in case bids are on 2 or 3 bid/ envelop system**. If any bidders withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.

22. This notice inviting Bid shall form a part of the contract document. The successful bidder/ contractor, on acceptance of his bid by the Accepting Authority shall within 60 days from the stipulated date of start of the work, sign the contract consisting of:
- a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto
  - b) Standard C.P.W.D. Form 7.
  - c) Standard General Condition of Contract for CPWD 2014 (including SP XX dated amended upto last date of receipt of tender).
23. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed participate in the retendering process of the work.
24. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
25. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registrations of proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board and Programme Chart (Time and Progress) with the period specified in schedule F. The letter of award shall be issued to the lowest contractor only on receipt of applicable labour licenses, registration with EPFO, ESIC and BOWC Welfare Board or on submitting the proof of applying thereof. No Running Account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare board, whatever applicable are received from the contractor by the Engineer in-Change.

**Director, INST, Mohali**

## GOVERNMENT OF INDIA

## INSTITUTE OF NANO SCIENCE, PUNJAB.

STATE:

Punjab

## PERCENTAGE RATE TENDER &amp; CONTRACT FOR WORKS

**Name of work: Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. SH: Horticulture and Landscaping Works.**” to be submitted the offline by 3:00 PM on 17-06-2019 to the Director, INST, Mohali to be opened in presence of tenderers who may be present at 3:30 PM on 17-06-2019 in the office of Director, INST, Mohali.

## TENDER

I/We have read and examined the Notice Inviting Tender, Schedule A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special Conditions, Schedule of Rate and other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Director, INST, Mohali within the time specified in Schedule 'F', viz. Schedule of Quantities and in accordance in all respects with the Specifications, Designs, Drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of Contract and with such materials as are provided for, by and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for 60 Sixty days from the date of opening of tender and not to make any modifications in its terms and conditions.

A sum of ₹ **2,08,610/-** is hereby forwarded in FDR of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank guarantee issued by a scheduled bank as earnest money. If I/we fail to furnish the prescribed Performance Guarantee within prescribed period, I/we agree that the said Director, INST, Mohali or his successor in office shall without prejudice to any other right or remedy be at liberty to forfeit the said Earnest Money absolutely. Further, if I/we fail to commence work as specified, I/we agree that Director, INST, Mohali or his successors in office shall, without prejudice to any other right or remedy available in law, be at liberty to forfeit the said Performance Guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 & 12.3 of the tender form. **Further, I/We agree that in case of forfeiture of earnest money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.**

I/ We undertake and confirm that eligible similar work(s) has/ have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of INST, Mohali, then I/we shall be debarred for tendering in INST, Mohali in future forever. Also, if such a violation comes to the notice of INST, Mohali before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/ Performance Guarantee.

I/We hereby declare that I/we shall treat the tender documents, drawings and other records connected with the work as Secret / Confidential documents and shall not communicate information / derived therefrom to any person other than a person to whom I/we am/are may authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

<p><b>Dated</b> .....XX  <b>Contractor</b>.....</p>	<p><b>Signature</b></p>	<p><b>of</b></p>
<p><b>Witness:</b> - .....XX.          .....</p>	<p><b>Postal</b></p>	<p><b>Address:</b></p>
<p><b>Address:</b> - .....XX.</p>		<p>-</p>
<p><b>Occupation:</b> - .....XX.</p>		

Telephone No.

Mobile:-

E-Mail:-

## ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the INST, Mohali for a sum of ₹..... (Rupees.....)

The letters referred to below shall form part of

this contract agreement.

For & on behalf of INST, Mohali

- i) ..... XXX  
Signature.....
- ii) ..... XXX
- iii) ..... XXX
- iv) ..... XXX

Dated: .....

Authorized Signatory, INST

XXX: To be filled by the INST

XX: To be filled by the Contractor

## PERFORMA OF SCHEDULES (A TO F)

### SCHEDULE 'A'

Schedule of quantities- **As per Part –C of Page – 1-7**

### SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

S. No.	Description of item.	Quantity.	Rate in figures & words	Place of
			at which the material will	issue
			be charged to the contractor	
(1)	(2)	(3)	(4)	(5)
	<b>NIL</b>			

### SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description.	Hire charges per day	Place of Issue
		<b>NIL</b>	

### SCHEDULE 'D'

Extra schedule for specific requirements/ documents for the work, if any.

- a) Technical Specifications. - Part – B - Page No. 2 to 157
- b) Tender drawings List - Part–B–**Annexure –I**
- c) Special Conditions - Part –B- Page **No. to.**

**SCHEDULE 'E'**

Schedule of component of other materials, Labour, POL etc., for price escalation.

<b>CLAUSE 10C</b>	:	<b>Not Applicable</b>
<b>CLAUSE 10 CA</b>	:	<b>Not Applicable</b>
<b>CLAUSE 10CC</b>	:	<b>Not applicable</b>

**Name of work** : Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].**SH: Horticulture and Landscaping Works."**

**1. Reference to General Conditions of Contract:** General Conditions of Contract 2014 with amendments issued up to the last date of submission of tender.

2	Estimated Cost of work	:	₹ 1, 04, 30, 538/-
3	Earnest Money	:	₹ 2, 08, 610 /- (To be returned after receiving Performance guarantee).
4	Performance Guarantee		5% of tendered value
5	Security Deposit		2.5% of tendered value

**SCHEDULE 'F':**

General Rules & Directions:

Officer Inviting Tender : Director, INST, Mohali.

Maximum Percentage for quantity of items

Work to be executed beyond which rates are to be determined in accordance with

Clauses 12.2 & 12.3 : Refer Clause-12 below

**Definitions:**

<b>Engineer-in-Charge:</b>	<b>Consultant (Engg), INST</b>
<b>Accepting Authority:</b>	<b>Director, INST, Mohali (Pb)</b>
<b>PMC (Project Management Consultant):</b>	<b>Tata Consulting Engineers (TCE)</b>
<b>Architect</b>	<b>: Sikka Architects &amp; Associates</b>
Percentage on cost of materials and labour	15%
To cover all overheads and profits	

Standard Schedule of Rates: Delhi Schedule of Rates 2018 (Horticulture) with correction slips upto date of receipt of tender.

Department : Institute of Nano Science and Technology, Mohali.

Standard CPWD Contract Form: Form GCC 2014, CPWD Form 7 modified & duly amended upto date of submission of tender.

Clause-1:

1.	Time allowed for submission of <b>Performance guarantee</b> from date of issue of letter of acceptance, in days.	10 days
2.	Maximum allowable extension with late fee @ 0.10% per day of performance guarantee amount beyond the period as provided in (i) above	1 to 5 Days
Clause-2: i	Authority for fixing compensation under clause 2	Director, INST Mohali
ii	Whether Clause 2(A) shall be applicable	Not Applicable
<b>CLAUSE 5</b>	Number of days from the date of issue of letter of acceptance for reckoning date of start.	15Days
	Mile Stone	Table of Milestones (Refer Part A, Page No.-24)
	Time allowed for execution of work	180 days
	<b>Authority to decide</b>	
i	<b>Extension of time</b>	<b>Director, INST, Mohali (Pb.)</b>
ii	<b>Re-scheduling of Mile stone</b>	<b>Director, INST, Mohali (Pb.)</b>
iii	<b>Shifting of Date of Start in case of delay in handing over of site</b>	<b>Director, INST, Mohali (Pb.)</b>
<b>Clause 6, 6A</b>		
	Clause applicable – (6 or 6A)	<b>Clause-6A (Computerize Measurement to be submitted by agency)</b>

<b>Clause 7</b>	Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.	<b>₹ 20 Lakh</b>
<b>Clause-10-B (ii):</b>	Whether clause 10-B (ii) shall be applicable	Yes
<b>Clause-10-C</b>	<b>Component of Labour expressed as percent of total value of work.</b>	Not applicable
<b>Clause-10 CA:</b>		Not applicable
	Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in the next column	Not applicable
<b>Schedule of component of other materials, Labour, POL etc. for price escalation:</b>		
	<p>Component of civil construction materials (except materials covered under clause 10CA) expressed as percent of total value of work</p> <p>Component of Labour expressed as percent of total value of work.</p> <p>Component of P.O.L. expressed as percent of total value of work.</p>	Not applicable
<b>Clause-11</b>	<b>Specifications to be followed for execution of work</b>	<p>As per Part B (Page no. 2-37)</p> <p>&amp;</p> <p>C.P.W.D. Specifications 2009 Vol. I &amp; II with up to date correction slips till receipt of tender Horticulture Specifications</p>

<b>Clause-12:</b>	<b>Type of Work</b>	<b>Project and original works</b>
<b>12.2 &amp; 12.3</b>	<b>Deviation limit beyond which clause 12.2 &amp; 12.3 shall apply for Building work</b>	50%
<b>12.5(i)</b>	<b>Deviation limit beyond which clause 12.2 &amp; 12.3 shall apply for foundation works (except earth work)</b>	<b>50%</b>
<b>(ii)</b>	<b>Deviation limit for items in earth work subhead of DSR or related items</b>	100%
<b>Clause-16:</b>	<b>Competent Authority for deciding reduced rates</b>	<b>Director, INST, Mohali</b>

**Clause-17:**

<b>Defect Liability Period</b>	<b>24 Months</b>
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**Clause-18:** List of mandatory machinery tools

& Plants to be deployed by the

Contractor at site

**N.A.**

**Clause-25: Dispute Redressal Committee (DRC)**

Constitution of Dispute Redressal Committee (DRC)	Competent Authority to appoint DRC.
DRC Constituted vide No. 15(3)/2019-INST dated 18-03-2019 (Annexure – 1) (Part A page 38)	Director, INST, Mohali

**Clause-36 (i)**

S r N o	Minimum Qualificati on of Technical Represent ative	Discipline	Designation (Principal Technical/ Technical Representati ve)	Minimu m Experie nce	Numb er	Rate at which recovery shall be made from contractor in the event of non- deployment.	
						Figure s	Words
1	Graduate Enginee r	Electrical / Electroni cs	Principal Technical representati ve	5 Years	1 No	₹ 25,000 /- per month	₹Twenty Five thousand only per month

- Assistant Engineers retired from Government services who are holding Diploma will be treated at par with Graduate Engineers.

**Clause-42:**

i) a) **Schedule/ Statement for determining theoretical quantity of cement & bitumen**

Delhi Schedule of Rates

**(Horticulture & Landscaping )**

2018 with correction slips issued up to the date of receipt of tender and as per nomenclature of the items.

- ii) Variations permissible on theoretical quantities.
- a) Cement 2% plus/ minus.
- b) Steel Reinforcement and structure steel  
Sections for each diameter, section and category. 2% plus/ minus.
- c) Bitumen for all work. 2.5% Plus only & Nil on minus side.
- d) All other materials Nil

### TABLE OF MILE STONE (S)

Name of work :

#### Financial Terms:-

Sl No.	Financial Progress	Time Allowed (from date of start)	Amount to be withheld in case of non-achievement of milestone
1.	1/8 <sup>th</sup> (of Whole work)	1/4 <sup>th</sup> (of whole time)	In the event of not achieving the necessary progress as assessed from the running payments 1% of the tendered value of work will be withheld for failures of each milestone.
2.	3/8 <sup>th</sup> (of Whole work)	1/2 <sup>th</sup> (of whole time)	
3.	3/4 <sup>th</sup> (of Whole work)	3/4 <sup>th</sup> (of whole time)	
4.	Full	Full	

## FORM OF EARNEST MONEY DEPOSIT

(BANK GUARANTEE BOND)

WHEREAS, contractor..... (Name of contractor) (Hereinafter called "the contractor") has submitted his tender dated..... (Date) for the construction of..... (Name of work) (Hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we..... (Name of bank) having our registered office at..... (Hereinafter called "the Bank") are bound unto..... (Name and division of Executive Engineer) (Hereinafter called "the Engineer-in-Charge") in the sum of ₹..... (₹ in words ..... ) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents. SEALED with the Common Seal of the said Bank this .....day of..... 20.....

THE CONDITIONS of this obligation are:

- (1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;
- (2) If the contractor having been notified of the acceptance of his tender by the Officer-in-Charge:
  - (a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;

OR

- (b) Fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

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

This Guarantee will remain in force up to and including the date\* ..... after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, 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)

\*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

## FORM OF PERFORMANCE SECURITY

### BANK GUARANTEE BOND

In consideration of the President of India (hereinafter called "The Government") having offered to accept the terms and conditions of the proposed agreement between \_\_\_\_\_ and \_\_\_\_\_ (hereinafter called "the said contractor(s)" for the work \_\_\_\_\_ (hereinafter called "The said agreement") having agreed to production of a irrevocable Bank Guarantee for ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We \_\_\_\_\_ (hereinafter referred to as "the Bank) hereby undertake to (indicate the name of the bank) pay to the Government an amount not exceeding ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ only) on demand by the Government.

We \_\_\_\_\_ do hereby undertake to pay the amounts due and payable (indicate the name of the bank) under this Guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ only).

We, the said bank further undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

We \_\_\_\_\_ further agree that the guarantee herein contained shall (indicate the name of the Bank) remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor (s) and accordingly discharges this guarantee.

We \_\_\_\_\_ further agree with the Government that the government (indicate name of the bank) shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers

exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

We \_\_\_\_\_ lastly undertake not to revoke this guarantee except (indicate the name of Bank) with the previous consent of the Government in writing.

This guarantee shall be valid upto \_\_\_\_\_ unless extended on demand by Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to ₹ \_\_\_\_\_ (Rupees \_\_\_\_\_ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the \_\_\_\_\_ day of \_\_\_\_\_ for \_\_\_\_\_  
\_\_\_\_\_.

(Indicate the name of Bank)

INTEGRITYPACT

To,

.....,

.....,

.....

**Sub:** NIT No.: 1/INST/2019-20 for the work “Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].  
**SH: Horticulture and Landscaping Works.**

Dear Sir,

It is here by declared that Institute of Nano Science& Technology, Mohali is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the Institute of Nano Science& Technology, Mohali.

Yours faithfully,

Director,

Institute of Nano Science & Technology, Mohali

## INTEGRITY PACT

To,  
The Director,  
Institute of Nano Science &  
Technology  
Habitat Centre, Sector-64,  
Phase-X, Mohali-160062

**Sub:** NIT No.: 1/INST/2019-20 for the work “Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].  
**SH: Horticulture and Landscaping Works.**

Dear Sir,

I/We acknowledge that Nano Science & Technology, Mohali is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that the making of the bid shall be regarded as an unconditional and absolute acceptance of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by Nano Science & Technology, Mohali. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, Nano Science & Technology, Mohali shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully,

(Duly authorized signatory of the Bidder)

**To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of Institute of Nano Science & Technology, Mohali.**

### **INTEGRITY AGREEMENT**

This Integrity Agreement is made at ..... on this.....day of .....20.....

#### **BETWEEN**

Institute of Nano Science & Technology (Hereinafter referred as the **Principal/Owner**’, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

#### **AND**

..... (Name and Address of the Individual/firm/Company) through..... (Hereinafter referred to as the (Details of duly authorized signatory)

“**Bidder/Contractor**” and which expression shall unless repugnant to the meaning or context here of include its successors and permitted assigns)

#### **Preamble**

WHEREAS the Principal / Owner has floated the Tender (NIT No. 1/INST/2019-20) (hereinafter referred to as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for “**Sub: NIT No.: 1/INST/2019-20 for the work “Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].SH: Horticulture and Landscaping Works.”** hereinafter referred to as the “**Contract**”.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of and, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties here by agree as follows and this Pact witnesses asunder:

**Article 1: Commitment of the Principal/Owner**

- (1) The Principal/ Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - (c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- (2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles here in mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition canal so initiate disciplinary actions as per its internal laid down policies and procedures.

**Article 2: Commitment of the Bidder(s)/Contractor(s)**

- (1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
  - (a) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
    - (b) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind what so ever during the Tender process or during the execution of the Contract.
    - (c) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in

the bidding process.

- (d) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- (e) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/ parallel tender for the same item.
- (f) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made or is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (3) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and /Or to influence the procurement process to the detriment of the Government interests.
- (4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accept and undertakes to respect and uphold the Principal/Owner's absolute right:

- (1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any

other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s)from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

- (2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- (3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

#### **Article 4: Previous Transgression**

- (1) The Bidder declares that no previous transgression so occurred in the last 5years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
- (3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

#### **Article 5: Equal Treatment of all Bidders/Contractors/Associate Agencies**

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-contractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s)of the principles laid down in this agreement/Pact by any of its Associate agencies.

- (2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- (3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

#### **Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is later and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, i.e. Institute of Nano Science & Technology.

#### **Article 7- Other Provisions**

- (1) This Pact is subject to Indian Law, place of performance and jurisdiction is the headquarters of the division of the Principal/Owner who has floated the tender.
- (2) Changes and supplements need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- (4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to the original intentions.
- (5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

#### **Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such

legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....

(For and on behalf of Principal/Owner)

.....

(For and on behalf of Bidder/Contractor)

WITNESSES:

1.....

(Signature, name and address)

2.....

(Signature, name and address)

Place:

Dated:

**FORM 'G'**  
**DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE**  
**LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DATE OF SUBMISSION**  
**OF**  
**TENDERS.**

1 S.No.	2 Name of work / Project and Location	3 Owner or sponsoring organization	4 Gross amount of work done of items/ components mentioned in <small>Cost of work in Crores of</small>	5 Date of Commencement as per contract	6 Stipulated date of completion	7 Actual Date of Completion	8 Whether the work was done on back to back basis—Yes/No	9 Litigation / arbitration cases pending / in progress with details *	10 Name and address/ telephone Number of officer to whom reference

**FORM 'H'**  
PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS "C"

- |   |   |                                 |
|---|---|---------------------------------|
| 1. Name of work/project & location  | : |                                 |
| 2. Agreement no.  | : |                                 |
| 3. Estimated cost   | : |                                 |
| 4. Tendered cost  | : |                                 |
| 5. Date of start  | : |                                 |
| 6. Date of completion   | : |                                 |
| (i) Stipulated date of completion   | : |                                 |
| (ii) Actual date of completion  | : |                                 |
| 7. (a) Whether case of levy of compensation<br>for delay has been decided or not? | : | Yes / No                        |
| (b) If decided, amount of compensation levied<br>for delayed completion, if any.  | : |                                 |
| 8. Performance Report   | : |                                 |
| (1) Quality of work   | : | Outstanding/Very Good/Good/Poor |
| (2) Financial soundness   | : | Outstanding/Very Good/Good/Poor |
| (3) Technical Proficiency   | : | Outstanding/Very Good/Good/Poor |
| (4) Resourcefulness   | : | Outstanding/Very Good/Good/Poor |
| (5) General Behaviour   | : | Outstanding/Very good/Good/Poor |

Executive Engineer or Equivalent

**Composition of DRC under Clause 25**

Issued vide office order No. 15(3)/2019-INST, Dated: 18.03.2019

In accordance with Clause 25 of Part 'A' of Tender Document of INST for various packages for Construction and Development of Institute Campus at Sector-81, Mohali, the Director, Institute of Nano Science and Technology has been pleased to reconstitute a Dispute Redressal Committee (DRC) for redressal of disputes arisen between the contractors and the Institute on the matters pertaining to the said project. The reconstituted committee along with ToR is as under:

- |    |  |                   |
|----|--|-------------------|
| 1. | Dr. R.K. Sinha, Director, CSIO, Chandigarh   | : <b>Chairman</b> |
| 2. | Dr. S.K. Sardana (Retd. IDES), Member Judge,<br>Chandigarh Disputes Redressal Commission, Chandigarh     | : <b>Member</b>   |
| 3. | Dr. Sandeep Chatterjee, Registrar, IIT Delhi   | : <b>Member</b>   |
| 4. | Shri Moley Roy (Civil Engineer), Former Vice President,<br>M/s. JMC Projects India Ltd., Kolkata         | : <b>Member</b>   |
| 5. | Shri S.K. Srivastava, (Retd. Spl. D.G., CPWD)<br>370, Asiad Village Complex, Siri Fort, New Delhi-110049 | : <b>Member</b>   |
| 6. | Shri J.K. Chowdhary (Retd. Chief Engineer, CPWD),<br>C-2/2369, Vasant Kunj, New Delhi-110070             | : <b>Member</b>   |

**Terms of Reference:**

**Tenure:** Till the completion of the project of Construction & Development of INST Campus at Sector 81, Mohali, or further orders, whichever is earlier?

**Quorum:** Chairman and three other members

The above order will take immediate effect.



INSTITUTE OF NANO SCIENCE AND TECHNOLOGY

Habitat Centre, Sector-64, Phase-X, Mohali-160062

PART-B

SPECIAL CONDITIONS OF CONTRACT,  
ADDITIONAL CONDITIONS,  
PARTICULAR SPECIFICATIONS,  
LIST OF TENDER DRAWINGS

Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)].SH: Horticulture and Landscaping Works.

**INDEX**

**Name of Work:** Construction & Development of Campus of Institute of Nano Science & Technology at Knowledge City, Sector-81, Mohali (Punjab)]. SH: Horticulture and Landscaping Works

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## **1.0 SPECIAL CONDITIONS OF CONTRACT**

### **1.1. Special Conditions – General**

1.1.1. The contents of special conditions take precedence over the general 'Clauses of Contract.

1.1.2. The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations, if any, weather conditions at site, general ground/subsoil conditions etc. or any other circumstances which may affect or influence their tenders. No claim what so ever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

1.1.3. The site is available for work. The Contractor shall carry out survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and Structural drawings in consultation with the Engineer-In-Charge and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-In-Charge. It shall be responsibility of the Contractor to ensure correct setting out of alignment. Nothing extra shall be payable on this account. No claims, whatsoever, shall be entertained at a later date for any errors found, on plea that the information supplied by the INST MOHALI in the tender is insufficient or is at variance with the actual site conditions.

1.1.4. The contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the tender or works to the extent, the contractor shall be satisfied before submitting the tender as to all relevant matters, including (without limitation):

- (a) The form and nature of the site, including sub-surface conditions,
- (b) The hydrological and climatic conditions,

- (c) The extent and nature of the work and goods necessary for the execution and completion of the works and the remedying of any defects,
- (d) The laws, procedures and labour practices of the country, and
- (e) The contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services etc.

1.1.5. The Contractor shall, if required by him, before submission of the tender, inspect the drawings in the Office of the Institute of Nano Science and Technology, Habitat Centre, Sector-64, Phase-X, Mohali- 160062. The INST MOHALI shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender documents have been furnished for general information and guidance only. The Engineer- in-Charge, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the tender documents. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.

1.1.6. The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-In-Charge. Nothing extra shall be payable on this account.

1.1.7. The contractor(s) shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.

The contractor shall also provide and erect temporary protective barricades within the plot, if required, to prevent any accident. Nothing extra shall be payable on this account.

The contractor shall maintain it during the complete period of execution and realign it if required, for execution of works.

1.1.8. The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours/ contractual staffs the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.

1.1.9. The work shall generally be carried out in accordance with the CPWD Horticulture & Landscaping 2018” & “CPWD Specifications 2009 Vol. I & II” with up to date correction slips, additional/Particular Specifications, architectural/Structural drawings and as per instructions of Engineer-In-Charge. Any additional item of the work, if taken up subsequently, shall also conform to the relevant CPWD specifications as mentioned above.

1.1.10. The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.

1.1.11. There be any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed.

- i. Description of items as given in Schedule of quantities
- ii. Particular specifications
- iii. Special conditions
- iv. Additional Condition
- v. Tender drawings attached
- vi. CPWD Specifications including correction slips issued up to the last date of uploading/submission of tender.
- vii. General Conditions of Contract for CPWD Works including correction slips issued up to the last date of uploading/submission of tender.
- viii. Indian Standards Specifications of B.I.S.
- ix. Manufacturer's specifications and as decided by the Engineer-In-Charge.
- x. Sound Engineering practices or well established local construction practices.

1.1.12. The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works including Defect Liability Period as mentioned in the NIT.

The works to be undertaken by the contractor shall inter-alia include the following:

- I. Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
- II. Obtaining of Statutory permissions where-ever applicable and required.
- III. Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
- IV. Warranty obligation for the equipments and / or fittings/fixtures supplied by the contractor.
- V. Contractor shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order of any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-Charge before implementation and this shall be binding on the contractor.
- VI. The contractor shall submit material submittals along with material sample for approval of Engineer-In-Charge prior to delivery of material at site.

1.1.13. The work shall be carried out in accordance with the approved drawings to be issued from time to time, by the Engineer-In-Charge. Before commencement of any item of work the contractor shall correlate all the relevant architectural and structural drawings, nomenclature of items and specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought

to the notice of the Engineer-In-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the INST MOHALI on this account.

- a. The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by EIC.

1.1.14. Unless otherwise provided in the Schedule of quantities vide Part-C, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.

1.1.15. The Contractor(s) shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan however, if any change is required, the same shall be done with the approval of Engineer-In-Charge.

1.1.16. The contractor shall engage specialized agency for carrying out specialized items mentioned in this document. Before engaging such agency, the contractor shall submit the details for the approval of Engineer-In-Charge, the name of the agency along with their working experience, presentation on method statement and materials being used for execution of such items etc.

1.1.17. The Contractor shall bear all incidental charges for cartage, storage and safe custody of Materials, if any, issued by INST MOHALI as well as to those materials also arranged by the contractor.

1.1.18. The contractor shall give performance test of the entire installation(s) as per the specifications in the presence of the Engineer-In-Charge or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor for such test.

1.1.19. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the

State Govt. Departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-In-Charge at regular interval as per the CPWD Specifications. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor. Contractor shall neither be allowed to use existing bore well, if any, nor shall be allowed to dig any borewell in the site premises unless he gets permission from the concerned authority. If required, the contractor shall install water treatment plant at site and treat the water to obtain the desired parameter of water quality required for construction as per relevant IS codes.

1.1.20. Site test register & MAS Registers to be maintained by contractor:

All test registers and MAS registers issued by the Engineer-In-Charge shall be maintained by the contractor which will be reviewed by the officers of PMC (project management consultant) or the person authorized by INST MOHALI at regular intervals. These may also be reviewed by Engineer in charge as and when required. Frequency of tests will be governed by the CPWD specifications with up to date correction slips.

1.1.21. SECURITY AND TRAFFIC ARRANGEMENTS

In the event of any restrictions being imposed by the Security agency, INST MOHALI, Traffic or any other authority having jurisdiction in the area on the working or movement of labour/material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.

1.1.21.1. The contractor is required to make his own arrangements to provide huts for labourer's (**Outside Site Campus**) as is acceptable to local bodies and nothing extra shall be paid on this account. He shall make his own arrangements for stores, field office etc. Before tendering, he shall visit the site and assess the manner in which he is able to arrange the above facilities. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.

1.1.22. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make

good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.

1.1.23. The contractor shall construct suitable godowns, yard at the site of work for storing all materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost. The contractor shall also establish the batching plant and office of the contractor at site free of cost. Before starting such office/ yard the contractor will submit a layout plan to INST MOHALI for approval. This shall be maintained as per the prevailing norms of statutory bodies failing which a suitable penalty shall be imposed on the contractor. The contractor will barricade this area at his own cost and nothing shall be paid on this account.

#### 1.1.24. TIME CONTROL

- (a) After issue of Letter of Acceptance, the Contractor shall submit to the Engineer-In-Charge for approval, the Construction schedule duly signed including Environmental Management Plan showing the general methods, arrangements, order, and timing for all the Micro-activities in the Works along with monthly cash flow forecasts. The same shall be form part of the contract.
- (b) An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- (c) The Contractor shall submit to the Engineer-In-Charge for approval an updated Program at intervals no longer than 30 days. If the Contractor does not submit an updated Program within this period, the Engineer-In-Charge may withhold the amount **Rs. 5,000/-** from the next Running Bill and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
- (d) Engineer-In-Charge's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer-In-Charge again at any time. A revised Program shall show the effect of Variations and Compensation Events.

#### 1.1.25. SPECIFICATIONS

The work shall be executed in accordance with the specifications enclosed, the working drawings, the Bill of Quantities and instructions issued from time to time. Wherever these specifications are found wanting in any way, the C.P.W.D. specifications (Civil & Horticulture) shall apply.

#### 1.1.26. VERIFICATION AT SITE

The Contractor shall verify at the site information regarding existing services, levels, dimensions, etc. as indicated in the drawings and shall remain responsible for the accuracy and maintenance of all dimensions and levels. On verification if any discrepancy is found between what is shown in the drawings and what is actually existing the Contractor before proceeding with further works shall immediately bring the same to the notice of the Engineer-In-Charge.

#### 1.1.27. PROGRAMME OF WORKS AND METHOD OF CONSTRUCTION

The Contractor shall submit to the Engineer-In-Charge prior to the commencement of work, for his approval, a detailed programme in the format as approved by the Engineer-In-Charge. The detailed programme shall necessarily contain but not limited to all the activities in different phases and in different locations, separately specifying there in the start and end of such activity. However, this submission and subsequent approval shall not relieve the contractor of any of his duties or responsibilities under this contract.

#### 1.1.28. NOTICE OF OPERATION

In spite of submission and approval of the work programme the contractor shall not carry out any major operation without the consent of the Engineer-In-Charge.

#### 1.1.29. ORDERING MATERIALS

The Contractor is entirely responsible for assessing the quantities of material to be ordered for using these in permanent works.

#### 1.1.30. WORK DIARY

The Contractor shall maintain site order book on the site in which all remarks, instructions, decisions and the essential details, of the work shall be recorded by the Engineer-In-Charge. The Contractor shall assist in keeping the Site order Book by supplying daily information on the works as required by the Engineer-In-Charge.

#### 1.1.31. CONSTRUCTION RECORDS

The Contractor shall keep and supply to the Engineer-In-Charge full and accurate records of the dimensions and positions of all new work and any other information necessary for the Engineer-In-Charge.

#### 1.1.32. SAFETY OF ADJACENT STRUCTURES OF WORKS

The Contractor shall provide and erect to the approval of the Engineer-In-Charge such supports as may be required to protect efficiently all structures or works which may be endangered by the execution of the works or otherwise take such permanent measures as may be required by the Engineer-In-Charge to protect the structures or works.

#### 1.1.33. KEEPING SITE CLEAN

During the progress of the works and when directed by the Engineer-In-Charge the Contractor shall keep the site clear of all rubbish and debris including that which may be deposited on the site by any sub-contractors until the date of issue of certificate of completion. The cost of keeping the site clean shall be deemed to have been included for in the rates. On completion of the works, the Contractor shall at his own expense clear away and remove from the site not later than 30 days from the date of completion of works all constructional plant, surplus material, rubbish and temporary works of every kind and leave the entire site and works clean and in a workmanlike condition to the satisfaction of the Engineer-In-Charge

#### 1.1.34. LIGHTING FOR WORK

The Contractor shall at all times provide approved lighting as required for the proper execution and supervision of these works.

#### 1.1.35. PROGRESS REPORT

The Contractor shall submit regular fortnight progress reports to the Engineer-In-Charge in a form as required by him.

#### 1.1.36. CONTRACT RATES

- (i) The Contract rates and prices shall be deemed to; include all labour, materials, use of plant tools, temporary works and buildings, etc. insurance, GST, local taxes and duties establishment charges, profit, supervision, transport, testing and other charges and fees and every expense incurred in the proper and due execution, completion and maintenance of the works, and shall be accepted by the Contractor in full satisfaction and discharge of every obligation imposed upon him by these specifications, schedules of items and drawings. GST TDS, Labour cess, Security and other statutory deductions, if any, shall be deducted from each running bill as applicable.
- (ii) The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels as directed by Engineer-In-Charge, survey with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location, implementation of green building norms to achieve desired GRIHA Rating

compliances etc. and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.

- (iii) The rates quoted by the tenderer, shall be firm and inclusive of all taxes and levies.
- (iv) No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.
- (v) Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in- Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-In-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.
- (vi) For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, notwithstanding the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.
- (vii) All material shall only be brought at site as per program finalized with the Engineer-In-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

- (viii) The rate for all items, in which the use of cement is involved, is inclusive of charges for curing.
- (ix) Contractor has to make his own labour hutment arrangements outside the campus, for that he has to identify the areas close to site & take necessary permissions & develop the area with proper facilities like water, sanitation, drains etc. Nothing extra shall be payable on this account to contractor.

#### 1.1.37. AS BUILT DRAWINGS

On completion of work, the Contractor shall submit to the Engineer-In-Charge one original and 2 copies of as built drawings indicating as built civil structures, installed equipment's, piping & valves.

#### 1.1.38. SAMPLES AND PROTOTYPES

The contractor shall submit to the Engineer-In-Charge samples of all materials required for prior approval in writing before placing the order. The Contractor shall also construct prototypes or samples of work as laid down in the contract or as instructed by the Engineer-In-Charge.

Such samples and prototypes after approval shall be retained by the Engineer-In-Charge and shall serve as the standards to be achieved in final construction.

#### 1.1.39. MATERIAL INSPECTION, EXAMINATION & TESTING

All materials and equipment shall be brand new. On arrival of the materials at site they shall be inspected and tested by the Engineer-In-Charge to ensure that the materials conform to the specifications and standards. The Engineer-In-Charge and his representatives shall at all reasonable time have free access to the contractor's/manufacturer's works. They shall have full powers to examine the materials and workmanship of the equipment at the contractor works or at any other place from where the material or equipment is obtained. The contractor shall give every facility to the Engineer-In-Charge and his representatives and necessary help for inspection, examination & testing of the materials. Original test certificates of the manufacturer's shall be submitted by the Contractor for all major equipment before they are accepted by the Engineer-In-Charge. Acceptance of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirements of the contract.

#### 1.1.40. PERMITS & LICENSES

The Contractor shall obtain all permits and/or licenses if required for any part of the work from the local Authorities and pay for any and all fees required for the same.

1.1.41. TRAINING OF PERSONNEL AT SITE

In order to enable the owner's staff to get acquainted with the operation and maintenance of the system, the contractor at no extra cost to the user shall train the user's personnel during the period of installation, testing, commissioning and prior to virtual completion and taking over by user.

1.1.42. STORAGE OF MATERIALS AND SAFE CUSTODY

Lockable storage space, on site shall be made available by the contractor himself and the contractor shall be responsible for watch and ward and safe custody of his equipment and installations till they are formally taken over by the user.

1.1.43. INSURANCE

All equipment, materials, machinery and installations as a whole shall be insured by the contractor until virtual completion and take over by the user. Insurance policy should cover for all kinds of erection risks, fire, theft, or loss in transit. All workers and third party shall be insured in accordance with the Workmen Compensation Act in the event of an accident.

1.1.44. MEASUREMENT

All works shall be measured in accordance with relevant IS Standards notwithstanding general or local practices unless where specifically described otherwise in the specific sections of the specifications. All measurements shall be taken by the Engineer-In-Charge representative in the presence of the contractor's authorised representative and shall be jointly signed by both parties. Payments in accordance with the measurements recorded shall be released as per the terms and mode of payment agreed in the contract.

1.1.45. TIME OF COMPLETION

The entire works are required to be completed within 9 Months (Including rainy season) from the 15<sup>th</sup> day after the date on which the owner issue written orders to commence the work in following phases:

- (i) Tree Plantation Shall be done in August
- (ii) Balance work shall be done in February.

1.1.46. LIQUIDATED DAMAGES/COMENSATION FOR DELAY

In case the contractor is not able to complete the entire work, in accordance with the contract, within the stipulated completion period or within the period of time extended by the consultant / engineer in charge in writing, then the contractor shall be liable to pay to the owner liquidated damages a sum as stipulated in clause 2 of contract agreement.

#### 1.1.47. TERMINATION OF CONTRACT BY THE OWNER

If the contractor commits any “Act or Insolvency” or shall be adjudged as insolvent or shall have an order for compulsory winding up made against him or pass effective resolution for winding up voluntarily or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by / on behalf of any of the creditors of the contractors, or shall assign the contract without prior written consent of the Engineer-In-Charge shall charge or encumber this contract thereunder, or is the Engineer-In-Charge shall certify in writing that the contractor.

- (a) Has abandoned the contract.
- (b) Has failed to commence works, or has without any lawful excuse under these conditions suspended the progress of the works for seven days after receiving from the Engineer-In-Charge written notice to proceed.
- (c) Has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed in accordance with the approved programme of work.
- (d) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Engineer-In-Charge written notice that the said materials or work were condemned and rejected by the Engineer-In-Charge under these conditions.
- (e) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to observed and performed by the contractor for seven days after written notice shall have been given to the contractor requiring the contractor to observe or perform the same.
- (f) Has to the detriment of good workmanship or defiance of the Engineer-In-Charge instructions to the contrary of the said clauses, the owner with the written consent of the consultant may not withstanding any previous waiver, after given seven days’ notice in writing under the provision of this clause to the contractor, determine the contract without prejudice to the powers of the consultant or the obligations and liabilities of the contract, the whole of which shall continue to be in force as if the contract has not been so determined and as if the work subsequently executed has been executed by / or on behalf of the contractor.

After issue of such notice, the contractor shall not be at liberty to remove from site any plant, tools and materials belonging to which shall have been placed there on for the purposed of the works and the owner shall have lien upon such

plant, tools or materials to subsist from the date of such notice and until the notice shall have been complied with.

If the contractor shall fail to comply with the requirements of said notice for 7 days after such notice has been given, the owner shall have powers to enter upon and take possession of the works and site and all plants, tools and materials thereon, and to engage any other person, firm or agency to complete the works, utilizing plant, tools and materials to the extent possible. The owner shall not in any way be responsible for damage or loss of the tools, equipment and materials and the contractor shall not have any compensation on thereof.

Upon completion of the works, Engineer-In-Charge shall certify the amount of expenditure properly incurred consequent on and incidental to the defaults of the contractor as aforesaid and such amount shall be deducted from the payments due to the contractor. If the said amount exceed the payments due to the contractor the owner shall be at liberty to dispose off any of the contractor's tools, materials or plant and apply the proceeds for the payments due from contractor and recover the balance by process of law.

After the work have been completed and after amounts due has been fully recovered from the contractor, Engineer-In-Charge shall give written notice to the contractor to remove the surplus plant and materials from site. If such items are not removed within a period of 14 days of such notice, the owner shall have the power to remove and sell the same holding the proceeds less cost of removal and sale to the credit of the contractor. The owner shall not be responsible for any loss sustained by the contractor from such sales.

#### 1.1.48. LABOUR

##### 1.1.55.1 LABOUR RULES

In respect of all labour directly or indirectly employed on the works by the contractor, the contractor, shall comply with the provisions of the contract labour (Regulation and Abolition) Act 1970, minimum Wages Act 1948, payment of wages act 1936 and any amendments thereof and all legislations and rules of the state and / or central government or other local authority, framed from time to time, governing the protection of health, sanitary arrangements, wages, welfare and safety for labour employed on building and construction works and for bonus, retirement benefits, retrenchment / lay off compensation, and all other matters involving liabilities of Employers to Employees. The rules and other statutory obligations with regard to fair wages, welfare and safety measures, maintenance of register etc. will be deemed to be part of the contractor's obligation under the contract. The contractor shall indemnify the owner against any payments to be made under the observance of the above

regulations without prejudice to his right to claim indemnify from his sub-contractors.

#### 1.1.55.2: ACCIDENT REPORTING

The contractor shall be responsible for the safety of all employees and / or workers employed or engaged by him on and in connection with the works and shall forthwith report all cases of accidents to any of them, whoever caused and whenever occurring to the authorities concerned as required by law and to the Engineer-In-Charge and shall make every arrangement to render all possible assistance and aid to the victim of the accident.

#### 1.1.55.3 PROVISION OF WORKMEN'S COMPENSATION ACT

The contractor shall at all times indemnify and keep indemnified the owner against all claims for compensation under the provisions of the workmen's compensation act 1923 or any other law for the time being in force by or in respect of any workmen employed by the contractor in carrying out the contract and against all costs and expenses or penalties incurred by the owner in connection there with. In every case in which, by virtue of the provisions of the said act, the owner is obliged to pay compensation to a workman employed by the contractor in executing the works, the owner shall recover from the contractor the amount of the compensation so paid, and without prejudice to the rights of the owner under the said act. The owner shall be at liberty to recover such amount or any part thereof by deducting it from the Retention money or from any moneys due by the owner to the contractor. Whether under this contract or otherwise without prejudice to any other remedy that may be available to the owner in law. The owner shall not be bound to contest any claim made against it under the said act, except on the written request of the contractor and upon his giving to the owner full security for all costs for which the owner might become liable in consequence of contesting such claim.

#### 1.1.55.4. ACCIDENT OR INJURY TO WORKMEN

The owner shall not be liable for or in respect of any damages or compensation payable by law in respect of, or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or his subcontractor, and the contractor shall indemnify and keep indemnified the owner against all such damages and compensation, and against all claims, damages, proceeding costs, charges and expenses whatsoever in respect thereof or in relation thereto.

#### 1.1.55.5. PROVISION OF MINES ACT

The contractor shall observe and perform all the provisions of the mines act 1952 where applicable or any statutory modifications thereof and shall indemnify and keep indemnified the owner from and against any and all claims under the said act.

#### 1.1.55.6. PRESERVATION OF PEACE

The contractor shall make requisite precautions to prevent any riotous or unlawful behaviour by or amongst his workmen and/or others employed on the works by him, for the preservation of peace and protection of the inhabitants and security or property in the neighbourhood or the works.

#### 1.1.55.7. AGE LIMITS OR LABOUR

The age limit of employment of labour shall be strict accordance with the existing labour regulations.

#### 1.1.55.8. REPORT OF LABOUR EMPLOYED

The contractor shall submit the Daily Labour Report to the project Manager.

#### 1.1.55.9. OBSERVANCE BY SUB-CONTRACTORS

The contractor shall be responsible for the observance of the provisions of aforesaid clauses by the subcontractors employed by him in the execution of the contract.

#### 1.1.49. ESCALATION

No Escalation of any kind is admissible during the period of the project and Contractor shall keep his prices firm during this period. In case of any additional work (the quantity of which is stated elsewhere) in the total scope of work, these quoted rates for the items shall remain valid for the total currency of the contract from the notice of award.

- (a) Any extra item / items which might be executed as per approval of Project Manager at site during execution but is not covered in the scope of work. The contractor has to submit the rate analysis based on lowest market rates for labour and material. On these rates 15 % shall be paid as overheads and contractors profit. If it is an item rate executed through sub contract, the contractor shall be paid 15 % overheads and contractors profit on the sub contract rate.

1.1.50. Any reference made to any Indian Standard Specifications, shall imply to the latest version of that standard, including such revisions/ amendments as issued by the Bureau of Indian Standards upto last date of receipt of tender The Contractor shall keep at his own cost all such publications including relevant Indian Standard Codes applicable to the work at site.

1.1.51. All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested before covering.

- 1.1.52. Samples including brand/ quality of materials and fittings to be used in the work shall be got approved from the Engineer-In-Charge, well in advance of actual execution and shall be preserved till the completion of the work.
- 1.1.53. The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.
- 1.1.54. Contractor(s) shall study the soil investigation report for the site, available in the office of the Engineer-In-Charge and satisfy himself about complete characteristics of soil and other parameters at site. However, no claim on the alleged inadequacy or incorrectness of the soil data supplied by the department shall be entertained.
- 1.1.55. The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.
- 1.1.56. Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
- 1.1.57. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barrier He shall be responsible for all damages and accidents caused to work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work.
- 1.1.58. The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, compound wall, services etc are to be constructed.
- 1.1.59. The contractor shall provide at his own cost suitable weighing, surveying and levelling and measuring arrangements as may be necessary at site for checking. All such equipments shall be got calibrated in advance from laboratory, approved by the Engineer-In-Charge. Nothing extra shall be payable on this account.
- 1.1.60. Contractor shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.
- 1.1.61. Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to approved manufacturers specifications where

CPWD Specifications are not applicable. The contractor should get the materials (fixtures/fittings) tested from approved labs wherever required at his own cost.

- 1.1.62. The work shall be carried out in accordance with the Architectural drawings and Structural drawings, to be issued from time to time, by the Engineer-In-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work, nomenclature of items, specifications etc. and satisfy himself that the information available there from is complete and unambiguous. The figures & the written dimensions of the drawing shall supersede the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-In-Charge for immediate decision before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and/ or incomplete information and no claim, whatsoever shall be entertained on this account.
- 1.1.63. Other agencies may also simultaneously execute and install the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings, trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be available as specified elsewhere in the contract) and the contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
- 1.1.64. All material shall only be brought at site as per program finalized with the Engineer-In-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- 1.1.65. The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work.
- 1.1.66. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. In case temporary supporting of such services is required to facilitate the work, the same shall be done by the contractor at no extra cost. In case the existing services are to be shifted permanently, then before dismantling the existing services, alternate/diversion of service lines has to be laid by the contractor so that there is no interruption in use of existing services. The contractor has to plan the alternate suitable route for diversion/shifting of service lines and get the same approved

from the Engineer-In-Charge before starting shifting of services. Nothing extra shall be paid except the payment of dismantling and laying of new service lines as per conditions of contract.

- 1.1.67. The contractor shall be responsible for the watch and ward/ guard of the work within his scope.
- 1.1.68. The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock key system.
- 1.1.69. For construction works which are likely to generate malba/ rubbish, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the notified specified dumping ground and under no circumstances these shall be stacked/ dumped even temporarily, outside the construction premises.
- 1.1.70. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc until/ unless specified otherwise and any other incidental works required to complete this work. Nothing extra shall be payable on this account.
- 1.1.71. For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do it and nothing extra shall be paid except otherwise provided in the items of schedule of quantities.
- 1.1.72. Results of sub-surface investigations conducted at site are indicated in extracts of the report attached. This information about the soil and sub-soil water conditions is being made available to the Contractor, in good faith, for guidance only and the Contractor is advised to obtain details directly as may be considered necessary by him before quoting rates in the tender. No claim whatsoever on account of any discrepancy between the sub-surface strata conditions that may be actually encountered at the time of execution of the work and those given in these tender documents, in-accuracy or interpretation thereof shall be entertained from the Contractor under any circumstances. The ground water table is a variable condition and the information given in the report is only indicative and it may vary from time to time.
- 1.1.73. Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.

- 1.1.74. The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / MC etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. It is clarified that the extra sewage charges (one time charges for commencement of work) required to be paid to the Municipal Corporation/ other statutory bodies shall be paid by the department and need not be considered by the contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewage charges shall be borne by the contractor. All statutory taxes, levies, charges (including water and sewage charges, charges for temporary service connections and/ or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The Contractor shall arrange to give all notices as required by any statutory/ regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.
- 1.1.75. Royalty at the prevalent rates shall be paid by the Contractor as per the terms of supply between them on all materials such as boulders, metals, sand and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Nothing extra shall be payable on this account.
- 1.1.76. No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.
- 1.1.77. The Contractor shall conduct his work so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-In-Charge. As far as possible, he shall arrange his work and place, so as not to interfere with the operations of other Contractors or shall arrange his work with

that of the others, in an acceptable and coordinated manner and shall perform it in proper sequence.

- 1.1.78. The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.
- 1.1.79. The Contractor shall make all necessary arrangements for protecting from rains, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account. Also, no claims for hindrance shall be entertained on this account.
- 1.1.80. In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any.
- 1.1.81. The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general .The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-In-Charge. The Contractor shall use such methodology and equipments for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire satisfaction of the Engineer in Charge any damage to roads, paths, cross drainage works or public or private property whatsoever caused, due to the execution of the work or by traffic brought thereon, by the Contractor. Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-In-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/ users of adjoining buildings. No claim what so ever on

account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Contractors are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tender Nothing extra shall be payable on this account.

- 1.1.82. All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, barricading, testing facilities/ laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-In-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-In-Charge, a site/ construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.
- 1.1.83. The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office.
- 1.1.84. No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account. The Contractor shall cooperate with and provide the facilities to the associate-Contractors and other agencies working at site for smooth execution of the work. The Contractor shall :
- i. Allow use of scaffolding already erected, toilets, sheds etc.
  - ii. Properly co-ordinate their work with the work of other Contractor
  - iii. Provide control lines and benchmarks to his associate-Contractors and the other Contractor
  - iv. Provide electricity and water at mutually agreed rates.
  - v. Provide hoist and crane facilities for lifting material at mutually agreed rates.
  - vi. Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
  - vii. Adjust work schedule and site activities in consultation with the Engineer-In-Charge and other Contractors to suit the overall schedule completion.

viii. Resolve the disputes with other Contractor amicably and the Engineer-In-Charge shall not be made intermediary or arbitrator. The contractor shall indemnify the Department against any claim(s) arising out of such disputes.

1.1.85. The contractor shall submit completion plan for Plantation work done by him within thirty days of the completion of the work at his own cost four prints of "as built" drawings to the Engineer-In-Charge. These drawings shall have the following information.

- (a) Location of Plantation with Name of Plant, Dimensions (Height, Girth etc.).
- (b) Final level of all work carried out by him.
- (c) Location of each plan.

In case, the contractor fails to submit the completion plan as aforesaid, the department will get it done through other agency at his cost and actual expenses incurred plus Rs 15,000/- for the same shall be recovered from the contractor.

1.1.86. Unless otherwise specified in the Agreement, the rates for respective items shall be all inclusive and apply to the following:

- i. All lifts & all heights, floors including terrace, leads and depths.
- ii. All labour, material, tools and plants and other inputs involved in the execution of the item.
- iii. Any of the conditions and specifications mentioned in the tender documents.
- iv. Any legal or financial implications resulting out of disposal of earth, if any.
- v. Payment of Royalty at the prevailing rates, if any, on the boulders, metal, shingle, sand and bajri etc. or any other material collected by him for the work direct to revenue authorities.
- vi. Performance test of the entire installation(s) before the work is finally accepted.
- vii. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items.
- viii. All incidental charges for cartage, storage and safe custody of materials brought to site.

1.1.87. **SECRECY**

- a) The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have notice that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract.
- b) The contract is confidential and must be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and to the purpose of the contract.
- c) All documents, copies thereof & extracts there from furnished to the contractor shall be returned to the Engineer-In-Charge on the completion of the work/ works or the earlier determination of the contract.

#### 1.1.88. DOCUMENTATION

The Contractor shall render all help and assistance in documenting the total sequences of this project by way of photography, slides, audio/ video recording & other records etc. Nothing extra shall be payable to Contractor on this account. However, cost of photographs, slides, audio/ video graph etc. shall be borne by the Department. The original films shall be the property of the Department. No copy shall be prepared without the prior approval of the Engineer- in – Charge.

#### 1.1.89. PROGRAMME CHART

- a) The Contractor shall prepare an integrated programme chart in MS Project/ Primavera software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the program.
- b) The work has to be completed in stages as indicated in the Milestones under Schedule 'F' and the programme should be prepared in such a manner to achieve these Milestones as indicated therein or earlier.
- c) The programme chart should include the following: -
  - Descriptive note explaining sequence of the various activities.
  - Network (PERT/ CPM / BAR CHART)
  - Programme for procurement of materials by the contractor.
- d) If at any time, it appears to the Engineer-In-Charge that the actual progress of work does not conform to the approved program referred above or after rescheduling of milestone, the contractor shall produce a revised programme within 7 (seven) days, showing the modifications to the approved programme to ensure timely completion of the work. The modified schedule of programme shall be approved by the Engineer-in- Charge.
- e) The submission for approval by the Engineer-In-Charge of such programme of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-In-Charge to take action against the contractor as per terms and conditions of the agreement.
- f) The Contractor shall submit the progress report using MS Project/ Primavira software with base line programme referred above for the work done during previous month to the Engineer-In-Charge on or before fifth day of each month failing which a recovery of ₹ 500/- shall be made on per day basis in case of delay in submission of the monthly progress report.

#### 1.1.90. PROGRESS AND MONITORING OF WORK:

- (a) Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form. The progress report shall contain the following, apart from whatever else may be required as specified:

Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and up to date progress.

Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to the month, with reason for deviations, if any in a tabular format.

Plant and machinery statement, indicating those deployed in the work.

Man-power statement, indicating individually the names of all the staff deployed on the work, along with their designations.

Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of cheque payment received etc.

- (b) For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.
- (c) The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-In-Charge and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-In-Charge.
- (d) The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency may deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Also ancillary facilities shall be provided commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/ sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the Contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his work shop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted/ removed from site without the permission of the Engineer-In-Charge.

- (e) All material shall only be brought at site as per program finalized with the Engineer-In-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

#### 1.1.91. SAFETY MEASURES

- 1.1.101.1 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.

#### 1.1.101.2. Warning/ Caution Boards

All temporary warning/ caution boards/ glow signage display such as “Construction Work in Progress”, “Keep Away”, “No Parking”, Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-In-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer-in-Charge. Nothing extra shall be payable on this account.

#### 1.1.101.3 Sign Boards

The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-In-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, client/ owner, architects, structural consultants, Department etc. besides providing space for names of other Contractors, Associate contractors and specialized agencies. Nothing extra shall be payable on this account.

- 1.1.101.4 Necessary protective and safety equipments shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and used at site.

- 1.1.101.5. No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules/ instructions issued by the relevant authorities and as per the direction of Engineer-in- Charge in this regard. Also all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

## **2.0 ADDITIONAL CONDITIONS & PARTICULAR SPECIFICATIONS**

### **2.1 Additional Conditions:**

1. The supply of potted plants/plants i.e. tree, shrubs, hedges etc. should be healthy well developed and free from any type disease.
2. The contractor shall engage 06 nos. (Mali/ Helper) of men-power per day to maintain the green belt and plantation area in good condition but not less than the required as per the standard norms on day to day basis, which include working supervisor. If the contractor does not engage the above said minimum Mali/ Helper and Mate/Supervisor, then double recovery of wages (minimum wages of Punjab shall be applied at the time of execution) shall be recovered for the same from the bills. Attendance register shall be maintained at site by the Engineer-In-Charge and shall be checked by the higher authorities of INST.
3. The normal working hours shall be 8 hours a day i.e. 8 A.M. to 5 P.M.
4. The contractor shall have to arrange all tools and plants and other items viz. Khurpa Phawara, Hedge cutter, Tokri etc. required for the proper maintenance of horticulture work in green belt and Plantation area. The running and repair cost of T & P etc. shall be borne by the contractor & nothing shall be paid extra on this account.
5. Damage/dry plants, grass weeds and rubbish etc. should be disposed off outside the periphery of the area as directed by the Engineer-In-Charge and should not be burn in any case.
6. The contractor shall be required to divert his labour to carry out certain minor changes/ renovation within the existing maintained area wherever considered necessary by the Engineer-In-Charge No extra payment shall be payable on this account.
7. Scope of the work covers maintenance works which includes removal of rank vegetation weeds and bushes in all surroundings within the planted area.
8. The maintenance will be carried out under the General supervision of Engineer-In-Charge or his representative officer in charge at site.
9. The contractor shall maintain site in good condition at all time till the completion of contract.
10. No compensation shall be paid for damage caused by rains, earth quake or other natural calamities during the execution of the work and no claim will be entertained on this account later on.

11. Tender rates should be inclusive of all taxes and levies and nothing extra shall be paid on this account. Before tendering the tenderer shall inspect the site of work and fully acquaint himself about the conditions with regard to the site, manure or soil, availability of materials, suitable location for construction of godowns, stores and labour huts, the extent of leads and lifts, local conditions, tariff restrictions, obstructions and other conditions as required for satisfactory execution of work. He should take into consideration all such factors and contingencies in his rates. No claim whatsoever shall be entertained by the department on this account after wards.
12. The work shall be carried out in such a manner so as not interfere or effect or disturb other works and should be coordinated with other agencies, if any.
13. Watch and ward of plants and parks area and plantation area will be the contractor responsibility.
14. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials procured / issued to him by the INST, Mohali.
15. The contractor shall bear the expenses on account of GST, PF, ESI & other levies & taxes according to rule of the Govt.
16. 1% labour cess will be deducted from each bill.
17. Contractor shall do the work on the agreement rates even when the time of maintenance is increased up to 3 months.
18. The Water shall be arranged by the contractor for drinking purpose on his own cost, nothing extra shall be paid on this account.
19. The contractor shall submit the action plan for the maintenance work in the Office of the Engineer-In-Charge before start of work.
20. The contractor shall submit quarterly bill for release of payment in the Office of the Engineer-In-Charge
21. The contractor shall submit the T&P list in the Office of the Engineer-In-Charge before start of work.
22. The contractor shall replace the plant of same size, same species within a week if any plant damage during contract period. If the contractor does not replace the dead/damaged plants then double penalty at market rates shall be imposed by the Engineer-In-Charge on this account.

23. The contractor shall submit the fortnightly detail of employee/labour along with invoice/ Challan of all materials supplied at site in the office of Engineer-In-Charge. If the contractor fails to submit fortnightly labour report, then a recovery of Rs. 500/- shall be made for each fortnight.
24. The work, in general, shall be executed as per the description of item, specifications attached, CPWD specifications 2009 Vol, I, & II with correction slips issued up to last date of submission of tender. If there are varying or conflicting provisions made in any document forming part of the contract, the Engineer-In-Charge shall be the deciding authority with regard to the intention / interpretation of the document and his decision shall be binding without any reservations.
25. The work shall be carried out in the manner complying in all respects with requirement of relevant bye-laws of the local bodies under the jurisdiction of which the entire work is to be executed or as directed by the Engineer-In-Charge and nothing extra will be paid on this account.
26. Proper labour hutments with all the required civic amenities as per CPWD Norms shall be constructed by the contractor at site of work. He has to remove all the hutments on completion.
27. The Contractor shall make necessary arrangements for medical aid to all his workers including availability of first aid box all the time at the site of work.
28. The work may be inspected by CTE/ Central Vigilance Commission or any other agency on behalf of INST, Mohali. Any deduction/compensation proposed by these agencies or INST, Mohali in regard to defective work or work not confirming to specifications, loss of time shall be deducted from bills. No claim of the contractor whatsoever shall be entertained on this account
29. The department will deal only with the contractor and his authorized representative and none else, with whom contractor may be in liaison or associated in any manner.
30. Any damage done by the contractor to any existing work shall be made good by him at his own cost.
31. The contractor shall maintain in good condition, all works executed till the completion of entire work allotted to the contractor.
32. Contractor should submit videography and photography of horticulture work before start of work and completion of work.

### 33. Contractor Supervision and Manpower:

The contractor must engage experienced supervisor for the supervision of this who should be similar with the work. The other field staff must have adequate experience of horticulture work.

## **2.2 General Maintenance:**

The maintenance shall include watering, fertilizing plants. Protection from pests and diseases shall be ensured by the contractor, Sweeping, weeding, moving and disposal of garden refuse, cultivation and cutting of hedge, pruning, trimming and clipping of creepers for the proper growth of plants are including in the work of maintenance for ensuring the proper standard of maintenance. The includes but is not limited to the following:-

### **1. Cultivation**

Regular weeding, hoeing, regular weeding, hoeing making basin of tree pits and trimming and pruning of trees to be done periodically every fortnight.

### **2. T & P at Site**

The contractor must ensure that all garden machinery tools/hose pipes etc. are removed from the site or kept in hidden places to avoid visitors view during the off hours.

### **3. Precautionary Measures**

The contractor must take all necessary precautions for carrying out the above operations. In the event of any injury/accident to any person the responsibility and liability will be entirely of the contractor.

### **4. Repair and Replacement**

The contractor shall carry out all repair to Garden features damaged due to digging in the area, or any other such reasons.

### **5. Daily adequate watering of all plants with R.H. pipe and hand water trolley if required should be done regularly. Operation and maintenance of hand water trolley will be carried out by the contractor.**

### **6. Manure and fertilizers specified shall be applied under the direction of the Engineer-In-Charge.**

**7. Plant Protection**

Periodic checks shall be carried out for pests and disease. On getting information from the department proper spraying of appropriate pesticide, fungicide will be done for eradication of the same.

**8. Sweeping**

The following daily operation is envisaged:-

Plantation area sweeping, removal and disposal of garden refuse to the approved dumping ground or as directed by Engineer-In-Charge. No grass/refuse shall be left overnight in the plantation area.

9. Mortality of plant shall be replied with the same size of damaged plant by contractor free of cost, no claim on this account shall be paid entertained.

**2.3 The General Features:**

1. The contractor must take all necessary precautions for carrying out the above operations. In the event of any injury / accident to any persons the responsibility and liability will be entirely on the contractor.
2. If due to any reasons of negligence or improper care of due to any reason whatsoever any plant gets damaged during the contract period the contractor shall replace the same with new plants (same size and same variety) at his own cost and nothing extra shall be paid on this account. If the contractor fails to do so, double recovery at market rates shall be made from running/ final bills and the decisions of the competent authority on the condition of the plants shall be final and binding on the contractor.
3. The contractor shall hand over the plants, shrubs, trees, lawn area and creeper etc. in good condition on date of completion of his job.
4. The site will above to be left neat and clean after completion of the work to the satisfaction of Engineer-In-Charge.

## **2.4 SOILS: MATERIALS AND PREPARATION:**

### **1. Soils: Subsoil**

- Subsoil shall be a free draining soil, generally from horizon over 300mm below the original surface to be used as fill materials, either excavated from areas of the site, or imported.
- The Contractor shall:
  - I. Furnish the source of top soil to Client.
  - II. Study the soil report provided with the tender document, providing soil details such as pH, alkalinity, total soluble salts, porosity, sodium content and organic matter.
  - III. Use the restored soil at site for landscape purpose, manure mixture, Neemcake, weedicide shall be added if required.
  - IV. Not consider any external soil source unless the existing soil conserved from site is lacking in quality and/or quantity.

### **2 Top soil Mixes**

- The components of the Topsoil Mixes shall be as follows:
- Topsoil shall be a free draining organic soil from horizons less than 300mm from the original surface, of a workable crumbly and lump free loamy character and shall contain no grass or weed growth of any kind or other foreign material or stones exceeding 25mm in diameter. Total stone content shall be no greater than 15% by volume. A 1 litre sample with back up soil test data is required before installation, or mixing.
- TOPSOIL SPECIFICATION: The following criteria shall be tested at an approved laboratory before use on site.
  - pH: 5.5 - 7.8
  - Electrical conductivity: 1:2.5 (w/v)
  - Soil-water extracts not exceeding 1500 micromho/cm (1500 micro-Siemens/ cm)
  - Soil texture:
    - Sand (0.05 - 2.00mm): Max. 75% Min. 20%
    - Silt (0.002 - 0.05mm): Max. 60% Min. 5%
    - Clay (less than 0.002mm): Max. 30% Min. 5%
- Soil Conditioner shall be dried treated sludge, organic compost or other fibrous approved organic matter suitable for mixing with topsoil to make a friable growing medium for plants, resistant to rapid decay, free of soluble salts below 900ppm, pH 6-7, free of large lumps or debris.

- Organic Compost shall be organic vegetable compost produced by a thorough horticultural or industrial composting process or Farm Yard Manure (Cow Dung Manure). Compost is to have a clean, un-decomposed smell free from any rotting substances, debris, refuse, clay or visible fungus. A sample is to be submitted for approval before usage. All composts are to be sterilised before being packed for transport and odorous materials used on site will be rejected. Any vermin resulting from use of organic composts will have to be controlled by the Contractor within 12 hours of any infestation.
- Sand shall be a clean, coarse grained and angular material sourced from a river bed with a minimum 1mm diameter section. It shall be well graded, free from soluble salts ranging in size so that 80-100% passes the 3mm sieve and 0-50% passes the 2mm sieve, with 0% passing through a 1mm sieve.
- Lightweight Aggregate shall be an approved low density inert material such as expanded shale or clay or volcanic scoria or other porous aggregate capable of being compacted within the soil zone to 90% compaction without being crushed, free from dust and debris, pH 6-6.5, free of soluble salts. A 2 litres sample shall be submitted and tested as part of the soil mix for physical and chemical performance. Materials are to be approved in writing before installation.

### **3 Soil Mixes**

- The following soil mixes are to be used for different areas and for different types of planting. Minor changes to the proportions shown for particular species may be required, as specified by the Landscape Architect from time to time.

- i. **Soil Mix A**: for use in natural ground level areas shall comprise the components listed below, which shall be mechanically cultivated to the correct proportions, prior to placement on site or backfilling. Soil Mix A shall comprise the following proportions by volume:

Topsoil: 50%

Sand: 20%

Soil Conditioner: 15%

Organic Compost: 15%

- ii. **Soil Mix B**: for use in podium area shall be prepared under controlled mixing conditions such as a concrete floor to ensure even mixing. Soil Mix B shall comprise the following proportions by volume:

Topsoil: 30-50%

Sand: 10-30%

Conditioner: 0-20% (as required)

Lightweight Aggregate: 0-20% (as

required) Organic Compost: 20%

iii. Soil Mix C: for use in planter boxes. Soil Mix C shall comprise the following proportions by volume:

Topsoil: 40%

Sand: 30%

Charcoal: 20%

Organic Compost: 20%

#### **4 Soil Preparation and Application of Soil Mixes**

- All subsoil areas to be top soiled shall be cleaned free of rubbish, weeds, all stones exceeding 50mm in diameter and builders debris shall be removed from site. Any areas which are contaminated by petrol, soil or other toxic substances shall be excavated to 300mm below the contamination and have the excavated material removed from site. The excavated areas shall be back filled with imported topsoil as specified. These operations shall take place immediately before top soiling (with soil mixes) commences.
- Where directed by the Landscape Architect, the ground shall be decompacted by ripping to a depth of 300mm. All obstructions to cultivation or deleterious material brought to the surface shall be removed from the site and any voids left by this operation shall be backfilled with imported subsoil as specified.
- Subsoil shall be formed to the finished levels and contours after settlement and with overall even compaction.
- No topsoil or soil mixes shall be spread or cultivation carried out until the subsoil operations have been approved by the Landscape Architect.
- Topsoil or soil mixes shall be spread on the designated areas to the depth shown on the drawings. The loose depth of the topsoil shall be sufficient to allow the area to conform to the levels shown on drawings after natural settlement has taken place. Soil Mixes shall not be compressed or rolled to achieve levels. Conversely if levels drop below specified levels, additional soil mixes are to be added to achieve levels.
- Soil Mixes are to be carefully spread by machine or hand in a moist condition. Very wet or dry soil mixes must not be used. Heavy compaction of soil mixes is to be prevented and compacted soil will be rejected. Soil Mixes are to be spread to the following minimum depths in open ground areas:
  - i. Lawn / Turf areas: 300mm
  - ii. Shrub areas: 450mm deep
  - iii. Tree pits: 1000 x 1000 x 1000mm

Unless directed otherwise or as shown on the drawings

- The prepared topsoil mix shall be compacted to 80% of maximum density to the depth shown on the drawings in 150mm layers. When planter is filled, water

topsoil mix thoroughly to ensure proper and uniform compaction. After 2 weeks, fill with additional topsoil mixture and compact to level and before pavers are laid indicated on drawings. When in the opinion of the Engineer-In-Charge site conditions are unsuitable for working, soiling operations shall cease and shall only be resumed when authorized by him.

- Contractor shall be responsible for soil protection and shall take preventative measures to control erosion and siltation of all areas and shall restore or replace any portion of the site which erodes, silts up or is otherwise damaged by out-washing of soil.

## **5 Fertilizers**

- Chemical fertilizers shall be approved granular slow release compound fertilizers. They shall be stored in waterproof sealed bags under shelter away from water and direct sunlight. Samples of the same to be submitted by contractor before use at site.
- Organic fertilizers shall be organic products such as organic liquid fertilizer, pellets or granules manufactured primarily from organic materials. These products are to be from accredited sources and technical data indicating sources or origin and manufacturing process must be submitted before use. Animal by products must be sterilized before being packed for transport and odorous materials used on site will be rejected. Any vermin resulting from use of organic fertilizers will have to be controlled by the Contractor within 12 hours of any infestation. A sample shall be submitted for review by the Landscape Architect before use on site.

## **6 Mulches**

- Mulches shall be approved friable composted organic materials. Coco-Peat will not be allowed on its own unless mixed in a proportion of 50-50 with another mulching material free from soluble salts or toxic materials and resistant to rapid decay. Mulches shall have a pH of between 5.5 - 7.0. Samples to be submitted and approved before use.
- Mulches are to be applied in a minimum 50mm layer over the entire surface of shrub and ground cover areas.
- Mulches is to be re-applied to all planting areas every 3 months after initial installation until the end of the maintenance period or until complete surface cover by vegetation is achieved.
- Initial mulching is to take place within 2 days of installation of planting.

## Schedule of Operations

### Maintenance of Trees and Shrubs

- |    |   |  |
|----|---|--|
| A. | Watering Operations                             | Thrice in a fortnight summer season (April, May & June) twice in a week during other season. |
| B. | Weeding hoeing & making of basin                | Once in two month.   |
| C. | Application by sludge manure or Cow dung manure | As per CPWD norms for horticulture work and as per direction of Engineer-In-Charge           |
| D. | Stacking of Trees and Shrubs                    | As and when required or as directed by Engineer-In-Charge                                    |
| E. | Pruning and Trimming                            | Once in three month or as directed by Engineer-In-Charge /as per requirement.                |
| F. | Spray or insecticides                           | As per CPWD norms.   |
| G. | Application of organic manure                   | As per CPWD norms for horticulture work and as per direction of Engineer-In-Charge           |

### Maintenance of Existing Lawns

- |    |   |  |
|----|---|--|
| a) | Cutting of grass by lawn movers:                                  | Once in a week rainy season.<br>Once in a two weeks during other seasons.  |
| b) | Watering operations.  | Thrice in a fortnight during summer season (April, May & June) and twice in a fortnight during other season in all grassy areas. |
| c) | Weeding of lawns  | Once in a week / fortnight during rainy season.<br>Once in a month during other seasons.   |
| d) | Top- dressing of lawn with good earth or as directed with manure. | Twice in a year (September & Feb.)   |
| e) | Application of Fertilizers.                                       | As directed.   |
| f) | General clearing of lawn.   | Regular as when required as directed.  |

**List of Tools & Plants**

<b>Sno.</b>	<b>Item</b>	<b>Quantity</b>
	Khurpa	16 No.
	Pharwa	16No.
	Gaiti	8 No.
	Scatears	8No.
	Spray Machine	5 No.
	Pangi	5No.
	Belcha	10 No.
	Hedge Cutter	5 No.
	Basket	10No.
	Tasla	20No.
	R.H Pipe 1" dia	500mtr
	Small Hand Cart	5No.
	Electric lawn mower machine 18" size with 1.5 H.P motor	6No.
	Water Cane	20 No.
	Bucket	12No.

**3.0 List of Drawings for Horticulture Works:**

<b>S. No.</b>	<b>Drawings Title</b>	<b>Drawing No.</b>
1.	Planting Plan	INST/MP/LAP-01

**Schedule of Quantities for Landscaping works**

<b>S.No.</b>	<b>Description.</b>	<b>Unit.</b>	<b>Qty Ext. Dev</b>	<b>Rate in Figures (in Rs.)</b>	<b>Amount ( in Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>
<b>1.0</b>	<b>Horticulture &amp; Landscaping</b>				
1.1	Cleaaring jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.	sqm	53717.00	10.80	580144.00
1.2	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed withsludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure)	cum	32230.00	68.7	2214201.00
1.3	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete ( earth measured in stacks will be reduced by 20% for payment).	cum	3223.00	469.5	1513199.00
1.4	Rough dressing the trenched ground including breaking clods.	sqm	53717.00	1.30	69832.00
1.5	Mixing earth and sludge or manure in the required proportion specified or directed by the officer-in-charge.	cum	6446.00	32.1	206917.00
1.6	Fine dessing of the ground	sqm	53717.00	3.25	174580.00
1.7	Grassing with selection No. 1 grass including watering and maintainance of the lawn for 60 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed ( the grass and earth shall be paid for seperately.				
(a)	In rows 5 cm apart in both directions	Sq.m.	39500	15.50	612250.00

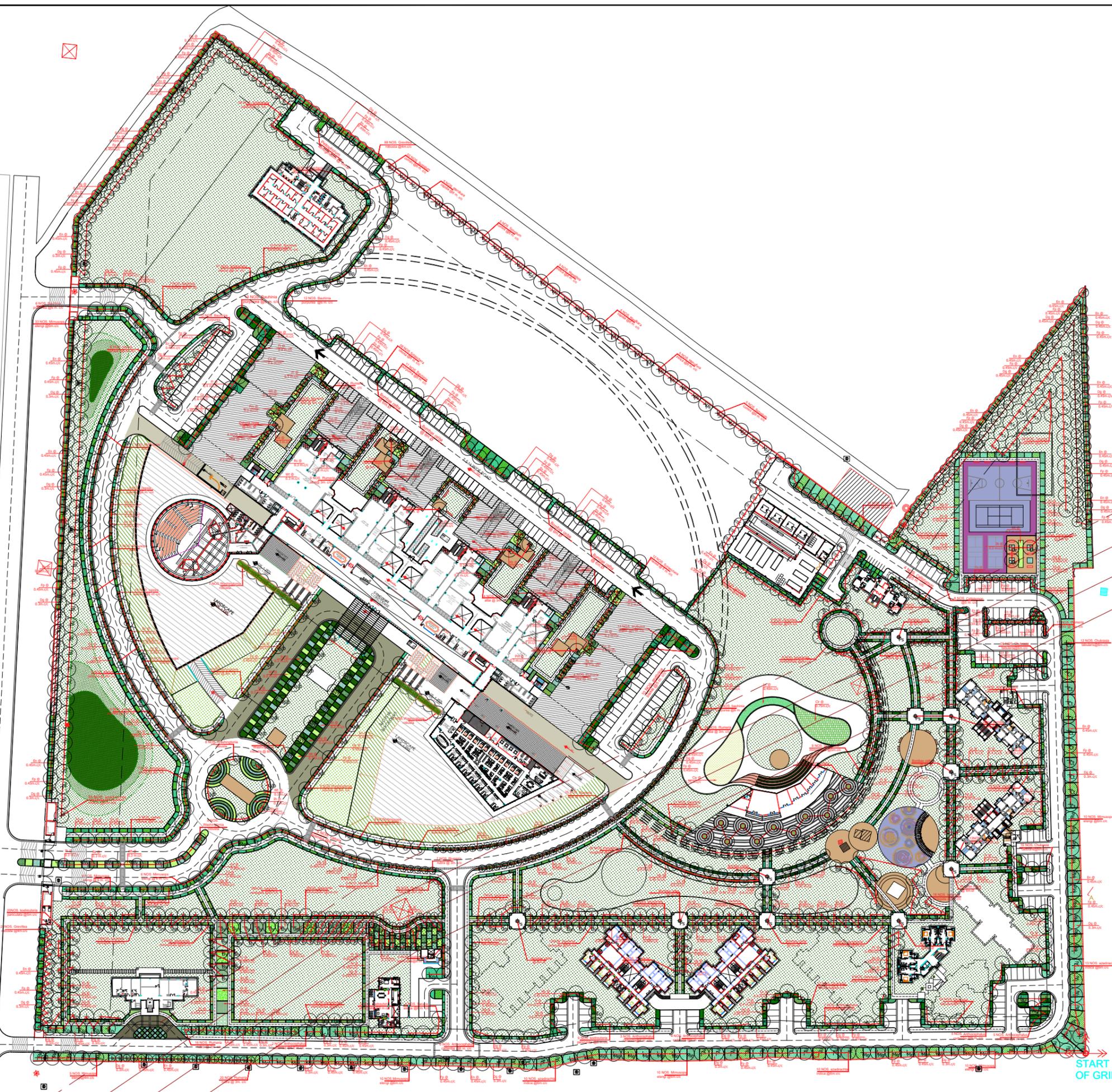
S.No.	Description.	Unit.	Qty Ext. Dev	Rate in Figures (in Rs.)	Amount ( in Rs.)	
1	2	3	4	6	8	
1.8	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2: 1 by volume ( 2parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8% ) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts ( cost of manure , sludge or extra good earth if needed to be paid for seperately).					
a)	Holes 90 cm dia, and 90 cm deep	each	700	130.4	91280.00	
b)	Holes 60 cm dia, and 60 cm deep	each	475	39.95	18976.00	
c)	Holes 45 cm dia and 45 cm deep	each	383	17.10	6549.00	
1.90	Supplying and stracking of well decayed cattle manure at site including royalty and carriage upto 5 km Lead complete ( Cattle manure measured in stacks will reduced by 8% for payment )	cum	3223.00	230.45	742740.00	
1.10	Anti termite treatment of lawn area through premise 30.50 % I.P one litre premise diluted in 499 litres water and applying souldion @ 1.0 litre solution per sqm lawn or bed area. ( two application) i/C cost of chemical) and as per direction of officer-in-charge and as per direction of Officer -in-charge.	sqm	39500	7.45	294275.00	
<b>2.0</b>	<b>PLANTS</b>					
<b>A</b>	<b>TREES</b>					
2.1	Supply, Stacking and Planting of Cassia fistula (Amaltash) plant of height 120-135 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	48	65	3120.00	
2.2	Supply, Stacking and Planting of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge	Each	21	60	1260.00	
2.3	Supply, Stacking and Planting of Peltophorum species plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	14	60	840.00	
2.4	Supply, Stacking and Planting of Tecoma argentea plant of height 120-135 cm. in big poly bag of size 25 cm as per direction of the officer-in-charge.	Each	26	80		
<b>B</b>	<b>MEDIUM FLOWERING TREES</b>					
2.5	Supply, Stacking and Planting of Bauhinia blakeana (Kachnar) plant of height 120-150 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	Each	110	80	8800.00	

<b>S.No.</b>	<b>Description.</b>	<b>Unit.</b>	<b>Qty Ext. Dev</b>	<b>Rate in Figures (in Rs.)</b>	<b>Amount ( in Rs.)</b>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>	
2.6	Supply, Stacking and Planting of Bauhinia purpurea (Kachnar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	109	50	5450.00	
2.7	Supply, Stacking and Planting of Callistemon lanceolatus plant of height 150-165cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	15	65	975.00	
2.8	Supply, Stacking and Planting of Jacaranda mimosifolia plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	94	60	5640.00	
2.9	Supply, Stacking and Planting of Tabebuia sp. plant of height 150-165 cm. in big polybags of size 25 cm as per direction of the officer-in-charge.	No.	14	85	1190.00	
2.10	Supply, Stacking and Planting of koelreuteria paniculata (Golden rain tree) plant of height 150-165cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	40	600	24000.00	
<b>C</b>	<b><i>COLLUMNAR FLOWERING TREES</i></b>					
2.11	Supply, Stacking and Planting of Grevillea robusta (Silver Oak) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-incharge	No.	268	50	13400.00	
<b>D</b>	<b><i>LARGE EVERGREEN TREES</i></b>					
2.12	Supply, Stacking and Planting of Azadirachta indica ( Neem ) plant of height 120-130cm in big polybag of size 25 cm as per direction of the officer-in-charge.	No.	70	65	4550.00	
2.13	Supply, Stacking and Planting of Chukrassia tabularis plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	50	65	3250.00	
2.14	Supply, Stacking and Planting of Nauclea cadamba (Kadam) plant of height 150-165cm. in big poly bag of size 25 cm as per direction of the officer-in-charge.	No.	49	65	3185.00	
2.15	Supply, Stacking and Planting of Polyalthia longifolia (Ashok) plant of height 180-195 cm. in gunny bag of size 30 cm as per direction of the officer-incharge.	No.	30	100	3000.00	
2.16	Supply, Stacking and Planting of Schleicheria trijuga (Kusum) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge.	No.	33	70	2310.00	
<b>E</b>	<b><i>LARGE FRAGRANT TREES</i></b>					
2.17	Supply, Stacking and Planting of Mimusops elengi (Maulsri) plant of height 150-165 cm. in big poly bag of size 25 cm as per direction of the officer-in-charge.	No.	130	125	16250.00	
<b>F</b>	<b><i>MEDIUM FRAGRANT TREES</i></b>					
2.18	Supply, Stacking and Planting of Fishtail palm plant of ht. 270-300 cm bottom girth 40-50 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	No.	15	550	8250.00	
2.19	Supply, Stacking and Planting of Foxtail palm plant of ht. 240-270 cm bottom girth 35-40 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	No.	45	650	29250.00	

<b>S.No.</b>	<b>Description.</b>	<b>Unit.</b>	<b>Qty Ext. Dev</b>	<b>Rate in Figures (in Rs.)</b>	<b>Amount ( in Rs.)</b>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>	
2.20	Supply, Stacking and Planting of Plumeria alba plant of height 165-180 cm. with 3-4branches and thick stem in big size HDPE bags as per direction of the officer-in-charge.	No.	159	225	35775.00	
2.21	Supply, Stacking and Planting of Plumeria rubra plant of height 120-150 cm. with 3-4 branches and thick stem in big size HDPE bags as per direction of the officer-in-charge.	No.	218	400	87200.00	
<b>G</b>	<b>SHRUBS</b>					
2.22	Supply, Stacking and Planting of Duranta Golden plant, having ht.15 to 20 cm bushy shape plant with fresh and healthy leaves in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	10000	21.55	2,15,500.00	
2.23	Supply, Stacking and Planting of plant Ficus panda of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	10000	100	10,00,000.00	
2.24	Supply, Stacking and Planting of plant Hamelia patens of height 30-45 cm. with 3-4 branches in poly bags of size 20 cm as per direction of the officer-in-charge.	Each	2500	45	1,12,500.00	
2.25	Supply, Stacking and Planting of plant Lantana Camara (Raimunia) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each.	250	140	35000.00	
2.26	Supply, Stacking and Planting of plant Ficus Longisland (Indian Fig) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	1200	140	168000.00	
2.27	Supply, Stacking and Planting of plant Eranthemum Nigrum (Black Kodia) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	6000	140	840000.00	
2.28	Supply, Stacking and Planting of plant Cherodendrum Enermi (Sankuppi) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	2000	80	160000.00	
2.29	Supply, Stacking and Planting of plant Galphimia Glauca (Spray of Gold) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	1200	90	108000.00	
2.30	Supply, Stacking and Planting of plant Plumbago Capensis (Neela Chitrak) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	1200	75	90000.00	

S.No.	Description.	Unit.	Qty Ext. Dev	Rate in Figures (in Rs.)	Amount ( in Rs.)	
1	2	3	4	6	8	
2.31	Supply, Stacking and Planting of plant Tabernaemontana Coronaria 'Variegata' (Chandi) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	750	50	37500.00	
2.32	Supply, Stacking and Planting of plant Hibiscus Snowflakes (Gudhal) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	500	50	25000.00	
2.33	Supply, Stacking and Planting of plant Hymenocallis Littoralis (Spider Lilly) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	500	50	25000.00	
2.34	Supply, Stacking and Planting of plant Canna indica 'Red' (Sarvajaya) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	750	50	37500.00	
2.35	Supply, Stacking and Planting of plant Canna indica 'Yellow' (Indian Shot) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	1000	50	50000.00	
2.36	Supply, Stacking and Planting of plant Alpinia Speciosa (Shell Flower) of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	Each	1000	60	60000.00	
<b>H</b>	<b>GROUND COVERS</b>					
2.37	Providing ,stacking and planting of Iresine herbstii ( Carpet Effect ) (laal saag) plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	3500	15.40	53,900.00	
2.38	Providing ,stacking and planting of Pilea Muscosa ( Carper effect ) (Gun Powder) plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	900	40	36000.00	
2.39	Providing ,stacking and planting of Wedelia Trilobata ( Carpet Effect ) (Peela Bhangara) plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	Each	3000	45	135000.00	
2.40	Providing ,stacking and planting of Rhoecostoma Spathacea ( Carpet Effect ) (Moses in the cradle) plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge .	Each	2800	30	84000.00	
2.41	Providing ,stacking and planting of Kalanchoe Blossfeldiana ( Carpet Effect ) plant, of height 20-30 cm. full of branches well developed in 15 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge .	Each	500	30	15000.00	

<b>S.No.</b>	<b>Description.</b>	<b>Unit.</b>	<b>Qty Ext. Dev</b>	<b>Rate in Figures (in Rs.)</b>	<b>Amount ( in Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>
<b>3.0</b>	<b>MAINTENANCE -</b>				
3.1	Comprehensive maintenance of the entire green area and features i.e lawn, trees, shrubs, hedge, flower beds, creepers ec. including hoeing, pruning replacement of plants, gap filling, watering, mowing of lawn, clipping of hedge, removal of garden waste, applying insecticide, pesticide and fertilisers ( whenever required ) top dressing of lawn with good earth and manure and maintainance of other garden related works as directed by Officer -in-charge including Good earth, manure, fertiliser, insecticide pesticide etc and All T& P articles & stock material.	Month	24	15000	360000.00
	<b>Total in Figures</b>				<b>10430538.0</b>
	<b>Quoted Rates in Figures ( Percentage)</b>	<b>Less(-)/ Above(+)</b>			
	<b>Quoted Rates in Words ( Percentage)</b>				
	<b>* NOTE: Trees to be planted in August - 19 and Rest of the work to be taken up in 2nd phase in Feb 20.</b>				



**TREES, PALMS & GROUND COVERS**

**LARGE FLOWERING TREES**

SYMBOL	BOTANICAL NAME	LOCAL NAME	QTY	HEIGHT (in MM.)	GIRTH (in MM.)	TYPE OF BRANCHING
Cf	Cassia fistula	Amaltas	48	3000	150	Multi Branching
Dr	Delonix regia	Gulmohar	21	5000	200	Multi Branching
Pl	Peltophorum species	Yellow flametree	14	5000	200	Multi Branching
Ta	Tecoma argentea	Golden Bell	26	5000	150	Multi Branching

**MEDIUM FLOWERING TREES**

Bv	Bauhinia blakeana	Kachnar	110	3000	250	Multi Branching
Bp	Bauhinia purpurea	Butterfly tree	109	2000	100	Multi Branching
Jm	Jacaranda mimosifolia	Blue Jacaranda	94	4000	150	Multi Branching
Kp	koelerutaria paniculata	Goldenrain tree	40	2000	100	Multi Branching
Ts	Tabebuia spectabilis	Roble	14	3000	150	Multi Branching
Ca	Callistemon	Bottle brush	15	5000	150	Multi Branching

**COLUMNAR FLOWERING TREES**

Gr	Grevillea robusta	Silver Oak	268	5000	200	Multi Branching
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**LARGE EVERGREEN TREES**

Ac	Anthocarpus cadamba	Kadam	49	5000	200	Multi Branching
Al	Azadirachta indica	Neem	70	5000	200	Multi Branching
So	Schleichera oleosa	Kusum tree	33	5000	300	Multi Branching
Cl	Chukrasia tabularis	Chikras	50	5000	300	Multi Branching
So	Polyalthia longifolia	Ashok	30	5000	300	Multi Branching

**LARG FRAGRANT TREES**

Me	Mimusops elengi	Maulani	130	5000	300	Multi Branching
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**MEDIUM FRAGRANT TREES**

Pr	Plumeria rubra	Champa	218	3000	300	Multi Branching
Pa	Plumeria alba	Champa	159	5000	300	Multi Branching

**ORNAMENTALS PALMS**

Wt	Wodyetia robusta	Foxtail Palm	99	5000	stem HT	
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**SHRUBS**

SYMBOL	BOTANICAL NAME	QUANTITY	C/C	HT	EFFECT	LOCAL NAME
		Sqm. Nos.	(W H.)	(IN M.)		
Lc	Lantana Camara	80	0.40	0.40	Box Hedge	Rasmuna
Fl	Ficus Longisland	680	0.40	0.40	Box Hedge	Indian Fig
En	Eranthemum Nigrum	2730	0.45	0.45	Box Hedge	Black Koda
Fp	Ficus Panda	2800	0.45	0.60	Box Hedge	Ficus Panda
Ce	Cherodendrum Enamii	650	0.60	0.60	Box Hedge	Sankuggi
Gg	Galphimia Glauca	350	0.45	0.60	Box Hedge	Spray of Gold
PC	Plumbago Capensis	360	0.45	0.60	Box Hedge	Nevila Chitak
Hp	Hamelia Patens	700	0.45	0.60	Box Hedge	Muna
Dg	Duranta Goldiana	2780	0.30	0.30	Box Hedge	Neelkanta
Trnc	Tabernaemontana Coronaria 'Variegata'	160	0.60	0.60	Box Hedge	Chandri
Hs	Hibiscus Snowflakes	145	0.60	0.60	Box Hedge	Godhal
Hl	Hymenocallis Littoralis	135	0.60	0.60	Box Hedge	Spider Lily
Cr	Canna indica 'Red'	212	0.75	0.90	Box Hedge	Sarvajni
Cly	Canna indica 'Yellow'	235	0.75	0.90	Box Hedge	Indian Shot
As	Alpinia Speciosa	380	0.45	0.45	Box Hedge	Shell flower

**GROUND COVERS**

Pm	Pilea Muscosa	220	Sqm.	0.30	Carpet Effect	Gun powder
Wt	Wedelia Trilobata	580	Sqm.	0.30	Carpet Effect	Pella Bhargava
Ih	Iresine herbata	570	Sqm.	0.30	Carpet Effect	Laaf saag
Rt	Rhoeo Spathacea	570	Sqm.	0.30	Carpet Effect	Moss in the cradle
Kb	Kalanchoe Blossfeldiana	80	Sqm.	0.30	Carpet Effect	Flaming Katy

**Grass**

SELECTION-1	39500 Sqm.
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- ALL DIMENSION ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- NO DIMENSION IS TO BE SCALED OFF THE DRAWING
- DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS & SPECIFICATIONS.

no.	date	description
R4		
R3		
R2		
R1	05.02.2016	PLANTING REVISED AS PER

**WORKING DRAWING**

**INSTITUTE OF NANO SCIENCE & TECHNOLOGY, MOHALI**

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**SERVICES CONSULTANTS**  
Electrical  
Engineering  
Services  
Consultants  
Plumbing and fire  
**MKG Consultants**  
Airconditioning  
**Abid Husain Consultants**

**PLANTING PLAN**

dwg. no: INST/MP/LAP-01

scale: 1:1000

date: 30.08.18

dealt: [Signature]